

*Broksonic*<sup>®</sup>

MODEL **CIRT-2097T**

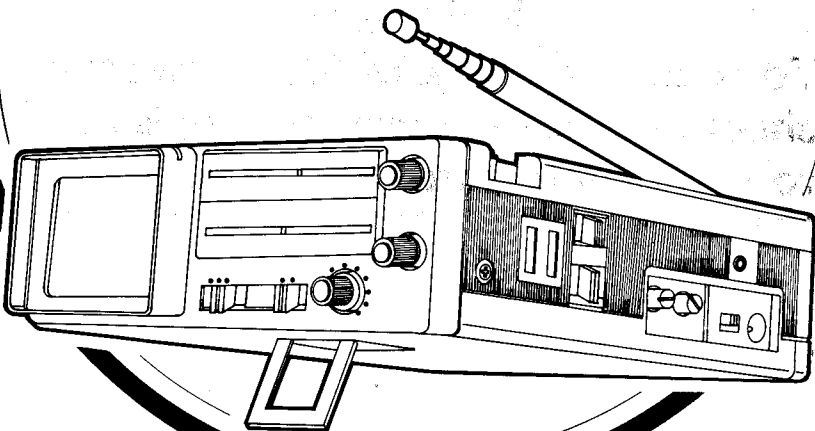
**INSTRUCTION MANUAL**

**FOR**

**PORTABLE TV**

**UHF / VHF WITH**

**MW / FM / SW RADIO**



SERIAL NO. \_\_\_\_\_

For future reference, record here the serial number located on the rear of the unit.

## IMPORTANT PRECAUTIONS

- Read the instructions in this Owner's Manual for proper use of your set.
- Ventilation slits in the sides and bottom of the unit must not be blocked or covered.
- To prevent shock, do not use this unit in a bathroom, on a kitchen sink or other wet and moist places when operating on AC current.
- Do not let the unit stand in direct sunlight, extreme heat (above 60°C), cars parked in the summer sun, or in humid locations.
- The unit may not operate if moved quickly from an extremely cold (less than 0°C) location to a hot one (for example, from outdoors to indoors during winter). Wait 30 minutes before using the unit.
- Use a soft, lint-free cloth dampened in a weak solution of a mild detergent and water to clean the cabinet.

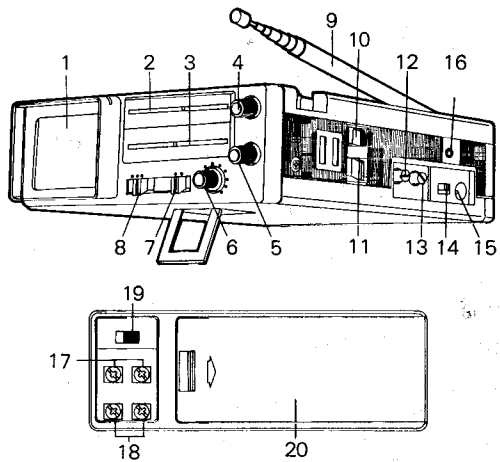
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## WARNING

**To reduce the risk of fire or electric shock, do not expose this appliance to rain or moisture.**

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1. TV Screen
2. Radio Dial Window
3. TV Dial Window
4. Radio Tuning Control
5. TV Tuning Control
6. Power ON/OFF Switch & Volume Control
7. TV/Radio Selector
8. TV Channel Selector
9. Telescopic Rod Antenna
10. Radio Band Selector
11. Universal Selector
12. Contrast Control
13. Bright Control
14. Normal/Charge Selector
15. DC9V Jack
16. Earphone Jack
17. UHF Antenna Terminals
18. VHF Antenna Terminals
19. Rod/External Antenna Selector
20. Battery Compartment (recommend only Alkaline Batteries.)



## POWER SUPPLY — 4 DIFFERENT SOURCES

This set operates from four different power sources; 6 AA-Cell batteries (not included); car battery (12V) (Adaptor Optional); optional rechargeable battery pack, or AC adaptor for use on house current.

Note: The CHARGE-NORMAL switch (14) must be in NORMAL position when operating from any of the power sources. The CHARGE position is used only when charging the nickel-cadmium battery in the optional rechargeable battery pack.

## STANDARD AC OPERATION

Use the optional AC ADAPTOR. Connect the end of the cord with the male connector to the DC 9V Jack (15) on the unit; plug in the other end to any standard AC outlet (house current).

