ARTISAN®
TECHNOLOGY GROUP

Your **definitive** source for quality pre-owned equipment.

Artisan Technology Group
(217) 352-9330 | sales@artisantg.com | artisantg.com

Full-service, independent repair center
with experienced engineers and technicians on staff.

We buy your excess, underutilized, and idle equipment
along with credit for buybacks and trade-ins.

Custom engineering
so your equipment works exactly as you specify.

- Critical and expedited services
- In stock / Ready-to-ship
- Leasing / Rentals / Demos
- ITAR-certified secure asset solutions

Expert team | Trust guarantee | 100% satisfaction

All trademarks, brand names, and brands appearing herein are the property of their respective owners.

Find the *Sony DXC-151A* at our website: *Click HERE*

SONY

3-756-859-02(1)

CCD Color Video Camera

Model:

DXC-151A
DXC-151AP

取扱説明書 5ページ

Operating Manual Page 29

Mode d'emploi Page 53

Bedienungsanleitung Seite 77

© 1993 by Sony Corporation

Artisan Technology Group - Quality Instrumentation ... Guaranteed | (888) 88-SOURCE | www.artisantg.com

English

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

This instruction manual is for both the DXC-151A and the DXC-151AP color video cameras.
The operating instructions for both cameras are the same, but their signal systems and camera adaptors are different.

	Signal system	Camera adaptor
DXC-151A	EIA standards, NTSC color system	For non-medical use CMA-D2 For medical use CMA-D2MD
DXC-151AP	CCIR standards, PAL color system	For non-medical use CMA-D2CE For medical use CMA-D2MDCE

Table of Contents

Features **30**
Lens **31**
Camera Adaptor **31**
Notes on Use **32**
Location of Parts and Controls **33**
Front and Side 33
White Balance/Shutter Speed/Gain Control Panel 34
Connector Panel 35
Internal Switch Settings 36
Installation **37**
Replacing the Lens Cable Plug with the Lens Connector (supplied) 37
Attaching the Lens 38
Installing the Camera 39
Connections **40**
Connecting One Camera Using the VIDEO OUT Connector 40
Connecting One Camera Using the RGB SYNC Connector 41
When Using Two or More Cameras 42
Adjustment of the Picture Tone 44
Operation **44**
Preparation 44
White Balance Adjustment 45
Adjusting the Gain Control (Video Output Level) 46
Selecting the Shutter Speed 47
Adjusting the Flange Focal Length 48
Special Characteristics of the CCD Camera **49**
Specifications **49**

Artisan Technology Group - Quality Instrumentation ... Guaranteed | (888) 88-SOURCE | www.artisantg.com

Features

The DXC-151A/151AP is a 2/3-inch color video camera which uses a CCD (Charge Coupled Device), a solid stage image sensor.

Mechanical Features

You can obtain optimal picture quality with a minimum of vibration noise even when the camera is moved.

The camera is so small and lightweight that you can attach it anywhere such as on a wall or ceiling. It can be used in the following situations.

- For use with a tripod
- For use in televised conferences
- For use with a microscope or endoscope
- For permanent use in halls and auditoriums

Video Features

High-quality picture

This unit can playback pictures at a resolution of 460 horizontal TV lines.

RGB output connector

In addition to a composite video signal output, the camera has an RGB signal output, so you can connect it to an RGB monitor or an image processing device.

Y/C separated video output

By switching the setting of the internal switch, the camera outputs the luminance (Y) signal and the chrominance (C) signal separately. This allows you to connect a special cable (CCMC-9DS) or a camera adaptor (CMA-D2/D2CE) to a monitor equipped with an S-video connector, and gives you a picture with a minimum of flicker and/or color blur.

Artisan Technology Group - Quality Instrumentation ... Guaranteed | (888) 88-SOURCE | www.artisantg.com

Function Features

Four modes for white balance adjustment

You can choose the appropriate mode (AUTO, 3200K, 5600K, or ATW) according to the lighting conditions.

Ten shutter speed settings

This camera's has ten electronic shutter settings: seven shutter speed settings (ranging from OFF to 1/10000 sec) and three CCD IRIS settings (SPOT, STD, and BACK).

Four modes for gain control (video output level)

You can choose the gain control (video output level) from among four modes, according to the lighting conditions: AGC (Auto-Gain Control), 0 dB, 6 dB, and 12 dB.

