3CCD Color Camera

CS5800-04 / CS5800P-04

Operation Manual

Thank you for purchasing our CS5800-04 / 5800P-04 CCD color camera.
This operation manual includes some important information such as how to use this equipment correctly and safely. Please read through this manual carefully. After reading, keep this manual by the side of your equipment for your future reference.

teli   TOKYO ELECTRONIC INDUSTRY CO., LTD

CONTENS

BEFORE USE – GENERAL SAFETY INSTRUCTIONS

This instruction manual contains important information for the operator (user) and/or people around him/her to avoid personal injuries, or property damages against him/her or people around him/her by using this product correctly.

- Prior to use, read this operation manual carefully to fully understand its instructions for correct use.
- After reading, keep this manual by the side of your equipment for your future reference.

WARNINGS & CAUTIONS

[Definition of markings]
The meaning of each mark used in this instruction manual is given below.

⬦ **DANGER**	This mark warns the user that improper use, indicated with this mark, may cause death or severe personal injuries against the user or people around him/her.
⚠ **CAUTION**	This mark warns the user that improper use, indicated with this mark, may cause personal injuries (*1) or material damages (*2) against the user or people around him/her.

Notes   *1: Personal injuries mean wounds, burns, electric shocks, and others for which the person injured need not to be hospitalized nor to be cared for the long term.
        *2: Material damages mean any direct or consequential damages related to property or material loss.

🚫	This mark indicates what the user **SHOULD NOT DO**. The details of things, which the user should not do, are described next to this mark.
⬤	This mark indicates what the user **MUST DO**. The details of things, which the user must do, are described next to this mark.
◇	This mark indicates that the user must be alert against a possible **DANGER**. The details of the danger, which the user must be aware of, are described next to this mark.
△	This mark indicates that the users are given a **CAUTION** against possible hazards. The details of the caution, **which the user must be aware of,** are described next to this mark.

⟨!⟩ **DANGER**

Unplug	<u>If any overheating sign is observed, discontinue the use immediately.</u> In the event that smoke, smell, or any other overheating sign is observed, turn its power switch OFF immediately, and remove your plug from outlet. Do NOT try to continue to use this device. To do so in spite of clear signs of malfunction invites a fire, an electric shock hazard, or a serious damage. In such case, contact us or our dealer /distributor from which you purchased this device for repair service.
Unplug	<u>If any malfunctioning sign is observed, discontinue the use immediately.</u> Do NOT try to use this device when it is obviously malfunctioning. (Example: No images on the monitor) In the event of malfunction, turn its power switch OFF immediately, and remove the plug from the outlet. In such case, contact us or our dealer/distributor from which you purchased this device for repair service.
Unplug	<u>If any liquid gets into the device, discontinue the use immediately.</u> In the event that water, or any other type of liquid gets into the body, do NOT try to continue to use the device. To do so invites a fire or an electric shock hazard. In that case, turn its power switch OFF immediately, and then remove the plug from the outlet. After that, contact us or our dealer/distributor from which you purchased this device for repair service/technical advice.
NEVER pull apart	<u>Do NOT disassemble this device.</u> Do NOT attempt to pull apart, repair, or modify the device on your own. To do so might lead to a fire or an electric shock accident. Contact us or the dealer/distributor from which you purchased the device for repair/modification.
Avoid	<u>Do NOT supply any power other than specified.</u> This device is designed to work only under specified voltage. Do NOT attempt to supply the device with power other than specified. Supplying the device with unspecified power invites a fire or an electric shock hazard.
Avoid	DO NOT place the equipment near a humidifier or any other steam-producing appliance. Operating the equipment under such steamy conditions may cause fire or electric shock.

⚠ CAUTION

⚠ CAUTION	If the camera is operated in the electromagnetic field, there may be cases where beat noises (vertical, horizontal, or oblique stripes) appear in the video output. In that case, take preventive measures on the electromagnetic-wave generating source so that your camera does not receive the interference by the electromagnetic wave. Take extra precautions against electromagnetic-wave-interference if your camera is used with a servomotor, inverter, or other electromagnetic-wave-generating equipment.
⚠ CAUTION	Avoid giving a strong shock against the camera body. It might cause a breakdown or damage. If your camera is used in a system where its camera head is subjected to strong repetitive shocks, its camera head is possible to break down. If you intend to use your camera in such a situation, make sure to use an optional camera-connector-fixing-hardware to connect the connector-plug to the camera body.
⚠ CAUTION	Do NOT connect/disconnect connectors before turning power off. Make sure to check the CCU power is OFF before connecting/disconnecting connectors. Otherwise, you might get an electric shock, or your camera might break down.
⚠ CAUTION	Do not pull strongly the camera cable/camera-head nor swing it. The stress from pulling or swinging may cause damage in the coating of the cable, or breaks in the inside wires.
⚠ CAUTION	Avoid short-circuiting signal output. Otherwise, it may cause a malfunction.
⚠ CAUTION	Do NEVER aim its camera image pick up plane toward the sun regardless of the use situation. Otherwise, its inner image pickup device might get damaged.
⚠ CAUTION	Do NOT expose your device to direct sunlight, nor intensive heat. Do NOT place this device where it is exposed to direct sunlight, or in a high temperature condition. To do so may cause the inner temperature of the device to go up, resulting in burning-down of inner parts, circuits or a fire accident.
⚠ CAUTION	When mounting a lens, take extra caution so that the lens is not tilted, nor does flaw exist at the lens-mount-screw part. Also check to confirm that neither dirt nor other foreign object is put inside. Improper mounting might cause the parts to become locked.

