Black and White TV-FM/AM Receiver

FD-510

Operating Instructions

Before operating the unit, please read this manual thoroughly and retain it for future reference.

Owner's Record

The model and serial numbers are located at the rear. Record the serial number in the space provided below. Refer to these numbers whenever you call upon your Sony dealer regarding this product.

Model No. FD-510

Serial No.



Sony Corporation © 1991 Printed in Taiwan

WARNING

To prevent fire or shock hazard, do not expose the unit to rain or moisture.





This symbol is intended to alert the user to the presence of uninsulated "dangerous voltage" within the product's enclosure that may be of sufficient magnitude to constitute a risk of electric shock to persons.



This symbol is intended to alert the user to the presence of important operating and maintenance (servicing) instructions in the literature accompanying the appliance.

Features

- 4.5-inch black and white 90° deflection picture tube.
- FM/AM radio is combined.
- Built-in 4-inch dia. speaker with powerful output and good sound suitable for garden and kitchen use.
- Sound position enables listening to the TV sound only.
- Carrying handle for easy carrying.
- 3-way power source capability allows use in any situation.

Precautions

- Operate the unit only on 120 V AC, 60 Hz or 12 V DC.
 For AC operation, use the supplied AC power cord. Do not use any other type.
- For car battery operation, use only the optional Sony DCC-16AW car battery cord. Do not use any other type.
- Disconnect the AC power cord from the wall outlet when the unit is not to be used for an extended period of time.
- When the unit is not to be used for a long period of time or is to be operated extensively on house current, remove the batteries to avoid damage from battery leakage.
- Since a strong magnet is used for the speaker, keep personal credit cards using magnetic coding or springwound watches away from the unit to prevent possible damage from the magnet.
- Do not leave the unit in a location near heat sources or in a place subject to direct sunlight, excessive dust, or mechanical shock.
- Do not place the unit in a location near heat sources such as radiators or airducts, or in a place subject to direct sunlight, excessive dust, mechanical vibration, or shock.

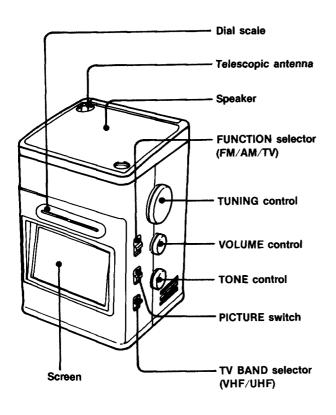
- Allow adequate air circulation to prevent internal heat built-up. Do not place the unit on surfaces (rugs, blankets, etc.) or near materials (curtains, draperies) that may block the ventilation holes.
- Should any liquid or solid object fall into the unit, unplug the unit and remove the batteries, and have the unit checked by qualified personnel before operating it any further.
- One blade of the plug is wider than the other for the purpose of safety and will fit into the power outlet only one way. If you are unable to insert the plug fully into the outlet, contact your dealer.
- Avoid rough handling.
- When the casing becomes soiled, clean it with a soft cloth dampened with a mild detergent solution. Never use abrasive cleansers or chemical solvents, as they may mar the finish.

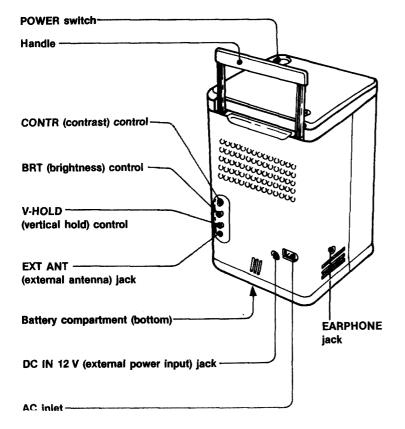
If you have any question or problem concerning your unit please consult the nearest Sony dealer.

Note to CATV system installer in the U.S.A.:

This reminder is provided to call the CATV system installer's attention to Article 820-40 of the NEC that provides guidelines for proper grounding and, in particular, specifies that the cable ground shall be connected to the grounding system of the building, as close to the point of cable entry as practical.

Location of Controls

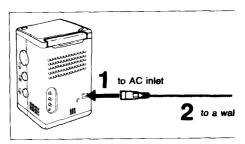


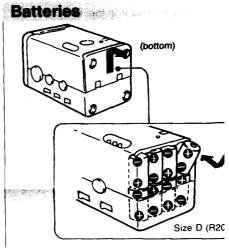


Power Sources

House current (120 V AC)

Connect the AC power cord (supplied) to the inlet.





When to replace batteries

When the picture becomes small, replace a batteries with new ones.

Batteries	TV	TV audio only	RA	
			AM	
Sony SUM-1 (NS)	1.5	10	25	
Sony alkaline AM1 (N)	5	30	70	

Car battery

Connect the DCC-16AW car battery cord (ne plied) to the DC IN 12 V jack.

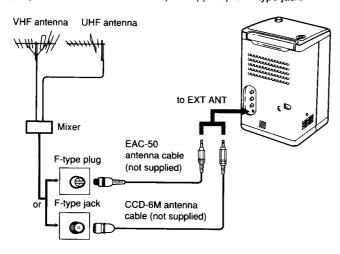
Note: Use only the recommended car battery corc tured by Sony. Polarity of the plugs of other mar may be different.



External Antenna Connection

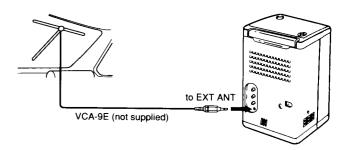
Connecting the outdoor antenna

To connect, use EAC-50 antenna cable (not supplied) for F-type plug or CCD-6M antenna cable (not supplied) for F-type jack.