External sync system

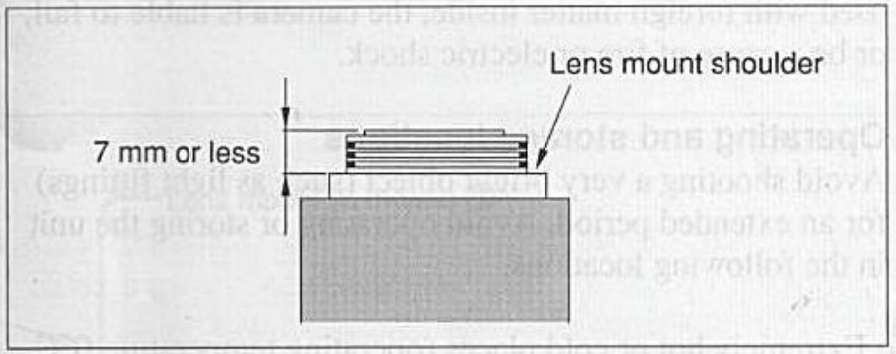
When you use a video switcher to control two or more cameras, you can input the same sync signal to all of them so that they output pictures of the same quality.

CCD IRIS function

You can choose the appropriate setting among SPOT (spotlight), STD (standard), and BACK (backlight), according to the lighting conditions.

Lens

You can mount any 2/3-inch C-mount lens, as long as it does not project more than 7 mm from the lens mount shoulder.



Camera Adaptor

The camera adaptor you can use with this camera is shown in the table on page 29.

Note

The CMA-D2/D2MD/D2CE/D2MDCE camera adaptor is equipped with two DC OUT connectors. Using the CCMC connecting cable or the CCDC connecting cable you can connect the camera.

If you use two cameras at the same time they may malfunction so be sure to use a camera adaptor for each camera.

Artisan Technology Group - Quality Instrumentation ... Guaranteed | (888) 88-SOURCE | www.artisantg.com

Notes on Use

Handling of the unit

Be careful not to spill water or other liquids on the unit, or to get combustible or metallic material inside the body. If used with foreign matter inside, the camera is liable to fail, or be a cause of fire or electric shock.

Operating and storage locations

Avoid shooting a very bright object (such as light fittings) for an extended period. Avoid operating or storing the unit in the following locations.

- Extremely hot or cold places (operating temperature 0°C to 40°C; 32°F to 104°F)
- Damp or dusty places
- Locations exposed to rain
- Locations subject to strong vibration
- Close to generators of powerful electromagnetic radiation, such as radio or TV transmitters

Handling of the lens

As the lens could be damaged if not attached properly, make sure to see the section "Attaching the lens" on page 38 before attaching it.

Care of the unit

- Remove dust or dirt from the surface of the lens or optical filter with a blower.
- Use a dry, soft cloth to clean the body. If it is very dirty, use a cloth dampened with a small quantity of neutral detergent, then wipe dry. Avoid the use of volatile solvents such as thinners, alcohol, benzene, and insecticides. They may damage the surface finish or impair the operation of the camera.