⚠
Caution
	Do NOT block ventilating slits.
	   You should avoid;
	■ Placing your device upside down, or with wrong side up.
	■ Installing your device in a poor natural draft condition, recessed area.
	■ Placing your device on carpet, cushion.
	■ Putting a tablecloth, curtain on your device.
	   Blocking the ventilation slits prevents inner heat from escaping, which might lead to a fire accident.

● Must	Wastes of this product should be separated and discarded in compliance with the various national and local ordinances.

This product is digital equipment examined comply with FCC Form, Article 15 Class A. This restriction is set for moderate protection from detrimental jamming in operation of the products under industrial condition. Radiant energy of radio frequency occurred in the use may cause the detrimental jamming to the radio communication depending on the install or usage being deferent from the operation manual.

RESRICTION FOR USE

In case malfunction of this equipment (e.g. video output cut-off) can be expected to lead to significant accident, avoid using this equipment for such system integration use.

DISCRAMER (RIMITED WARRANTY)

We disclaim any responsibility and shall be held harmless for damages or losses incurred by user(s) in either of the following cases.

1. In case damages or losses are caused by fire, earthquake, or other acts of Gods, the act by third party, misuse by the user deliberately or erroneously, use under extreme operating conditions.

2. In case any indirect, additional, consequential damages (loss of expected interest, suspension of business activities) are incurred as results of malfunction or non-function of this device, we shall be exempted from assuming responsibility for such damages.

3. In case damages or losses are caused by incorrect use, which is not in line with the instructions, given in this instruction manual.

4. In case damages or losses are caused by malfunction resulting from bad connection with other equipment.

5. In case damages or losses are caused by repair or modification done by the user.

1. Product Description

Model CS5800-04/CS5800P-04 are digital 3CCD cameras employing a 1/3 type 400,000 pixels 3CCD, featuring high resolution images outstanding color reproduction with 750TV lines in horizontal.

2. Features

(1) High-resolution with 750TV lines in horizontal
(2) Adoption of new developed DSP
(3) Enable of adjustment of each operation, function and image quality by OSD
(4) DC12V driving
(5) Design for size and weight reduction by separate structure of camera head and CCU
(6) Support to C-mount lens

3. Configuration

(1) Camera head..1
(2) Camera Control Unit 1
(3) Accessories
    Camera Cable (4m) 1
    Operation Manual 1

4. Designation and workings of each part

4.1 Camera head
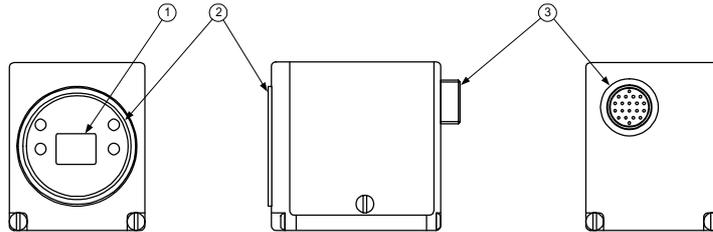
No.	Name	Description
(1)	CCD pickup part	Image capturing part
(2)	Mount Part	Fix C-mount lens
(3)	Camera connecter	Connect the attached camera cable

4.2 Camera Control Unit
(4-2-1) CCU front
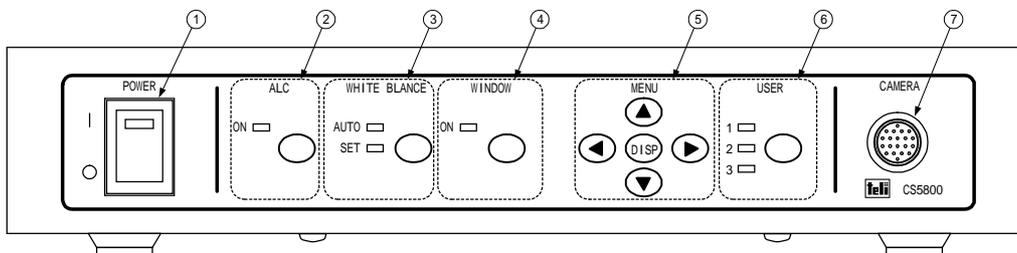
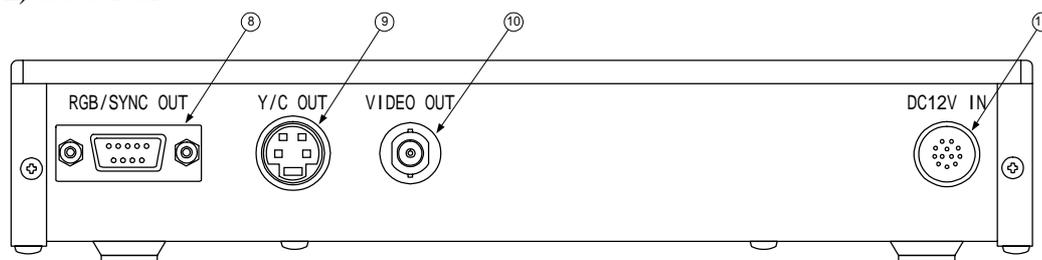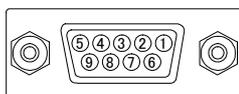| No.	Name	Description	
(1)	Power switch	Turn ON/OFF the camera power	
(2)	ALC key	Start/Stop the ALC	
	ON-LED	Light on in ALC operation	
(3)	WHITE BALANCE key	Message of "WHITE BALANCE" is indicated at right lower part on the screen and WB white following is started.	
	AUTO-LED	Light on in WB AUTO mode	
	SET-LED	Light on when white following is finished normally (Only PUSH in AUTO mode)	
(4)	WINDOW key	Switch the WINDOW ON/OFF and the window area at that time temporary	
	ON-LED	Light on in WINDOW ON	
(5)	DISP key	Switch Display/Non-display of MENU screen	
	UP/DOWN key	MENU Display	Shift UP/DOWN the cursor
		MENU Non-display	Change ALC LEVEL
	LEFT/RIGHT key	MENU Display	Step the setting page Change the setting value
		MENU Non-display	Invalid
(6)	USER key	Switch the user file	
	1, 2, 3 - LED	Light on the selected user file number	
(7)	Camera connecter	Connect the attached camera cable	

