ICOM

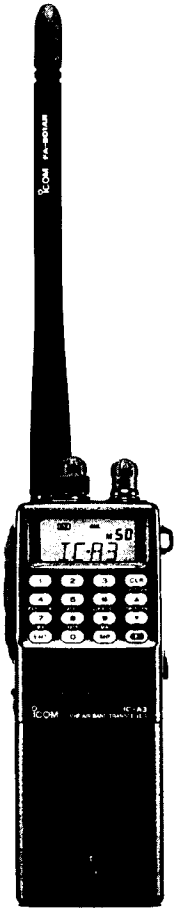
INSTRUCTION MANUAL

VHF AIR BAND TRANSCEIVER

IC-A3
IC-A3E

This device complies with Part 15 of the FCC Rules. Operation is subject to the condition that this device does not cause harmful interference.

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-A3 and IC-A3E.

EXPLICIT DEFINITIONS

WORD	DEFINITION
CAUTION	Equipment damage may occur.
NOTE	If disregarded, inconvenience only. No risk of personal injury, fire or electric shock.

CAUTIONS

12 V ONLY! NEVER connect the transceiver to a 24 V socket or to an AC outlet. More than 15 V DC will damage 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.

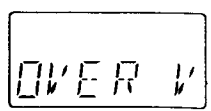
AVOID using or placing the transceiver in direct sunlight or in areas with temperatures below −10℃ (+14℉) or above +50℃ (+122℉).

AVOID overcharging. During external DC power operation, the connected Ni-Cd battery pack is charged.

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

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

UNPLUG the external DC plug immediately when "OVER V" is displayed as shown at right, indicating more than approx. 18 V DC is connected.



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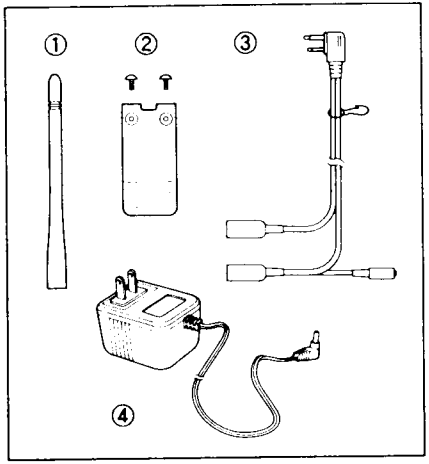
UNPACKING



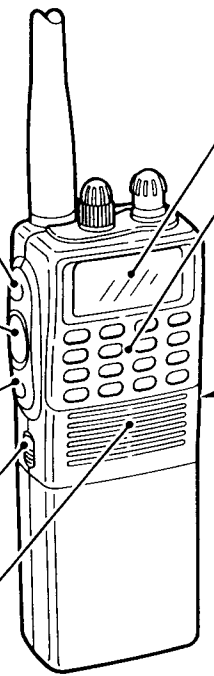
Included accessories: **Qty.**
- ① Antenna (FA-B01AR) 1
- ② Belt clip and screws ..... 1 set
- ③ Headset adapter cable (OPC-499)* 1
- ④ Wall charger* 1
- Ni-Cd battery pack (CM-166)* (attached to the transceiver) 1
- Charger adapter cable (OPC-507)* 1

* Not included with some versions.

ENGLISH

1 PANEL DESCRIPTION

■ Front and side panels



ANL SWITCH [ANL] (p. 11)
Activates the automatic noise limiter function.
- The function reduces pulse noise such as ignition noise.

PTT SWITCH [PTT] (p. 11)
Push and hold to transmit; release to receive.

LIGHT SWITCH [LIGHT] (p. 11)
Turns the display and keypad lighting ON and OFF.

BATTERY PACK RELEASE BUTTON
Opens the latch for battery pack removal when pushed upwards. (p. 7)

SPEAKER AND MICROPHONE

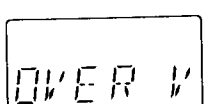
FUNCTION DISPLAY (p. 4)

KEYPAD (p. 3)

EXTERNAL DC POWER JACK [DC 12V] (p. 7)
Allows operation with a 12 V DC power source using the optional cables, CP-17L or OPC-515L.

NOTE: Operation with an external DC power source simultaneously charges the battery pack. This may cause battery overcharging and shorten the life of the battery pack.

CAUTION: When the following indication appears, unplug the connector from this jack. More than approx. 18 V DC has been connected, so the transceiver may need checking at a service center.

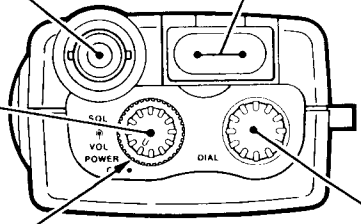


■ Top panel

ANTENNA CONNECTOR (p. 8)
Connects the supplied antenna.

VOLUME CONTROL [VOL] (p. 11)
Turns the power ON and OFF, and adjusts the audio level.