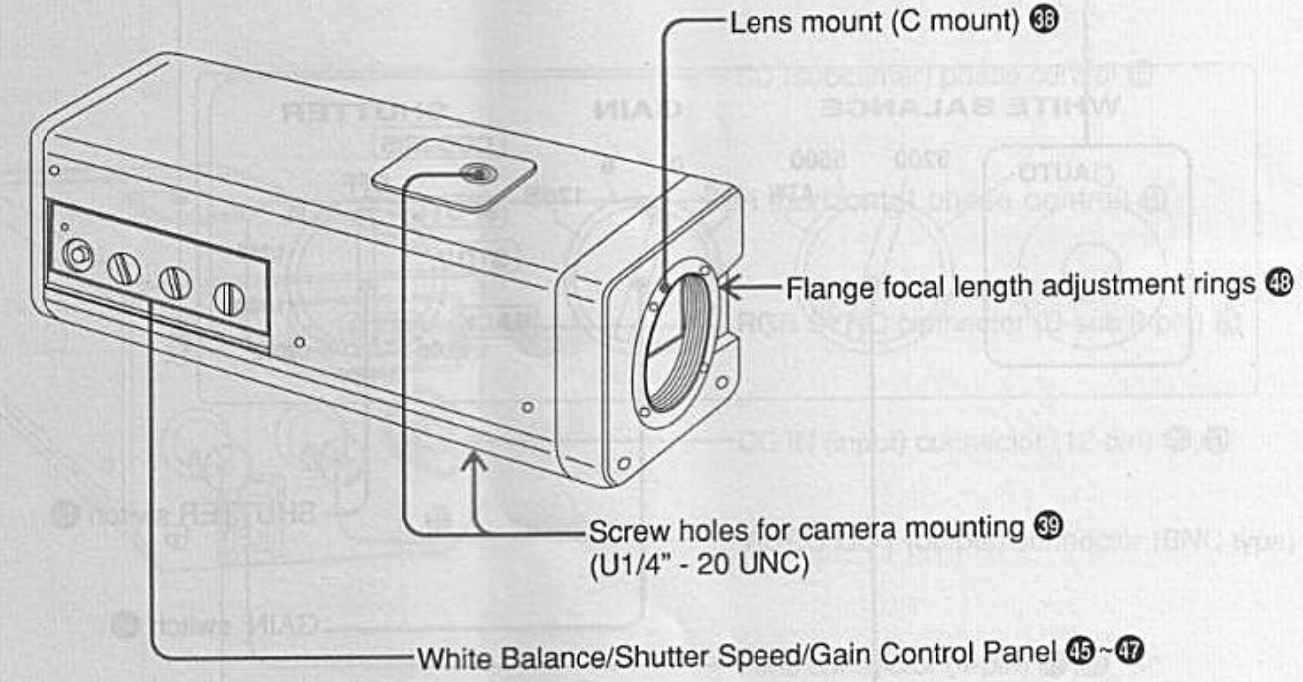
In the event of any problems with the operation of the camera, contact your Sony service representative.

Artisan Technology Group - Quality Instrumentation ... Guaranteed | (888) 88-SOURCE | www.artisantg.com

Location of Parts and Controls

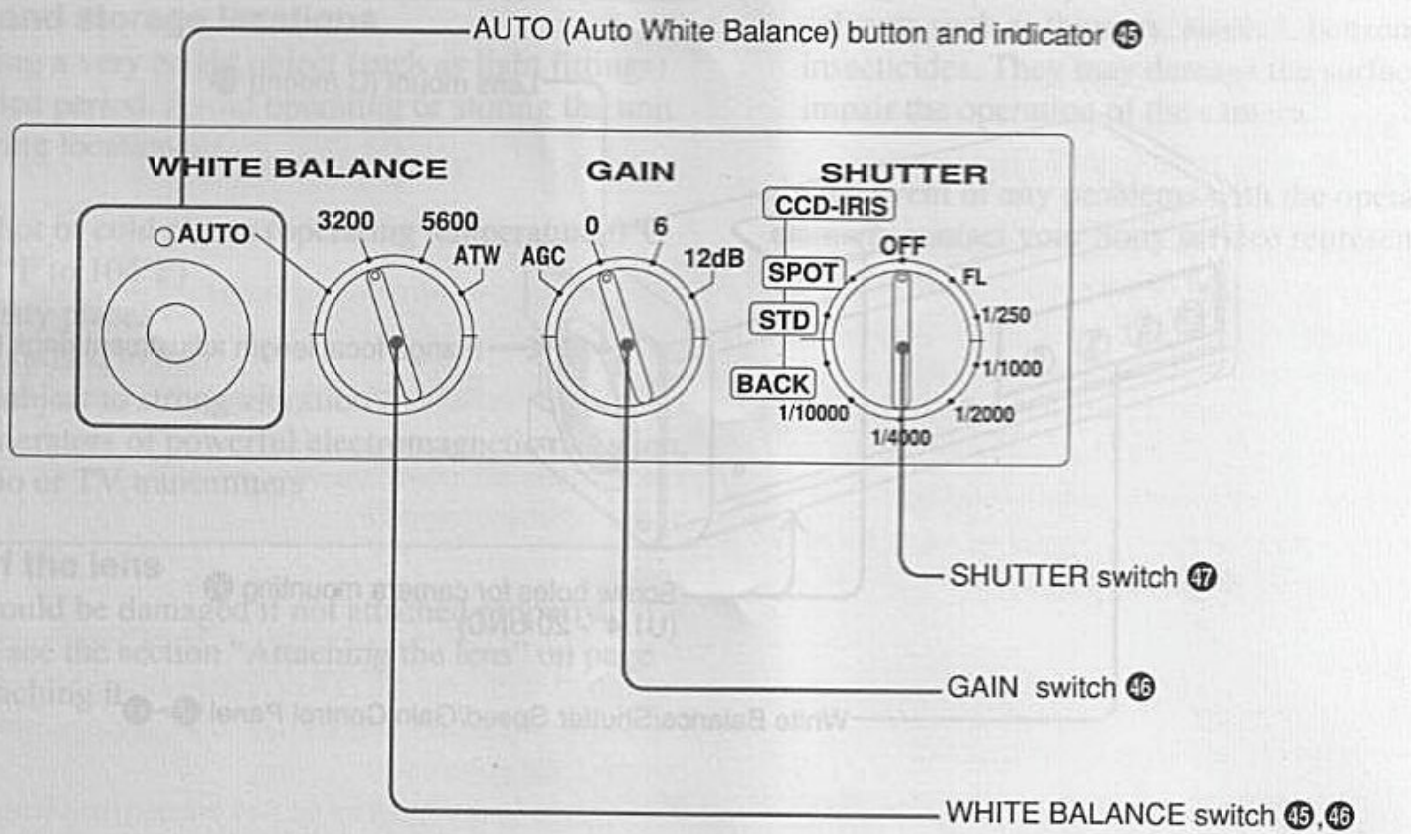
The numerals such as ● in the illustrations indicate the page number on which this part is discussed.

