

ICOM

INSTRUCTION MANUAL

144 MHz FM TRANSCEIVER

IC-P2A

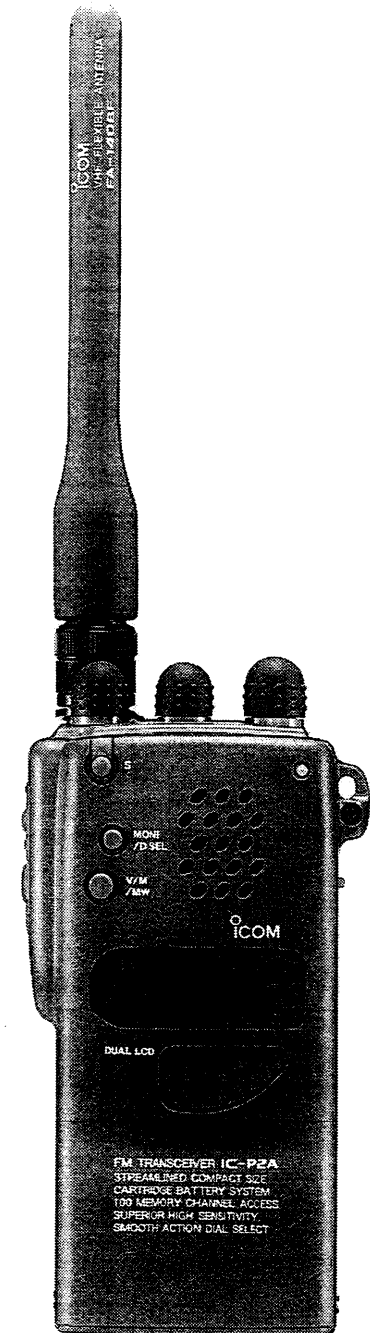
IC-P2E

UHF FM TRANSCEIVER

IC-P4A

IC-P4E

Icom Inc.



FOREWORD

Thank you for purchasing the **IC-P2A/E** or **IC-P4A/E FM TRANSCEIVER**. These belong to the new “P” series of transceivers representing state-of-the-art handheld transceiver technology.

Note that this instruction manual applies only to those functions accessible in its factory-shipped state. For operating more advanced functions a booklet titled “Tech Talk” is available from your local Icom Dealer. If more than one ‘star’ appears in the small function display, the transceiver may not operate as explained in the instruction manual. In this case, the transceiver should be set to the one star operating mode. See ‘TROUBLESHOOTING’ on p. 19.

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-P2A/E** and **IC-P4A/E**.

CAUTIONS

NEVER connect the transceiver via the [DC13.8V] jack to an AC outlet or to a power source of more than 16 V DC. This will ruin the transceiver.

NEVER connect the transceiver to a power source using reverse polarity. This will damage the internal circuitry.

NEVER allow children to touch the transceiver.

NEVER use a non-recommended charger for charging. Suggested chargers are described on p. 3.

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

AVOID placing the transceiver in direct sunlight.

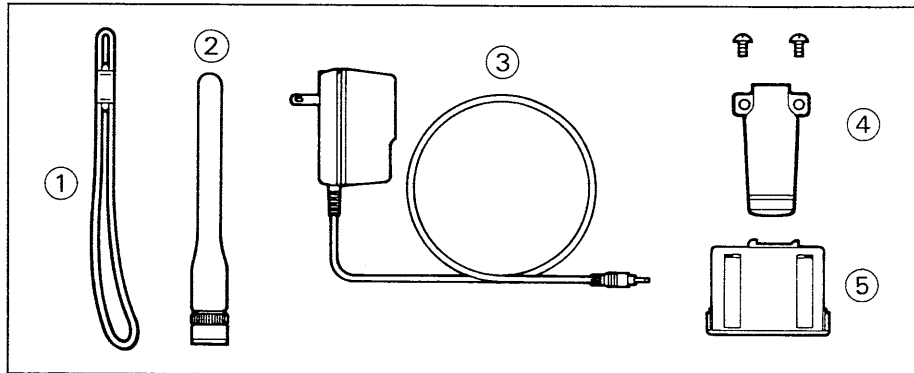
BE CAREFUL! When transmitting for a long time with high output power, the rear panel will become hot.

The use of non-Icom battery packs/chargers may impair transceiver performance and invalidate the warranty.

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UNPACKING



Accessories included with the IC-P2A/E and IC-P4A/E:

① Handstrap	1
② Antenna*1	1
③ Wall charger*2	1
④ Belt clip and screws	1 set
⑤ Battery pack (BP-111; inserted in the transceiver)	1

*1 FA-140BF (IC-P2A/E), FA-430BD (IC-P4A/E).

*2 BC-73E/D or BC-74A/V depending on version.

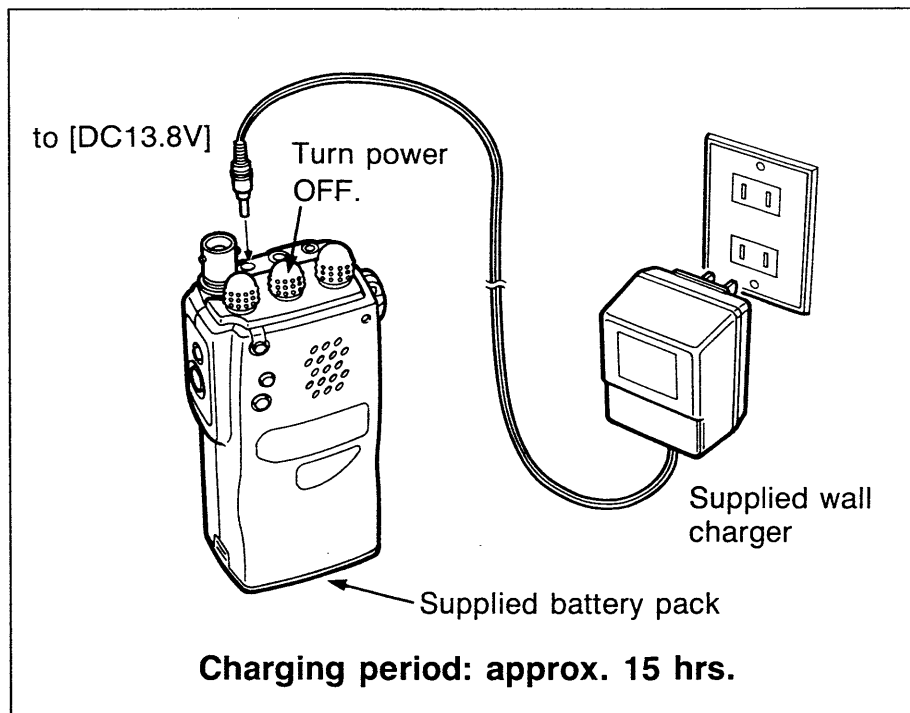
1 FIRST APPLYING POWER

■ Charge the battery pack

When you purchase the transceiver, the supplied battery pack is empty and requires a full charge.

Connect the supplied wall charger as illustrated in the diagram below.