SQUELCH CONTROL [SQL] (p. 11)
Varies the squelch threshold point for noise mute.



EXTERNAL SPEAKER AND MICROPHONE JACKS [SP]/[MIC]
Connect a headset of the David Clark Co. via the OPC-499, if desired. The transmit voice can be monitored from the headset. The internal speaker will not function when connected. Note that previous headset adapters, the HS-61 and HS-20SB, cannot be used.

TUNING DIAL [DIAL]
- Sets an operating frequency, memory channel or weather channel.*
- Sets the 1 MHz digit after pushing [F] in frequency mode.

* Weather channel: U.S.A. version only.

■ Keypad

◇ Primary functions

KEY	FUNCTION
0 to 9	- Sets the desired frequency. (p. 9) - Selects the desired character for memory channel comments while programming a memory channel. (p. 13)
CLR	- Clears the input digit before entry. (p. 9) - Exits the memory channel or weather* channel. (p. 18)
UP SCAN ▲ DN SCAN ▼	- Changes the frequency or memory channel when pushed. (pgs. 9, 12) - Changes the frequency or memory channel continuously when pushed and held. (pgs. 9, 12)
WX ENT	Enters numeral input. Enters "0" into the remaining digits. (p. 9)
MW MR	- Selects memory mode. (p. 12) - Changes between the memory channel comments and frequency display. (p. 12)
F	Activates the secondary functions of keys and the tuning dial. See the right table for details. The function is automatically cancelled after 3 sec.

◇ Secondary functions

KEY	FUNCTION AFTER PUSHING [F]
KEY LOCK 7	Turns the lock function ON and OFF after pushing [F]. (p. 10)
BEEP 8	Turns the beep tone ON and OFF after pushing [F]. (p. 11)
LOCK OUT 9	Sets the displayed memory or weather* channel as a lockout channel after pushing [F]. (p. 16)
121.5 0	Selects the 121.5 MHz emergency frequency after pushing [F]. (p. 9)
WX ENT	Selects a weather channel* after pushing [F]. (p. 10)
MW MR	- Programs a memory channel in frequency mode. (p. 13) - Transfers a memory channel's contents in memory mode. (p. 12)
UP SCAN ▲ DN SCAN ▼	Starts the full scan, memory scan or weather channel* scan. (p. 15)
CLR	Clears a memory channel's contents when pushed and held after pushing [F]. (p. 14)

* Weather channel: U.S.A. version only.

■ Function display

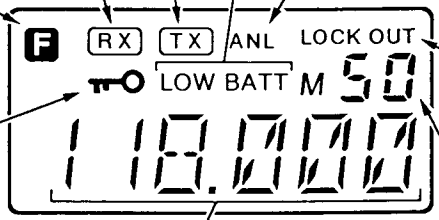
TRANSMIT INDICATOR (p. 11)
Appears while transmitting.

RECEIVE INDICATOR (p. 11)
Appears while receiving or when the squelch opens.

FUNCTION INDICATOR
Appears when the [F] switch is pushed. When no switch is pushed for 3 sec., the indicator disappears.

LOCK INDICATOR (p. 10)
Appears while the lock function is in use.

FREQUENCY READOUT
Shows the operating frequency or comments of a memory channel.
- The decimal point flashes while scanning.



LOW BATTERY INDICATOR (p. 5)
Appears when the battery voltage drops to 10 V DC or below. The attached battery pack requires recharging or the alkaline batteries need replacing.

ANL INDICATOR (p. 11)
Appears while the ANL (Automatic Noise Limiter) function is in use.

LOCKOUT INDICATOR (p. 16)
Appears when the selected memory channel is set as a lockout channel.

MEMORY CHANNEL READOUT (p. 12)
Shows the selected memory channel number.
- Only "M" appears when the 121.5 MHz emergency frequency is selected.

2 PRE-OPERATION

■ Battery pack charging

Charge the battery pack before first operating the transceiver and when the low battery indicator appears.

■ Battery pack precautions

NEVER throw a battery pack into a fire.

NEVER expose the battery pack to water.

NEVER short the metal terminals of a battery pack.

DO NOT attempt to charge a fully charged battery pack.

DO NOT discharge a battery pack completely.

AVOID overcharging. Disconnect the wall charger or power cable within 48 hrs.

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

■ About the battery pack

◇ Operating periods

Operating period of the CM-166 (12 V, 600 mA) is approx. 5 hours.

CONDITION: 5% Tx / 5% Rx / 90% Standby (squelched). Operating period is estimated values and vary depending on output power, temperature, etc.

◇ Battery memory effect

Full charge capacity may become lower when repeatedly recharging after only partial discharging. If this occurs, discharge almost completely through normal use before recharging.

◇ Battery pack life

When the operating period becomes extremely short even after charging the battery pack fully, a new battery pack is needed.