Front and Side



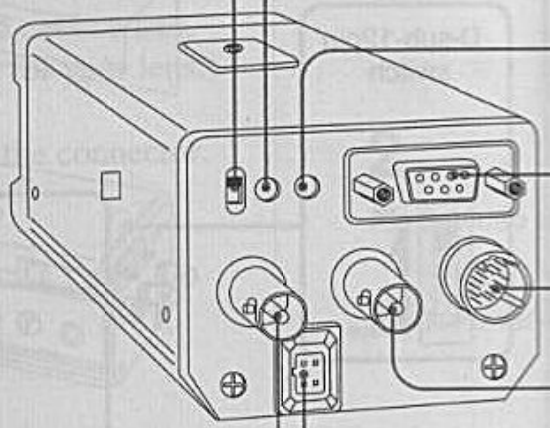
Artisan Technology Group - Quality Instrumentation ... Guaranteed | (888) 88-SOURCE | www.artisantg.com

White Balance/Shutter Speed/Gain Control Panel



Artisan Technology Group - Quality Instrumentation ... Guaranteed | (888) 88-SOURCE | www.artisantg.com

Connector Panel



Subcarrier phase switch ㊹

SC (subcarrier) phase control ㊹

H (horizontal phase control) ㊹

RGB SYNC connector (D-sub 9-pin) ㊶

DC IN (input) connector (12-pin) ㊵,㊸

VIDEO OUT (output) connector (BNC type) ㊵ ㊸

Lens connector (4-pin) ㊲,㊳

GEN LOCK IN (input) connector (BNC type) ㊸

Artisan Technology Group - Quality Instrumentation ... Guaranteed | (888) 88-SOURCE | www.artisantg.com

Internal Switch Settings

There are four internal switches that you can set inside the unit.

- Y/C-VBS switch: video output signal from a D-sub 9-pin or 12-pin connector
- SW1 switch: level of the sync signal
- SW2 switch: adding the sync signal to the G signal
- D-sub-12pin switch: selecting the output connector

Y/C-VBS switch: video output signal from D-sub 9-pin or 12-pin connector

Y/C:	The camera outputs the Y/C separated signal (factory setting).
VBS:	The camera outputs the composite signal.

