

**SONY®**

3-750-778-22 (1)

CCD Video Camera

# SSC-D7

## Operating Instructions

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



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## Owner's Record

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

Model No. SSC-D7

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

### **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 important operating and maintenance (servicing) instructions in the literature accompanying the appliance.

**Warning**—This equipment generates, uses, and can radiate radio frequency energy and if not installed and used in accordance with the instructions manual, may cause interference to radio communications. It has been tested and found to comply with the limits for a Class A computing device pursuant to Subpart J of Part 15 of FCC Rules, which are designed to provide reasonable protection against such interference when operated in a commercial environment. Operation of this equipment in a residential area is likely to cause interference in which case the user at his own expense will be required to take whatever measures may be required to correct the interference.

The shielded interface cable recommended in this manual must be used with this equipment in order to comply with the limits for a computing device pursuant to Subpart J of Part 15 of FCC Rules.

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The SSC-D7 is a monochrome video camera which uses a CCD (Charge Coupled Device), a solid state image sensor.

#### High-resolution picture

768 × 493 picture elements give a high-resolution picture.

#### DC IN 11 16 V 3.3 W connector

Through a CCMC cable, power is supplied to the camera and video output signals are transmitted from the camera to the camera adaptor.

#### AC line lock

When the power is supplied from the AC power line using a step-down transformer, the vertical synchronizing frequency can be synchronized to the frequency of the AC power source.

#### Electronic shutter with various shutter speeds

This camera has an electronic shutter. The shutter speed can be selected from 10 speeds: 1/60 sec, 1/125 sec, 1/250 sec, 1/500 sec, 1/1000 sec, 1/2000 sec, 1/4000 sec, 1/10000 sec, FL100 (1/100 sec) and FL120 (1/120 sec).

#### Camera number display

The characters which represent the camera number (4 digits) can be displayed in black or white on the lower right of the screen.

#### Very few after-images, high resistance to image burning and precise image geometry

Very few after-image—A clear picture can be obtained when shooting a rapidly moving object or shooting in a place where illumination is very low.

High resistance to image burning—It is possible to shoot a bright object and to hold the camera on it for a long time. Precise image geometry can be obtained.

#### High sensitivity

Makes it possible to detect images in a dark place.

#### Shooting in a strong magnetic field

This camera can obtain a stable picture even near an electric furnace or welding machine.

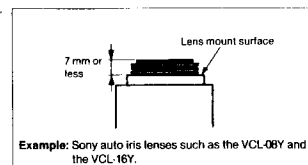
#### Compact and lightweight

Allows the camera to be installed on a wall or ceiling with a mounting bracket.

#### High resistance to vibration and mechanical shock

Makes it possible to take a picture while the camera is moving.

Any C mount lens with a projection of 7 mm or less from the lens mount.



Example: Sony auto iris lenses such as the VCL-08Y and the VCL-16Y.

If you wish to use a lens other than these, consult your authorized Sony dealer.

Sony camera adaptor CMA-D7

Basler Electric BE114820CAA transformer which meets the UL standard, class 2 requirements.

**Safety**

This camera is designed for operation on 11 ~ 16 V DC (12 V DC Typical) supplied through the  $\pi$  DC IN 11~16 V 3.3 W connector or on 24 V AC supplied through the ~AC 24 V IN terminals. For supplied power, use the camera adaptor or step-down transformer recommended for this camera.

**Installation**

- Allow adequate air circulation to prevent internal heat build-up.
- Do not install the unit near heat sources such as radiators or air ducts or in a place subject to direct sunlight.

**Operation**

- Avoid rough handling or mechanical shock.
- Operate the camera at a temperature ranging from 0°C to + 40°C (32°F to 104°F).

**Cleaning**

Clean the cabinet, panel and controls with a dry soft cloth, or soft cloth lightly moistened with a mild detergent solution. Do not use any type of solvent, such as alcohol or benzine, which might damage the finish.