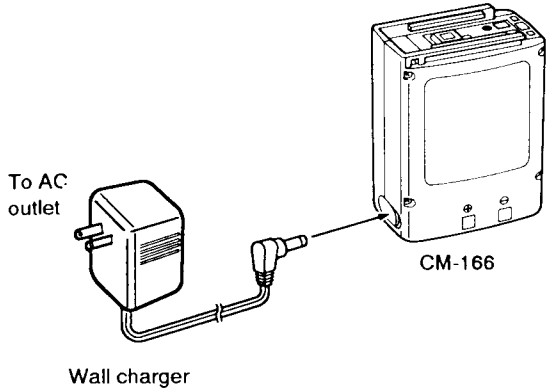
◇ Recycling information (U.S.A. only)

The product that you have purchased contains a rechargeable battery. The battery is recyclable. At the end of its useful life, under various state and local laws, it may be illegal to dispose of this battery into the municipal waste stream. Call *1-800-8-BATTERY* for battery recycling options in your area or contact your dealer.

■ Charging connections

◇ Regular charging without transceiver

Connect the wall charger to the charger jack on the side panel of the CM-166. Some versions require an adapter cable for connection.

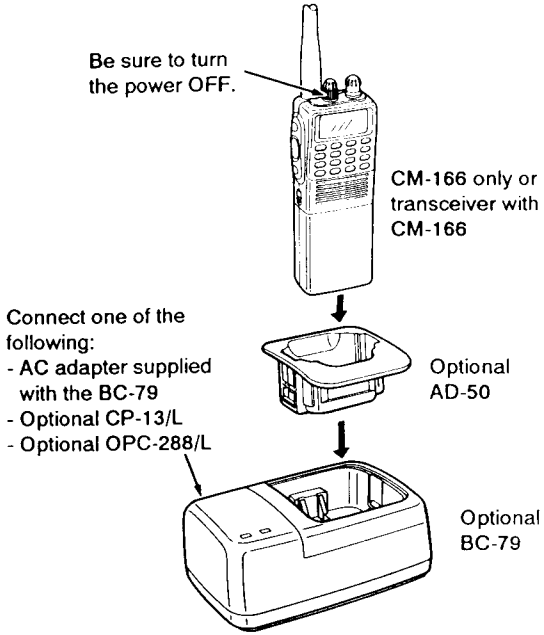


Approx. charging period: 15 hrs.

While connecting the wall charger, **DO NOT** connect any cable to the transceiver's [DC 12V] jack.

◇ Rapid charging with the optional BC-79

① Insert the optional AD-50 DESKTOP CHARGER ADAPTER into the charging slot of the BC-79 DESKTOP CHARGER.
② Firmly insert a battery pack into the AD-50.

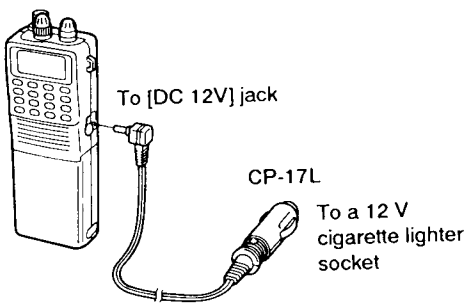


Approx. charging period: 1.5 hrs.

■ External power source connection

An optional CP-17L CIGARETTE LIGHTER CABLE is available to operate the IC-A3 with a 12 V cigarette lighter socket.

The attached Ni-Cd battery pack is charged in approx. 15 hrs. simultaneously. While connecting an external power source, **DO NOT** connect the wall charger to the CM-166.



The OPC-515L DC POWER CABLE with a 12 V DC power supply can be used instead of the CP-17L.

■ Alkaline battery installation

An optional CM-167 BATTERY CASE is available. Install ten alkaline batteries as follows.

① Push and hold the battery release button upwards, then slide the battery case to the right with the transceiver facing you. (Fig. 1)
② Open the battery case. (Fig. 2)
③ Install 10 alkaline batteries. (Fig. 3)
- Pay attention to the polarities.

Fig. 1

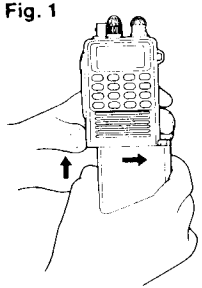


Fig. 2

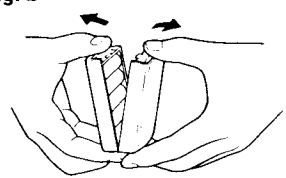
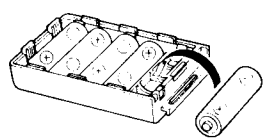