- The CPU backup battery will also be fully charged.
- See p. 3 for details on safety and use of a desktop charger.



■ CPU activating and resetting

When first applying power or when the transceiver has not been operated for 2 months or more, the internal battery may be exhausted, and the transceiver's CPU may require activating.

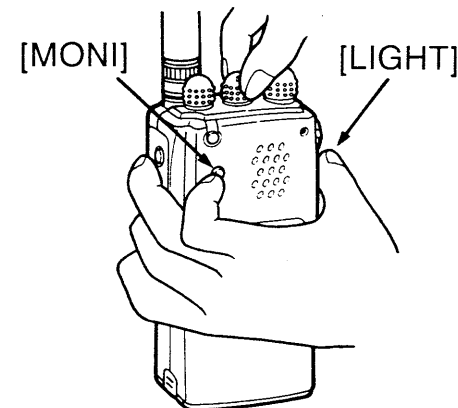
- While pushing [FUNC], turn power ON to activate the CPU.

If erroneous information appears on the function display, (e.g. when first applying power or after CPU activating), CPU resetting is required.

- While pushing [LIGHT] and [MONI], turn power ON to reset the CPU.

CAUTION: Resetting the CPU will clear all set contents such as memory channels, time, etc.

CPU resetting



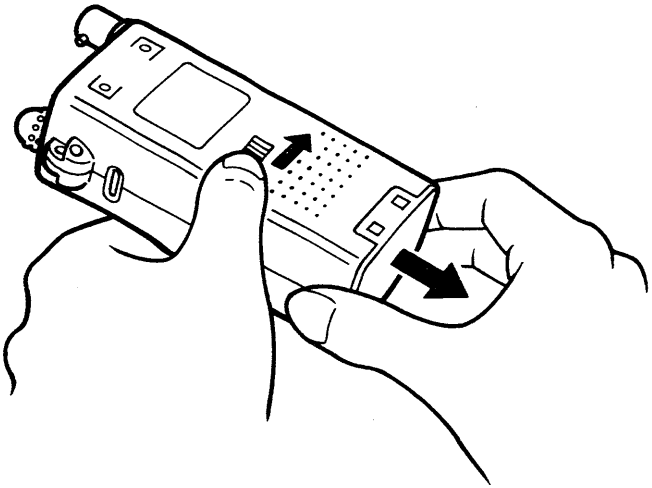
The function display shows as follows:

	VERSION	FREQUENCY
IC-P2A/E	U.S.A., Asia	146.01 MHz
	Others	145.00 MHz
IC-P4A/E	U.S.A.	440.00 MHz
	Others	430.00 MHz

■ Battery pack removal

Slide the battery pack release button on the rear panel inward, then pull the battery pack downwards.

To insert the battery pack, insert it until hearing a click.



Be careful! The transceiver has a battery stopper, therefore, exact insertion is necessary.

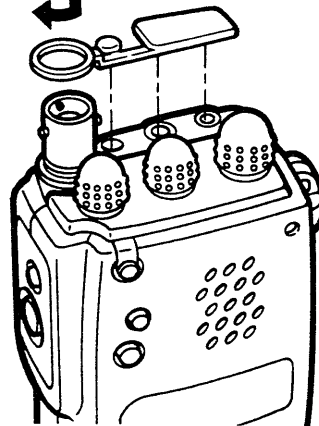
■ Other accessories

• Antenna

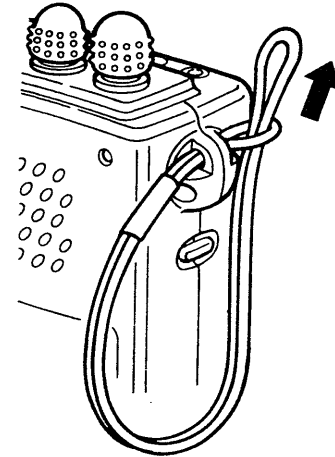


CAUTION:

Transmitting without the antenna may damage the transceiver.

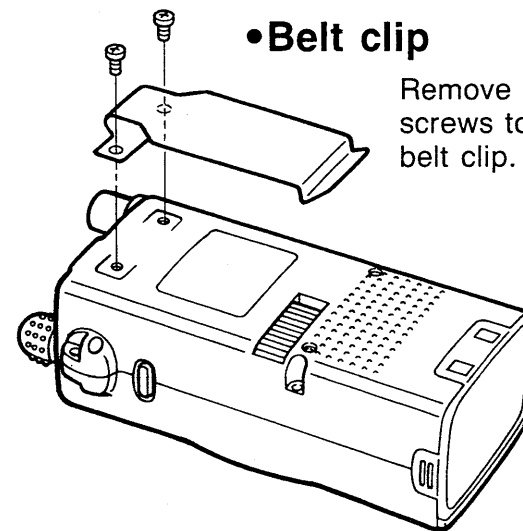


• Handstrap



• Belt clip

Remove the plastic screws to attach the belt clip.



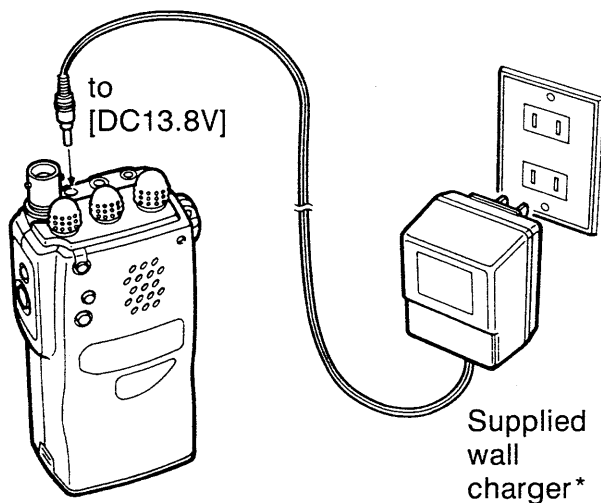
3

BATTERY PACK CHARGING

• Regular charging

Connect the supplied wall charger to the [DC13.8V] jack.

NEVER charge dry cell batteries via the BP-110 BATTERY CASE.



BP-111 ~ 113 or BP-110 with NiCd batteries can be charged when inserted into the transceiver.

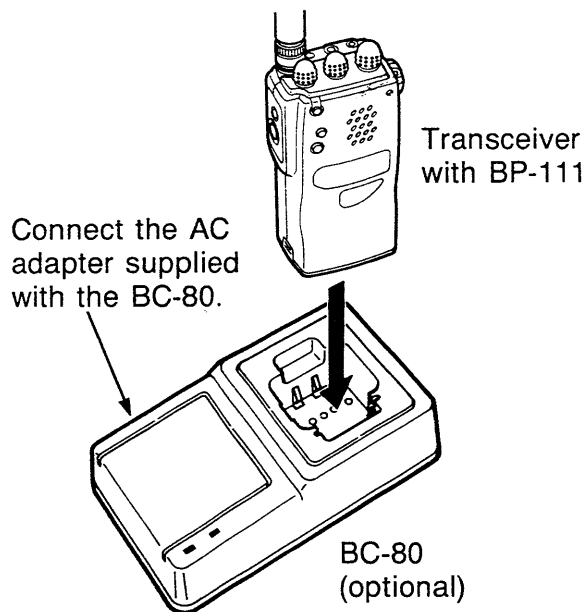
*BC-73E/D is for charging the BP-111 only.