(4-2-2) CCU rear

No.	Name	Description
(8)	RGB/SYNC OUT connecter	Connect to the monitor and so on with RGB/SYNC OUT connecter Model: SDED-9S (Manufactured by HIROSEDENKI)
(9)	Y/C OUT connecter	Connect to the monitor and so on with Y/C OUT connecter Model: 848-01-101(Manufactured by HOSHIDENKI)
(10)	VIDEO OUT connecter	Connect to the monitor and so on with composite VIDEO OUT connecter
(11)	Power connecter	Connect the power cable and supply the power with the power supply connecter Model: HR-10A-10R-12PB (Manufactured by HIROSEDENKI) Compatible connecter: HR10A-10P-12S (Manufactured by HIROSEDENKI)

- Connecter pin assignment

(8) RGB/SYNC OUT connecter

(9) Y/C OUT connecter

(11) Power connecter

No.	Signal name
	GND
	GND (for R/G/B)
	R OUT
	G OUT
	B OUT
	N.C.
	SYNC OUT
	GND (for SYNC)
	GND
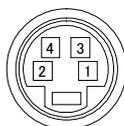
No.	Signal name
	GND (for Y)
	GND (for C)
	Y OUT
	C OUT
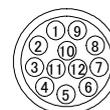
No.	Signal name
	GND
	DC 12V IN
	N.C.
	N.C.
	N.C.
	N.C.
	N.C.
	N.C.
	N.C.
	N.C.
	N.C.
	N.C.

5. How to Connect

Connect cables as follows in the use of this camera

5.1 Connection between CCU and Camera Head

　　Connect CCU and CH with attached camera cable.

CCU Connecter Female　　　Camera cable　　　Camera Head Connecter Male　　　C-mount lens

4mm or less
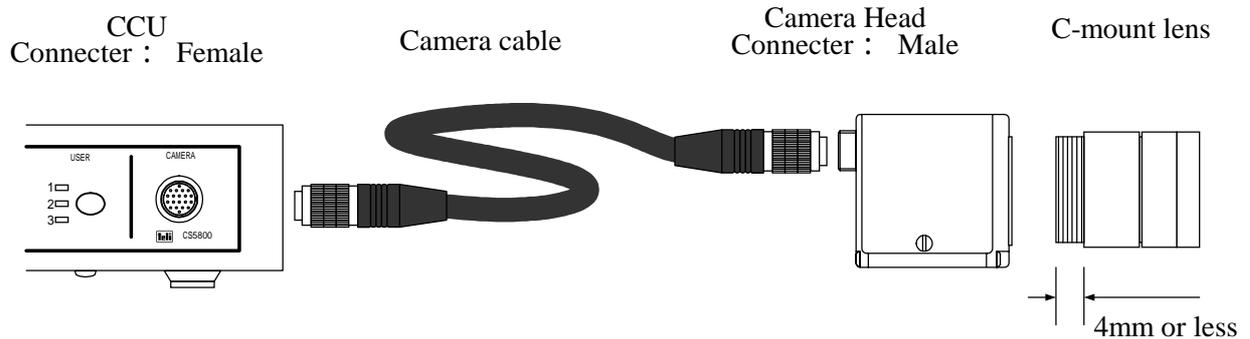
Caution in the connection

♦ CCU and CH should be the same serial No. in the use.

♦ Make sure that the power turns OFF.

♦ Fix the groove part of connecter properly and hold the thread until the turn is completed.
Loosing thread may cause a noise on the screen.

♦ C-mount lens for 3CCD camera is recommended. Camera performance may not make full use of the function.
Do NOT use the lens that the projecting dimension from contact plane to CH is exceeding 4mm. To do so might a breakage of the CH mount part.