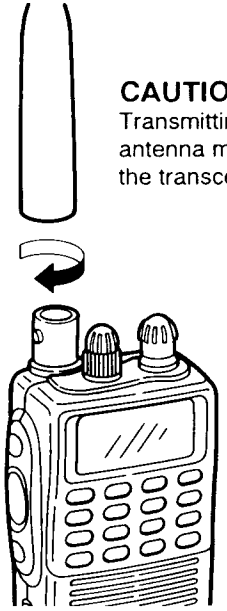
Fig. 3



■ Accessory attachment

◇ Antenna

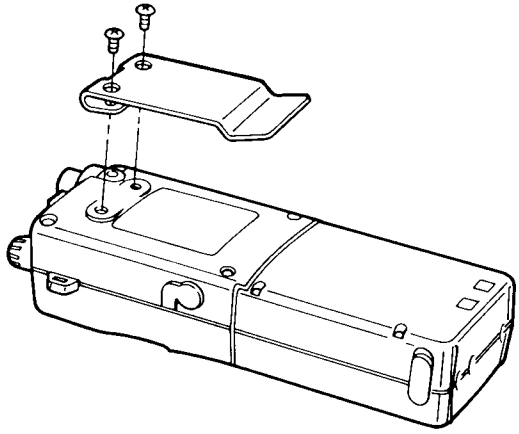
Connect the supplied flexible antenna into the antenna connector and rotate clockwise.



CAUTION:
Transmitting without the antenna may damage the transceiver.

◇ Belt clip

Remove the plastic screws, then attach the belt clip with the supplied metal screws. Conveniently attaches to your belt.

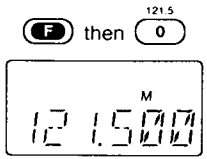


3 BASIC OPERATION

■ Accessing the 121.5 MHz emergency frequency

The IC-A3 can quickly access the 121.50 MHz emergency frequency. This function can be activated even when the keypad lock function is in use. (p. 10)

① Rotate [VOL] to turn power ON.
② Push [F] on the keypad.
  • " F " appears.
③ Push [ⓞ 121.5] to call the emergency frequency.
④ Push [CLR] to exit from the emergency frequency.

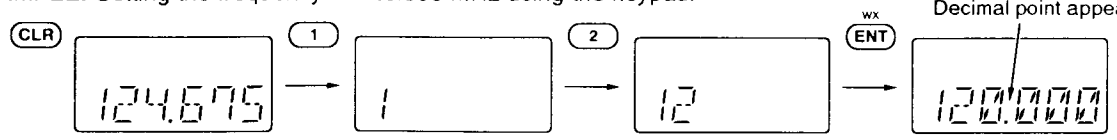


■ Setting a frequency

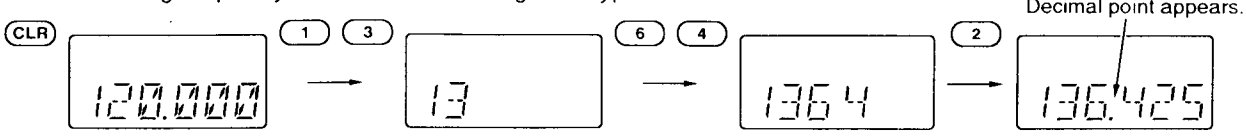
◇ Using the keypad

① Rotate [VOL] to turn power ON.
② Push [CLR] to select frequency mode when "M" or "WX" appears in the function display.
③ Push 5 appropriate digit keys to input the frequency.
  • Enter [1] as the 1st digit.
  • When a digit is mistakenly input, push [CLR] to clear the input, then start again.
  • Push [ENT] to enter consecutive zero digits.
  • Only [2], [5], [7] or [0] can be entered as the 5th and final digit.
④ To change the frequency according to the tuning step (25 kHz step), push [▲] or [▼].
  • Push and hold [▲] or [▼] to change the frequency quickly.

EXAMPLE: Setting the frequency to 120.000 MHz using the keypad.

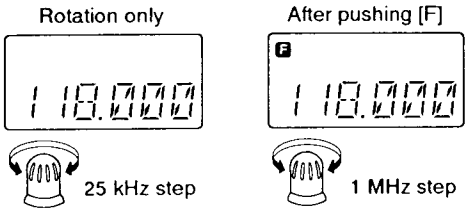


EXAMPLE: Setting frequency to 136.425 MHz using the keypad.



◇ Using the tuning dial

① Rotate [VOL] to turn power ON.
② Push [CLR] to select frequency mode.
③ Rotate the tuning dial to set the desired frequency.
④ To select the 1 MHz tuning step, push [F] then rotate the tuning dial.

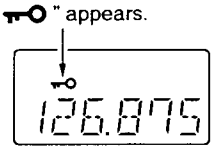


NOTE: The selected frequency may take up to 2 sec. to be backed up after they are set. Wait 2 sec. before turning power OFF.

■ Lock function

The lock function prevents accidental frequency changes and accidental function activation.

① Push [F] then push [⑦KEY LOCK] to turn the function ON.
② To turn the function OFF, repeat step ① above.
• " 🔑 " disappears.

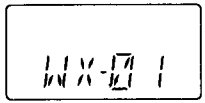


■ Selecting a weather channel

(U.S.A. version only)

The U.S.A. version has VHF marine weather channel receiving capability for flight planning.