• Charging period: 15 hrs. (approx.)

• Rapid charging with the optional BC-80

BP-111 with transceiver

Insert the BP-111 into the transceiver. Insert the transceiver into the charging slot of the BC-80.

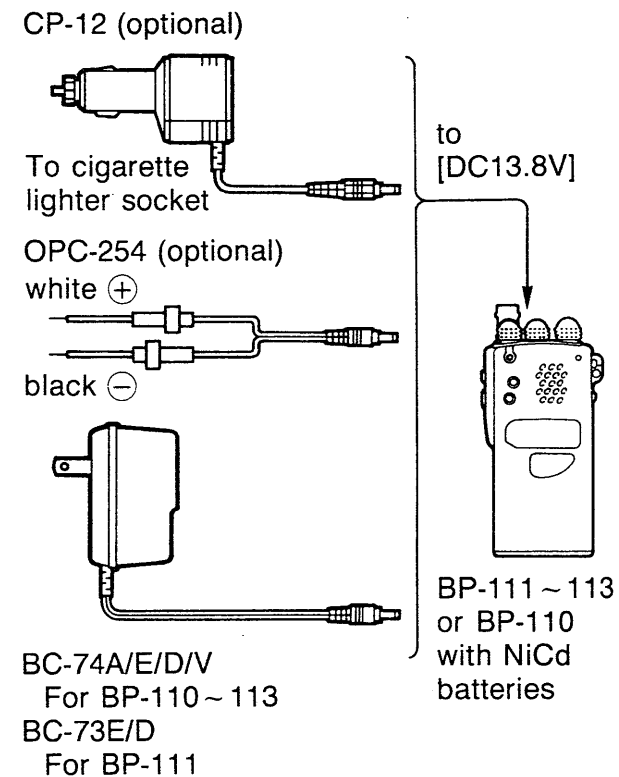


Connect the AC adapter supplied with the BC-80.

• Other battery packs require an adapter that comes with the BC-80.

• Charging period: 1 ~ 2 hrs. (approx.)

• Charging with optional charger or cables



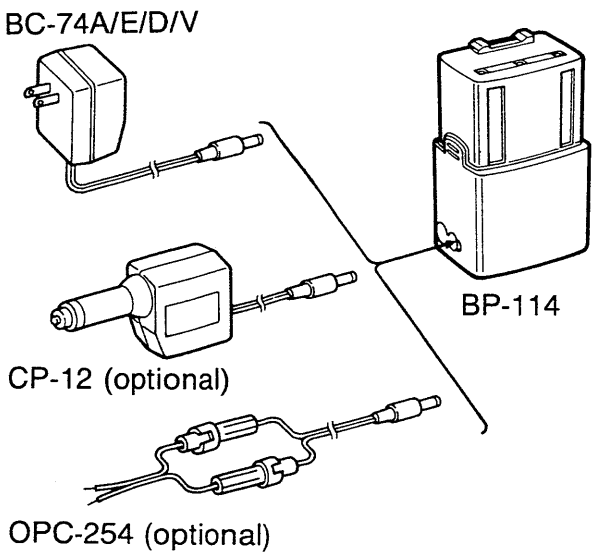
BC-74A/E/D/V
For BP-110 ~ 113
BC-73E/D
For BP-111

NEVER connect the above options when the BP-110 is used with dry cell batteries.

• Charging period: 15 hrs. (approx.)

• Charging of the optional BP-114

To charge the BP-114, connect the wall charger or optional cable to the charging jack.



The BC-73E/D cannot be used to charge the BP-114.

• Charging period: 15 hrs. (approx.)

• Charging notes

NEVER attempt to charge dry cell batteries.

Connect one charger. **NEVER** connect two or more chargers at the same time.

Be sure to turn the transceiver power OFF during charging.

Charging may not occur in extreme cold (under 0°C; +32°F) or extreme heat (over +40°C; +104°F).

• Battery life

The operating periods vary for different battery packs.

Condition:
Transmitting at high power for 1 min., receiving for 1 min. and standby for 8 min.

• Using your battery wisely

Overcharging and complete discharging may shorten the life of a battery.

Recharging can usually be performed 300 times, but battery life can be lengthened to about 500 recharges as follows:

1. Avoid overcharging. The charging period should be less than 48 hours.
2. Use the battery until it is almost completely discharged under normal conditions. We recommend battery charging as soon as transmitting becomes impossible.

BATTERY	OUTPUT VOLTAGE	APPROX. OPERATING PERIOD*	
		IC-P2A/E	IC-P4A/E
BP-111	7.2 V	3 h. 40 m.	2 h. 40 m.
BP-112	7.2 V	6 h. 20 m.	4 h. 40 m.
BP-113	7.2 V	10 h.	7 h. 20 m.
BP-114	12.0 V	2 h. 40 m.	2 h.

*Operating period varies depending on operating conditions such as output power, temperature, etc.

■ Front and side panels

FUNCTION SWITCH [FUNC]

While pushing [FUNC], other switches and the main dial perform secondary functions.

PTT SWITCH [PTT] (p. 11)

Push and hold to transmit; release to receive.

While pushing [FUNC], push this switch to select high or low output power.

VFO/MEMORY SWITCH [V/M/MW]

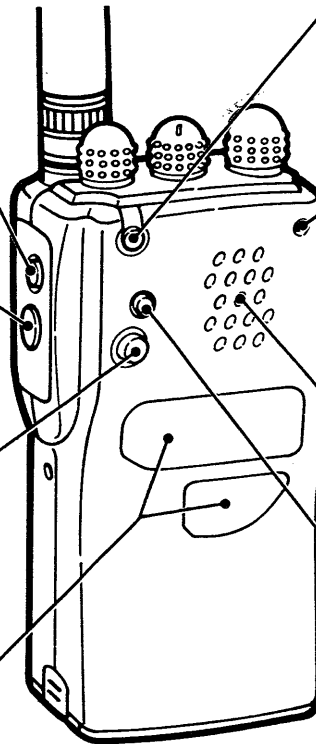
(pgs 15, 16)

Selects VFO and MEMORY mode.

While pushing [FUNC], push this switch to program the memory contents or transfer memory contents to VFO.

FUNCTION DISPLAY (p. 7)

Indicates the operating condition.



S SWITCH [S] (p. 8)

Activates the functions indicated in the small display.

While pushing [FUNC], push this switch to activate secondary functions of this switch such as time setting, offset setting, and programmed scan.

TRANSMIT/RECEIVE INDICATOR

Lights up in green when squelch opens; lights up in red when transmitting.

LIGHT SWITCH [LIGHT]

Turns the display backlighting ON and OFF. (p. 12)

While pushing [FUNC], push this switch to turn the lock function ON/OFF.