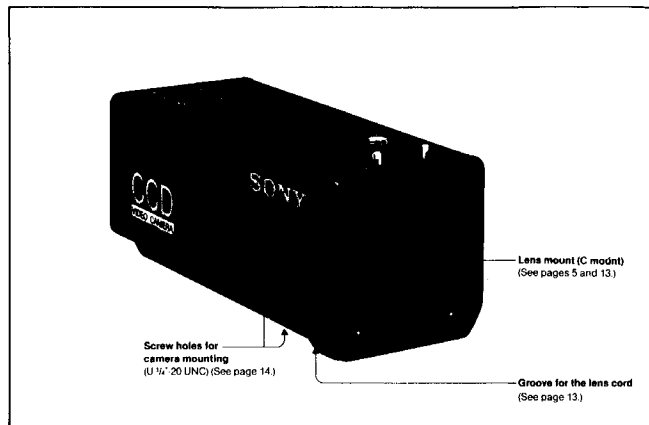
**Repacking**

Do not discard the carton. It affords maximum protection when the camera is transported. Repack the camera as it was originally packed at the factory.

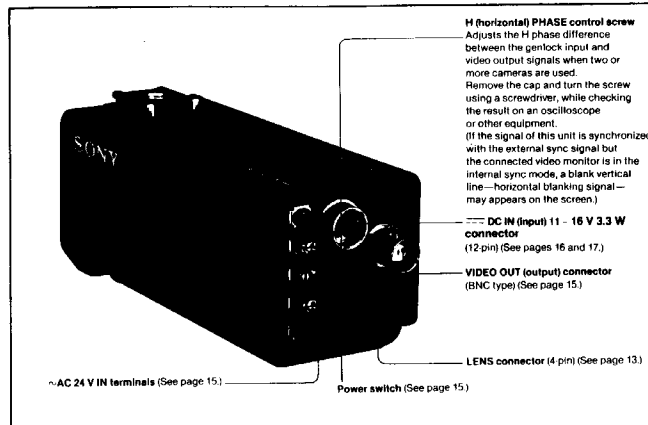
If you have any questions about this camera, consult your authorized Sony dealer.

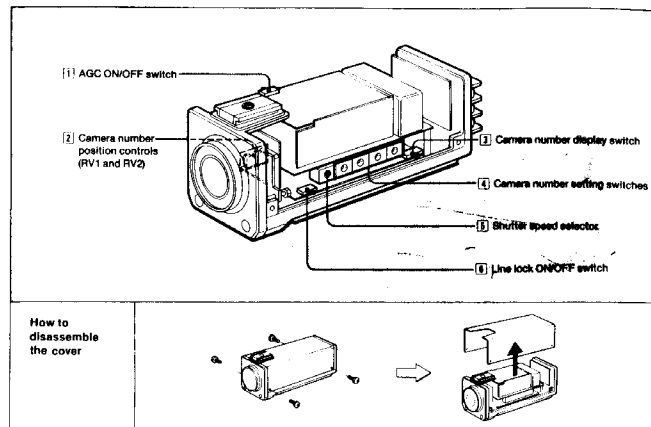


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- [1] **AGC (automatic gain control) ON/OFF switch**  
Set to ON to have the camera automatically control the gain of the video signal according to the brightness of the subject.



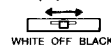
Factory setting: ON

- [2] **Camera number position controls (RV1 and RV2)**  
When the camera number is displayed on the screen with the camera number display switch [4], the position of the display can be adjusted with these controls.



RV1: Move the characters up or down  
RV2: Move the characters right or left

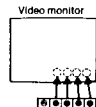
- [3] **Camera number display switch**



**WHITE:** Displays the camera number in white. Select this position when the subject being shot is dark.  
**OFF:** Does not display the camera number.  
**BLACK:** Displays the camera number in black. Select this position when the subject being shot is bright.

Factory setting: OFF

- [4] **Camera number setting switches**  
Select the four characters for the camera number when the camera number display switch is set to WHITE or BLACK.



0	0	A	:
		B	P
		C	C
9	9	D	H
		E	A
		F	Blank

Factory setting: 0000

## 5 Shutter speed selector

When shooting a fast-moving subject select the appropriate shutter speed with the selector.



	Speed (sec)	Selector setting	Speed (sec)
0	1/60	5	1/2000
1	1/125	6	1/4000
2	1/250	7	1/10000
3	1/500	8	FL120*
4	1/1000	9	FL100*

Factory setting: 0

\*FL: flickerless

When shooting under the light of a discharge tube, such as a fluorescent lamp, sodium lamp, or mercury lamp, the picture may flicker. To avoid a flickering image, set the shutter speed according to the frequency of the local power source.