① Push [F] on the keypad.
• " F " appears.
② Push [ENT•WX] to select weather channel mode.
• "WX-" and previously selected channel number appears.
③ Rotate the tuning dial to set the desired channel.
• The [▲] or [▼] key can be used.
• To select weather channels 1–9 directly, push [1]–[9] then [ENT], or push [0] then [1]–[9].
• To select weather channel 10 directly, push [1] then [0].
④ Push [CLR] or [MR] to exit weather channel mode and return to frequency or memory mode.



■ Receiving

① Rotate [SQL] maximum clockwise.
② Rotate [VOL] to turn power ON and adjust the audio level.
③ Rotate [SQL] counterclockwise until noise is muted.
- " [RX] " disappears.

④ Set the desired frequency using the tuning dial or keypad. (pgs. 9, 10)
- Push [LIGHT] to turn the display and keypad lighting ON, if desired.

⑤ Push [ANL] to reduce pulse noise such caused by engine ignition systems, if necessary.
- "ANL" appears.

⑥ When a signal is received on the set frequency:
- The receive indicator appears.
- Squelch opens and audio is emitted from the speaker.

When the [SQL] control is set too "tight" (extremely counterclockwise), squelch may not open for weak signals. To receive weak signals, set the squelch to a "loose" (more clockwise) position.

◇ Beep tone on/off

The beep tone which sounds each times a switch is pushed can be turned ON or OFF, as desired.

- Push [F] then [⑧ BEEP] to turn the beep tone ON or OFF.

■ Transmitting

CAUTION: Transmitting without an antenna may damage the transceiver.

NOTE: To prevent interference, listen on the frequency before transmitting. If the frequency is busy, wait until the channel is clear.

① Set the desired frequency using the tuning dial or keypad. (pgs. 9, 10)
② Push and hold [PTT] to transmit.
- " [TX] " appears.

③ Speak into the microphone at a normal voice level.
- **DO NOT** hold the transceiver too close to your mouth or speak too loudly. This may distort the signal.

④ Release [PTT] to return to receive.

■ Side tone function

When using an optional headset from the David Clark Co. via the OPC-499, the transceiver outputs your transmitted voice to the headset for monitoring.

■ Memory channel selection

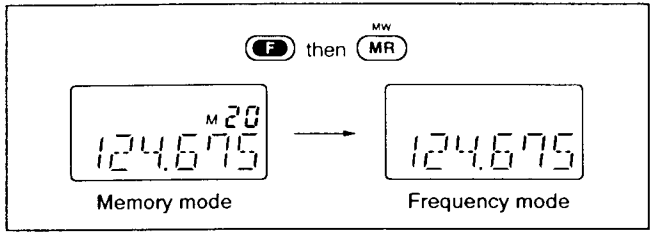
The transceiver has 50 memory channels for storage of often-used frequencies along with 6-character notes.

① Push [MR] to select memory mode.
② Select the desired memory channel.
Using the tuning dial:
Rotate the tuning dial to select the desired memory channel.
• Only programmed memory channels appear.
Using the keypad:
Push 2 appropriate digit keys (01–50) to select the desired memory channel.
• To select memory channels 1–9, push [1]–[9] then [ENT]; or, push [0] then [1]–[9].
Using the ▲/▼ keys:
Push [▲] or [▼] to change the memory channel.
• Pushing [▲] or [▼] changes the memory channel continuously.
③ When a comment appears, push [MR] to display the programmed frequency, if desired.
④ To return to frequency mode, push [CLR].

Comments appear first when programmed, however, the transceiver can be programmed to show the operating frequency first by your dealer. Push [MR] to display the comment in this case.

■ Transferring memory contents

This function transfers a memory channel's contents into the frequency mode. This is useful when searching for signals around a memory channel's frequency.



① Push [MR] to select memory mode.
• "M" appears.
② Select the desired memory channel to be transferred using the tuning dial or keypad.
③ Push [F] then [MR•MW].
• "M" disappears as frequency mode is automatically selected and the memory contents are transferred.

■ Programming a memory channel

You can program the following data into each memory channel separately.

- Operating frequency (pgs. 9, 10)
- 6 digit comment (p. 13)
- Lockout information (p. 16)

① Set the desired frequency in frequency mode:
- Push [CLR] to select frequency mode; or, push [F] then [ENT•WX] to select a weather channel.*
- Set the desired frequency or weather channel* using the tuning dial or keypad.

② Push [F] then [MR•MW].
- "M" blinks.

③ Select the memory channel (01–50) to be programmed using the tuning dial or keypad.

④ Push [MR] to enter the frequency and to write a comment; push [ENT] to program the frequency and to skip writing a comment.
- Push [ENT] to program a weather channel.* A comment cannot be programmed with a weather channel.
- Push [CLR] to cancel programming.

⑤ Set a desired comment as described at right.

⑥ Push [ENT] to program.

* Weather channel: U.S.A. version only.

■ Programming a comment

The memory channel can display a 6-character comment as well as a frequency.