SPEAKER/MICROPHONE

MONITOR SWITCH [MONI/D SEL]

Monitors an operating frequency. (p. 10)

While pushing [FUNC], push this switch to change the dial select step. (p. 9)

■ Top panel

EXTERNAL DC POWER JACK [DC13.8V]

Connects the supplied wall charger for charging the battery pack. (p. 3)

Allows operation with a 13.8 V DC power source using the optional cables, CP-12 or OPC-254. (See separate "List of Options" for details.)

Be careful of overcharging!

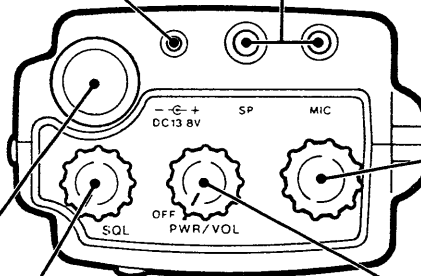
Operation with an external DC power source simultaneously charges the battery pack.

ANTENNA CONNECTOR (p. 2)

Connects the supplied antenna.

SQUELCH CONTROL [SQL] (p. 10)

Varies the squelch threshold point for noise mute.



EXTERNAL SPEAKER AND MICROPHONE JACKS [SP]/[MIC]

Connect an optional speaker-microphone or headset, if desired. The internal speaker and microphone will not function when either is connected. (See separate "List of Options" for details.)

MAIN DIAL

Sets operating frequency, memory channel contents, offset frequency, etc.

VOLUME CONTROL [PWR/VOL]

(p. 10)

Turns power ON and OFF and adjusts the audio level.

4 PANEL DESCRIPTION

■ Function display

LOCK INDICATOR (p. 12)

Appears when the lock function is in use.

FUNCTION INDICATOR

Appears while the [FUNC] switch is pushed.

LOW POWER INDICATOR

(p. 11)

Appears when low output power is selected.

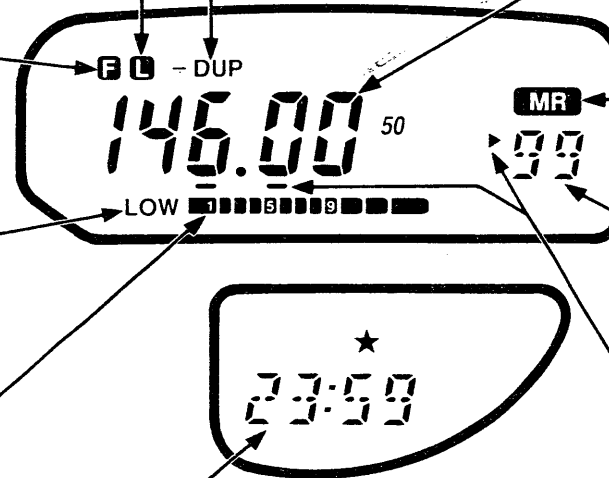
S/RF INDICATOR (pgs. 10, 11)

Shows the relative signal strength when receiving; shows the selected output power when transmitting.

SMALL FUNCTION DISPLAY

(p. 8)

Indicates the function accessed by the [S] switch or the current time.



DUPLEX INDICATOR (p. 13)

Appears when duplex is used for repeater operation.

- + and - duplex are available for corresponding repeaters.

FREQUENCY READOUT

MEMORY INDICATOR

(p. 15)

Appears when MEMORY mode is selected.

MEMORY CHANNEL READOUT (p. 15)

Shows the selected memory channel number.

DIAL SELECT INDICATORS

One indicator appears while pushing [FUNC]. It shows the dial select step.

■ Selecting a function

Functions of the [S] switch are selectable and are shown in the small function display.

- ① Push and hold [S] until the display flashes.



The contents flash.

- ② While pushing [S] continuously from step ①, rotate the main dial to select the desired function; then, release [S].



For scan operation.
(p. 17)



For duplex operation.
(p. 13)



For time indication.
(below)

■ Setting the time

The transceiver has a 24-hour clock for scheduled QSO, etc.

- ① Select the clock indication using the above procedure.

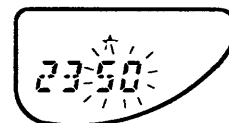


- ② While pushing [FUNC], push [S].



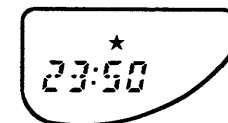
Hour digit flashes.

- ③ Adjust the time using the main dial and [S].



The main dial changes the digits; [S] selects hours or minutes.

- ④ Push [FUNC] to set.



The clock starts from 0 sec.

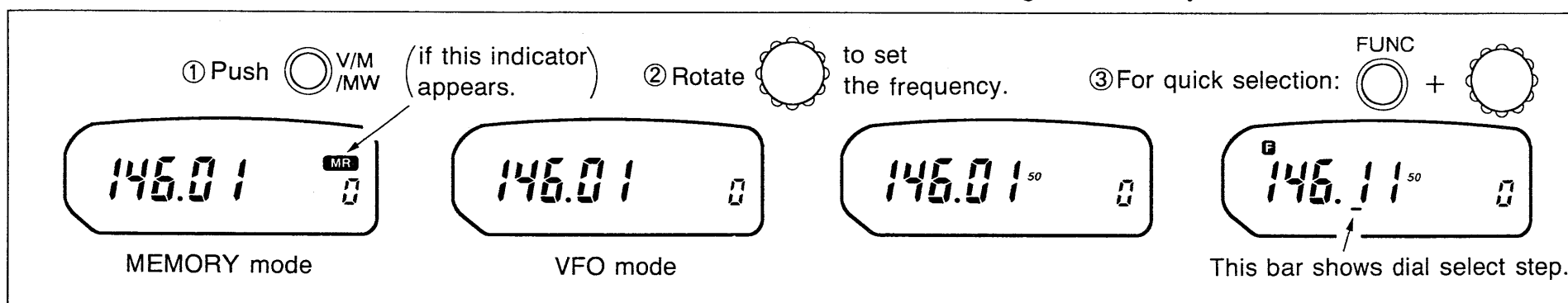
■ Setting a frequency

- 1) Rotate [VOL] clockwise to turn the power ON.
- 2) Set the audio to a comfortable level using the [VOL] control.
 - When the squelch is closed, rotate [SQL] counterclockwise.
- 3) Be sure VFO mode is selected.
 - If "MR" appears above the memory channel number, push [V/M] to select VFO mode.
- 4) Rotate the main dial to set an operating frequency. (The frequency changes in 5 or 25 kHz increments.)

■ Setting a frequency using dial select

In VFO mode, while pushing and holding [FUNC] and rotating the main dial, the frequency or memory channel numbers change in the following increments. This function is useful for quick frequency selection or memory channel selection in VFO mode.

- 1) Select VFO mode.
- 2) While pushing [FUNC], push [MONI/D SEL] one or more times.
 - A "bar" appears under the selected digit (100 kHz or 1 MHz).
 - If "▶" appears instead of the "bar," the memory channel is selected.
- 3) While pushing [FUNC], rotate the main dial to change the indicated digit or memory channel.



