



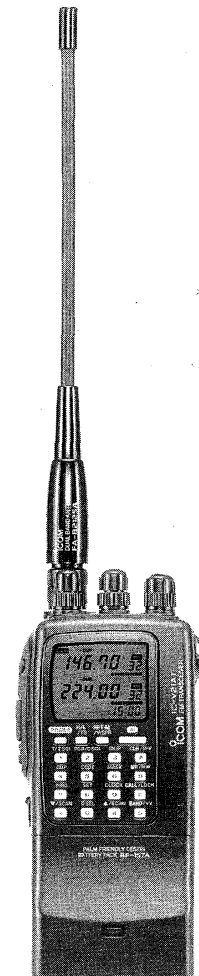
INSTRUCTION MANUAL

DUAL BAND FM TRANSCEIVER

IC-V21AT

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 for the IC-V21AT.

EXPLICIT DEFINITIONS

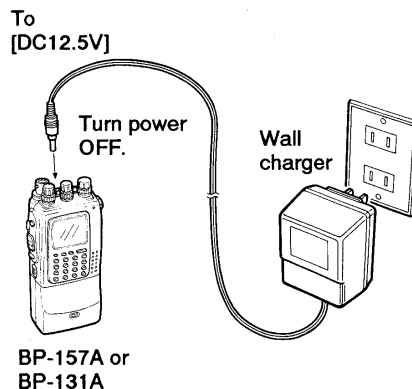
CAUTION : Equipment damage may occur.

NOTE : If disregarded, inconvenience only. No risk of personal injury, fire or electric shock.

WHEN FIRST APPLYING POWER

◇ Battery pack charging

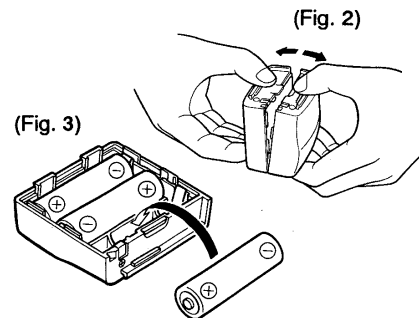
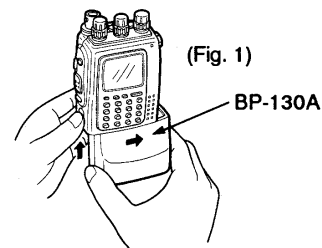
- ① Attach the battery pack to the transceiver.
- ② Connect the wall charger to the [DC12.5V] jack to charge the battery pack.
 - Charging period of the BP-157A and BP-131A is approx. 15 hrs.



◇ Installing batteries into the optional battery case

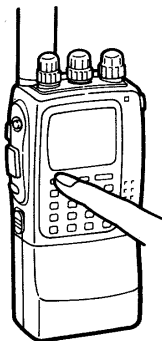
Install six dry cell batteries as shown in the figures below.

- Pay attention to the polarities.



◇ Power ON

Push and hold [POWER] for 1 sec. to turn power ON.



Push and hold [POWER] for 1 sec. again to turn power OFF.

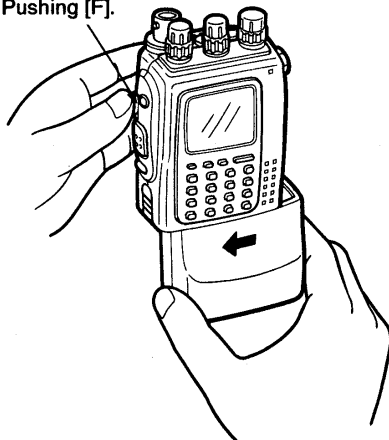
The power key may not function when the transceiver has not been operated for 2 months or more as the internal memory backup battery (rechargeable) may have become depleted. In this case, activate the CPU as described in the box at right.

• Activating the CPU

(when the power does not come on)

While pushing the [F] key, attach the charged battery pack. Then, turn power ON.

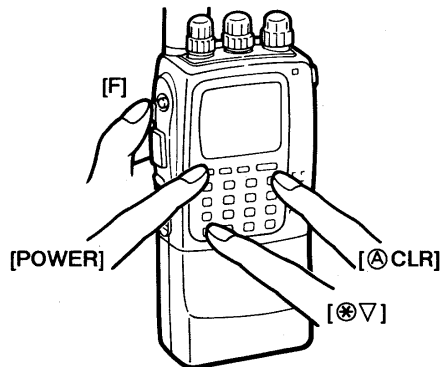
Pushing [F].



