SONY

COLOR CAMERA BLOCK

# EVI-370 series

## Component/OEM

### Outline

The EVI-370/371 Series CCD camera block incorporates a 1/3" (380k/440k effective pixels) CCD. Up to 12 times optical zoom is available throughout the EVI-370/371 series. For applications where increased zoom is required, the EVI-370D/371D offers 2 times electronic zoom. In addition, The EVI-370DG/ 371DG model incorporates VBS Gen-lock to enable external synchronisation. In total the EVI-370/371 series comprises of 8 variants to cover a wide variety of applications.

| | Basic Block | +Digital Zoom | +Digital Zoom +VBS Gen-lock |
|---|---|---|---|
| *NTSC* | EVI-370 | EVI-370D | EVI-370DG |
| *PAL* | EVI-371 | EVI-371D | EVI-371DG |

### Features

- 12 × Optical Zoom, High Speed Auto Focus Lens
- VISCA™/RS-232C Control
- Continuous Camera Data Output (VISCA™)
- 24 × Digital Zoom (EVI-370D/371D/370DG/371DG)
- VBS Gen-lock (EVI-370DG/371DG)
- On Screen Display
- 12 weeks Memory Back up
- 6 Position Memory Presets
- Analogue Zoom Position Feedback
- Custom Set up

## Camera Control

It is possible control the camera functions by remote.

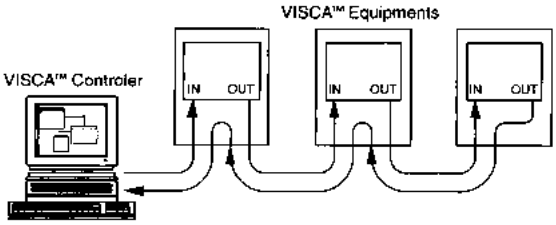
| | FK-69 | VISCA™/RS-232C | | |
|---|---|---|---|---|
| | | EVI-370 371 | EVI-370D 371D | EVI-370DG 371DG |
| Power ON/OFF | | ○ | ○ | ○ |
| Zoom Standard Tele/Wide | ○ | ○ | ○ | ○ |
| Zoom Fast Tele/Wide | ○ | ○ | ○ | ○ |
| Zoom Position (Preset/Detect) | | ○ | ○ | ○ |
| Focus Auto/Manual select | ○ | ○ | ○ | ○ |
| Focus Far/Near | ○ | ○ | ○ | ○ |
| Focus Position (Preset/Detect) | | ○ | ○ | ○ |
| White Balance mode Select | ○ | ○ | ○ | ○ |
| One push White Balance(Preset) | ○ | ○ | ○ | ○ |
| White Balance mode Detect | | ○ | ○ | ○ |
| AE Mode | ○ | ○ | ○ | ○ |
| Bright Control Up/Down | ○ | ○ | ○ | ○ |
| Exposure Compensation Up/Down | ○ | ○ | ○ | ○ |
| Shutter Priority Up/Down | ○ | ○ | ○ | ○ |
| Shutter Priority (Preset) | ○ | ○ | ○ | ○ |
| Shutter Priority (Detect) | | ○ | ○ | ○ |
| Iris Priority Up/Down | | ○ | ○ | ○ |
| Iris Priority (Preset) | | ○ | ○ | ○ |
| Iris Priority (Detect) | | ○ | ○ | ○ |
| Manual Shutter Up/Down | | ○ | ○ | ○ |
| Manual Shutter (Preset) | | ○ | ○ | ○ |
| Manual Shutter (Detect) | | ○ | ○ | ○ |
| Manual Iris (Up/Down) | | ○ | ○ | ○ |
| Manual Iris (Preset) | | ○ | ○ | ○ |
| Manual Iris (Detect) | | ○ | ○ | ○ |
| Manual Gain (Up/Down) | | ○ | ○ | ○ |
| Manual Gain (Preset) | | ○ | ○ | ○ |
| Manual Gain (Detect) | | ○ | ○ | ○ |
| Position Preset (Preset/Reset) | ○ | ○ | ○ | ○ |
| Position Preset (Detect) | | ○ | ○ | ○ |
| Setting the clock | ○ | ○ | ○ | ○ |
| Digital Zoom ON/OFF | | | ○ | ○ |
| Digital Zoom Position(Preset/Detect) | | | ○ | ○ |
| Gen-lock Adjust | | | | ○ |

### ●FK-69

By using the FK-69 optional switchboard it is possible to control many of the camera functions listed above.

### ●VISCA™/RS-232C

The EVI-370/371 series can be controlled by RS-232C serial control using VISCA™. VISCA™ is an acronym of Video System Control Architecture. It is a network protocol designed to interface a wide variety of video equipment to a computer. Under VISCA™, up to 7 cameras can be connected to one controller using RS-232C communication.
When communicating via RS-232C a data rate of 9600 baud and a data format of 8 bits, 1 start bit, 1 stop bit and no parity should be used.
The actual internal connections form a one way ring, therefore data passes through all the cameras and return to the controller. Each device has an address on this network. The address of the controller is always 0. The addresses of the cameras are numbered 1 through to 7 with the camera addresses numbered sequentially from the first in the chain to the last.
As part of the initialisation of the network, the controller sends the address command to establish how many cameras are connected and to allocate network addresses.