■ Receiving a signal

- 1) Set the [SQL] control maximum counterclockwise.
- 2) Rotate [VOL] to turn power ON and adjust the audio volume.
- 3) Rotate [SQL] clockwise until the no-signal noise disappears.
 - The receive indicator goes out.
- 4) Set the operating frequency.
 - See p. 9 for details.
- 5) When a signal is received on a set frequency:
 - Squelch opens and audio is emitted from the speaker.
 - The S/RF indicator shows relative signal strength.

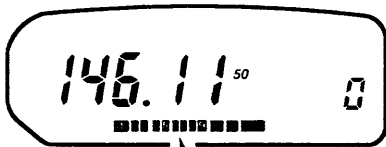
■ Monitor function

This function is a convenient way to listen to weak stations without disturbing the squelch setting.


When receiving a signal that is too weak to open the squelch completely, push the [MONI/D SEL] switch.

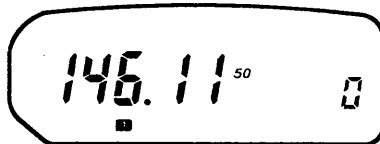
While operating the duplex function (p. 13), pushing [MONI] monitors whether the repeater input frequency is busy or not.

④ When receiving a signal:



S-indicator shows relative signal strength.

⑤ When receiving a weak signal, push and hold  MONI /D SEL



Squelch opens.

7

TRANSMITTING

■ Transmitting

CAUTION: Transmitting without an antenna may damage the transceiver.

NOTE: Before transmitting, listen on the frequency first to prevent interference to other stations.

- 1) Set the operating frequency.
 - See p. 9 for details.
- 2) Push and hold the [PTT] switch to transmit.
 - The [TX] indicator lights up in red.
 - The S/Rf indicator shows the selected output power.
- 3) Speak into the microphone using your normal voice level.
 - DO NOT hold the transceiver too closely to your mouth or speak too loudly. This may distort the signal.
- 4) Release the [PTT] switch to receive.

■ Selecting output power

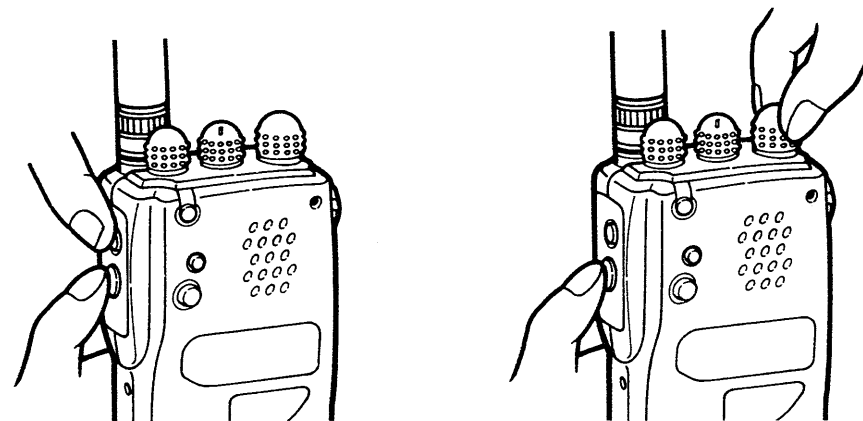
SELECTING HIGH OR LOW
While pushing [FUNC], push [PTT].

- If “LOW” appears, one of the three low powers is selected; if “LOW” doesn’t appear, high power is selected.

SETTING LOW OUTPUT POWER

While pushing [FUNC], push and hold [PTT].

Continue holding [PTT], then release [FUNC] and rotate the main dial to select the power level.

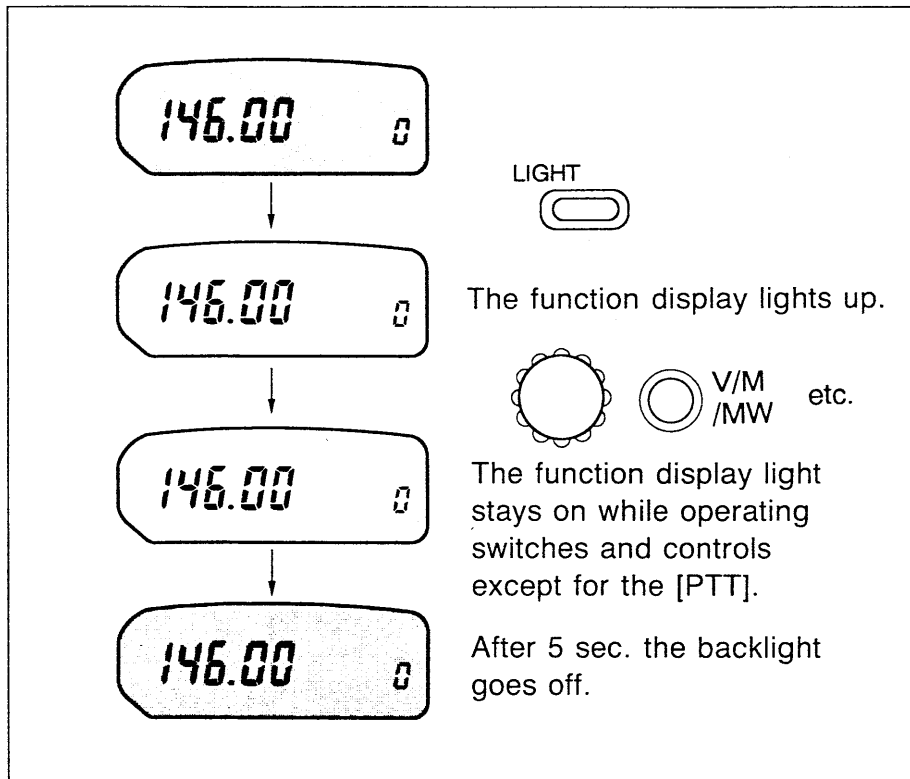


POWER SELECTION	S/Rf INDICATOR	OUTPUT POWER	
		with 13.8 V	with 7.2 V
HIGH		5.0 W	1.5 W
LOW 3	LOW	3.5 W	1.5 W
LOW 2	LOW	1.5 W	1.5 W
LOW 1	LOW	0.5 W	0.5 W

■ Turning on the function display light

For easy viewing at night time, push the [LIGHT] switch. The function displays will illuminate for about 5 sec.

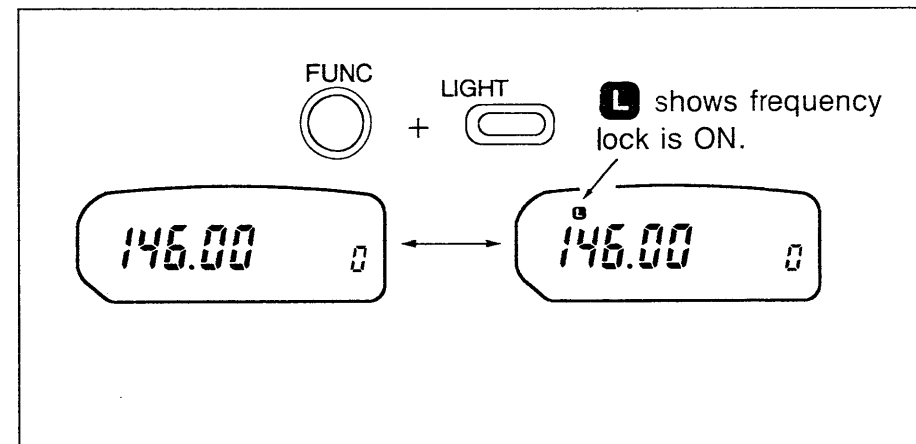
- 1) Push [LIGHT] to illuminate.
- 2) To turn the function OFF, push [LIGHT] again.