Note: Connecting to the DC 9V Jack on the unit automatically disconnects any other power supply.

## AA-CELL BATTERY OPERATION

The battery compartment (20) is located at the back of the unit. Open the compartment by sliding the cover off to the direction of the arrows. Insert 6 AA-Cell batteries, positioning them in accordance with the diagram provided in the compartment. Incorrect positioning as to plus and minus polarity may damage the unit. Replace compartment cover.

Note: To operate the unit on batteries, the AC Adaptor cord must be removed from DC 9V Jack on the unit.

(ALKALINE BATTERIES ARE SUGGESTED.)

## CAR BATTERY OPERATION (12V DC)

Use the optional Car Power Cord — Model CA-930 only (do not use any other Car Cord Adaptor). You may operate this set from the cigarette lighter socket in any car that utilizes a negative ground system. Connect the male end of the cord to the DC 9V jack (15) on the unit and the cigarette-lighter plug on the other end into the car cigarette-lighter socket.

Note: To operate the unit from car the AC ADAPTOR must be removed from the DC 9V Jack on the unit.

## RECHARGEABLE BATTERY PACK OPERATION

The optional battery pack consists of rechargeable nickel-cadmium battery (OB-0004).

To Use: Slide off the battery compartment cover (as in AA-Cell operation) and insert the battery pack. Be sure to plug the pin connector of

the battery pack into the 2-pin socket located in the compartment.  
Replace compartment cover.

**To RECHARGE:** It is recommended that the battery pack be recharged before its first use to restore any charge lost during shipment. Connect the AC ADAPTOR (as in AC operation) and change the CHARGE-NORMAL switch to CHARGE. The unit must not be operated during charging.

**IMPORTANT:** Never let the nickel-cadmium battery discharge completely. If the light is very weak, or out, recharge the battery pack for twelve to sixteen hours. A shrinking of the picture on the TV screen also indicates the batteries need recharging.

**CAUTION:** Be sure to set the Power ON/OFF Switch (6) to ON when you charge the Rechargeable Battery Pack.

**VERY IMPORTANT**

**CHARGE/NORMAL SELECTOR SWITCH (14)**

Be sure to set the Switch (14) to NORMAL position for TV or Radio operation. Otherwise the unit will not work.

**ANTENNAS**

This set is equipped with three different sources of antenna reception; the telescopic, monopole antenna; a built-in ferrite bar antenna; and external terminals for both VHF and UHF reception in fringe areas.

The following "TABLE OF RECEPTION" is a guide to the optimum use of the antennas.

**ANTENNA**

Check the following table for the antenna providing the best reception.

Broadcasting		Reception in normal strength signal areas		
		ANT. switch setting	Rod Ant.	To best reception
Radio	FM	Rod Ant.	effective	Extend the rod ant. fully and turn for best reception
	SW	either	not effective	Turn the set for best built-in ferrite ant. reception.
	MW	either	not effective	Turn the set for best built-in ferrite ant. reception
TV	VHF	Rod Ant.	effective	Extend the rod ant. fully and turn for best reception.
	UHF	Rod Ant.	effective	Extend the rod ant. fully and turn for best reception.

Note 1: With VHF reception, the length of the rod antenna is generally the best at complete extension on channels 2 to 6, shorten for channels 7 to 13.

Note 2: When connecting an outdoor VHF antenna to the VHF external terminals, do not connect an outdoor FM antenna to these terminals as it will interfere with TV reception. Usually, the use of an outdoor FM antenna is not required.

## TV OPERATION

Select a power source (as previously described) and refer to the Table of Reception.

1. To turn on the Power, rotate the Volume/Power Switch (6) Knob clockwise until the knob clicks.
2. Slide the TV/Radio Selector (7) to the TV position.
3. Select the Universal Switch (11) to the correct system (refer to the following "HOW TO USE UNIVERSAL SWITCH")
4. Select the desired channel by sliding the TV Channel Selector (8) - VHF L, VHFH or UHF
5. Tune slowly to the desired station by TV Tuning (5).
6. To obtain the best picture, adjust the Bright (13) and Contrast (12) Controls.
7. To obtain the desired sound level, adjust the Volume Control (6).

## OPTIONAL SUN HOOD WITH MAGNIFIER

The optional Sun Hood with Magnifier makes it easy to watch TV screen. Just slide the hood from left to right.

