

SONY

COLOR CAMERA BLOCK

EVI-370 series



*Instruction
Manual*

(Ver. 1.2) — English —

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== OUTLINE ==

The EVI-370 series cameras are the ultra-compact CCD camera blocks with 12 times zoom, auto-focus lens. A 1/3 inch 380000 (NTSC)/440000 (PAL) effective pixels Hyper HAD CCD is utilized, which enables a high resolution of 460 lines to be achieved.

The EVI-370D series uses the VISCA™ protocol and RS-232C interface. When using VISCA™, the computer (or other device issuing the commands) is called the controller and the EVI-370 series (or other device receiving the commands) is referred to as the peripheral device.

The EVI-370 series uses the DSP which enables the camera functions to be controlled digitally.

The EVI-370 series has a controllable zoom and focus. It is possible to select between automatic-compensation white balance (ATW), one push white balance and preset white balance. The brightness levels can be adjusted extensively with the EVI-370 series using a combination of the following camera features: an 18 step iris, 28 speeds of electronic shutter, a shutter speed of up to 1/10,000 second, a combination of gain and iris providing a 24 level brightness control function and an exposure compensation function. The position preset function allows its camera function to be stored as one of the six presets.

The EVI-370D series is also equipped with an electronic zoom function. The electronic zoom achieves 2 times magnification, which means up to 24 times zoom can be realized when the full extent of the ×12 optical zoom is used. The zoom settings can be stored as a position-preset.

The EVI-370DG/371DG detects the external VBS signal automatically, and outputs the video signal which locks the H sync signal and burst signal.

The EVI-370 series provides both composite and YC video output. The power supply input required is 6 V to 12 V.

In total, the EVI-370 series consists of 6 variants, to cover a wide variety of applications.

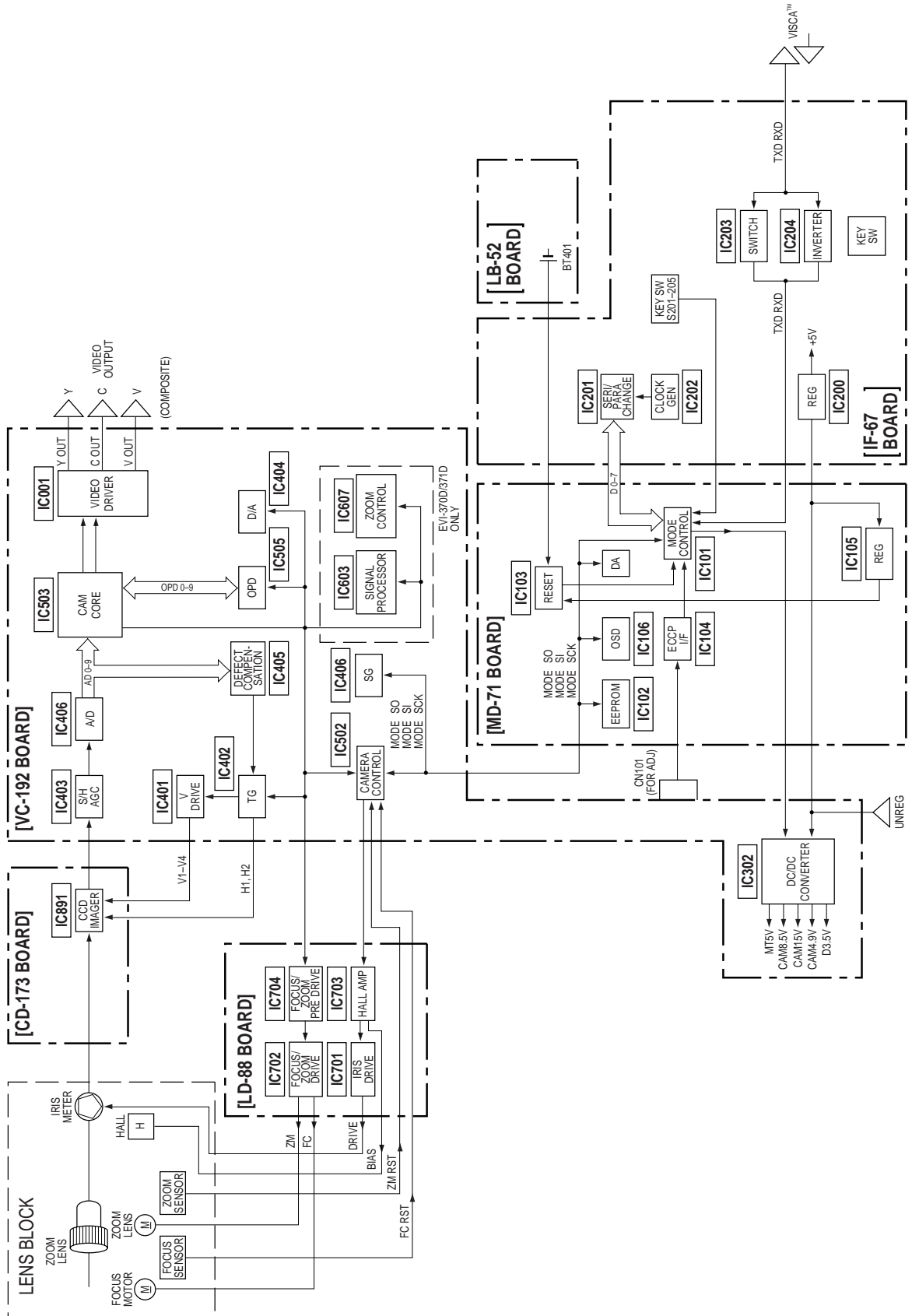
* “VISCA™” is a trademark of Sony Corporation.

GENERAL SPECIFICATIONS

	EVI-370 (NTSC)		EVI-371 (PAL)	
	EVI-370D (NTSC)	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 460 TV lines	More than 450 TV lines	More than 460 TV lines	More than 450 TV lines
V.resolution (Center)	More than 350 TV lines	More than 400 TV lines	More than 350 TV lines	More than 400 TV lines
Lens	12x zoom, f = 5.4 to 64.8 mm, F = 1.8 to 2.7, wide macro, auto focus (Inner focus system)			
E.zoom	— (2 × 12 =) 24× zoom			
Angle of view (H) (V)	Approx. 48.8° (Wide end) to 4.3° (Tele end) Approx. 37.6° (Wide end) to 3.2° (Tele end)			
Lens construction	9 elements in 6 groups (Including 2 aspherical lenses)			
Shortest subject dist.	10 mm (Wide end) : 800 mm (Tele end)			
Video out (75Ω terminated)	Y : VS 1.0 Vp-p sync negative C : burst 0.286 Vp-p VBS : 1.0 Vp-p composite	Y : VS 1.0 Vp-p sync negative C : burst 0.300 Vp-p VBS : 1.0 Vp-p composite	Y : VS 1.0 Vp-p sync negative C : burst 0.286 Vp-p VBS : 1.0 Vp-p composite	Y : VS 1.0 Vp-p sync negative C : burst 0.300 Vp-p VBS : 1.0 Vp-p composite
Sync. system	Internal		Internal/External	
External sync. (VBS)	—		Video : 0 to 100 IRE Sync : 40 IRE ± 20%	Video : 0 to 700 mV Sync : 300 mV ± 20%
Min. illumination	7 lx F1.8 (More than 50 IRE)			
S/N ratio	More than 48 dB			
White balance	ATW, one push hold, indoor preset, outdoor preset			
Electronic shutter	27 steps (1/60 sec. up to 1/10000 sec.)	28 steps (1/50 sec. up to 1/10000 sec.)	27 steps (1/60 sec. up to 1/10000 sec.)	28 steps (1/50 sec. up to 1/10000 sec.)
Flickerless	Auto			
Operating temp./humi.	0 to 50°C/30 to 85%			
Storage temp./humi.	-20 to +60°C/20 to 90%			
Power requirements	DC 6 to 12 V (Normal: 2.4 W, lens drive state: 3.2 W at 6 V DC) DC 6 to 12 V (Normal: 2.6 W, lens drive state: 3.4 W at 6 V DC)			
Dimensions (W/H/D)	54 × 51 × 100 mm		59 × 51 × 100 mm	
Weight	220 g 225 g		230 g	
Supplied accessory	2P, 3P, 4P, 6P, 7P, 10P harness		2P, 3P, 4P, 5P, 6P, 7P, 9P, 10P harness	