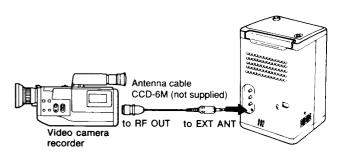
- To connect CCD-6M to the F-type plug, use EAC-40 F-type joint (not supplied).
- If you need to prepare the end of the antenna cable, use EAC-33 antenna connector (not supplied).

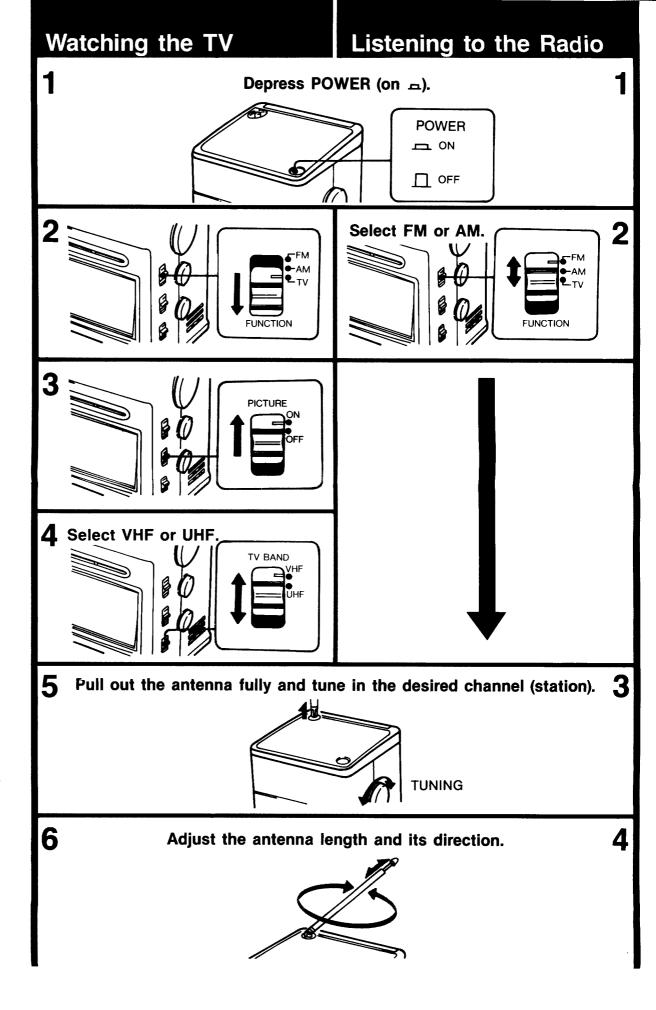
Connecting the Car Antenna

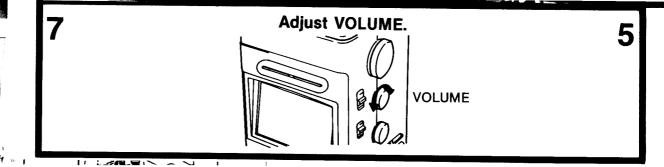


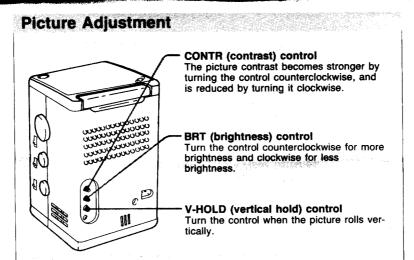
Monitoring the video camera recorder

After connecting as illustrated, turn on the power of the equipments and tune in the channel 3 or 4.









To listen to the TV sound only, set PICTURE to OFF.

To turn off, press to release POWER and fold the antenna.

How to use the TONE control Turn towards HIGH for more treble and towards LOW for less treble.

Note: Be sure to release POWER to OFF after use, especially when listening with headphones or earphones. This prevents unnecessary battery wear.

Specifications

TV standard Channel coverage

Radio frequency range

Antenna

Picture tube Input Output

Speaker Power requirements Battery life Power consumption

Dimensions

Weight

Supplied accessory

American TV standard VHF channels 2-13 UHF channels 14-69 FM 87.6 – 108 MHz AM 530 – 1,605 kHz VHF/UHF/FM: telescopic antenna

AM: Built-in ferrite bar antenna 4.5-inch picture measured diagonally EXT ANT: minijack, 75 ohms EARPHONE: minijack, impedance

8-300 ohms Full range ϕ 10 cm (ϕ 4 inches) 120 V AC, 60 Hz or 12 V DC

See "Power sources." 20 W (120 V AC) 11 W (12 V DC)

Approx. $165 \times 238 \times 164$ mm (w/h/d) $(6^{1}/_{2} \times 9 \times 6^{1}/_{2} \text{ inches})$ incl. projecting parts and controls

Approx. 3.3 kg (7 lb 4 oz)

incl. batteries AC power cord (1)

Design and specifications are subject to change without notice.

Optional accessories

Car battery cord Car antenna Antenna cable

DCC-16AW VCA-9E CCD-6M, EAC-50

AM1

Sony alkaline battery

Troubleshooting Guide

Symptom	Cause		
The unit does not operate.	 The AC power cord or the car battery cord is disconnected (on AC or car battery operation). Incorrect battery polarity. Weak batteries. 		
Herringbone pattern, double images, stripes, too indistinct, etc.	Improper tuning. Improper antenna setting.		
Dotted line or stripes.	Often caused by interference from car ignition, neon signs, hair dryers, electric-rasors, etc. Adjust the telescopic antenna.		
No sound from speaker.	VOLUME is turned down completely.		
Noise is heard with FM reception.	Often caused by very strong radio station signals. Fold the telescopic antenna, or remove the antenna connected to the EXT ANT jack.		