FL100 (1/100 sec) for 50 Hz  
FL120 (1/120 sec) for 60 Hz

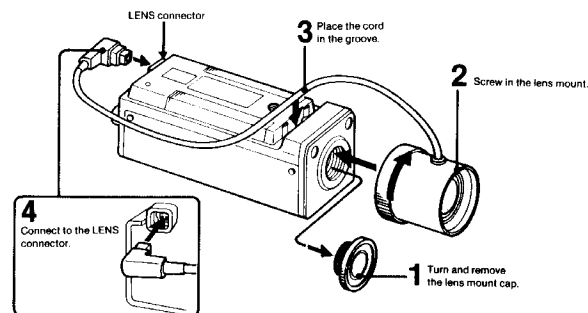
## 6 Line lock ON/OFF switch



Set to ON when the power is supplied to the camera through the ~AC 24 V IN terminals using the step-down transformer. In this case, the vertical synchronizing signal of the camera is synchronized with the frequency of the power source.

Factory setting: ON

## Lens installation



## Camera Installation

Attaching the camera to a support or to a mounting bracket makes the camera possible to be installed it on a wall or ceiling.

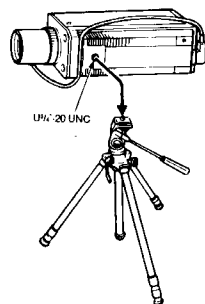
Be sure to use the screw specified below.

1/4" x 20 UNC	
ISO standard	4.5 mm ±0.2 mm
ASA standard	0.197 inches



For details on the camera installation, consult your authorized Sony dealer.

## Attaching the camera to a tripod



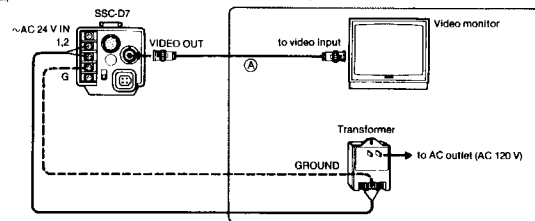
## Supplying the Power Using the AC 24 V IN Terminals

There are two ways to supply power to the camera:

- Inputting power to the ~AC 24 V IN terminals through a step-down transformer. (See illustration below.)
- Inputting power to the DC IN 11-16 V 3.3 W connector through the CMA-D7 camera adaptor. (See the following pages.)

## Switch settings

- Power switch: Before making connections, be sure to set the power switch to OFF.
- Line lock ON/OFF switch: To synchronize the sync signal of the camera to the frequency of the AC power line, set this switch to ON.



## Note

The metal case of this camera is conductively connected to the camera's power line (hot chassis). To avoid electrical shock hazard, be sure to use a Baster electric BE114820CAA separate power transformer.

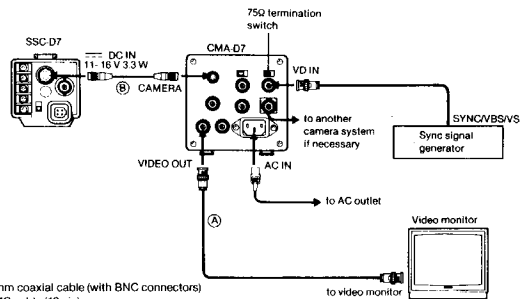
(A): 75-ohm coaxial cable



## Supplying the VBS, VS or SYNC Signals

**Switch setting**

The VD IN and OUT connectors have a loop-through configuration. To use the loop-through output signal, set the 75 $\Omega$  termination switch to OFF. When not using the loop-through output, set the switch to ON.



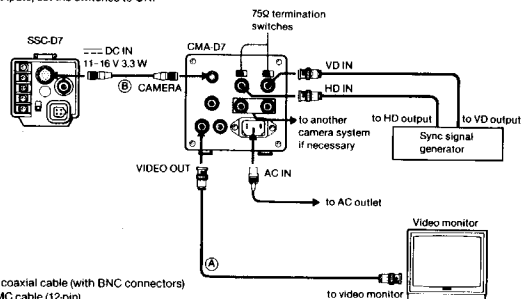
- (A) : 75-ohm coaxial cable (with BNC connectors)  
 (B) : CCMC cable (12-pin)

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## Supplying the HD/VD Signals

**Switch settings**

The VD IN and OUT connectors, and the HD IN and OUT connectors have a loop-through configuration. To use the loop-through output VD and HD signals, set the 75 $\Omega$  termination switches to OFF. When not using the loop-through outputs, set the switches to ON.



- (A) : 75 $\Omega$  coaxial cable (with BNC connectors)  
 (B) : CCMC cable (12-pin)

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