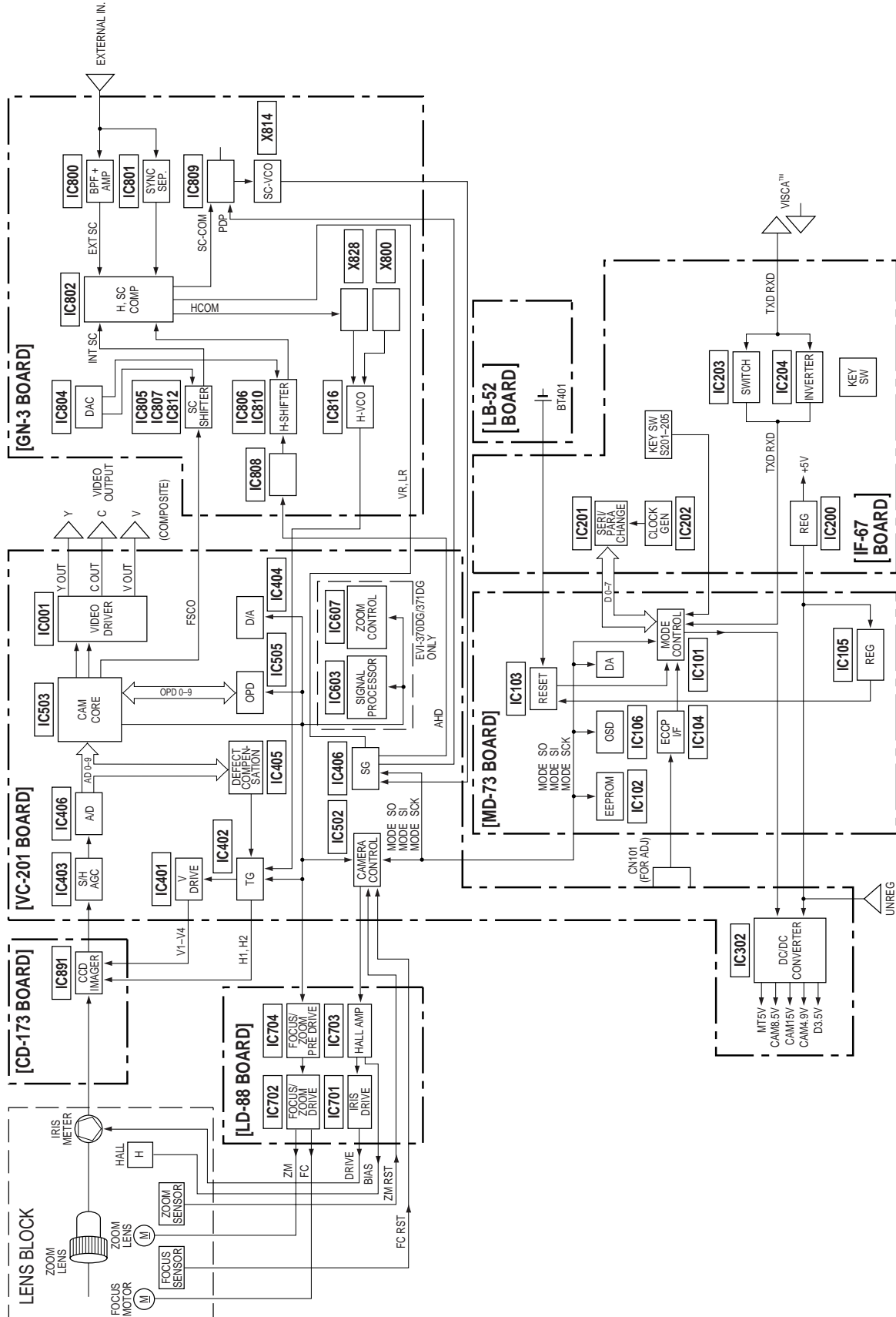
BLOCK DIAGRAM

EVI-370/371/370D/371D Block Diagram



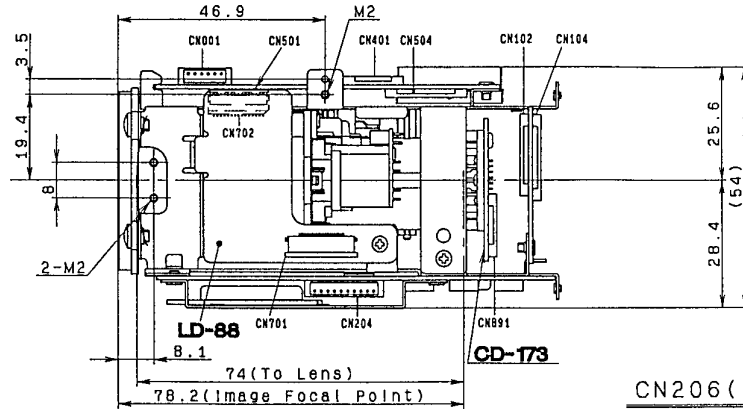
BLOCK DIAGRAM

EVI-370DG/371DG Block Diagram



DIMENSIONS

EVI-370/370D/371/371D (1/2)



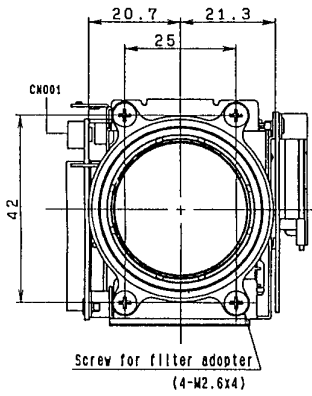
THE TOP FIGURE

CN204 (10P)

