

# Instruction Manual

## Color CCD Camera

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

### Med-Resolution Day/Night IR Support Color Camera

CAM-2200

## WARNING

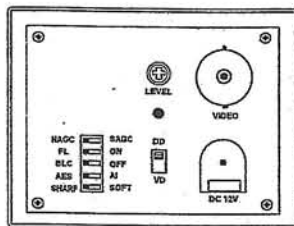
To prevent fire or shock hazard, Do not expose the camera to rain or moisture, or beyond its temperature limitation.

To avoid electrical shock, do not remove screws or cover of the camera. There are no user-serviceable parts inside. Please refer servicing to qualified service personnel.

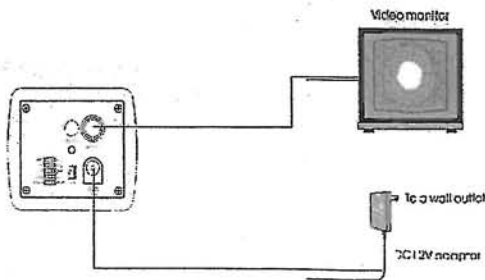
## CAMERA PARTS



IRIS pin definitions	
1	Video (o)
2	+3.5V Damp-(v)
3	VIDEO DRIVER+(wh)
4	GND DRIVER-(g)



## CONNECTION



## FEATURES

This model is a high quality CCD video camera designed for NTSC or PAL system. It introduces a new level of high picture quality through the use of a high sensitivity CCD. The camera produces an image with reduced lag, geometric distortion and low noise level. With features shown below, this model is an excellent unit for surveillance application or as an input device for an image processing system.

- High performance color re -production
- Low illumination
- Automatic electronic shutter (AES)
- Backlight compensation
- High S/N ratio
- Automatic gain control (AGC)

## CAUTION ON USE

- Do not touch the internal parts of the camera other than the parts specified.
- Before operation, ensure that the supply voltage is correct as specified for the particular variant of camera
- Do not expose the camera to rain or moisture, or beyond

its temperature limitation.

- Do not aim the camera at the sun.
- Do not shoot intense light such as a spotlight may cause a blooming or smear, however, this is not a malfunction.
- Do not attempt to service this unit yourself unless you are qualified technician to do so. To prevent electric shock, do not remove screws or cover of the camera. There are no user-serviceable parts inside. Please refer servicing to qualified service personnel.
- Avoid to storage in the locations such as damp, dusty, extremely hot or cold, or powerful electromagnetic radiation.

## OPERATION

- Before operation make sure the power supply voltage is correct for your camera.
- Take off the lens cap
- Install lens to the camera.
- Connect the video output to the TV monitor and the video image will appear on the monitor screen as the power is supplied to the camera
- Adjust focus and aperture of the lens to obtain the best quality image

### LEVEL Adjustment screw

Use to adjust the iris level when using a DC controlled auto iris lens.

### Power Indicator LED

When the power supply is working properly, This LED will

Turn on.

### BACKLIGHT COMPENSATION (BLC ON/OFF)

When an automatic electronic iris or an auto iris lens is used, the exposure adjustment is automatically executed so that the best picture is obtained at the monitor zone of about 50% in horizontal and 70% in vertical direction.

### AGC (NAGC/SAGC) ,Auto Gain Control

Use to increase the gain of the video amplifier when it is dark,

The SAGC mode can get the higher gain but it will cause higher noise level.

### FL (Fleckless) on/off

Using in Japan area to avoid the fleck due to the difference of line power

### SHARP/SOFT

To select the image effect between more sharper or softer

## Parts and Function

### LENS

#### Back-Focus Adjustment

Back-Focus is adjusted at the factory to accommodate most standard lenses. A slight adjustment to the back-focus is needed if necessary.

Mount a lens to the camera first, then loosen the back-focus set screw and rotate the lens until a clear image is achieved.

Afterwards, tighten the back-focus set screw.

#### AES(AUTOMATIC ELECTRONIC SHUTTER), AI

Exposure time is controlled automatically within a range of 1/60 sec to 1/100000 sec NTSC (1/50 sec to 1/100000 sec PAL). To obtain an adequate signal, turn the switch located at the back of camera to AES. When the switch is turned to AI, the exposure time is fixed to 1/60 sec (NTSC) or 1/50 (PAL) respectively. and must cooperate with auto IRIS lens : This camera supports two types of auto-iris lens: Video-type(VD) and DC type(DD). Connect the auto-iris connector to the IRIS terminal at the back of camera. Please refer to the drawing for correct wiring and setting.

## STANDARD ACCESSORY

Lens mount cap.....1PC

Hexagonal wrench.....1PC

IRIS 4 pins plug, E4-191I-100.....1PC

C Mount adapter.....1PC

## SPECIFICATIONS

### Color Med-resolution Camera

Sensor	1/3 inch Sony SuperHAD CCD
Number of Pixel	510(H) x 492(V) NTSC 500(H) x 582(V) PAL
Resolution	380 TV lines
Minimum Illumination	0.1 Lux /F1.2 , 0 Lux(when use 850nm IR Light)
S/N Ratio	More than 48dB (AGC off)
Electronic Shutter	1/60(1/50) to 1/100,000 sec
Gamma Correction	0.45
Sync System	Internal
Lens Mount	CS Mount
Iris Control	DC/Video selectable
Backlight Compensation	ON/OFF
Gain Control	NAGC/SAGC
Effect	Soft/Sharp
Video Output	1Vpp Composite Output , 75 Ohms
Power Source	12V DC

Specifications are subject to change without notice