ICOM
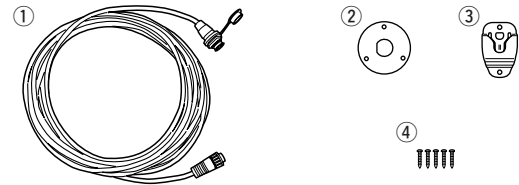
INSTRUCTIONS

REMOTE-CONTROL MICROPHONE

HM-157

Thank you for purchasing the **HM-157** REMOTE-CONTROL MICROPHONE. The COMMANDMIC II™ is a remote control microphone for use with the IC-M602, M504, M422, M402 or else.

Please read these instructions and transceiver's instruction manual carefully before installation and operation.

These instructions are described when the HM-157 is connected to the IC-M504. Some operations or indications may be different as these instructions depending on the connecting transceiver.

■ HM-157 supplied accessories

Accessories included with the HM-157:   **Qty.**
① Connection cable (OPC-1000: 6 m; 20 ft) 1
② Mounting base 1
③ Microphone hanger 1
④ Screws (M3 × 16; tapping) 5

① ② ③

④

■ Panel description

The HM-157 remotely controls the transceiver and provides an optional Intercom function.

❶ POWER KEY [PWR]
Push for 2 sec. to turn the HM-157 power ON or OFF when the transceiver power is turned ON.

❷ SCAN KEY [SCAN](TAG)
➥ Push to start and stop Normal or Priority scan when TAG channels are programmed.
➥ Push for 1 sec. to set the displayed channel as a TAG (scanned) channel.
➥ While pushing [H/L], push for 3 sec. to clear or set all TAG channels.

❸ TRANSMIT POWER KEY [H/L]
➥ Push to toggle high or low power.
  • Some Channels are set to low power only.
➥ While pushing this key, other keys perform secondary functions.
➥ While turning power ON, push to toggle the All key lock function ON or OFF.
  • "🄛" blinks while the All key lock function is in use.
  • Only [PWR] and [PTT] function when the All key lock function is in use.

❹ PTT SWITCH [PTT]
Push and hold to transmit; release to receive.

❺ CHANNEL UP/DOWN KEYS [▲]/[▼]
➥ Push either key to select the operating channel, Set mode settings, etc.
➥ After pushing [VOL] or [SQL], push either key to adjust audio level or noise squelch level, respectively.
➥ After pushing [VOL] for 1 sec, push either key to adjust the brightness of the LCD and key backlight.
➥ Checks TAG channels or changes scanning direction during scan.
➥ Push either key to adjust the audio level during in Hailer (Public Address)* mode. (* Depends on the transceiver)
➥ While pushing [VOL](DIM PA/RX ◀») push either key to adjust the audio level during in RX Speaker mode.

❻ CHANNEL 16/CALL CHANNEL KEY [16](9)
➥ Push to select Channel 16.
➥ Push for 1 sec. to select call channel.
  • "CALL" appears when call channel is selected.
➥ Push for 3 sec. to enter call channel programming condition when call channel is selected.
➥ While pushing [H/L], enters channel comments programming condition.
➥ While turning power ON, push to enter Set mode.

❼ CHANNEL/DUALWATCH/TRI-WATCH KEY [CH/WX](DW U/I/C)
➥ Push to select and toggle the regular channels and weather channels.
➥ While pushing [H/L], push to select one of three channel groups in sequence.
  • U.S.A., International and Canadian channels are available.
➥ Push for 1 sec. to start Dualwatch or Tri-watch.
➥ Stops Dualwatch or Tri-watch when either is activated.

❽ ATTENUATOR/INTERCOM/SCRAMBLER* KEY [LO/DX](IC SCR)
➥ Push to toggle the Attenuator function ON or OFF.
  • "LOCAL" appears when the Attenuator is in use.
➥ Push for 1 sec. to activate the Intercom function.
➥ Calls the transceiver when pushed and held while in Intercom mode.
➥ While pushing [H/L], activates an optional Voice scrambler* function.
  • The Voice scrambler function cannot be used on Ch 16 and 70.
  * The Voice scrambler function is available depends on the transceiver.
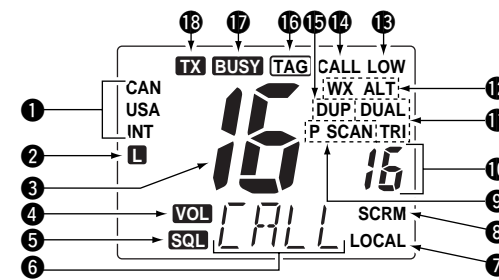
❾ SQUELCH/MONITOR/LOCK KEY [SQL](MONI L)
➥ After pushing [SQL], push [▲] or [▼] to adjust noise squelch level.
➥ Push for 1 sec. to turn the monitor function ON.
➥ While pushing [H/L], push [SQL](MONI L) to toggle the (microphone) Key lock function ON or OFF.
  • "🄛" appears while Key lock function is in use.
  • [PWR], [PTT], [VOL], [SQL] and [H/L] still function when the (microphone) Key lock function is turned ON.
➥ Advance the cursor while in channel comment programming condition.