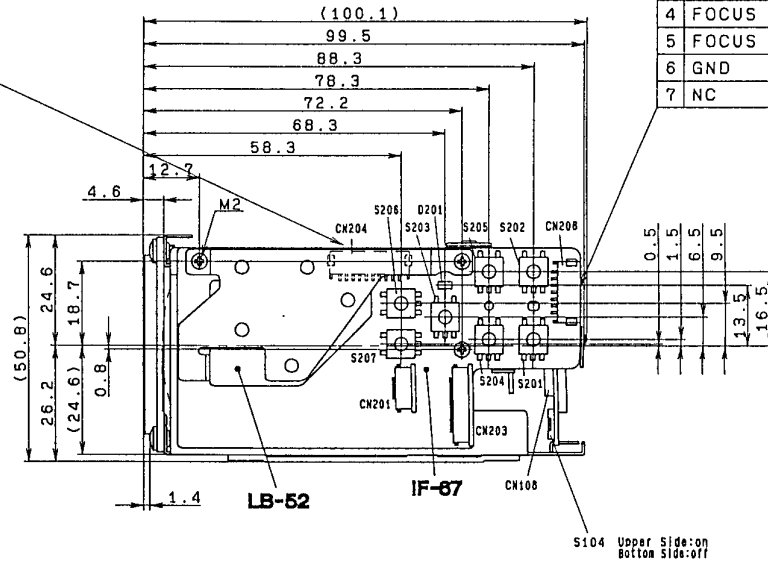
1	TXD IN
2	DTR IN
3	DSR IN
4	RXD IN
5	TXD OUT
6	DTR OUT
7	DSR OUT
8	RXD OUT
9	GND
10	NC

CN206 (7P)

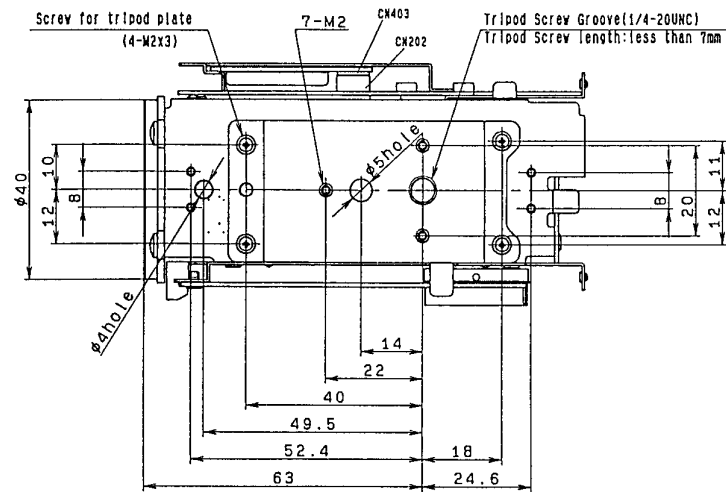
1	ZOOM WIDE
2	ZOOM TELE
3	AF ON/OFF
4	FOCUS NEAR
5	FOCUS FAR
6	GND
7	NC



THE FRONT FIGURE



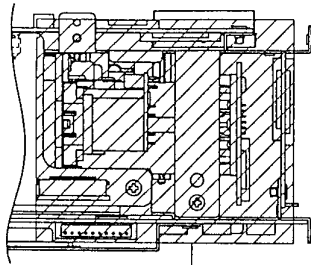
THE RIGHT SIDE FIGURE




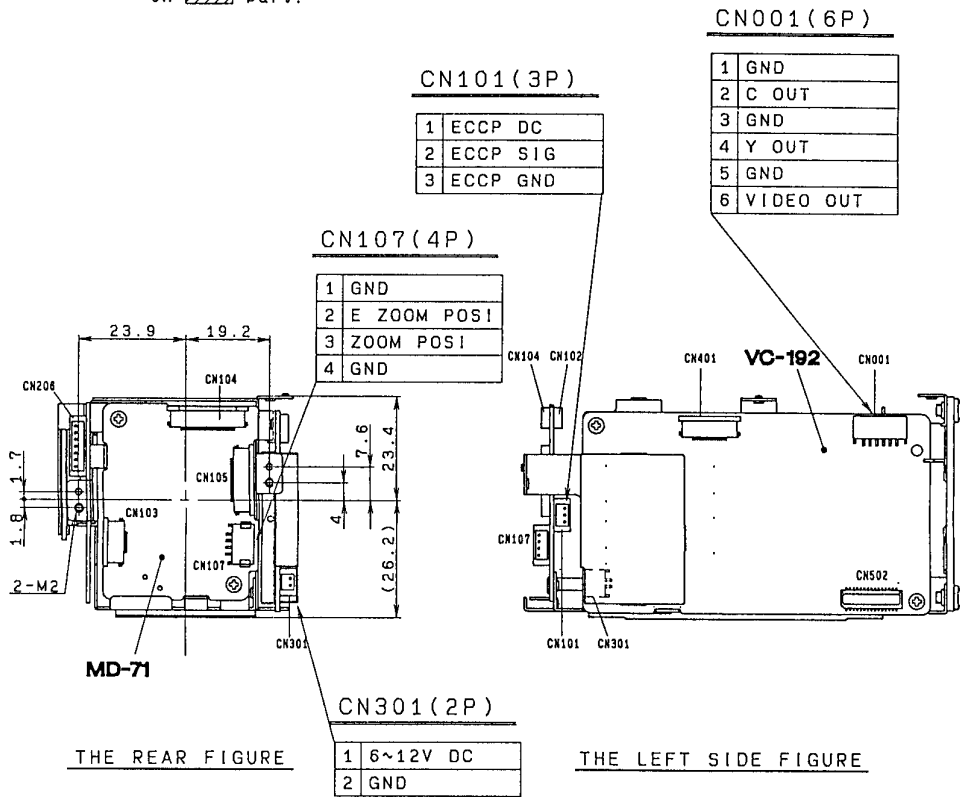
THE BOTTOM FIGURE

DIMENSIONS

EVI-370/370D/371/371D (2/2)



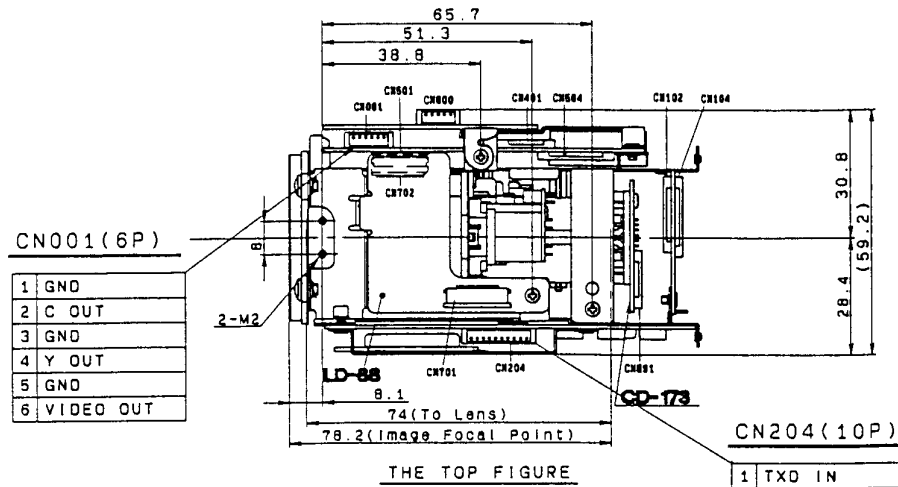
Part of the component shall not be inserted on  part.



* Specifications are subject to change without notice.