5.2 Connection between CCU and peripheral equipment
Connect CCU and peripheral equipment

BNC cable

S terminal cable

RGB cable

Video monitor

GND
DC12V IN

Power cable

RGB/SYNC OUT   Y/C OUT   VIDEO OUT   DC12V IN

CCU rear
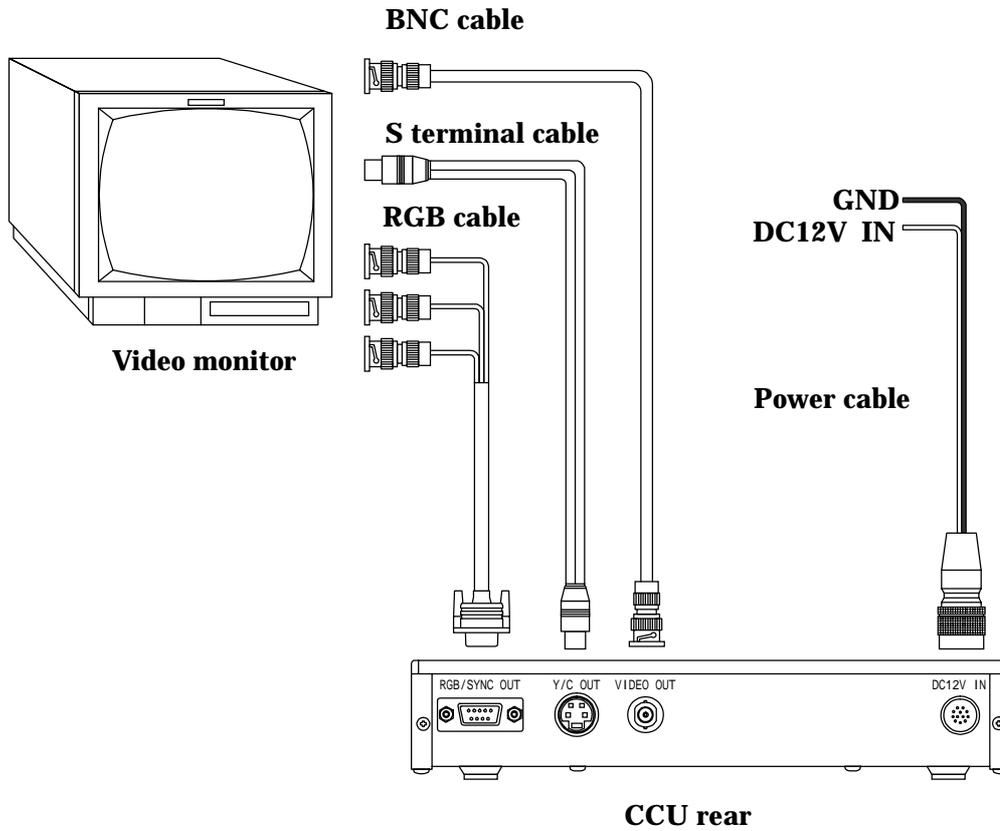
Caution in the connection

♦ Make sure that the power of this camera and peripheral equipment is turned off.
♦ Plug in the cable for connection securely with correct orientation.
♦ Make sure that video output is properly 75-ohm terminated.

6. Operation

(1) Refer to the preceding section 5, "How to connect", and connect the necessary equipment correctly.
(2) Turn on the power of the connected equipment.
(3) Turn on the power of this camera.
(4) After being displayed the video on the video monitor, adjust the lens aperture so that the brightness becomes to be appropriate.
(5) Adjust the lens focus while checking the image of video monitor so that it becomes to be appropriate.
(6) WB Adjustment
    Refer to the section 7-2, "White balance", to adjust it.
(7) Mode setting
    Refer to the section 7-1 (Gain), 7-3 (Window), 7-4 (Masking correction), 7-5 (Color shading correction) or 8 (Mode setting with MENU screen) and operate the necessary items.

7. Function

7.1 Gain
    Gain Mode: ALC OFF (Manual Gain Control)
              ALC ON (Automatically Gain Control)
    Set with ALC key on the CCU front panel or MENU screen to suit the subject.
    Refer to the section 8-2 (1), "PICT PAR", for the MENU screen setting.
    *ALC: An abbreviation for "Auto Light Control".
          It is the function to make perform the shutter speed and gain control automatically so that the proper shoot can be achieved to suit to the subject illumination.

Gain Mode	Description	ON-LED
ALC ON	Shutter speed and gain is performed automatically so that the proper shoot can be achieved to suit to the subject illumination. Conversing illumination level, detection area, detection methods and max gain are enabled to set on MENU screen.	Light ON
ALC OFF	Shutter speed and gain control is adjusted with MENU screen while checking them on a video monitor and so on.	Light OFF

7.2 White Balance

    White Balance mode: MANU (Manual white balance)

                   AUTO (Auto white balance)——— FULL/PUSH

    Refer to the section 8-2 (1), "COLOR", for setting on MENU screen.