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❿ VOLUME/DIMMER/PA/RX SPEAKER KEY [VOL](DIM PA/RX ◀»)
➥ After pushing [VOL], push [▲] or [▼] to adjust audio level.
➥ After pushing [VOL](DIM PA/RX ◀») for 1 sec, push [▲] or [▼] to adjust the brightness of the LCD and key backlight.
➥ Move the cursor backward while in the channel comment programming condition.
➥ While pushing [H/L], push to turn the Hailer (Public Address)* mode ON or OFF. (* Depends on the transceiver)
➥ While pushing [H/L], push for 1 sec. to turn the RX Speaker mode ON or OFF.

■ Function display

❶ **CHANNEL GROUP INDICATOR**
Indicates whether an U.S.A. (USA), International (INT) or Canadian (CAN) channel is selected.

❷ **KEY LOCK INDICATOR**
➥ Appears while the Key lock function is in use.
➥ Blinks while the All key lock function is in use.

❸ **CHANNEL NUMBER READOUT**
➥ Indicates the selected operating channel number. "A" appears when a simplex channel is selected. "b" appears when a receive only channel for a Canadian channel group is selected.
➥ In Set mode, indicates the selected condition.

❹ **VOLUME INDICATOR**
Appears while audio output level is adjusted.

❺ **SQUELCH INDICATOR**
Appears while noise squelch level is adjusted.

❻ **CHANNEL COMMENT INDICATOR**
➥ Channel comment appears (and scrolls) if programmed.
➥ In Set mode, indicates or scrolls the selected Set mode item.

❼ **ATTENUATOR INDICATOR**
Appears when the Attenuator function is in use.

❽ **SCRAMBLER INDICATOR**
Appears when an optional Voice scrambler* is activated.
* The Voice scrambler is available depends on the transceiver.

❾ **SCAN INDICATOR**
➥ "SCAN" appears during Normal scan.
➥ "P SCAN" appears during Priority scan.

❿ **PRIORITY CHANNEL INDICATOR**
Indicates a priority channel during Priority scan or Dual/Tri-watch.

⓫ **DUAL/TRI WATCH INDICATOR**
"DUAL" appears during Dualwatch; "TRI" during Tri-watch.

⓬ **WEATHER CHANNEL INDICATOR**
➥ "WX" appears when a weather channel is selected.
➥ "WX ALT" appears when the Weather alert function is in use; blinks when an alert tone is received.

⓭ **LOW POWER INDICATOR**
Appears when low power is selected.

⓮ **CALL CHANNEL INDICATOR**
Appears when call channel is selected.

⓯ **DUPLEX INDICATOR**
Appears when a duplex channel is selected.

⓰ **TAG CHANNEL INDICATOR**
Appears when a TAG channel is selected.

⓱ **BUSY INDICATOR**
Appears when receiving a signal or when the squelch opens.

⓲ **TRANSMIT INDICATOR**
Appears while transmitting.

■ Channel selection

◇ Channel 16
① Push [16] to select Channel 16.
② Push [CH/WX] to return to the condition before selecting Channel 16, or push [▲] or [▼] to select an operating channel.
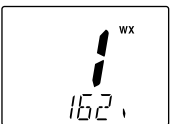
◇ Call channel
① Push [16](9) for 1 sec. to select call channel.
② Push [CH/WX] to return to the condition before selecting call channel, or push [▲] or [▼] to select an operating channel.
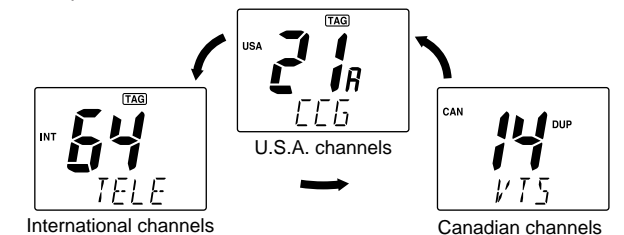
◇ Weather channels
① Push [CH/WX] once or twice to select the weather channel group.
② Push [▲] or [▼] to select a weather channel.
③ Push [CH/WX] to return to the condition before selecting the weather channel group.