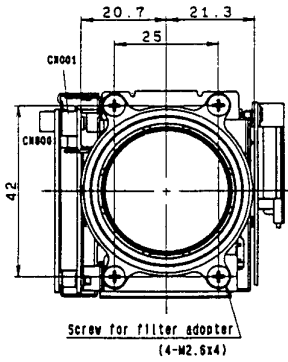
DIMENSIONS

EVI-370DG/371DG (1/2)

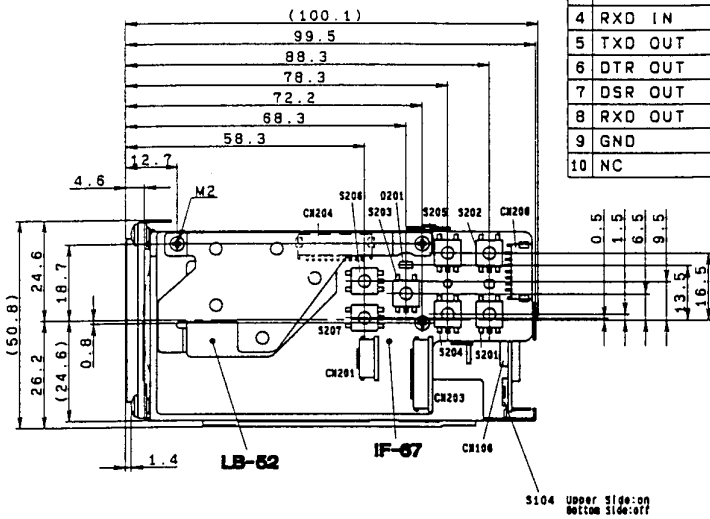


THE TOP FIGURE

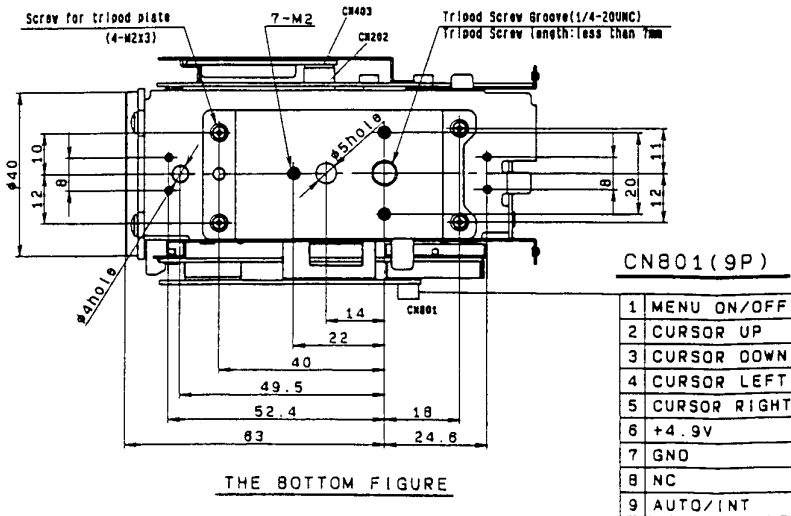
1	TXD IN
2	DTR IN
3	DSR IN
4	RXD IN
5	TXD OUT
6	DTR OUT
7	DSR OUT
8	RXD OUT
9	GND
10	NC



THE FRONT FIGURE



THE RIGHT SIDE FIGURE

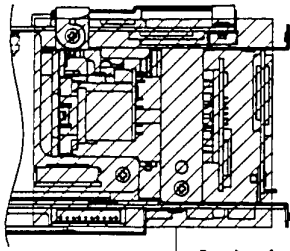



THE BOTTOM FIGURE

1	MENU ON/OFF
2	CURSOR UP
3	CURSOR DOWN
4	CURSOR LEFT
5	CURSOR RIGHT
6	+4.9V
7	GND
8	NC
9	AUTO/INT

DIMENSIONS

EVI-370DG/371DG (2/2)



Part of the component shall not be insert on  part.

CN206 (7P)

1	ZOOM WIDE
2	ZOOM TELE
3	AF ON/OFF
4	FOCUS NEAR
5	FOCUS FAR
6	GND
7	NC

CN101 (3P)

1	ECCP DC
2	ECCP SIG
3	ECCP GND

CN800 (5P)

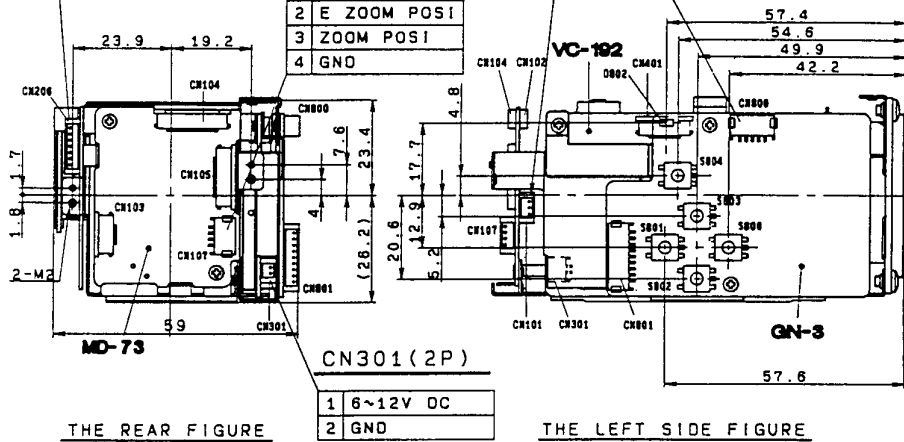
1	VIDEO IN
2	GND
3	HR
4	VR
5	LR

CN107 (4P)

1	GND
2	E ZOOM POS1
3	ZOOM POS1
4	GND

CN301 (2P)

1	6~12V DC
2	GND



* Specifications are subject to change without notice.

LIST OF INPUT/OUTPUT PINS

VC-192 Board (EVI-370/371/370D/371D)

VC-201 Board (EVI-370DG/371DG)

◇ CN001: 6P For video output

1. GND	Board side	: JST S6B-ZR-SM3A-TF
2. C OUT	Housing	: JST ZHR-6
3. GND		
4. Y OUT		
5. GND		
6. VIDEO OUT		

◇ CN301: 2P For power input

1. DC IN (6 to 12 V)	Board side	: JST S2B-ZR-SM3A-TF
2. GND	Housing	: JST ZHR-2
	Receptacle	: JST SZH-003T-P0.5

* CN502 no use.

MD-71 Board (EVI-370/371/370D/371D)

MD-73 Board (EVI-370DG/371DG)

◇ CN101: 3P For ECCP and remote control

1. ECCP DC/UNREG OUT	Board side	: JST S3B-ZR-SM3A-TF
2. ECCP SIG IN/OUT	Housing	: JST 03ZR-8M
3. GND		

◇ CN107: 4P For zoom encode

1. GND	Board side	: JST S4B-ZR-SM3A-TF
2. D-ZOOM POSI	Housing	: JST 04ZR-8M
3. ZOOM POSI		
4. GND		

LIST OF INPUT/OUTPUT PINS

◇ CN104: 27P
For connecting FK-69 board (Optional board)

JST 27FLZ-RSM1-TB

- | | |
|--|---|
| 1. ZOOM (FAST)/FOCUS/AF ON/OFF/
EXP. COMP. UP | 17. SHUTTER PRIORITY AE LED |
| 2. OUTDOOR LED | 18. POSITION RESET LED |
| 3. INDOOR LED | 19. D 3.5 V |
| 4. ONE PUSH WB LED | 20. ZOOM (SLOW)/WB INDOOR/
WB OUTDOOR/
EXP.COMP. DOWN/POSI 6 |
| 5. ATW LED | 21. EXP.COMP. ON/OFF/BRIGHT/
S/B UP/S/B DOWN/
SHUTTER/NORMAL AE |
| 6. POSITION 5 LED | 22. DATE/POSI RES/POSI PRES/
WB AUTO/WB ONE PUSH/O.P. WB. TRIG |
| 7. POSITION 4 LED | 23. TIME/POSI 1 to 5 |
| 8. POSITION 3 LED | 24. POSITION SW |
| 9. AF ON LED | 25. SHUTTER SW |
| 10. POWER LED | 26. NC |
| 11. POSITION 6 LED | 27. GND |
| 12. POSITION 2 LED | |
| 13. POSITION 1 LED | |
| 14. BRIGHT LED | |
| 15. BACKLIGHT LED | |
| 16. AE LED | |

* CN105 no use.