White Balance mode	AUTO mode	Description	AUTO-LED	SET-LED
		Shoot a white subject and adjust WB on MENU screen while checking with video monitor or vector and so on.	Light OFF	Light OFF
		AUTO WB adjustment in full time. It is effect to subjects changing the color temperature over time. As color detection is performed by integrate within window area, it might cause a failure in the poor illumination condition such like excess and deficiency of light amount or extreme color temperature.	Light ON	Light OFF
		Shoot the white subject, and then push WHITE BALANCE key on CCU front panel. "WHITE BALANCE" is displayed on right lower part on the screen, and then, the operation of WB white following is operated.		
		Normal complete of auto adjustment "OK" is displayed on right lower part on the screen.		Light ON
		Abnormal complete of auto adjustment "NG" is displayed on right lower part on the screen when the auto adjustment is not completed normally due to the bad illumination condition (the excess and deficiency of light amount or the extreme color temperature and so on). In this case, push again WHITE BALANCE key after changing the illumination, the lens aperture and window size.		

7.3 Window

The detection area for AUTO WB and ALC operation is set.

MAX (Full screen detection)
LARGE
MID
SMALL
} H and V positions can be set in each window.

Refer to the section 8-2(3), "WINDOW", for setting on MENU screen.
When WINDOW key on CCU front panel is pushed, OFF(MAX)/ON(LARG/MID/SMALL) of window is switched. The window area at that time is displayed temporary.

WINDOW OFF   WINDOW ON

MAX   Push the WINDOW key   LARGE
(Full screen detection)   ←————————→   MID
                                                SMALL
ON−LED： Light OFF   ON−LED：Light ON

Caution in setting

♦ When the window size is set at MAX on setting page, WINDOW ON/OFF is not switched over. (It is fixed to window OFF.)

7.4 Masking correction

This camera has the masking correction circuit. It corrects the image color and saturation in MASKING ON.
Refer to the section 8-2 (4), "MASKING", for setting

Caution in setting

♦ As expert knowledge are needed, because to use remaining the initial factory setting in normal use condition.

7.5 Color shading correction

This camera might cause a color unevenness on the upper/lower part on the screen depending on the lens.
In this case, shoot a white object in full screen and adjust the WB. And then, adjust R SHAD and B SHAD to avoid the color unevenness.
Refer to the section 8-2 (6), "OPTION", for setting.

7.6 User file

This camera has 3 kinds of user file being selectable to suit to the shooting condition. User can call up a preset data and set up it immediately by switching the user file with USER key on CCU front panel. And initial factory setting (preset condition) can be loaded with menu screen after changing the setting.

Refer to the section 8-2 (7), "FACT SET", for setting.

Caution in the setting
♦   Initial factory setting (preset condition) is written in all user files in shipment.
♦   Initial factory setting (preset condition) is loaded only to the present-set user file.

7.7 Color bar output

This camera has a color bar function for adjustment of color monitor.

It is output when the power turns ON remaining plug out the camera cable from CCU.

Caution in the setting
♦   Do NOT remove the camera cable before turning OFF the camera power securely.