◇ Resetting the transceiver

Reset the transceiver before operating for the first time, or when the internal CPU malfunctions.

- ① Turn power OFF.
- ② While pushing [F], [ⒶCLR] and [⊗▽], push and hold [POWER] for 1 sec. to reset the CPU.



Partial resetting is alternatively available. See p. 47 for details.

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.

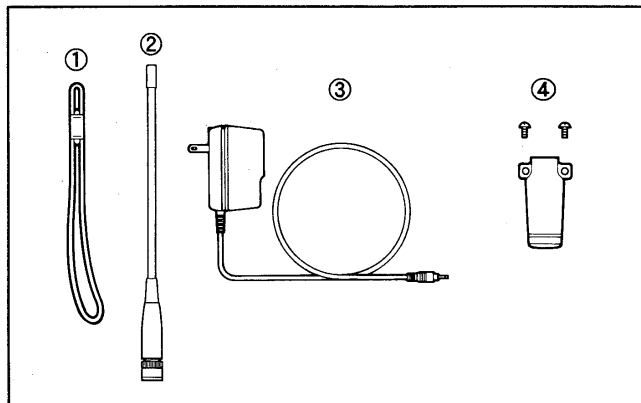
AVOID using or placing the transceiver in direct sunlight or in areas with temperatures below -10°C ($+14^{\circ}\text{F}$) or above $+60^{\circ}\text{C}$ ($+140^{\circ}\text{F}$).

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.

Even when the transceiver power is OFF, a slight current still flows in the circuits. Remove the battery pack or case from the transceiver when not using the transceiver for a long time. Otherwise, the battery pack or installed dry cell batteries in the battery case will become exhausted.

UNPACKING



Accessories included with the transceiver:		Qty.
① Handstrap		1
② Antenna (FA-B2125A)		1
③ Wall charger		1
④ Belt clip and screws		1 set
Battery pack (BP-157A) (attached with the transceiver)		1

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PANEL DESCRIPTION

Front and side panels

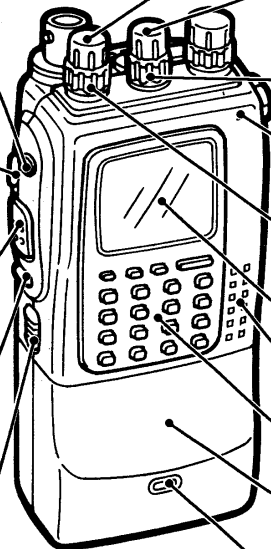
MONITOR SWITCH [MONI] (p. 14)
Manually opens the main band's squelch and monitors the transmit frequency.

FUNCTION SWITCH [F] (pgs. 3, 4)
While pushing this switch, other switches and the tuning dial perform secondary functions.
• "Push [F] + a switch" means "while pushing the [F] switch, push the switch."

PTT SWITCH [PTT] (p. 15)
Push and hold to transmit; release to receive.

LIGHT SWITCH [LIGHT] (p. 13)
• Lights the display and keyboard back-lighting for 5 sec.
• [F] + [LIGHT] manually turns the back-lighting ON and OFF.

BATTERY PACK RELEASE BUTTON
Opens the latch for battery pack removal when pushed upwards.



144 VOLUME CONTROL [VOL] (p. 14)
Adjusts the 144 MHz band audio level.

222 VOLUME CONTROL [VOL] (p. 14)
Adjusts the 222 MHz band audio level.

222 SQUELCH CONTROL [SQL] (p. 14)
Varies the 222 MHz band squelch threshold point for noise mute.

TX/RX INDICATOR (pgs. 14, 15)

144 SQUELCH CONTROL [SQL] (p. 14)
Varies the 144 MHz band squelch threshold point for noise mute.

FUNCTION DISPLAY (pgs. 5, 6)

SPEAKER/MICROPHONE

KEYBOARD (pgs. 3, 4)

BATTERY PACK/CASE (pgs. i, 7, 8)

OPTIONAL SUB MICROPHONE (p. 32)
Used for the optional whisper function. (The BP-131A or BP-132A is required.)