LIST OF INPUT/OUTPUT PINS

IF-67 Board

In this board, zoom, focus (key switch) and VISCA™/RS-232C control can be performed simply. For details, call SONY.

◇ CN206: 7P

For connecting function control

1.	ZOOM WIDE	Board side	: JST S7B-ZR-SM3A-TF
2.	ZOOM TELE	Housing	: JST 07ZR-8M
3.	AF ON/OFF		
4.	FOCUS NEAR		
5.	FOCUS FAR		
6.	GND		
7.	AF LED OUT		

* When connecting each pin number 1 to 5 to the GND, each function works.

◇ CN204: 10P

For connecting RS-232C control

1.	TXD IN	Board side	: JST S10B-ZR-SM3A-TF
2.	DTR IN	Housing	: JST 10ZR-8M
3.	DSR IN		
4.	RXD IN		
5.	TXD OUT		
6.	DTR OUT		
7.	DSR OUT		
8.	RXD OUT		
9.	GND		
10.	AF LED OUT		

LIST OF INPUT/OUTPUT PINS

GN-3 Board (EVI-370DG/371DG)◇ **CN800: 5P****For external sync**

1. VIDEO IN	Board side	: JST S5B-ZR-SM3A-TF
2. GND	Housing	: JST 05ZR-8M
3. NC		
4. NC		
5. NC		

◇ **CN801: 9P****For GN-key board**

1. MENU ON/OFF	Board side	: JST S9B-ZR-SM3A-TF
2. CURSOR UP	Housing	: JST 09ZR-8M
3. CURSOR DOWN		
4. CURSOR LEFT		
5. CURSOR RIGHT		
6. +4.9 V (Approx. 200 mA)		
7. GND		
8. NC		
9. AUTO/INT		

* When connecting each pin number 1 to 5 to the GND, each function works.

== OUTLINE OF FUNCTIONS ==

The EVI-370 series has the following functions.

■ Zoom

A stepper motor is adopted for zoom control.

The zoom range of the EVI-370/371 is 12 times. Zooming between tele (64.8 mm) and wide (5.4 mm) is possible.

By adopting the electronic zoom (2 times), zooming up to 24 times can be achieved for EVI-370D/371D/370DG/371DG.

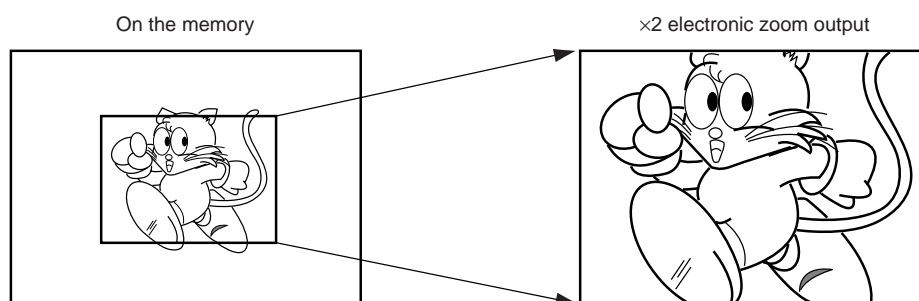
From the wide end to 12 times, zooming is performed optically. From 12 to 24 times, zooming is performed in such a manner that the electronic zoom operates up to 2 times with the 12 times optical zoom state maintained.

The default (factory preset) zoom position from power on is at the wide end.

◇ Electronic Zoom (Digital Zoom)

The EVI-370D/371D/370DG/371DG adopts $2 \times$ digital zoom enabling the image to be enlarged in both the horizontal and vertical planes. Because the digital zoom enlarges 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 programming communication.



OUTLINE OF FUNCTIONS

■ Focus

An inner focus system is employed for the EVI-370/371 series. The auto-focus control is based on high frequency components with high video signal level, that is components with high luminance and strong contrast in the measurement area.

The focusing distance increases towards the tele end. At the wide end a minimum focus distance of 1 cm can be achieved whilst at the tele end this increases to 80 cm.

Auto focus is set in the initial state.

NOTE : In the auto-focus mode, focusing will constantly be performed even with a still image. To preserve the durability of the unit it is recommended to avoid 24-hour continuous use of the auto-focus mode.

■ White Balance

◇ Auto white balance (ATW)

For this unit's ATW, the TTL method is adopted to reproduce the natural colors of the subject as closely as possible by calculating the color data of the whole screen. To prevent the subject from being all white by operating white balance function blindly, the operation range of auto white balance function is limited. This function also judges whether indoor or outdoor from the brightness and changes the withdraw range of auto white balance accordingly.

◇ Preset white balance

The preset white balance can be selected from fixed indoors (3200K) and fixed outdoors (5800K).

◇ One push white balance

The one push white balance is a function which, once the subject is set to certain lighting conditions, will expose the subject under these conditions by gaining white forcibly. The color is reproduced naturally without being affected by the surrounding conditions of the subject. When set, the one-push white balance trigger is sent assuming that the white subject occupies more than 1/2 of the screen. The one-push white balance data is provided when the lithium backup SW is ON even though the power is off (2 days for fully-charged battery). When the lithium backup SW is off, the data will be lost when the power is turned off. Therefore, when turning off the power, set the one-push white balance again.

OUTLINE OF FUNCTIONS

Automatic Exposure Mode

In automatic exposure mode the following features will be active:—

Auto Iris

AGC (Auto Gain Control)

Shutter 1/60th sec (EVI-370/370DG) 1/50th sec (EVI-371/371DG)

Shutter Priority Automatic Exposure Mode

In this mode the shutter speed is selected from the table below. The gain and iris are automatically adjusted accordingly.

1	1/60 (PAL: 1/50)	11	1/300	21	1/1750
2	1/60	12	1/350	22	1/2000
3	1/75	13	1/425	23	1/2500
4	1/90	14	1/500	24	1/3000
5	1/100	15	1/600	25	1/3500
6	1/125 (PAL: 1/120)	16	1/725	26	1/4000
7	1/150	17	1/850	27	1/6000
8	1/180	18	1/1000	28	1/10000
9	1/215	19	1/1250		
10	1/250	20	1/1500		

Auto Flickerless Function

This unit is equipped with an auto flickerless function which automatically reduces flicker which occurs when exposed under fluorescent light with a power frequency of 50 Hz. To completely eliminate flicker, set the shutter to 1/100 seconds.