① Set the desired frequency in frequency mode.
② Push [F] then [MR•MW].
③ Select the memory channel to be programmed.
④ Push [MR] to enter the frequency.
⑤ Push the appropriate digit key several times to select the desired character as listed below.

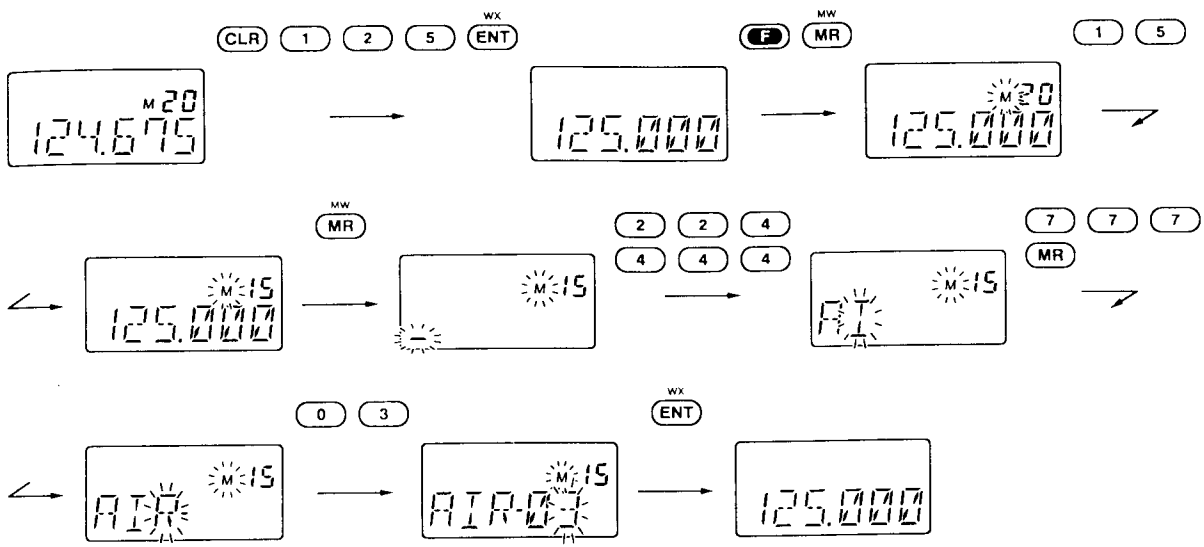
Key	Character	Key	Character	Key	Character
(1)	1, Q, Z	(2)	2, A, B, C	(3)	3, D, E, F
(4)	4, G, H, I	(5)	5, J, K, L	(6)	6, M, N, O
(7)	7, P, R, S	(8)	8, T, U, V	(9)	9, W, X, Y
(ENT)	Program	(0)	0, Space	(MR)	Hyphen*1

*1 Hyphen is selectable between the 3rd and 4th digits only.

⑥ Push [ENT] to program.

PROGRAMMING NOTES
- Pushing [▲] or [▼] moves the cursor.
- To input characters in the same group, use [▲] to move the cursor.
- To clear the entered comment, push [CLR] before pushing [ENT].

EXAMPLE: Programming 125.000 MHz into memory channel 15 with "AIR-03" as a comment.



■ Clearing memory contents

Unwanted memory channels can be cleared. Programming over a memory channel also clears the previously programmed contents. Memory channel 1 cannot be cleared.

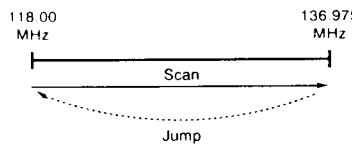
① Select a memory channel to be cleared.
② Push [F] then push and hold [CLR] for 1 sec.
- "– – – – – –" appears momentarily, then the next selectable memory channel appears.

5 SCAN OPERATION

■ Scan types

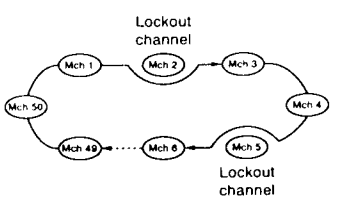
The U.S.A. version has 3 scan types to suit your needs. The non-U.S.A. versions have 2 scan types.

FULL SCAN (p. 15)



Repeatedly scans all frequencies over the entire band.

MEMORY SCAN (p. 15)



Repeatedly scans memory channels except lockout channels. Used for checking often-used channels and bypassing usually busy channels such as control-tower frequencies.

WEATHER CHANNEL SCAN (p. 16)

Repeatedly scans all weather channels except lockout channels. Weather channels are available for the U.S.A. version only.

■ Full scan

① Push [CLR] to select frequency mode.
② Set [SQL] to the point where noise is just muted.
③ Push [F] then [▲•UP SCAN] or [▼•DN SCAN] to sta the scan.
- When a signal is received, the scan pauses until it disa pears. To resume the scan, rotate the tuning dial or push t [▲] or [▼] key.
- To change the scanning direction, rotate the tuning dial push the [▲] or [▼] key.

