

# Color Video Camera

## Operating Instructions

### CCX-Z77/Z77E

Printed in Japan

### Owner's Record

The model number and the serial number are located on the bottom exterior. Record the serial number in the space provided below. Refer to these numbers whenever you call upon the dealer regarding this product.

Model No. CCX-Z77/Z77E

Serial No. \_\_\_\_\_

### WARNING

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

For CCX-Z77 only

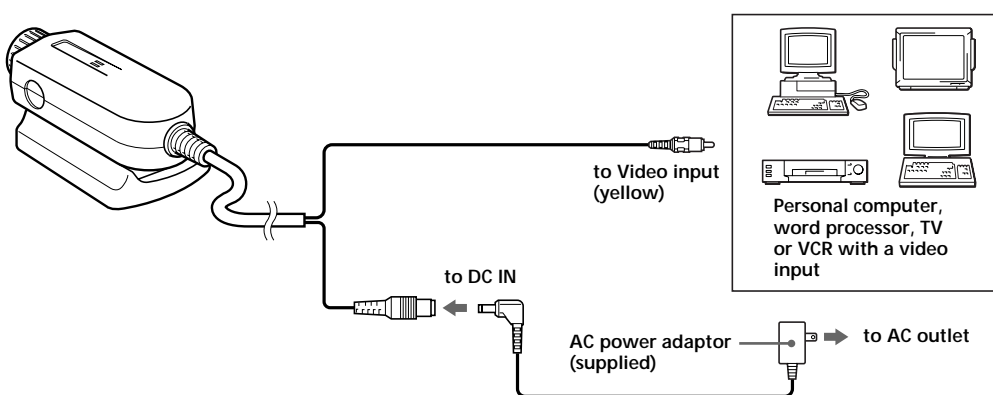
This equipment has been tested and found to comply with the limits for a Class B digital device, pursuant to Part 15 of the FCC Rules. These limits are designed to provide reasonable protection against harmful interference in a residential installation. This equipment generates, uses, and can radiate radio frequency energy and, if not installed and used in accordance with the instructions, may cause harmful interference to radio communications. However, there is no guarantee that interference will not occur in a particular installation. If this equipment does cause harmful interference to radio or television reception, which can be determined by turning the equipment off and on, the user is encouraged to try to correct the interference by one or more of the following measures:

- Reorient or relocate the receiving antenna.
- Increase the separation between the equipment and receiver.
- Connect the equipment into an outlet on a circuit different from that to which the receiver is connected.
- Consult the dealer or an experienced radio/TV technician for help.

You are cautioned that any changes or modifications not expressly approved in this manual could void your authority to operate this equipment.

## Connections

Connect your Color Video Camera to a personal computer, TV or VCR equipped with a video input. Some connections may require extra cables. Refer to the operating instruction of the equipment to be connected.