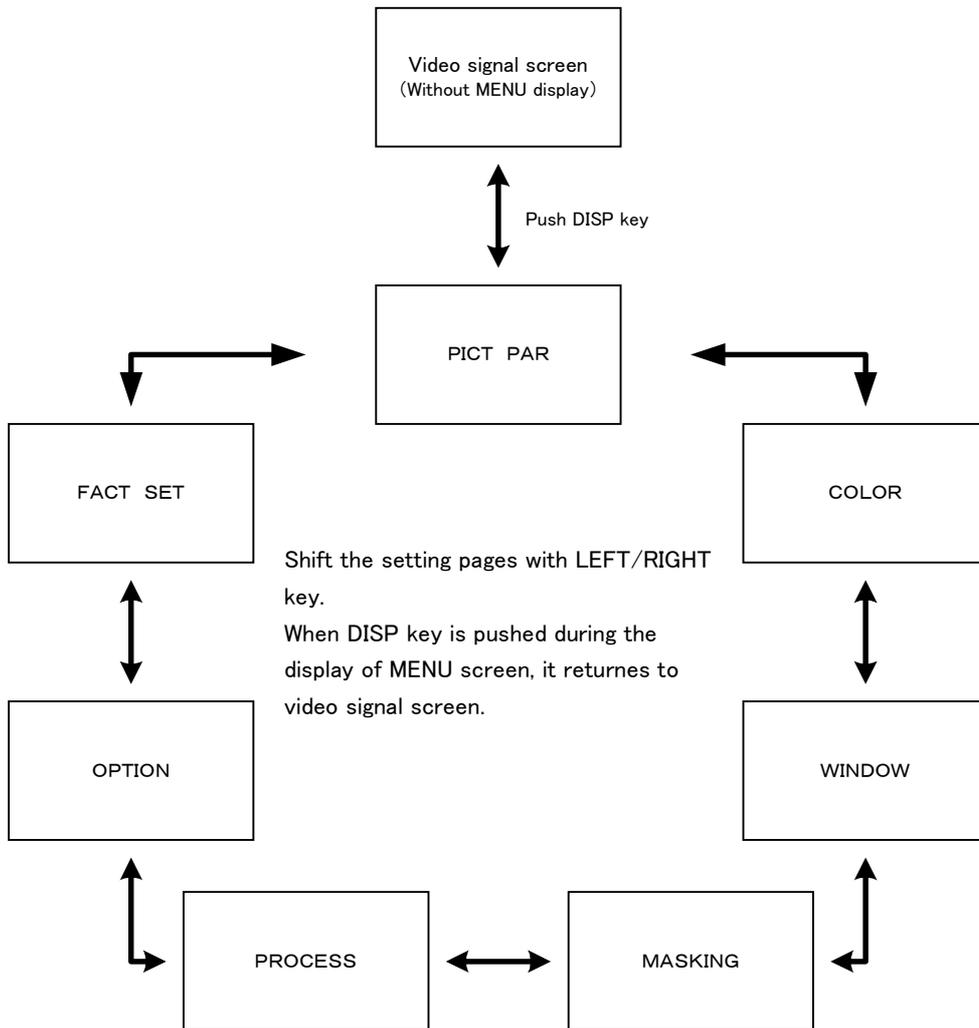# 8. Mode setting on MENU screen

Various settings are available via MENU screen displayed on the video monitor of this camera. The contents, which is set once, is recorded in the selected user file (1, 2 or3) even though the power is turned OFF. Therefore, it is needless to set again the same mode in the next use.

8.1 Display on MENU screen

When the power switch is turned ON, the screen becomes to a standard screen with only video signal.

When user pushes DISP key on CCU front panel, MENU screen is displayed.

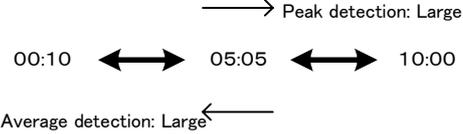Shift the setting pages with LEFT/RIGHT key.

```
                    ┌─────────────────────┐
                    │  Video signal screen │
                    │ (Without MENU display)│
                    └─────────────────────┘
                             ↕  Push DISP key

                    ┌─────────────────────┐
      ┌────────────→│      PICT  PAR       │←────────────┐
      │             └─────────────────────┘             │
      ↓                                                  ↓
┌───────────┐   Shift the setting pages with        ┌───────────┐
│ FACT  SET │   LEFT/RIGHT key.                      │   COLOR   │
│           │   When DISP key is pushed during the   │           │
└───────────┘   display of MENU screen, it returnes  └───────────┘
      ↕          to video signal screen.                   ↕
┌───────────┐                                        ┌───────────┐
│  OPTION   │                                        │  WINDOW   │
│           │                                        │           │
└───────────┘                                        └───────────┘
      ↓         ┌───────────┐      ┌───────────┐          ↑
      └────────→│  PROCESS  │←────→│  MASKING  │──────────┘
                └───────────┘      └───────────┘
```

8.2 How to change the each setting item

Refer to the section 8-1, " Display of MENU screen", to display the setting page which you want to change.

Adjust the cursor to the setting screen, which you want to change, and then, change the setting value with LEFT/RIGHT key.

(8-2-1) PICT PAR (Page for Gain mode setting)

Item	Variable range	Description	Initial factory setting	Display
ALC	ON/OFF	Switch between ON and OFF of ALC. * This item is changeable them with ALC key on CCU front panel similarly.	OFF	Full time
LEVEL	From 00 through 15	Set the ALC conversing illumination level. * This item is changeable with UP/DOWN key on CCU front similarly.		Only ALC ON
AVE: PEAK	From 00:10 through 10:00	Set the ALC detection method (Average detection and Peak detection) ⟶ Peak detection: Large 00:10 ⟷ 05:05 ⟷ 10:00 Average detection: Large ⟵	05:05	
MAX GAIN	From 00 through 15	Set the ALC maximum Gain. * When this setting value is increased, as the noise also may be increased, be sure to use remaining under initial factory setting		
GAIN	From 00 through 15	Set the manual gain.		Only ALC OFF
SHUTTER	8 steps 1/60 (50), 1/125, 1/250, 1/500, 1/1000, 1/2000, 1/4000, 1/10000	Set the Manual shutter speed.	1/60 (50)	

(8-2-2) COLOR (Page for White Balance mode setting)

Setting Page: COLOR　WHT BAL AUTO　　Setting Page: COLOR　WHT BAL MANU

Item	Variable Range	Description	Initial factory setting	Display
WHT BAL	**AUTO/MANU**	Switch the white balance mode	**MANU**	**Full time**
AUTO	**FULL/PUSH**	Switch the Auto WB mode * When WHITE BALANCE key on CCU front panel is pushed, WB white following starts the operation in "PUSH" setting.	**PUSH**	**Only in WHT BAL AUTO**
RED	**From 00 through 255**	Set the Rhc Gain value		**Only in WHT BAL MANU**
BLUE	**From 00 through 255**	Set the Bhc Gain value		

* **WHT BAL:** Abbreviation for **WhiTe BAL**ance

(8-2-3) WINDOW (Page for window setting)

S

Setting page:

Item	Variable range	Description	Initial factory setting	Display
DISP	ON/OFF	Switch between ON and OFF of window are display/	OFF	Full time
SIZE	MAX/LARGE/MID/ SMALL	Switch the window size	MAX	Full time
VERT POS	From –127 through +127	Set the window V position * Invalid in SIZE MAX		Full time
HOR POS	From –127 through +127	Set the window H position * Invalid in SIZE MAX		Full time