SW1 switch: level of the sync signal

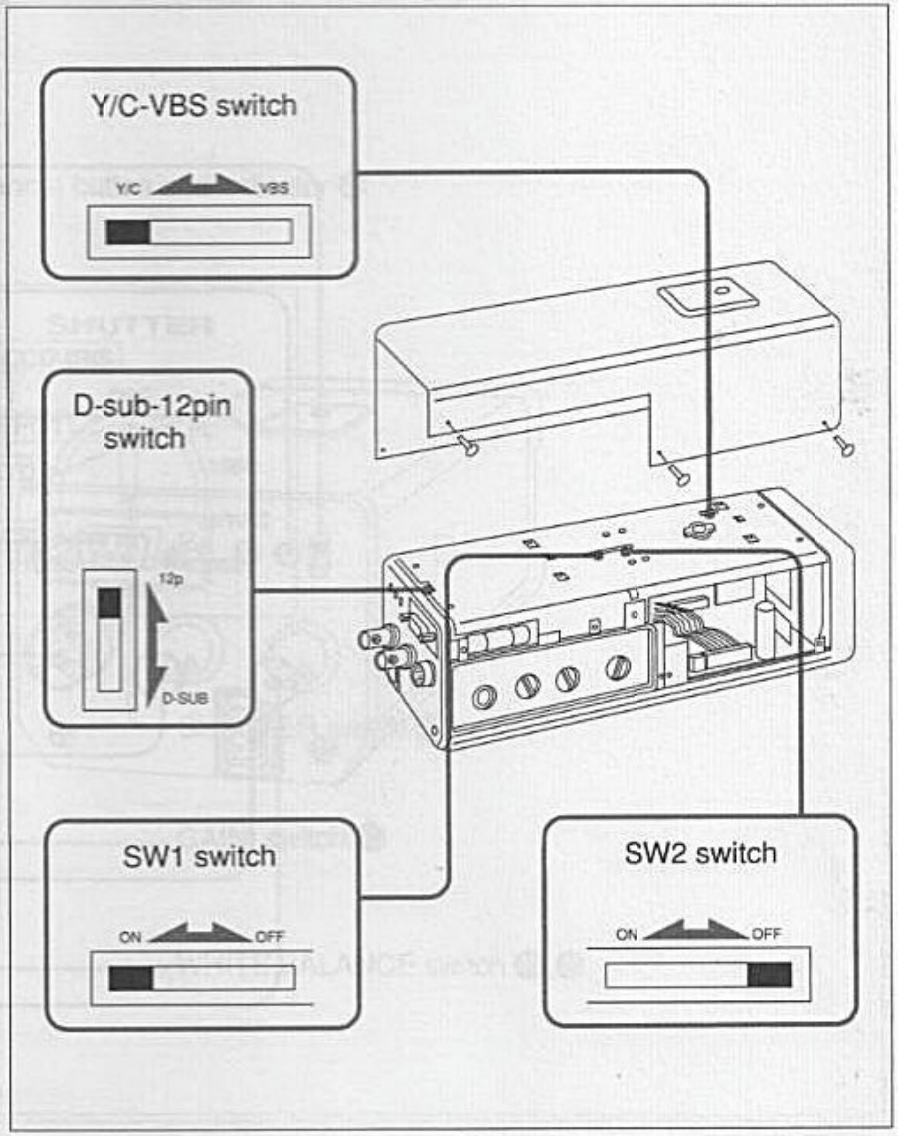
ON:	The level is set to 2.0Vp-p (factory setting).
OFF:	The level is set to 0.3Vp-p.

SW2 switch: adding the sync signal to the G signal

ON:	The sync signal is added to the G signal.
OFF:	The sync signal is not added (factory setting).

D-sub-12 pin switch: selecting the output connector

D-sub:	The video (Y/C or VBS) signal outputs from the D-sub 9-pin connector. (DXC-151A factory setting)
12 pin:	The video (Y/C or VBS) signal outputs from the 12-pin multi connector. (DXC-151AP factory setting)



Artisan Technology Group - Quality Instrumentation ... Guaranteed | (888) 88-SOURCE | www.artisantg.com