■ Activating the frequency lock function

When you want to monitor a frequency and not worry about accidentally activating a switch or control (thereby changing the frequency) — use the frequency lock function.

- 1) While pushing [FUNC], push [LIGHT].
 - “L” appears in the large function display.
 - The main dial, [V/M/MW] and [S] are locked and will not operate.
- 2) To turn the frequency lock function OFF, repeat step 1 above.



When operating the transceiver with a station through a repeater, the repeater re-transmits your signal at a higher output power, allowing you to communicate over longer distances using low power.

■ Operation

- 1) Set the receive frequency (repeater output frequency).
- 2) Call up “DUP” to the small function display.
 - While pushing and holding [S], rotate the main dial until “DUP” appears. (p. 8)
- 3) Push [S] to select –Duplex, +Duplex or simplex. These are displayed in the function display as –DUP, DUP and “blank,” respectively.
 - This setting depends on the repeater being used.
- 4) Push and hold the [PTT] switch to transmit.
- 5) Release the [PTT] to receive.

NOTE: Push [MONI/D SEL] to check whether the other station’s signal on the repeater input frequency can be directly received or not.

■ 1750 Hz tone call (Europe version only)

- 1) Quickly push and release [PTT], then push and hold [PTT] a second time to transmit a 1750 Hz tone.
- 2) Release and then push [PTT] again to transmit your voice.
 - Some repeaters require a period of less than 0.5 sec. between the second push and voice transmission using the [PTT].

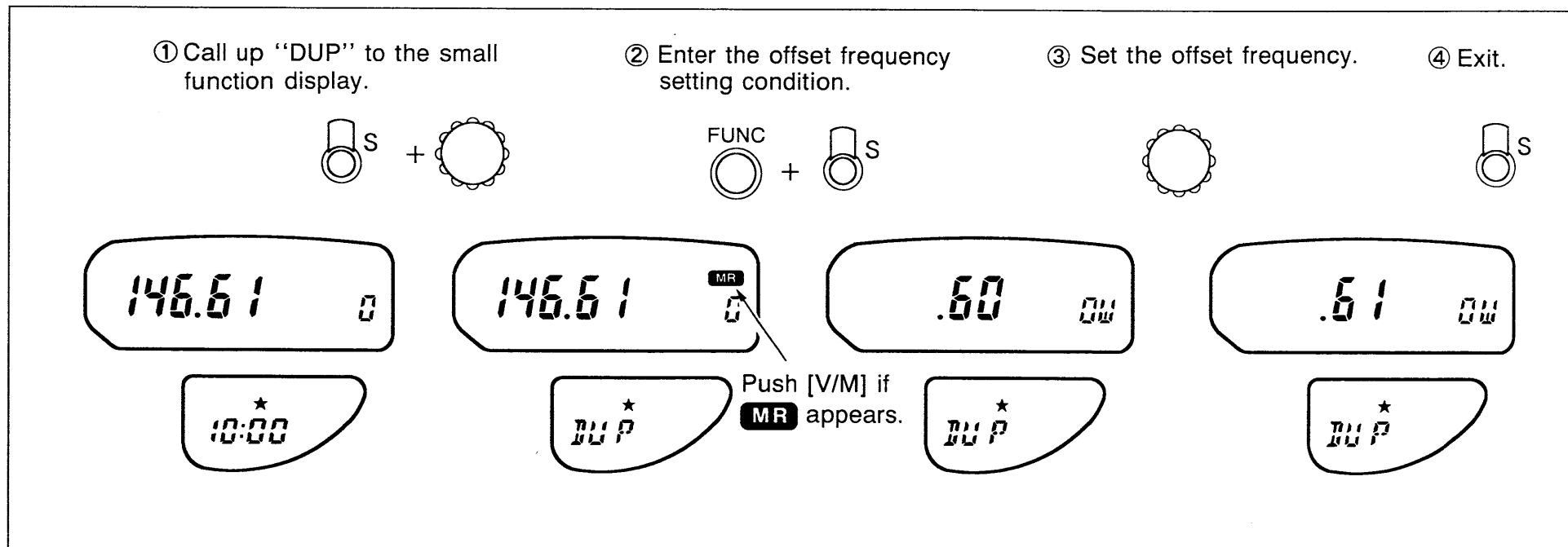
NOTE: A 1750 Hz tone can also be transmitted by pushing [PTT] while pushing [LIGHT].

■ Subaudible tone encoder

If a repeater requires a subaudible tone, an optional UT-50 TONE SQUELCH UNIT or UT-51 PROGRAMMABLE TONE ENCODER is necessary. Refer to a separate sheet called “Tech Talk,” available from your nearest Icom Dealer or Service Center.

■ Offset frequency

- 1) Call up "DUP" to the small function display.
 - While pushing and holding [S], rotate the main dial until "DUP" appears. (p. 8)
- 2) Select VFO mode.
- 3) While pushing [FUNC], push [S] to enter the offset frequency setting condition.
 - "OW" appears.
- 4) Rotate the main dial to set the desired offset frequency.
 - For quick selection, rotate the main dial while pushing [FUNC].
- 5) Push [S] to exit the condition.



10 MEMORY MODE

100 memory channels (plus 2 scan edge memory channels) are available for storing your often-used frequencies with repeater information, group calls, etc.

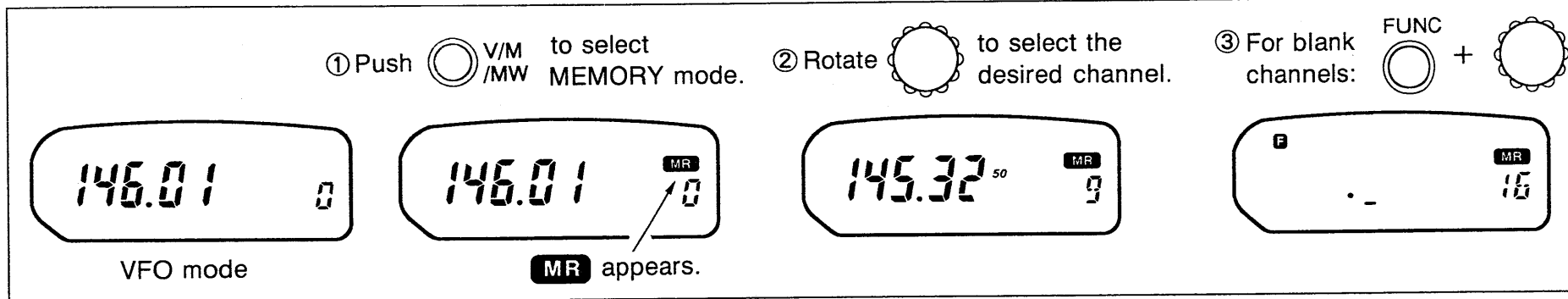
When first applying power or after resetting the CPU, memory channels 10 ~ 99 are blank.