Exposure Compensation

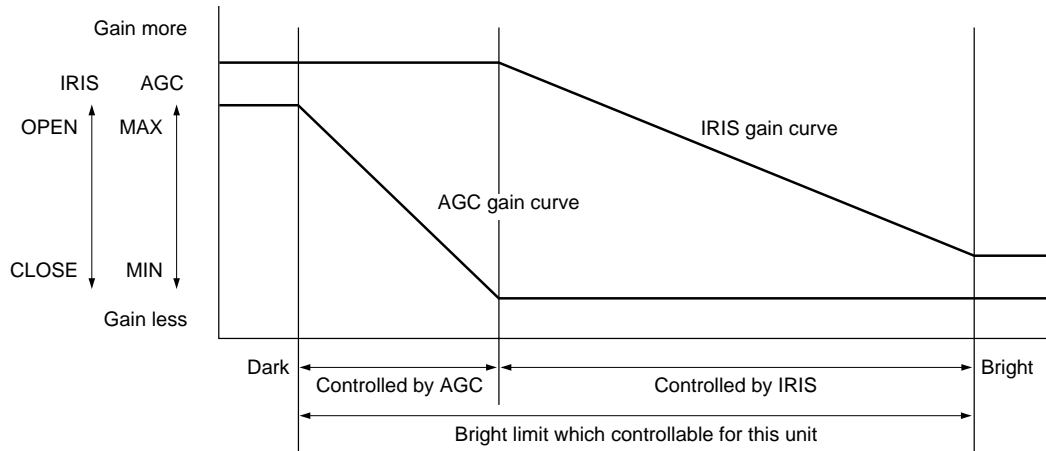
Exposure compensation function is a brighter/darker adjustment function of the brightness when in auto (auto iris, AGC). The brightness when exposure compensation is OFF (auto iris, AGC) is a base (step 0) and each 7 steps to brighter and darker than the base condition (step 0) are adjustable. Iris and gain are in auto mode.

OUTLINE OF FUNCTIONS

Bright Control

The bright control function adjusts brightness with both gain and iris. Exposure is controlled by gain when dark and by iris when bright.

As both gain and iris are fixed, they are used when exposing at a fixed camera sensitivity. When switching from the automatic exposure mode or shutter priority automatic exposure mode to the bright mode, the state before switching is held momentary.



STEP	GAIN	IRIS	STEP	GAIN	IRIS	STEP	GAIN	IRIS
1	18 dB	F1.8	9	0 dB	F2.4	17	0 dB	F9.6
2	15 dB	F1.8	10	0 dB	F2.8	18	0 dB	F11
3	12 dB	F1.8	11	0 dB	F3.4	19	0 dB	F14
4	9 dB	F1.8	12	0 dB	F4	20	0 dB	F16
5	6 dB	F1.8	13	0 dB	F4.8	21	0 dB	F19
6	3 dB	F1.8	14	0 dB	F5.6	22	0 dB	F22
7	0 dB	F1.8	15	0 dB	F6.8	23	0 dB	F28
8	0 dB	F2.0	16	0 dB	F8	24	0 dB	CLOSE

Shutter Priority Bright Control

When switching from the shutter priority automatic exposure mode to the bright mode, the bright mode control can be performed while maintaining the shutter speed set in the shutter priority automatic exposure mode. When switched to the shutter priority automatic exposure mode, automatic exposure is started at the maintained shutter speed (both iris and gain are automatic).

OUTLINE OF FUNCTIONS

■ Iris Priority Mode

In this mode the Iris position is selected from the table below. The gain and shutter speed is automatically adjusted accordingly.

1	CLOSE	10	F6.8
2	F28	11	F5.6
3	F22	12	F4.8
4	F19	13	F4
5	F16	14	F3.4
6	F14	15	F2.8
7	F11	16	F2.4
8	F9.6	17	F2.0
9	F8	18	F1.8

■ Camera Manual Mode

In this mode the gain is manually selectable from the table below. Shutter speed (28 speeds), iris (18 steps), brightness (8 steps) are also manually selectable (see other tables for selection).

Gain steps as follows:

1	-3 dB
2	0 dB
3	+3 dB
4	+6 dB
5	+9 dB
6	+12 dB
7	+15 dB
8	+18 dB

OUTLINE OF FUNCTIONS

■ Position Preset

All products within the EVI-370/371 series incorporate 6 presets each of which can be programmed with specific camera settings. Using this function, zoom position, focus (auto/manual position), white balance, shutter speed, and bright control (iris/gain) can be stored. In addition the electronic zoom position can be stored on the EVI-370D/371D/370DG/371DG.

◇ Using Position Preset with the FK-69 board (Optional)

- Preset method

When the camera has been set to the desired state press the relevant position number whilst pressing the pressing the preset button to store the setting.

- Drive method

When the desired position number button is pressed the previously stored settings will be recalled. If the desired position number has not been programmed with desired setting the factory preset state will be recalled.

- Reset method

To restore the desired position number back to the factory preset state press the relevant position number whilst pressing the reset button.

- Checking method

To check status of the six position presets, press either the reset or preset key. If the associated LED illuminates the position number has been preset, if not, factory settings are currently stored.

■ Factory Preset

Normally the six position presets contain factory defaults which are temporarily written over using the preset method outlined above. However, if the lithium battery is turned off and power is removed from the camera the factory defaults will be reinstated. The factory defaults can be changed if required using the factory preset function which means that customers desired settings can be stored without the need for battery backup.

Factory preset needs a control software.

NOTE : Changes to the factory preset will invalidate camera warranty.

OUTLINE OF FUNCTIONS

Date, Time

Use the buttons on the main unit to set the clock.

It can be set and display Date and Time.

◇ Setting/displaying using key switches on IF-67 board

● Setting method

Press the DATE and TIME buttons at the same time and hold them down for about 2 seconds. Release your hand as the month and date appear and the year starts flashing.

Repeat pressing the DATE button to select the year.

Press the TIME button to set the year.

Repeat the steps 2 and 3 to set the other time elements in the order of month, date, hour, and minute. The TIME button to set the minute.

● Having the clock displayed

You can select the clock display from either time or date.

To have the time displayed, press the TIME button.

To have the date displayed, press the DATE button.

To turn off the clock display, press the corresponding button again.

NOTE : When the POWER switch on the main unit is set to OFF, the clock will be as originally was. To retain the memory of the clock setting even if the power is turned off, set the BACKUP switch, on MD-71/73 board to ON.

Zoom Encode Output

The EVI-370 series features an analogue zoom encode output which indicates the zoom position in DC voltage.

Pin 2 and pin 3 of CN107 of the MD-71/73 board provide the digital and optical zoom encode output respectively.

The wide end is set to 0 V and tele end to 3.5 V.

The voltage level varies according to the zoom position.

Magnification	x1 → x12 → x24
Optical zoom	x1 → x12 → x12
Pin 3 zoom output	0 V → 3.5 V → 3.5 V
Digital zoom	x1 → x1 → x2
Pin 2 E-zoom output	0 V → 0 V → 3.5 V

OUTLINE OF FUNCTIONS

■ Gen Lock System (EVI-370DG/371DG)

The EVI-370DG/371DG has VBS Gen Lock function.

Input the VBS signal to CN800 of the GN-3 board. (Color video signal)

NOTE : Be sure to perform the following adjustment when using Gen Lock.