◇ U.S.A., International and Canadian channels
① Push [CH/WX](DW U/I/C) to select a regular channel.
  • Push [CH/WX](DW U/I/C) again, if a weather channel appears.
② While pushing [H/L], push [CH/WX](DW U/I/C) to select a channel group.
  • U.S.A., International and Canadian channels can be selected in sequence.

International channels   U.S.A. channels   Canadian channels

■ Receiving and transmitting

① Push [PWR] for 2 sec. to turn power ON.
② Set the audio and squelch levels.
  ➥ Push [SQL], then push [▼] until the noise appears.
  ➥ Push [VOL], then push [▲]/[▼] to adjust the audio level.
  ➥ Push [SQL], then push [▲] until the noise disappears.
③ To change the channel group, push [CH/WX](DW U/I/C) while pushing [H/L].
④ Push [▲] or [▼] to select the desired channel.
  • When receiving a signal, " BUSY " appears and audio is emitted from the speaker.
  • Further adjustment of the audio level may be necessary.
  • Use the optional Voice scrambler function for privacy.
⑤ Push [LO/DX] to turn the Attenuator function ON or OFF, if necessary.
  • "LOCAL" appears when the Attenuator function is in use.
⑥ Push [H/L] to select the output power, if necessary.
  • "LOW" appears when low power is selected.
  • Choose low power for short range communications, choose high power for longer distance communications.
  • Some channels are for selecting low power only.
⑦ Push and hold [PTT] to transmit, then speak into the microphone.
  • " TX " appears.
  • Channel 70 cannot be used for transmission other than DSC.
  Simplex channels, 3, 21, 23, 61, 64, 81, 82 and 83 **CANNOT** be lawfully used by the general public in U.S.A. waters.
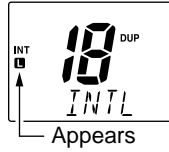⑧ Release [PTT] to receive.

IMPORTANT: To maximize the readability of your transmitted signal (voice), pause a few sec. after pushing [PTT], hold the microphone 2 to 4 inches (5 to 10 cm) from your mouth and speak at a normal voice level.

■ Lock functions

The Lock function electronically locks keys and switches to prevent accidental changes and function access from the microphone.
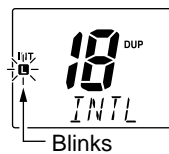• All keys, switches and controllers on the transceiver are functional.

◇ Activating the Lock function

➥ While pushing **[H/L]**, push **[SQL]** **(MONI L)** to turn the Lock function ON or OFF.
• "**L**" appears.
• Only **[PWR]**, **[PTT]**, **[H/L]**, **[SQL]** **(MONI L)**, **[VOL]+[▲]/[▼]** and **[SQL]+** **[▲]/[▼]** are functional.

Appears
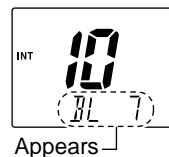
◇ Activating the All key lock function

➥ While pushing **[H/L]**, turn the power ON by pushing **[PWR]** to turn the All key lock function ON or OFF.
• "**L**" blinks.
• Only **[PWR]** and **[PTT]** are functional.

Blinks

■ Display backlighting

The function display and keys can be backlit for better visibility under low light conditions. The backlighting condition can also be adjusted independently from the transceiver.
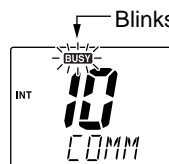
① Push **[VOL](DIM PA/RX ◀))** for 1 sec. to enter the backlight adjusting mode.
• "*BL*" with the number of the backlight level appears in the channel comment indicator.
② Push **[▲]/[▼]** to adjust the backlight level.
• The backlight level is adjustable in 7 levels and OFF.

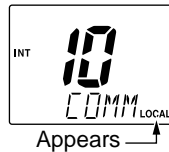Appears

■ Monitor function

The monitor function releases the noise squelch mute of the microphone only. (An independent noise squelch system is employed.)

➥ Push **[SQL](MONI L)** for 1 sec. to activate the Monitor function.
• "**BUSY**" blinks and audio is emitted.
• Any key other than **[PWR]** or **[VOL]** cancels the Monitor function.

