

# ICOM

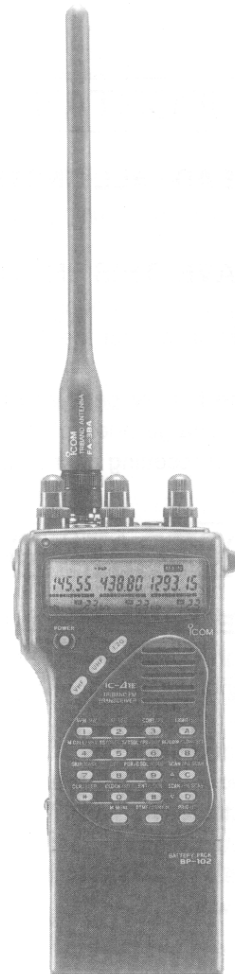
## INSTRUCTION MANUAL

TRIBAND FM TRANSCEIVER

# IC-Δ1A

# IC-Δ1E

Icom Inc.



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## IMPORTANT

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**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-21A/E.

The battery pack and CPU backup battery may require a full charge prior to operation. The transceiver may require CPU resetting after charging. See p. 2 for details.

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## OPERATING NOTES

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**BE CAREFUL!** When transmitting for a long time with high output power, the rear panel will become hot. If continual, the thermal protection circuit will decrease power.

When using the transceiver with a small-capacity battery pack such as the BP-101 or with manganese dry cell batteries in the BP-100, we recommend operating with low output power. Battery power will be discharged quickly if the transceiver is operated continuously using high output power.

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## CAUTIONS

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**NEVER** connect the transceiver to an AC outlet or to a power source of more than 15 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** allow children to touch the transceiver.

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

**AVOID** placing the transceiver in direct sunlight.

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

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

<p><b>NOTE:</b> See "Unpacking" on p. 45 for included accessories.</p>
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# PRE-OPERATION

## • First applying power

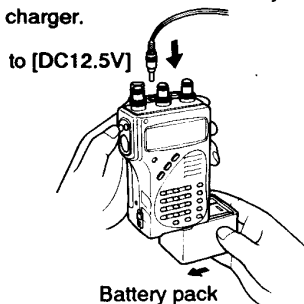
If [POWER] does not function (the CPU backup battery is empty), the following may be necessary:

While pushing [FUNC], plug-in the wall charger or attach the battery case as illustrated below.

- If correct frequencies appear in the function display, turn power OFF by pushing [POWER] for 1 sec.
- If erroneous information appear in the function display, turn power OFF by pushing [POWER] for 1 sec. and then reset the transceiver. (See right box.)

If your transceiver includes a battery pack, turn power OFF; then, connect the wall charger as described on p. 3. If your transceiver includes a battery case, **NEVER** charge dry cell batteries.

- The CPU backup battery will also be charged.
- See pgs. 3~4 for details on safety and use of a desktop charger.



## • Resetting the transceiver

When the function display shows erroneous information, the transceiver's CPU may require resetting.

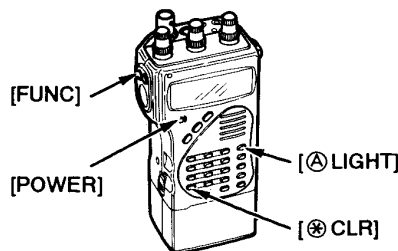
While pushing the [FUNC], [Ⓐ LIGHT] and [⊗ CLR] keys, push [POWER] to turn power ON.

- The function display shows as follows:

VERSION	VHF	UHF	1.2G
U.S.A.	146.01	440.00	1295.00
Asia	146.01	430.00	1295.00
Others	145.00	430.00	1295.00

(UNIT: MHz)

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

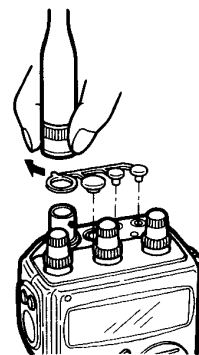


## • Connecting the antenna

Insert the supplied antenna into the antenna connector and rotate the antenna as shown in the diagram below.

**KEEP** the jack cover attached when jacks are not in use to avoid bad contacts.

**CAUTION:** Transmitting without an antenna may damage the transceiver.

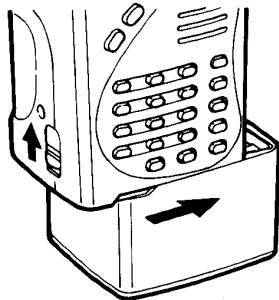


## • Battery pack removal

Push the battery pack release button upwards, then slide the battery pack to the right with the transceiver facing you.

To attach the battery pack, slide it until hearing a click.