■ Selecting a memory channel

- 1) Push [V/M/MW] to select MEMORY mode.
 - “MR” appears.
- 2) Rotate the main dial to select the desired memory channel.
 - Only programmed channels can be selected.
- 3) Push [V/M/MW] to return to VFO mode.

■ Selecting blank memory channels

- 1) Push [V/M/MW] to select MEMORY mode.
 - “MR” appears.
- 2) While pushing [FUNC], rotate the main dial.
 - All memory channels including blank channels can be selected.
- 3) Push [V/M/MW] to return to VFO mode.




■ Programming a memory channel

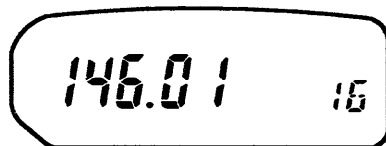
- 1) Push [V/M/MW] to select MEMORY mode.
 - “MR” appears.
- 2) Rotate the main dial to select the memory channel to be programmed.
 - To select a blank channel, rotate the main dial while pushing [FUNC].
- 3) Push [V/M/MW] to select VFO mode.
- 4) Set the desired frequency (and duplex condition, if desired).
- 5) While pushing [FUNC], push and hold [V/M/MW] until 3 short beeps are emitted.
- 6) Push [V/M/MW] to return to MEMORY mode and verify the contents.

■ Transferring memory contents to VFO

This function is useful when searching for signals around a memorized frequency.

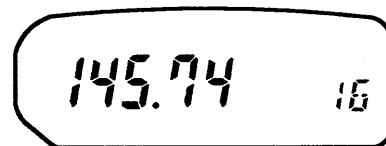
- 1) Push [V/M/MW] to select MEMORY mode.
 - “MR” appears.
- 2) Select the memory channel to be transferred.
- 3) While pushing [FUNC], push and hold [V/M/MW] until 3 short beeps are emitted.
 - The memory contents are transferred to VFO.
 - VFO mode is automatically selected.
 - The memory contents are not erased.



④ Push  to select VFO mode.

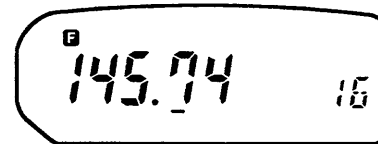



VFO mode

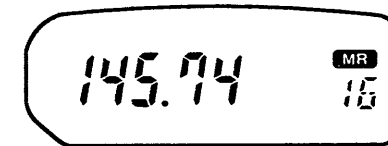
⑤ Set the desired frequency in VFO mode.



⑥ For programming:  +  Push and hold



⑦ To verify: Push  to verify.

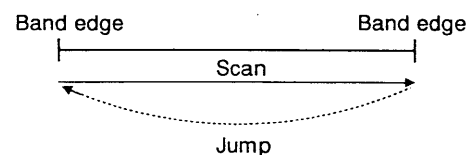


11 SCANNING

■ Scan types

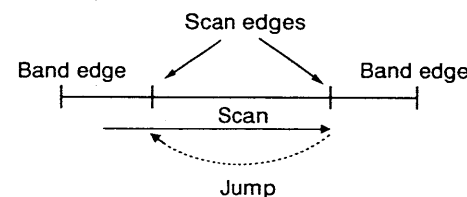
• Full scan

Repeatedly scans all frequencies over the entire band.



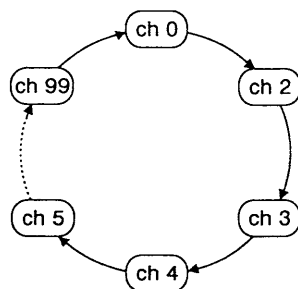
• Programmed scan

Repeatedly scans between two user-programmed frequencies.



• Memory scan

Repeatedly scans all pre-programmed memory channels.



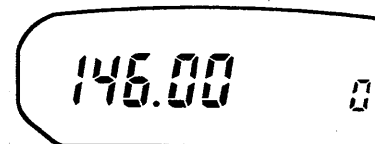
• When receiving a signal during scan:

When signal receiving during scan, scan pauses 10 sec. and then re-starts. If a signal disappears while pausing, scan waits for 2 sec. and then re-starts.

To re-start scan manually, rotate the main dial in your desired direction.

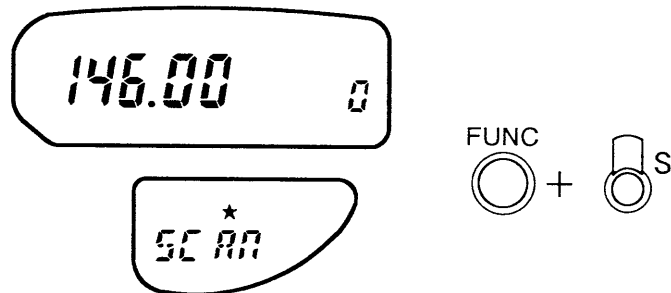
■ Full scan

- 1) Call up "SCAN" to the small function display.
 - While pushing and holding [S], rotate the main dial until "SCAN" appears. (p. 8)
- 2) Select VFO mode.
- 3) Rotate [SQL] until noise is muted.
- 4) Push [S] to start the scan.
 - The decimal point will blink during scanning.
- 5) When you wish to change the scan direction, rotate the main dial.
- 6) To cancel scanning, push [S].



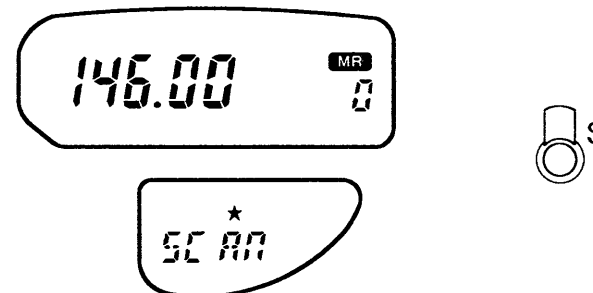
■ Programmed scan

- 1) Set scan edges by programming scan edge frequencies into memory channels "PA" and "PB." (See p. 16 for programming a memory channel.)
- 2) Call up "SCAN" to the small function display.
 - While pushing and holding [S], rotate the main dial until "SCAN" appears. (p. 8)
- 3) Select VFO mode and then rotate [SQL] until noise is muted.
- 4) While pushing [FUNC], push [S] to start the scan.
 - The decimal point will blink during scanning.
- 5) When you wish to change the scan direction, rotate the main dial.
- 6) To cancel scanning, push [S].