Blinks

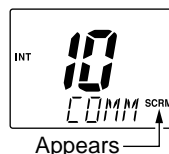## ■ RF attenuator function

➥ Push **[LO/DX]** to turn the RF attenuator function ON and OFF.
• "LOCAL" appears.

Appears

■ Voice scrambler operation
(Available depends on transceiver)

◇ Activating the Scrambler

① Select an operating channel, except for Channel 16, Channel 70 or weather channels.
② While pushing **[H/L]**, push **[LO/DX]** **(IC SCR)** to turn the Voice scrambler function ON.
• "SCRM" appears.
③ To turn the Scrambler function OFF, repeat step ②.
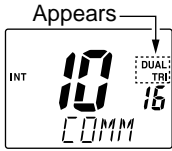• "SCRM" disappears.

Appears

◇ Programming scramble codes

There are 128 codes available with UT-98 or 32 codes (01 to 32) available with the UT-112 for programming. In order to understand one another, all transceivers in your group must have the same scrambler code as well as the same scrambler unit. The scrambler code is programmed in Set mode. See the transceiver's instruction manual for details.

■ Call channel programming

① While pushing **[H/L]**, push **[CH/WX]** **(DW U/I/C)** several times to select the desired channel group (USA, INT, CAN) to be programmed.

② Push **[16](9)** for 1 sec. to select call channel of the selected channel group.
• "CALL" and call channel number appear.

③ Push **[16](9)** again for 3 sec. (until a long beep changes to 2 short beeps) to enter call channel programming condition.
• The channel number and channel group to be programmed blinks.

④ Push **[▲]/[▼]** to select the desired channel.

⑤ Push **[16](9)** to program the displayed channel as the call channel.
• The channel number and channel group stops blinking.
• Push **[CH/WX]** to cancel.

■ Dualwatch/Tri-watch operation

① Select Dualwatch or Tri-watch in Set mode.
② Push **[▲]/[▼]** to select the desired channel.
• While pushing **[H/L]**, push **[CH/WX]** **(DW U/I/C)** several times to select the channel group (USA, INT, CAN), if desired.
③ Push **[CH/WX](DW U/I/C)** for 1 sec. to start Dualwatch or Tri-watch.
• "DUAL" or "TRI" appears during Dualwatch or Tri-watch, respectively.
• A beep tone sounds when a signal is received on Channel 16.
• Tri-watch becomes Dualwatch when receiving a signal on the call channel.
④ To cancel Dualwatch or Tri-watch, push **[CH/WX](DW U/I/C)** again.

Appears

■ Setting TAG channels

① While pushing **[H/L]**, push **[CH/WX](DW U/I/C)** several times to select the desired channel group (USA, INT, CAN).
② Push **[▲]/[▼]** to select the desired channel to set as a TAG channel.
③ Push **[SCAN](TAG)** for 1 sec. to set the displayed channel as a TAG channel.
• "TAG" appears in the display.
④ To cancel the TAG channel setting, repeat step ③.
• "TAG" disappears.

Convenient: Clearing (setting) all tagged channels
➥ While pushing **[H/L]**, push **[SCAN](TAG)** for 3 sec. (until a long beep changes to 2 short beeps) to clear all TAG channels setting in the channel group.
• Repeat above procedure to set all TAG channels.

■ Starting a scan

① While pushing **[H/L]**, push **[CH/WX](DW U/I/C)** several times to select the desired channel group (USA, INT, CAN).
② Set TAG channels as described at left below.
③ Make sure the squelch is closed to start a scan.
④ Push **[SCAN]** to start Priority or Normal scan.
• "SCAN" appears during Normal scan.
• The priority channel readout indicates "16", and "P SCAN" indicator appears during Priority scan.
• When a signal is detected, scan pauses until the signal disappears or resumes after pausing 5 sec. according to the Set mode setting (Channel 16 is still monitored during Priority scan).
• A beep tone sounds when a signal is received on Channel 16 during Priority scan.
• Push **[▲]/[▼]** to check the scanning TAG channels, to change the scanning direction or resume the scan manually.
⑤ To stop the scan, repeat step ④.
• "SCAN" disappears.
• Pushing **[PTT]**, **[16](9)** or **[CH/WX]** also stops the scan.

■ Set mode programming

Set mode is used to change the condition of the transceiver's functions and the microphone's own functions:

Transceiver's functions—
Scan type, Scan resume timer, Weather alert, Dual/Tri-watch, Beep tone*[1], LCD contrast*[1], Radio Power, Scrambler Type and Scramble Code.