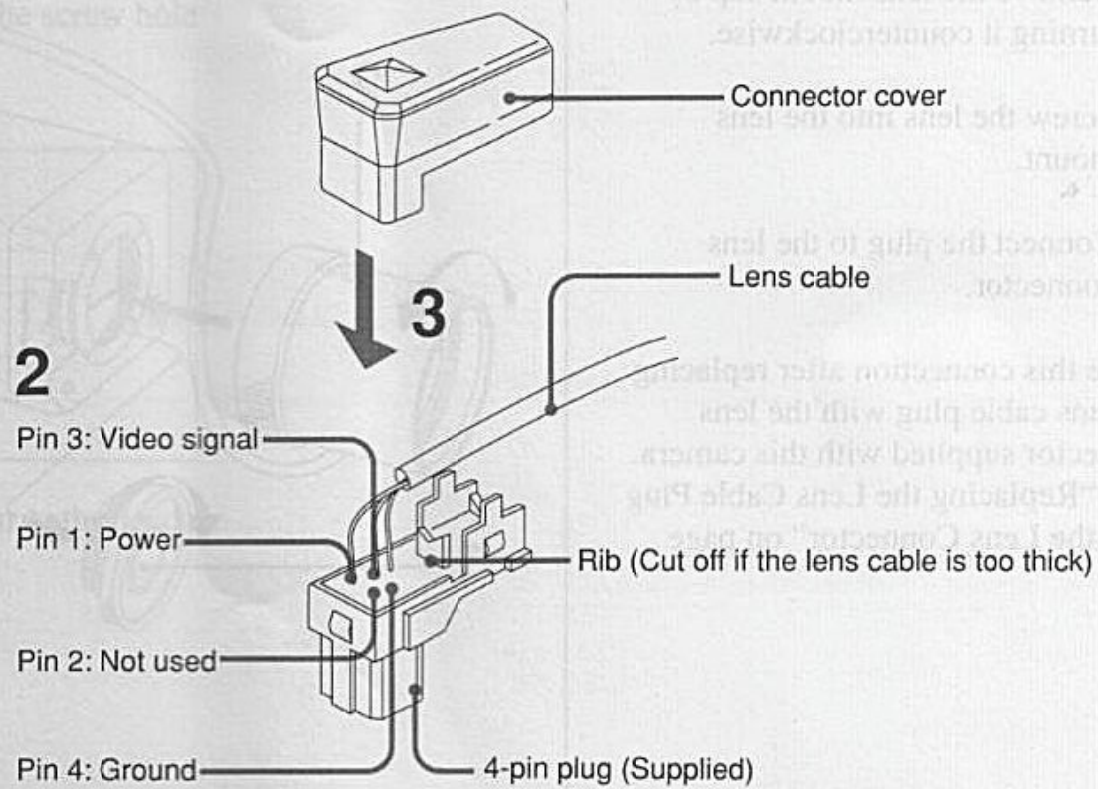
Replacing the Lens Cable Plug with the Lens Connector (supplied)

To use an auto iris lens, replace its cable and plug with the supplied lens connector as shown below.

1 Disconnect the lens cable from its plug.

2 Solder the cable wires to the pins on the supplied lens connector as illustrated on the right. (For identification of the cable wires, refer to the manual for your lens.)

3 Place the cover on the connector.



Artisan Technology Group - Quality Instrumentation ... Guaranteed | (888) 88-SOURCE | www.artisantg.com