## "HOW TO USE UNIVERSAL SWITCH"

You can easily carry this unit everywhere throughout the world and watch TV by sliding the Universal Switch (11) to the area system position as follows:-

- i) In the area of the American Standard System slide the Universal Switch to the US position (this covers all of United States and some other areas).
- ii) In the area of the United Kingdom Standard System slide the Universal Switch to the UK position.
- iii) In the area of the EC Standard System slide the Universal Switch to the EC position.

## POSSIBLE TV RECEPTION PROBLEMS

1. If the image is weak and shows "snow", reception of the signal may be weak. This can be caused by your location - buildings made with a large

amount of steel can cause reception problems. Try changing the position and length of the antenna. If this does not help, use an outdoor antenna, especially if you are located far from the TV station.

2. "Snow", along with "tear" or "roll" can often be due to improper tuning (see "Note" in TV OPERATION, above).

This can also be due to a very weak signal.

**Warning:** Do not attempt to adjust through the three openings on the bottom of the set. These adjustments should be made only by a professional service technician.

## RADIO OPERATION

Select power source (as previously described) and refer to the Table of Reception.

1. To turn on the Power, rotate the Volume/Power Switch (6) Knob clockwise until the Knob clicks.
2. Slide the TV/Band (7) Selector to the BAND position.
3. Select the desired waveband by sliding the Radio Band Selector (10).
4. Tune slowly to the desired station by the Radio Tuning Control (4).
5. To obtain the desired sound, adjust the Volume Control (6).

## EARPHONE

Insert earphone plug into earphone jack (16) for private listening. The internal speaker of the unit will be automatically disconnected. Use of an earphone will prolong the battery life since an earphone consumes less power than a speaker.

## List of countries on each system

Switch Setting	Countries
US	U.S.A., Canada, Mexico, Brazil, Cuba, Venezuela, Peru, Panama, Chile, Nicaragua, Equador, El Salvador, Guatemala, Dominica, Philippines, Taiwan, Korea, etc.
UK	England, Hong Kong and South Africa.
EC	Austria, Netherlands, Italy, Switzerland, Sweden, Spain, Denmark, West Germany, East Germany, Norway, Finland, Portugal, Israel, Iran, Cyprus, etc.

# SPECIFICATIONS

## TV Section:

System:	American Standard System West European Standard System UK Standard System
Picture Tube:	2 inch, Picture measured diagonally 40 degree deflection
Receiving Channel:	America: VHF: 2 - 13, UHF: 14 - 83 channels Europe: VHF: 2 - 12, UHF: 21 - 69 channels UK: - UHF: 21 - 69 channels
Intermediate Frequency:	Picture: 38.9 MHz Sound: America: 34.4 MHz, Europe: 33.4 MHz, UK: 32.9 MHz
Maximum Sensitivity:	VHF: Low Band: 20 $\mu$ V, High Band: 25 $\mu$ V UHF: 30 $\mu$ V
Tuner:	Contactless Electronic Tuner
Antenna:	VHF/UHF: Telescopic Rod Antenna and Balance 300 ohm External Antenna Terminal

## Radio Section:

Frequency Range:	MW: 535 - 1605 KHz, SW: 3.2 - 9.7 MHz FM: 88 - 108 MHz
Intermediate Frequency:	MW/SW: 455 KHz, FM: 10.7 MHz
Maximum Sensitivity:	MW: 250 $\mu$ V/m, SW: 100 $\mu$ V/m, FM: 10 $\mu$ V
Antenna:	MW/SW: Ferrite Core Bar Antenna FM: Telescopic Rod Antenna and Balance 300 ohm External Antenna Terminals

## Common:

Power Source:	DC: 9V ("AA" Cell x 6) AC Adaptor Car Cord (DC-DC Converter): Model CA-930 (Maker: DC-Pack) Rechargeable Battery: Model No. OB-0004
Output Power:	150mW
Output Impedance:	16 ohm
Frequency Response:	250 - 6000 Hz
Total Harmonic Distortion:	3%
Semiconductors:	Transistors: RADIO 2 TV 15 Diodes: RADIO 5 TV 23 Thermistors: RADIO 1 TV 4 IC: RADIO 4 TV 4
Speaker:	50mm (Diameter) round
Dimensions:	150mm (W) x 53 (H) x 202 (D)
Weight:	1.1 kg. (w/o accessories)