Microphone's own functions—
Beep tone*[2] and LCD contrast*[2]
*[1] For transceiver setting
*[2] For microphone setting

In this instructions are for the microphone's own functions only. Refer to the transceiver's instruction for the setting of the other functions. (Some functions cannot be selected from the HM-157.)

◇ Entering Set mode

① Turn power OFF.
② While pushing **[16](9)**, turn power ON.
• After a beep emission, a Set mode item appears at the channel comment indicator.
③ After the display appears, release **[16](9)**.
④ Push **[16](9)** to select the desired item, if necessary.
⑤ Push **[▲]/[▼]** to select the desired condition of the item.
⑥ Turn power OFF, then ON to exit Set mode.

• Beep tone
➥ You can select the silent operation or you can have confirmation beeps sound at the push of a key.
• "*BEEP*" appears at the channel comment indicator.

• LCD contrast
➥ The LCD contrast can be adjustable in 4 levels. 1 is the lowest, and 4 is the highest.
• "*LCD CONTRAST*" scrolls at the channel comment indicator.

■ RX Speaker function

① While pushing **[H/L]**, push **[VOL](DIM PA/RX ◀))** for 1 sec. to enter the RX Speaker mode.
• "*RXSP ON*" scrolls at the channel comment indicator.
• While pushing **[VOL](DIM PA/RX ◀))**, push **[▲]** or **[▼]** to adjust the audio output level.
② To cancel the RX Speaker mode, repeat step ①.
• "*RXSP OFF*" scrolls at the channel comment indicator.

■ Hailer (Public Address) function

Depends on the connected transceiver, this function is activate as Hailer or Public Address function.

① While pushing **[H/L]**, push **[VOL](DIM PA/RX ◀))** to enter the Hailer (Public Address) mode.
② Push and hold **[PTT]** to talk.
• "*TALK*" appears at the channel comment indicator.
③ Release **[PTT]** to listen.
• To adjust the audio output level, push **[▲]** or **[▼]**.
④ To cancel the Hailer (Public Address) mode, repeat step ①.
• Pushing **[16]** also cancels the Hailer (Public Address) function.

▨ While in the Hailer (Public Address) mode, the transceiver functions (transmit and receive) are interrupted. If the transceiver is in transmit condition, this function is not available.

■ Intercom operation

① Push **[LO/DX](IC SCR)** for 1 sec. to activate the Intercom function.
• "IC" appears in the priority channel readout.
• The channel comment disappears.
② Push **[PTT]** to talk.
• "*TALK*" appears in the channel comment indicator.
③ Release **[PTT]** to listen.
• "*LSTN*" appears in the channel comment indicator when the transceiver is in talking mode.
④ Push **[LO/DX](IC SCR)** to cancel the Intercom function.
• Pushing **[16](9)** also cancels the Intercom function.

For your reference:
In case the Intercom mode is selected with the transceiver while the microphone power is OFF, the microphone power is automatically turned ON and the Intercom mode is selected.

◇ Intercom beep function

➥ Push **[LO/DX](IC SCR)** for more than 1 sec.
• Emits the Intercom beep while holding.

■ Channel comments

① Push **[▲]/[▼]** to select a channel to program a channel comment.
• Push **[CH/WX](DW U/I/C)** several times while pushing **[H/L]** to select the channel group (USA, INT, CAN), if desired.
② While pushing **[H/L]**, push **[16](9)**.
• The 1st character of the currently programmed comment blinks.
③ Push **[▲]/[▼]** to select a character.
④ Push **[SQL]** to move to forward; then push **[▲]/[▼]** to select a character.
• Push **[VOL]** to move to backward.
⑤ Continue until the desired characters have been selected, then push **[16](9)** to return to normal operation.

• Available characters

(space)	-- (—)	, (,)	/ (/)	0 (0)	1 (1)	2 (2)	3 (3)	4 (4)	5 (5)
6 (6)	7 (7)	8 (8)	9 (9)	A (A)	B (B)	C (C)	D (D)	E (E)	F (F)
G (G)	H (H)	I (I)	J (J)	K (K)	L (L)	M (M)	N (N)	O (O)	P (P)
Q (Q)	R (R)	S (S)	T (T)	U (U)	V (V)	W (W)	X (X)	Y (Y)	Z (Z)
a (a)	b (b)	c (c)	d (d)	e (e)	f (f)	g (g)	h (h)	i (i)	j (j)
k (k)	l (l)	m (m)	n (n)	o (o)	p (p)	q (q)	r (r)	s (s)	t (t)
u (u)	v (v)	w (w)	x (x)	y (y)	z (z)				