(8-2-4) MASKING (Page for masking setting)

Setting page:

Item	Variable range	Description	Initial factory setting	Display
MASKING	**ON/OFF**	Switch between ON and OFF of MASKING correction	ON	Full time
	From –127 through +127	Set the Rch (R-G) correction level * Valid in MASKING ON		Full time
	From –127 through +127	Set the Rch (R-B) correction level * Valid in MASKING ON		Full time
	From –127 through +127	Set the Gch (G-B) correction level * Valid in MASKING ON		Full time
	From –127 through +127	Set the Gch (G-R) correction level * Valid in MASKING ON		Full time
	From –127 through +127	Set the Bch (B-R) correction level * Valid in MASKING ON		Full time
	From –127 through +127	Set the Bch (B-G) correction level * Valid in MASKING ON		Full time

(8-2-5) PROCESS (Page for process setting)

Setting Page:

Item	Variable range	Description	Initial factory setting	Display
GAMMA	ON/OFF	Switch between ON and OFF of Gamma correction	ON	Full time
BL GAMMA	ON/OFF	Switch between ON and OFF of Black Gamma correction * Valid in GAMMA ON	OFF	Full time
DETAIL	From 00 through 15	Set the edge enhancement gain * When this setting value is increased, as the noise also might be increased, be sure to use stay under initial factory setting.		Full time
DTL FRQ	HIGH/LOW	Switch the edge enhancement frequency.	LOW	Full time
PED	From 00 through 15	Set the pedestal level.		Full time
WHT CLIP	From 00 through 15	Set the white clip level.		Full time

18

(8-2-6) OPTION (Page for option setting)

Setting Page: _____

Item	Variable range	Description	Initial Factory setting	Display
NEG/POS	NEG/POS	Switch between NEGA and POSI of video out put.	POS	Full time
DTL OUT	ON/OFF	Switch between ON and OFF of edge sampling signal OUT.	OFF	Full time
G SYNC	ON/OFF	Switch SYNC addition of G output.	ON	Full time
R SHAD	From –127 through +127	Set the Rch shading correction value.		Full time
B SHAD	From –127 through +127	Set the Bch shading correction value.		Full time

(8-2-7) FACT SET (Page for loading the initial factory setting [Preset condition])

Setting Page: _____

Item	Variable range	Description	Initial factory setting	Display
DATA SET		Load the initial factory setting * When user adjusts the cursor to this item and then push RIGHT key, the load is started.		Full time

9.   Trouble shooting

Make sure to check the following points in trouble first.
In the case of non-improvement in the phenomenon, contact your distributor/dealer from which you purchased this product.

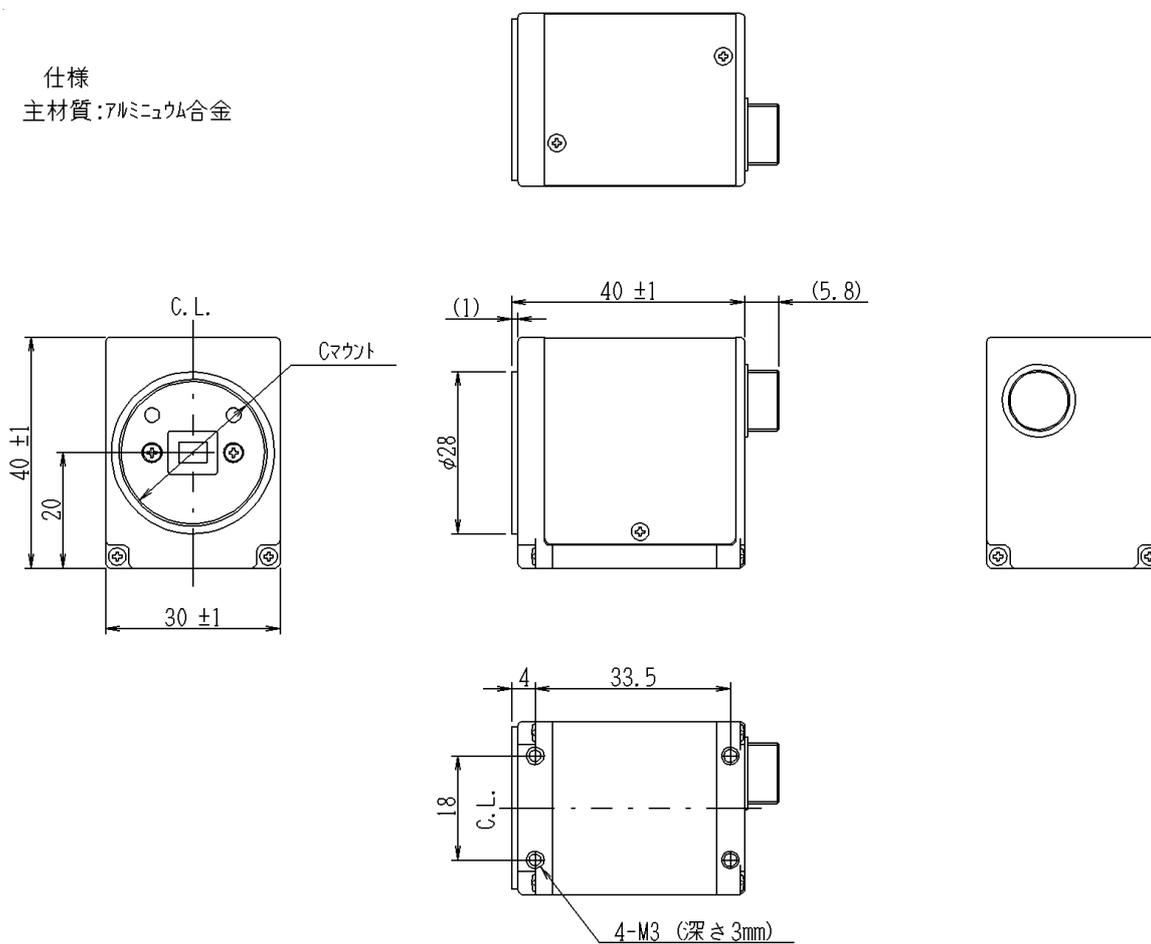| Phenomenon	Check Points
Video is not displayed correctly.	Is the power supplied correctly? Are the cables connected correctly? Is the power of external connected equipment supplied correctly? Is the lens aperture adjusted correctly? Is the SHUTTER mode setting set correctly?
Color is not displayed correctly.	Is the white balance adjusted correctly? Is the illumination too dark? Is the monitor adjusted correctly?
Noise is occurred.	Does the connector for camera cable become loose? Is there some equipment generating strong magnetic field in peripheral environment?