◇ Adjusting Gen Lock using key switches on GN-3 board

1. Press S804 to display the adjustment menu.
2. Move the cursor using S801 to S803.
 - MODE
INT-internal sync only
The mode is switched between AUTO-internal and external sync automatically.
 - The H-PHASE horizontal frequency can be adjusted in +/-99 steps.
 - The SC-PHASE sub-carrier frequency can be switched by 180 degrees.
 - The SC-FINE sub-carrier frequency can be finely-adjusted in +/-99 steps.

These adjustments can be performed externally by voltage control using CN801.

To maintain the adjusted state even after the power is turned OFF, set the BACKUP switch to ON.

■ Camera ID Display

The EVI-370DG/371DG can display 4-digit camera IDs using VISCA™/RS-232C.

FUNCTION CONTROL

Functions that can be controlled differ according to the control method used.

Control method Controllable functions	IF-67	GN-3 (EVI-370DG/ 371DG)	VISCA™/ RS-232C	FK-69
Zoom standard Tele/Wide			○	○
Zoom fast Tele/Wide	○		○	○
Zoom position (Set/Detect)			○	
Focus Auto/Manual selection	○		○	○
Focus Far/Near	○		○	○
Focus position (Set/Detect)			○	
White balance mode selection			○	○
One push white balance (Set)			○	○
White balance mode detection			○	
Automatic exposure mode (Set)			○	○
Bright control Up/Down			○	○
Exposure compensation Up/Down			○	○
Shutter priority Up/Down			○	○
Shutter priority (Set)			○	○
Shutter priority (Detect)			○	
Iris priority Up/Down			○	
Iris priority (Set)			○	
Iris priority (Detect)			○	
Manual shutter Up/Down			○	
Manual shutter (Set)			○	
Manual shutter (Detect)			○	
Manual iris Up/Down			○	
Manual iris (Set)			○	
Manual iris (Detect)			○	
Manual gain Up/Down			○	
Manual gain (Set)			○	
Manual gain (Detect)			○	
Position preset (Set/Reset)			○	○
Position preset (Detect)			○	
Setting the clock	○		○	○
Electronic zoom Tele/Wide			○	
Electronic zoom fast Tele/Wide			○	
Electronic zoom position (Set/Detect)			○	
Gen lock adjustment		○	○	
Camera ID display			○	

CONTROL METHODS

Camera Control Methods

◇ Power supply

Supply 6.0 to 12.0 V to CN301 (VC-192/201 board) using the harness provided.
Red (No.1) is +.

◇ Video signal output

Composite video and Y/C video are output to CN001 (VC-192/201 board).

◇ Backup switch (MD-71/73 board S104)

- Zoom switches and focus positions (position preset) can be memorized in the camera by turning on the backup switch.
- The backup battery is a re-chargeable battery.
- It can backup for 12 weeks when fully charged.
- At shipment, it is set to off.

Function Control Methods

◇ IF-67 board

The IF-67 board can control the focus and zoom of the lens easily (key-switch).

- Auto focus ON/OFF
 - When the AF ON/OFF switch is pressed, ON/OFF is switched and the LED lights up when AF is ON.
 - When the FOCUS FAR or NEAR switch is pressed (auto-focus is off) focus can be adjusted.
- Zoom adjustment

Zoom (image angle) can be adjusted by pressing the zoom TELE or WIDE switch.
- Time/Date set and display.

◇ GN-3 board

Gen Lock adjustment.

◇ Using VISCA™/RS-232C interface

Functions can be controlled using the RS-232C port of computers, etc.

It is possible to control a camera and read the camera data.

For details, see “Command List”.

CONTROL METHODS

◇ FK-69 board (optional board) control

The following functions can be controlled by connecting the FK-69 board.

CN104 of the MD-71/73 board (27P) is used.

● CN104: 27P

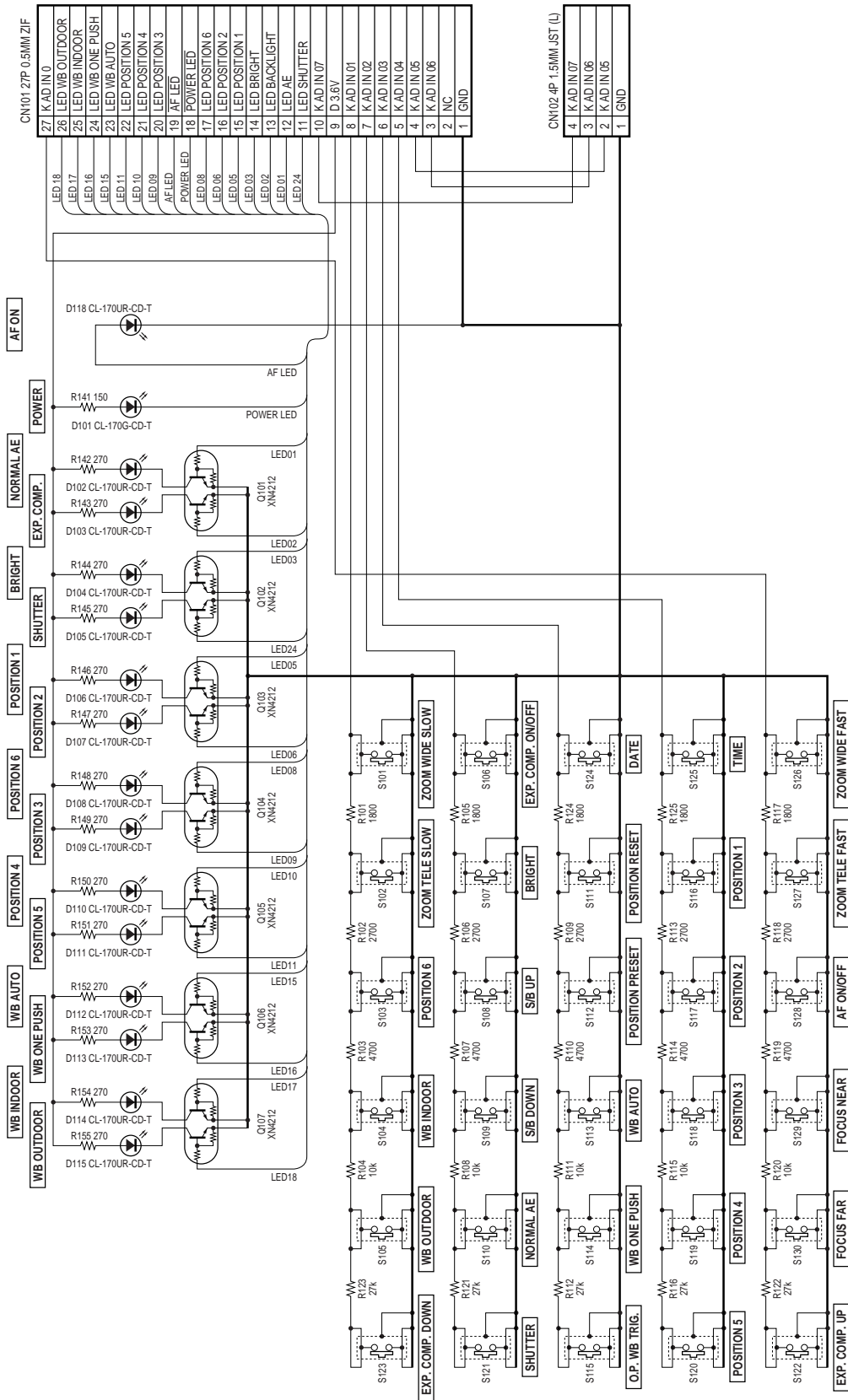
- | | |
|--|---|
| 1. ZOOM (FAST)/FOCUS/
AF ON/OFF/EXP. COMP. UP | 17. SHUTTER PRIORITY AE LED |
| 2. OUTDOOR LED | 18. POSITION RESET LED |
| 3. INDOOR LED | 19. D 3.5 V |
| 4. ONE PUSH WB LED | 20. ZOOM (SLOW)/WB INDOOR/
WB OUTDOOR/
EXP.COMP. DOWN/POSI 6 |
| 5. ATW LED | 21. EXP.COMP. ON/OFF/BRIGHT/
S/B UP/S/B DOWN/
SHUTTER/NORMAL AE |
| 6. POSITION 5 LED | 22. DATE/POSI RES/POSI PRES/
WB AUTO/WB ONE PUSH/O.P. WB. TRIG |
| 7. POSITION 4 LED | 23. TIME/POSI 1 to 5 |
| 8. POSITION 3 LED | 24. POSITION SW |
| 9. AF ON LED | 25. SHUTTER SW |
| 10. POWER LED | 26. NC |
| 11. POSITION 6 LED | 27. GND |
| 12. POSITION 2 LED | |
| 13. POSITION 1 LED | |
| 14. BRIGHT LED | |
| 15. BACKLIGHT LED | |
| 16. AE LED | |