■ Memory scan

- 1) Call up "SCAN" to the small function display.
 - While pushing and holding [S], rotate the main dial until "SCAN" appears. (p. 8)
- 2) Select MEMORY mode.
- 3) Rotate [SQL] until noise is muted.
- 4) Push [S] to start the scan.
 - "MR" will blink during scanning.
 - Only programmed memory channels are scanned.
- 5) When you wish to change the scan direction, rotate the main dial.
- 6) To cancel scanning, push [S].



12 TROUBLESHOOTING

If your transceiver seems to be malfunctioning, please check the following points before sending it to a service center.

PROBLEM	POSSIBLE CAUSE	SOLUTION	REF.
<ul style="list-style-type: none"> No power comes on. 	<ul style="list-style-type: none"> The battery pack is exhausted. Poor plug connection to the external DC power cable. 	<ul style="list-style-type: none"> Charge the battery pack or place new dry cell batteries in the battery case. Check the connector or remove and replace the cable. 	<p>p. 3</p> <p>—</p>
<ul style="list-style-type: none"> No sound comes from the speaker. 	<ul style="list-style-type: none"> [SQL] is turned too far clockwise. An external speaker or earphone is connected. 	<ul style="list-style-type: none"> Rotate the [SQL] control counterclockwise. Unplug the speaker or earphone. 	<p>p. 10</p> <p>—</p>
<ul style="list-style-type: none"> Transmitting is impossible. 	<ul style="list-style-type: none"> The battery pack is exhausted. 	<ul style="list-style-type: none"> Charge the battery pack or place new dry cell batteries in the battery case. 	<p>p. 3</p>
<ul style="list-style-type: none"> Frequency cannot be set. 	<ul style="list-style-type: none"> The lock function is activated. MEMORY mode is selected. 	<ul style="list-style-type: none"> While pushing [FUNC], push [LIGHT] to turn OFF the lock function. Push [V/M] to select VFO mode. 	<p>p. 12</p> <p>p. 15</p>
<ul style="list-style-type: none"> Scan cannot be activated. 	<ul style="list-style-type: none"> The squelch is open. 	<ul style="list-style-type: none"> Rotate the [SQL] control clockwise. 	<p>p. 17</p>
<ul style="list-style-type: none"> The contents of the memories are erased. 	<ul style="list-style-type: none"> The backup battery is exhausted because no charging has been performed for a long time. 	<ul style="list-style-type: none"> Charge the battery pack or place new dry cell batteries in the battery case. (Backup battery is charged simultaneously.) 	<p>p. 1</p>
<ul style="list-style-type: none"> 2 stars or more appear in the small function display. <p>The transceiver activates other functions which are not described in this manual.</p>	<ul style="list-style-type: none"> Mis-operation at power ON. ([S] and [MONI] are pushed at power ON.) 	<ul style="list-style-type: none"> While pushing [S] and [LIGHT], turn power ON to select 1 star indication. <p>Be careful! The contents of memory channels 10~99 are erased.</p>	<p>—</p>

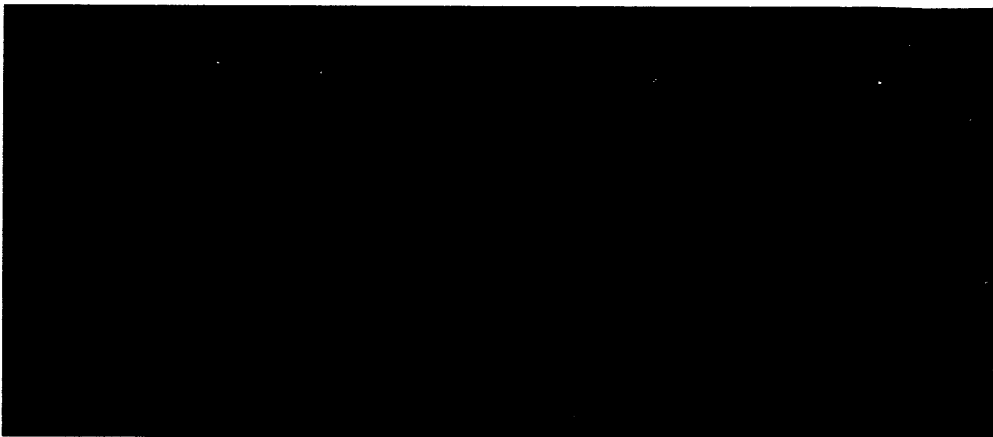
SPECIFICATIONS 13

		IC-P2A/E	IC-P4A/E	
Frequency coverage	U.S.A.	T: 144 ~ 148 MHz	440 ~ 450 MHz	
		R: 138 ~ 174 MHz*		
	Asia	T: 144 ~ 148 MHz	430 ~ 440 MHz	
		R: 138 ~ 174 MHz*		
	Australia	144 ~ 148 MHz	430 ~ 440 MHz	
	Europe	144 ~ 146 MHz	430 ~ 440 MHz	
Italy	T: 144 ~ 148 MHz	N/A		
	R: 140 ~ 150 MHz*			
*Guaranteed range is 144 ~ 148 MHz.				
Mode		FM		
Frequency stability		± 15 ppm (-10°C ~ +60°C; +14°F ~ 140°F)	± 5 ppm (0°C ~ +50°C; +32°F ~ +122°F)	
Antenna impedance		50 Ω (nominal)		
Usable battery pack		BP-110 ~ BP-114		
External DC power		6 ~ 16 V DC (negative ground)		
Current drain	Tx	High	1.5 A	
		Low 1	650 mA	
	Rx	Power saved	16 mA	19 mA
		Max. audio	250 mA	250 mA
at 13.8 V DC, typical				
Tuning steps	U.S.A.	5 kHz	25 kHz	
	Others	25 kHz		
Ask your Icom dealer how to select other steps.				
Dial select steps		100 kHz and 1 MHz		
Usable temperature range		-10°C ~ +60°C; +14°F ~ +140°F		
Dimensions (with BP-111, projections not included)		49(W) × 105(H) × 38.5(D) mm 1.9(W) × 4.1(D) × 1.5(D) in		
Weight (with BP-111)		280 g; 9.9 oz		

		IC-P2A/E	IC-P4A/E
TRANSMITTER	Output power (at 13.8 V DC)	5, 3.5, 1.5, 0.5 W (selectable)	
	Modulation system	Variable reactance frequency modulation	
	Max. freq. deviation	± 5 kHz	
	Spurious emissions	Less than -60 dB	
	Microphone impedance	2 kΩ	
	Heatsink duty cycle	Tx : Rx = 1 min. : 3 min.	
	Receive system	Double-conversion superheterodyne	
	Intermediate freq.	1st	30.875 MHz
2nd		455 kHz	
Sensitivity	Less than 0.16 μV for 12 dB SINAD		
Squelch sensitivity	Less than 0.1 μV at threshold		
Selectivity	More than 15 kHz/ -6 dB Less than 30 kHz/ -60 dB		
Spurious response rejection	Less than -60 dB		
Audio output power	200 mW at 10% distortion with an 8 Ω load		
Audio output impedance	8 Ω		

All stated specifications are subject to change without notice or obligation.

Count on us!



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