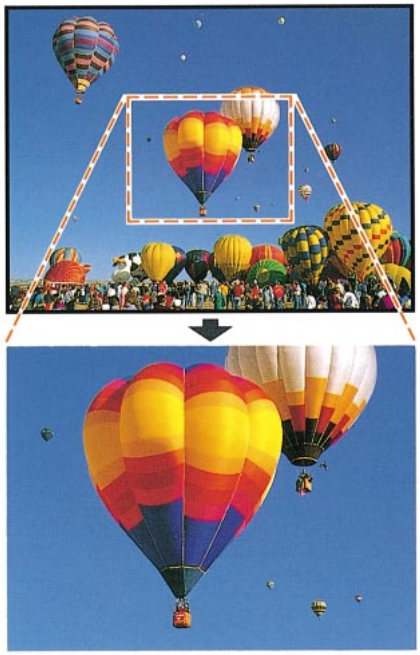



*"VISCA™" is trademarks of Sony Corporation.

## Digital Zoom

The EVI-370D/371D/370DG/371DG adopts 2 x Digital Zoom enabling the image to be enlarged in both the horizontal and vertical planes. The Digital Zoom is automatically activated at the 12 x optical zoom limit.
Because the Digital Zoom enlarges the image in both directions by a factor of two, the effective pixel area is reduced to 1/4 of the original size thus compromising on resolution but offering tremendously exciting results.

*It is possible to increase the Digital Zoom up to a maximum of 8 times. Adjustment is made via exclusive programing Communication.



## On Screen Display

The EVI-370 Series employs a character generator which enables all Gen-lock adjustments, camera ID and date and time to be overlayed on the video.


①Gen-lock

The EVI-370DG/371DG incorporates VBS Gen-lock. Gen-lock adjustments can be made via the menu key on the side of the camera or via VISCA™.

The Gen-lock menu is as follows:-

- MODE
  INT-Internal Synchronisation only
  AUTO-Internal or External Synchronisation automatically
- H-PHASE-adjustment of H phase by ±99 steps
- SC-PHASE-reverse Sub Carrier phase by 0/180 degrees
- SC FINE-fine adjustment of Sub Carrier by ±99 steps

②CAMERA ID

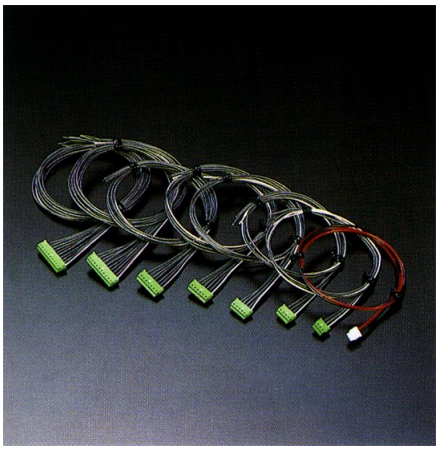
Camera ID display can be enabled by VISCA™ and disabled either by the menu key or via VISCA™.
Camera ID is available from 0001 to 00FF.
This function is available to the EVI-370DG/371DG.

③TIME/DATE

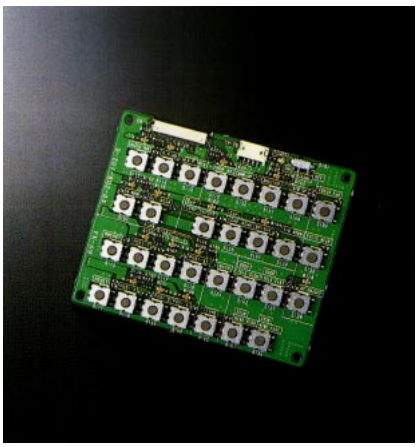
Time and date display can be enabled/disabled either by the menu key or via VISCA™.

## Accessory

●Harness (Supplied)
2P, 3P, 4P, 6P, 7P, 10P
(5P, 9P, EVI-370G/371G/370DG/371DG)



●Switching Board
FK-69 (Optional)



●Wide Conversion Lens (Optional)
- VCL-0637W
- 0.6x Wide Conversion

●ϕ37mm Adaptor Lens (Optional)

Conversion lenses for Sony Camcorders having 37mm screw can be used for the EVI-370series

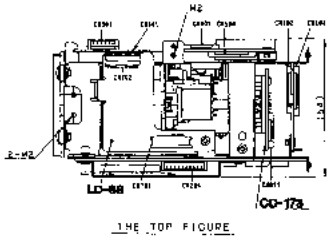
- VCL-0637H 0.6x Wide Conversion
- VCL-2037K 2.0x Tele Conversion
- VCL-1437H 1.4x Tele Conversion