④ To stop the scan, push [CLR].

■ Memory scan

① Push [MR] to select memory mode.
② Set [SQL] to the point where noise is just muted.
③ Push [F] then [▲•UP SCAN] or [▼•DN SCAN] to sta the scan.
- When a signal is received, the scan pauses until it disa pears. To resume the scan, rotate the tuning dial or push t [▲] or [▼] key.
- To change the scanning direction, rotate the tuning dial push the [▲] or [▼] key.

④ To stop the scan, push [CLR].

■ Weather channel scan

(U.S.A. version only)

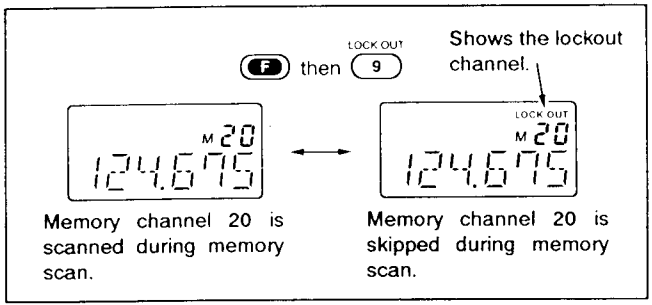
① Push [F] then [ENT•WX] to select a weather channel.
② Set [SQL] to the point where noise is just muted.
③ Push [F] then [▲•UP SCAN] or [▼•DN SCAN] to start the scan.
- When a signal is received, the scan pauses until it disappears. To resume the scan, rotate the tuning dial or push the [▲] or [▼] key.
- To change the scanning direction, rotate the tuning dial or push the [▲] or [▼] key.

④ To stop the scan, push [CLR].

NOTE: A paused frequency or channel is not backed up automatically. Push [CLR] to stop the scan then wait 2 sec. before turning power OFF, otherwise, the previous frequency or channel appears when turning power ON again.

■ Lockout channels

Memory and weather* channels can be specified to be skipped for the memory and weather* channel scans, respectively. The lockout channel function is only available during scan operation.



① Push [MR] to select memory mode; or, push [F] then [ENT•WX] to select a weather channel.*
② Select the desired channel to be locked out.
③ Push [F] then [⑨LOCK OUT].
- "LOCK OUT" appears.
- Lockout channels are skipped during scan.

④ To cancel the lockout setting, repeat above steps.

* Weather channel: U.S.A. version only.

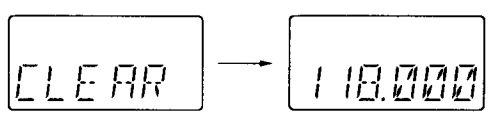
6 TROUBLESHOOTING

PROBLEM	POSSIBLE CAUSE	SOLUTION	REF.
• No power comes on.	• The battery is exhausted. • Poor plug connection to the external DC power cable.	• Charge the battery pack or place new alkaline batteries in the battery case. • Check the connector or remove and replace the cable.	pgs. 6, 7 –
• No sound comes from the speaker.	• [SQL] is turned too far counterclockwise. • A optional cable or headset is connected.	• Rotate [SQL] clockwise. • Unplug the cable or headset.	p. 11 –
• Frequency cannot be set.	• The lock function is activated. • The emergency frequency is selected.	• Push [F] then [⑦KEY LOCK] to deactivate the lock function. • Push [CLR] to select frequency mode.	p. 10 p. 9
• Scan cannot be activated.	• The squelch is open. • The lock function is activated.	• Rotate [SQL] counterclockwise until noise disappears. • Push [F] then [⑦KEY LOCK] to deactivate the lock function.	p. 15 p. 10
• Frequency is not displayed.	• The memory channel comments are displayed.	• Push [MR] to toggle between a comment and frequency.	p. 12
• Transmitting is impossible.	• Weather channel is selected. (U.S.A. only)	• Push [CLR] to select frequency mode.	p. 10

◇ Resetting the CPU

CAUTION: Resetting the CPU clears and initializes all programmed contents such as memory contents, lockout channel settings, etc.

- While pushing [F], [0] and [ENT], turn power ON to reset the CPU.
  - "CLEAR" appears momentarily, the default frequency appears and the transceiver's CPU is reset.

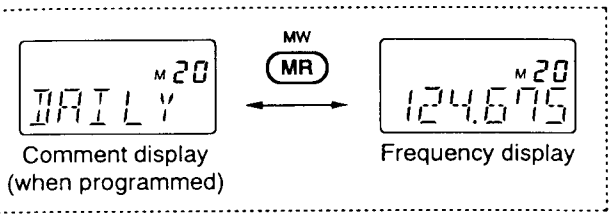


"CLEAR" appears momentarily.

The default frequency appears.

MODE ARRANGEMENT CHART

MEMORY MODE (p. 12)
Used for operating the transceiver using memory channel contents. 50 memory channels are available for programming.