Attaching the Lens

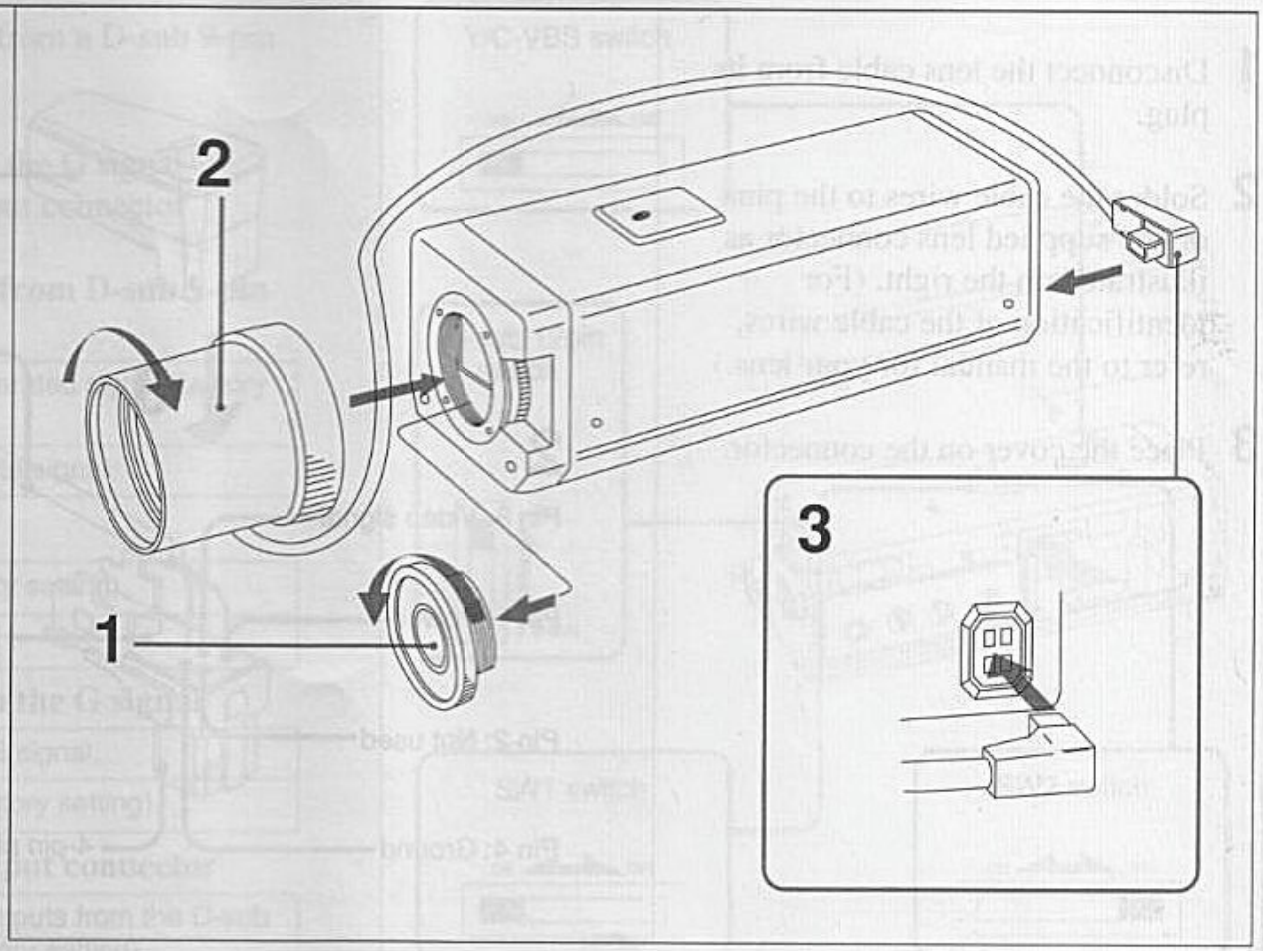
To use an auto-iris lens, attach the lens as shown below. When using a manual iris lens, omit step 3.

1 Remove the lens mount cap by turning it counterclockwise.

2 Screw the lens into the lens mount.

3 Connect the plug to the lens connector.

Make this connection after replacing the lens cable plug with the lens connector supplied with this camera. (See "Replacing the Lens Cable Plug with the Lens Connector" on page 37.)

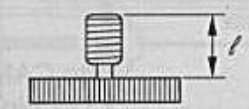


Artisan Technology Group - Quality Instrumentation ... Guaranteed | (888) 88-SOURCE | www.artisantg.com

Installing the Camera

- When installing the camera on a wall or ceiling, use an appropriate support or mounting bracket. Fix the camera to the support or bracket using screws as specified below, which match the screw holes in the camera body.
- When mounting the camera on a tripod, use the screw hole provided on the bottom of the camera

U -1/4" 20 UNC
ℓ: ISO standard 4.5 mm ± 0.2 mm
ASA standard 0.197 inches



For more details about installation, consult your authorized Sony dealer.

Artisan Technology Group - Quality Instrumentation ... Guaranteed | (888) 88-SOURCE | www.artisantg.com

Artisan Technology Group is an independent supplier of quality pre-owned equipment

Gold-standard solutions

Extend the life of your critical industrial, commercial, and military systems with our superior service and support.

We buy equipment

Planning to upgrade your current equipment? Have surplus equipment taking up shelf space? We'll give it a new home.

Learn more!

Visit us at **artisantg.com** for more info on price quotes, drivers, technical specifications, manuals, and documentation.

Artisan Scientific Corporation dba Artisan Technology Group is not an affiliate, representative, or authorized distributor for any manufacturer listed herein.

We're here to make your life easier. How can we help you today?

(217) 352-9330 | sales@artisantg.com | artisantg.com

ARTISAN® TECHNOLOGY GROUP