## Specifications

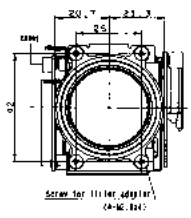
| | EVI-370(NTSC)<br>EVI-370D(NTSC) | EVI-371(PAL)<br>EVI-371D(PAL) | EVI-370DG(NTSC) | EVI-371DG(PAL) |
|---|---|---|---|---|
| Image Sensor | 1/3" Hyper HAD CCD | | | |
| Pixels/Effective Pixels | 410K/380K pixels | 470K/440K pixels | 410K/380K pixels | 470K/440K pixels |
| Picture Elements | 768(H) × 494(V) | 752(H) × 582(V) | 768(H) × 494(V) | 752(H) × 582(V) |
| H.Resolution (Center) | more than 460TV lines | more than 450TV lines | more than 460TV lines | more than 450TV lines |
| V.Resolution (Center) | more than 350TV lines | more than 400TV lines | more than 350TV lines | more than 400TV lines |
| Lens | 12x Zoom, f=5.4 to 64.8mm, F=1.8 to 2.7, Wide Macro, Auto Focus (Inner Focus System) | | | |
| E.Zoom | —<br>(2 × 12=)24x Zoom | | | |
| Angle of View (H)<br>(V) *Optical Zoom | approx 48.8°(wide end) to 4.3°(tele end)<br>approx 37.6°(wide end) to 3.2°(tele end) | | | |
| Lens Constructure | 9elements in 6 groups (including 2 aspherical lenses) | | | |
| Shortest Subject Dist. | 10mm (wide end):800mm (tele end) | | | |
| Video Out<br>(75Ω Terminated) | Y:VS1.0Vp-p sync negative<br>C:Burst 0.286Vp-p<br>VBS:1.0Vp-p cmposite | Y:VS1.0Vp-p sync negative<br>C:Burst 0.300Vp-p<br>VBS:1.0Vp-p cmposite | Y:VS1.0Vp-p sync negative<br>C:Burst 0.286Vp-p<br>VBS:1.0Vp-p cmposite | Y:VS1.0Vp-p sync negative<br>C:Burst 0.300Vp-p<br>VBS:1.0Vp-p cmposite |
| Sync. System | Internal | | Internal/External | |
| External Sync.<br>(VBS) | — | | Video:0 to 100IRE<br>Sync:40IRE±20% | Video:0 to 700mV<br>Sync:300mV±20% |
| Min. Illumination | 7 lx F1.8 (Min.50IRE) | | | |
| S/N Ratio | Min.48dB | | | |
| White Balance | ATW, One push Hold, Indoor Preset, Outdoor Preset | | | |
| Electronic Shutter | 27 steps (1/60sec.up to1/10000 sec.) | 28 steps (1/50sec.up to1/10000 sec.) | 27 steps (1/60sec.up to1/10000 sec.) | 28 steps (1/50sec.up to1/10000 sec.) |
| Flickerless | Auto | | | |
| Operating temp./humi. | 0°C to 50°C/30% to 85% | | | |
| Storage temp./humi. | -20°C to 60°C/20% to 90% | | | |
| Power Requirements | DC6 to 12V (normal 2.4W, lens drive state 3.2W at 6V DC)<br>DC6 to 12V (normal 2.6W, lens drive state 3.4W at 6V DC) | | | |
| Dimensions (W/H/D) | 54 × 51 × 100mm | | 59 × 51 × 100mm | |
| Weight | 220g<br>225g | | —<br>230g | |
| Spurious Radiation | FCC Class B | | | |
| Supplied Accessory | 2P, 3P, 4P, 6P, 7P, 10P Harness | | 2P, 3P, 4P, 5P, 6P, 7P, 9P, 10P Harness | |

## Dimensions

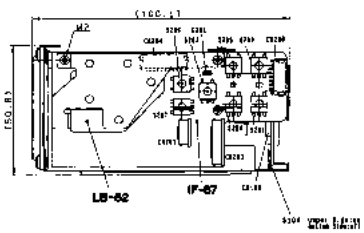
### EVI-370/371/370D/371D



THE TOP FIGURE

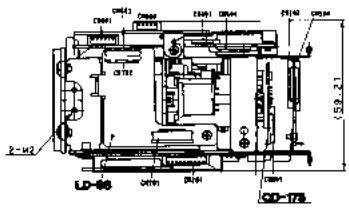


THE FRONT FIGURE



THE RIGHT SIDE FIGURE

### EVI-370DG/371DG



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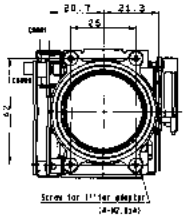

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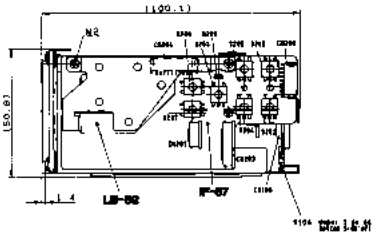

THE RIGHT SIDE FIGURE

Unit:mm


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