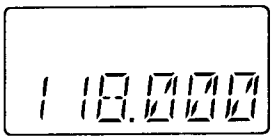


Comment display (when programmed)

Frequency display

CLR

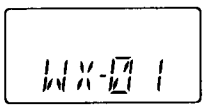
MW
MR



FREQUENCY MODE (p. 9)
Used for frequency setting and normal operations over the entire band.

F then WX ENT

CLR

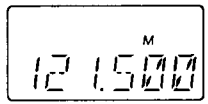


WEATHER CHANNEL (p. 10)
Used for receiving weather channels. Available for the U.S.A. version only.

F then 121.5 0

CLR

EMERGENCY FREQUENCY (p. 9)



Used for operating on the 121.5 MHz emergency frequency. Can be accessed even when the lock function is in use.

8 SPECIFICATIONS

■ GENERAL

- Frequency coverage :
  - Transmit/receive: 118.000–136.975 MHz
  - Receive: Weather channels 01–10*1
- Mode :
  - Transmit/receive: AM (6K00A3E)
  - Receive: FM (16K0G3E)*1
- Tuning step increment : 25 kHz
- Antenna impedance : 50 Ω (nominal)
- Power supply requirement : 12–15 V DC (negative ground)
- Current drain (at 12 V DC, typical):
  - Transmit: 1.0 A
  - Receive, Rated audio: 240 mA
  - Receive, Squelched: 55 mA
- Usable temperature range : −10 °C to +50 °C; +14 °F to +122 °F
- Frequency stability : ± 20 ppm (−10 °C to +50 °C)
- Dimensions (projections not included) : 57(W) × 153(H) × 35(D) mm; 2 1/4(W) × 6 1/32(H) × 1 3/8(D) in
- Weight (with CM-166 and antenna) : 465 g; 16.4 oz

■ TRANSMITTER

- Output power*2 (at 12 V DC, typical) : 5.0 W (PEP power); 1.5 W (Carrier power)
- Modulation system : Low level modulation
- Spurious emissions*2 : Less than −60 dB
- External microphone impedance : 150 Ω

■ RECEIVER

- Receive system : Double-conversion superheterodyne
- Intermediate frequencies : 1st 35.8 MHz; 2nd 455 kHz
- Sensitivity*2 (for 6 dB S/N with 1 kHz, 30% modulation) : Less than 1.0 μV
- Squelch sensitivity (at threshold) : Less than 1.0 μV
- Selectivity : More than 8 kHz/−6 dB; Less than 25 kHz/−60 dB
- Spurious response rejection ratio*2 : More than 60 dB
- Noise and hum : More than 25 dB
- Audio output power*2 (at 12 V DC) : More than 0.6 W at 10% distortion with the 8 Ω load.
- Audio output impedance : 8 Ω

*1 Weather channels and FM mode: U.S.A. version only.
*2 Specifications guaranteed at a transceiver temperature of +25 °C (+77 °F).

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

BM-112U/E WALL CHARGER
(U.S.A./Europe version)
Regularly charges the CM-166 in approx. 15 hrs.

BM-95V WALL CHARGER + **OPC-507** JACK ADAPTER (Australia version)
Regularly charges the CM-166 in approx. 15 hrs.

CM-166 BATTERY PACK
12 V 600 mAh Ni-Cd rechargeable battery pack for approx. 5 hours operation.* Same as supplied with non-U.K. versions.
*5% Tx/5% Rx/90% Squelched

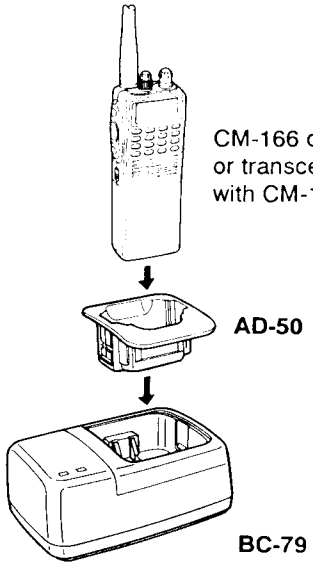
CM-167 BATTERY CASE
Battery case for R6 (AA) size alkaline batteries × 10.

LC-122 CARRYING CASE
Fits the transceiver with the supplied CM-166.

OPC-499 HEADSET ADAPTER CABLE
Allows you to connect a headset from the David Clark Co. Provides the side tone function.

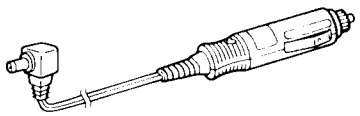
OPC-515L DC POWER CABLE
For operation and charging with a 12–15 V DC power supply.

BC-79 DESKTOP CHARGER +
AD-50 DESKTOP CHARGER ADAPTER



Rapidly charges the CM-166 in approx. 1.5 hrs. An AC adapter is packed with the BC-79. An optional CP-13/L or OPC-288/L can be used instead of the supplied AC adapter.

CP-17L CIGARETTE LIGHTER CABLE



For operation and charging with a 12 V cigarette lighter socket.