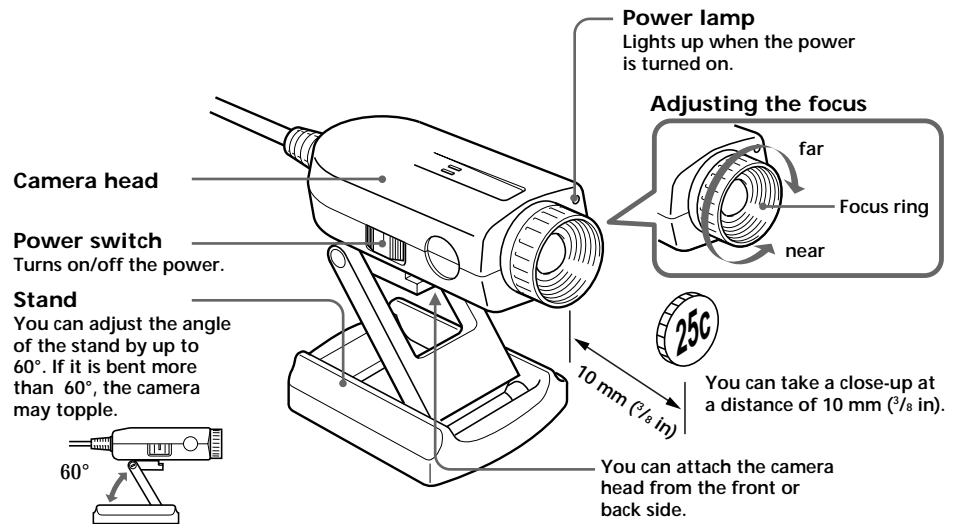
### Notes

- You cannot connect this product to a personal computer that is not equipped with video input. Some computers may require a video capture board and software in order to use this product. For details, consult your computer dealer.
- Use only the supplied AC power adaptor. Do not use any other AC power adaptor.

Polarity of the plug

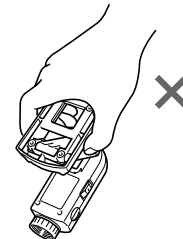


## Using this Video Camera



### Notes

- Do not hold the stand when carrying.



- Do not apply too much force when change the angle of the stand, or the camera head may come off.
- Do not apply too much force when turning the focus ring, or the camera may be damaged.

## Precautions

- If a light source which exceeds the recommended illumination, such as the outdoors, is used, the image may not be displayed clearly.
- Do not focus on a stationary or bright object for too long, or the CCD color filter may be damaged.
- Do not aim the lens toward the sun, or the CCD color filter may be damaged.
- The electromagnetic fields at the specific frequencies may influence the picture of this camera.

### Precaution on copyright

Television programs, pictures, magazines, and other materials may be copyrighted. Unauthorized recording or storing of such materials violates the provision of the copyright laws.

## Maintenance

- Clean the lens with a blower brush to remove dust. Do not scrub the surface of the lens. If there are fingerprints on it, remove them with a soft cloth.
- Clean the Color Video Camera body with a dry soft cloth, or a soft cloth lightly moistened with a mild detergent solution.
- Do not use any type of solvent which may damage the finish.

## Troubleshooting

Symptom	Remedy
The picture does not appear on the TV or computer screen.	<ul style="list-style-type: none"> <li>• Make sure the connections are made correctly.</li> <li>• Connect to other equipment, for example a TV, to check if the camera is damaged.</li> </ul>
When the power switch is turned to "ON," the picture does not appear or an unusual picture appears.	<ul style="list-style-type: none"> <li>• Set the power switch to "OFF," then set it to "ON" again.</li> </ul>
The picture quality on the computer screen is not as good as that on a TV.	<ul style="list-style-type: none"> <li>• Depending on the computer brand, you may not be able to obtain the same quality of picture as a TV.</li> <li>• For more details, consult your computer retailer.</li> </ul>

## Specifications

System		Power requirements
Video signal	CCX-Z77:NTSC color, EIA standards CCX-Z77E:PAL color, CCIR standards	DC 4.5 V
Image device	1/4 inch color CCD (CCX-Z77:270,000 pixels) (CCX-Z77E:320,000 pixels)	Power consumption 1.3 W
Lens	f=4.0 mm, F=1:3.8	Video output 1 Vp-p, 75 ohms, unbalanced, sync negative
Macro	Approx. 10 mm (3/8 in)	Operating temperature 0°C to 40°C (32°F to 104°F)
Minimum illumination	10 lux	Storage temperature -20°C to +60°C (-4°F to 140°F)
Recommended illumination	500 lux	Dimensions (w × h × d) Approx. 48.6 × 34.9 × 85 mm (1 15/16 × 1 3/8 × 3 3/8 in)
White balance	Auto	Mass Approx. 95 g (3 oz) (including stand)
Electronic shutter	CCX-Z77: 1/60 ~ 1/100 CCX-Z77E: 1/50 ~ 1/120	DC jack 4.5 V
Focus adjustment	Manual	<b>Supplied accessories</b> AC power adaptor (1) Operating instructions (1)

### General

Design and specifications are subject to change without notice.