Top panel

ANTENNA CONNECTOR

(p. 9)

Connects the supplied antenna.

EXTERNAL DC POWER JACK [DC12.5V]

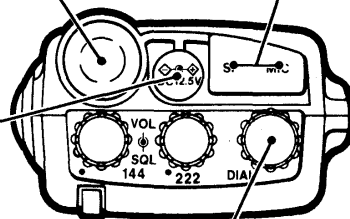
(p. 53)

Allows operation with a 12.5 V DC power source using the optional cables, CP-13 or OPC-288.

CAUTION: Operation with an external DC power source simultaneously charges batteries inside the battery case or the battery pack. This may cause battery leakage and damage the transceiver or cause battery overcharging and shorten the life of the battery pack, respectively.

TUNING DIAL [DIAL]

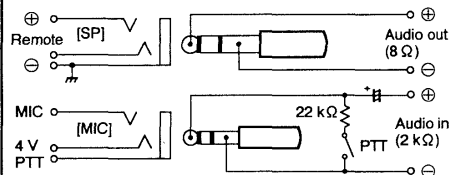
Sets operating frequency, memory channel and set mode contents.



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

Connect an optional speaker-microphone or headset, if desired. The internal microphone will not function when either is connected. (See pgs. 53, 54 for options.)

◇ External connection



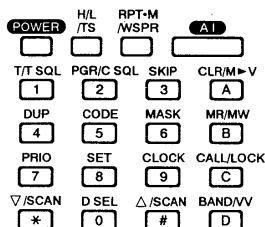
The above diagram does not apply when a condenser microphone is connected.

◇ External audio output

Audio output from the [SP] jack can be selected for the 144 MHz band and/or the 222 MHz band using set mode. When connecting a TNC, etc., set the undesired band audio to the internal speaker. (p. 47)

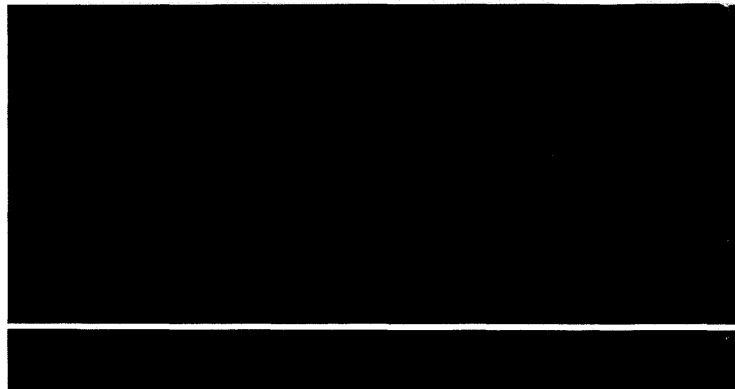
1 PANEL DESCRIPTION

Keyboard



KEY	FUNCTION	SECONDARY FUNCTION (+ [F])
T/T SQL 1	<ul style="list-style-type: none"> • Input the appropriate digit while in VFO mode. (p. 11) • Input the first digit while in memory mode. (p. 20) • Transmit the appropriate DTMF code while transmitting. 	Activates the following functions in this sequence: subaudible tone encoder → pocket beep → tone squelch → non-tone operation. (pgs. 17, 44)
PGR/C SQL 2		Activates the following functions in this sequence: pager → code squelch → non-selective calling. (pgs. 41–43)
SKIP 3		Sets the selected memory channel as a skip memory channel in memory mode. (p. 29)
DUP 4		Selects the duplex direction in this sequence: – duplex → + duplex → simplex. (p. 17)
CODE 5		Programs the code channel for pager and code squelch operation. (p. 41)
MASK 6		Hides and displays the selected memory channel in memory mode. Memory channel 1 cannot be hidden. (p. 22)
PRI 7		Starts the priority watch. (p. 30)
SET 8		Enters set mode. (Various pages)
CLOCK 9		<ul style="list-style-type: none"> • Indicates the clock display. (p. 35) • Sets clock time when pushed 2 times. (p. 35)
D SEL 0		Selects the dial select step. (p. 12)

Count on us!



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