● Controllable functions

- Zoom standard TELE/WIDE
- Zoom fast TELE/WIDE
- Auto focus ON/OFF
- Focus Far/Near
- White balance selection
- Bright control Up/Down
- Shutter speed Up/Down
- Exposure compensation Up/Down
- Position preset Preset/Reset
- Date, time

CONTROL METHODS

FK-69 Board Reference Circuit

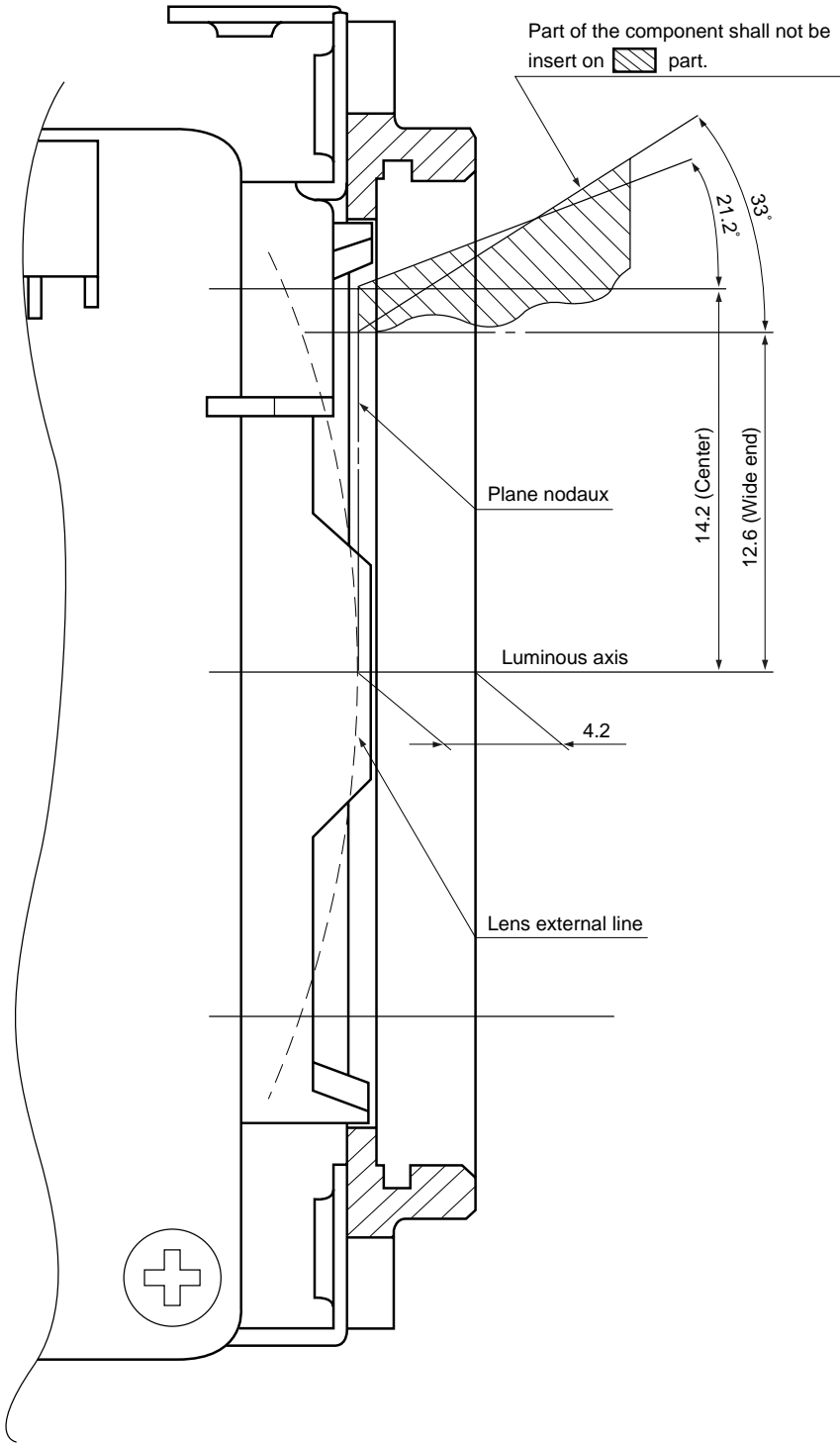


INSTALLATION

Use the screws for the tripod at the bottom or M2 screws of the chassis.

The plate for attaching the tripod on the bottom can be removed.

When designing the housing, etc., refer to the dimensional allowance as shown in the figure below.



HANDLING PRECAUTIONS

- Do not apply bending force to the printed circuit board.
- Do not supply excessive voltage. (Max 13.2 V)
When more than 9 V is used, the camera will become hot. Do not suspect a fault.
- When touching the board, prevent electrostatic discharge failure, by using the ground-band. When packaging, use the anti-electrostatic packaging.
- When transporting the unit, place it in the carton box in which it was shipped from Sony.
- When adjustments are performed or factory preset are changed, the camera will be out of warranty.

OTHERS

- RGB output is not available.
- The zoom limiter (TELE side/WIDE side) and proximity focus limiter can be set as camera factory preset using exclusive software.

OPTIONAL ACCESSORIES

◇ Function control switch board/FK-69 board

See page 21.

◇ Attachment lens

- Wide Conversion Lens/VCL-0637W
This is the 0.6× Wide Conversion Lens for the exclusive use of EVI series.
- A 37 mm diameter accessory screw is attached at the front of the lens so that a Camcorder conversion lens, such as wide conversion lens, close-up lens, etc. can be attached.

MEMO

MEMO

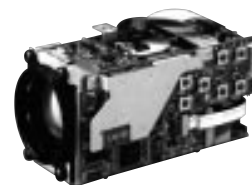
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