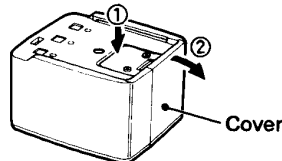
**NOTE:** Minimal current drain to the lithium backup battery and CPU will result in exhaustion of an attached battery pack or case during long periods of storage.



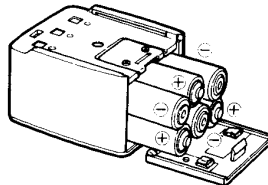
## • Battery case

Some versions come with the BP-100 BATTERY CASE for using the transceiver with dry cell or NiCd batteries.

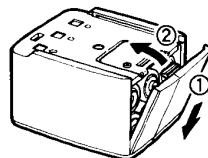
1. Push the end of the cover release plate, then, open the cover while pushing the cover downwards.



2. Install six AA (R6) type batteries. Be careful of the polarity of the batteries.



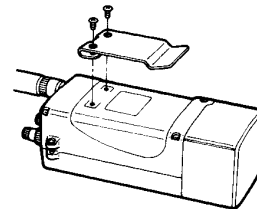
3. Attach the cover to the bottom of the case; then, push it in place.



## • Belt clip

The belt clip allows you to attach the transceiver to your belt.

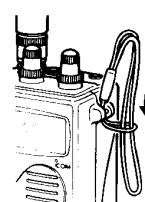
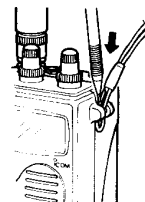
Remove the plastic screws and use the metal screws to attach the belt clip.



## • Handstrap

The handstrap is convenient for carrying the transceiver.

1. Insert the handstrap using a pointed instrument.
2. Put one end through the other end's loop, then, pull it to tighten.



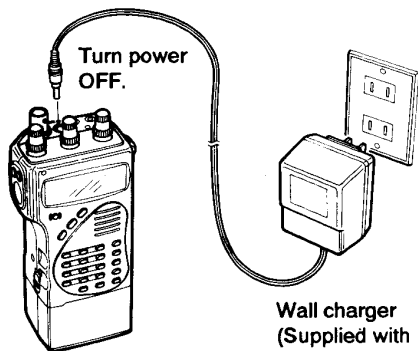
# BATTERY PACK CHARGING

## • Regular charging

Connect a wall charger to the [DC12.5V] jack.

**NEVER** charge the BP-100 with dry cell batteries.

to  
[DC12.5V]



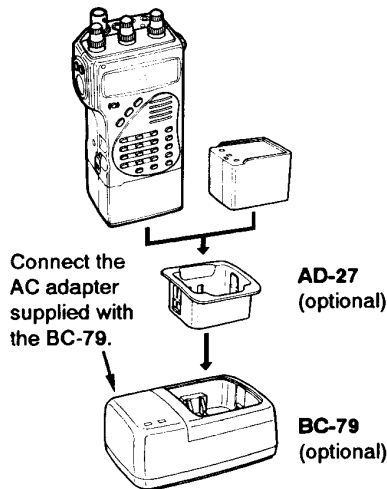
BP-101, BP-102 or  
NiCd batteries with  
BP-100

Wall charger  
(Supplied with  
the transceiver  
except for the  
Asia version.)

BATTERY PACK OR CASE	BP-101	BP-102	BP-100 (NiCd)
APPROX. CHARG- ING PERIOD	15 hrs.	15 hrs.	12-20 hrs.

## • Rapid charging with the optional BC-79

Insert the AD-27 BATTERY PACK ADAPTER into the BC-79 DESKTOP CHARGER. Then insert the BP-101~BP-103 into the charging slot of the BC-79.



Connect the  
AC adapter  
supplied with  
the BC-79.

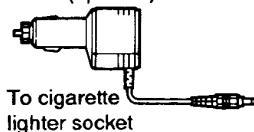
AD-27  
(optional)

BC-79  
(optional)

BATTERY PACK	BP-101	BP-102	BP-103
APPROX. CHARG- ING PERIOD	1 hr.	1.5 hrs.	1.5 hrs.

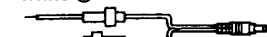
## • Charging with optional charger or cables

CP-13 (optional)



OPC-288 (optional)

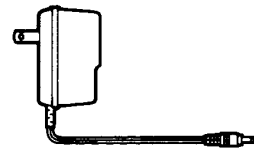
white ⊕



black ⊖

To 12-15 V DC  
power source

BC-77A/D/E/V



to  
[DC12.5V]



BP-101,  
BP-102 or  
NiCd batteries  
with BP-100

To charge the BP-103, see the right page.

**NEVER** connect the above charger or cable when dry cell batteries are used with the BP-100.

• Charging period: Approx. 12-20 hrs.

**Count on us!**

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