10. Specification

No.	Model		CS5800-04	CS5800P-04
	Image sensor		Interline CCD	
		Image size	1/3 type	
		Chip size	6.00mm (H)× 4.96mm(V)	6.00mm (H)× 4.96mm(V)
		Unit cell size	6.35 micro m (H)× 7.40 micro m(V)	6.50 micro m (H)× 6.25 micro m (V)
		Total pixel	811 (H)× 508 (V)	795 (H)× 596 (V)
		Active pixel	768 (H)× 494 (V)	752 (H)× 582(V)
	Pixel shift		Special offset	
	TV line		NTSC	PAL
	Scanning system		2:1 Interface	
	Scanning frequency			
		H frequency	15.734 kHz	15.625 kHz
		V fequency	59.94 Hz	50 Hz
	Sync system		Internal	
	Aspect ratio		4:3	
	Video output			
		RGB	V 0.714V(p-p)/75-ohm	V 0.7V(p-p)/75-ohm
		VBS	V 0.714V(p-p)/75-ohm	V 0.7V(p-p)/75-ohm
			B 0.286V(p-p)/75-ohm	B 0.3V(p-p)/75-ohm
			S 0.286V(p-p)/75-ohm	S 0.3V(p-p)/75-ohm
		Y/C	Y 1.0V(p-p)/75-ohm	Y 1.0V(p-p)/75-ohm
			C 0.286V(p-p)/75-ohm	C 0.3V(p-p)/75-ohm
	SYNC signal output			
		C.SYNC (Negative)	4.0V(p-p)/1k-ohm	

	Subject illumination		
	Standard	2,000 lx 8 3,000	
	Minimum	8 lx, F2.2	
	S/N	58dB	
	Resolution		
	H resolution	750 TV lines	
	V resolution	350 TV lines	430 TV lines
	Gamma	ON/OFF	
	White balance	FULL AUTO / ONE PUSH AUTO / MANUAL	
	Color temperature control range	From 2,250 K through 6,000 K	
	MANUAL	RED, BLUE level setting	
	ALC	ON/OFF	
	ALC control range	From –92 dB through + 12dB	
	Electric shutter ALC:OFF	8 steps (1/60, 1/125, 1/250, 1/500, 1/1,000, 1/2,000, 1/4,000, 1/10,000 s)	8 steps (1/50, 1/125, 1/250, 1/500, 1/1,000, 1/2,000, 1/4,000, 1/10,000 s)
	Edge enhancement		
	H edge enhancement	On both sides	
	V edge enhancement	On one side	
	Masking correction	ON/OFF	
	Shading correction	V color shading correction	
	Color bar signal	ON/OFF	
	Lens mount	C-mount	
	Power voltage	DC +12V +/- 10% Ripple voltage: 50mV (p-p) or less	
	Power consumption	800 mA	
	Ambient condition		
	Performance guaranteed Operation guaranteed	Temperature: From 0 through + 35 degrees Humidity: From 30 through 90 RH No condensing	
	Storage	Temperature: From -20 through + 60 degrees Humidity: From 30 through 90 RH No condensing	
	External dimension	Refer to external view drawing	
	Weight		
	Camera head	Approx. 80g	
	CCU	Approx. 1.3kg	

11. External-view drawing

11.1 Camera head

仕様
主材質:アルミニウム合金
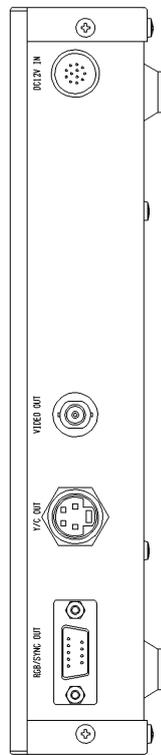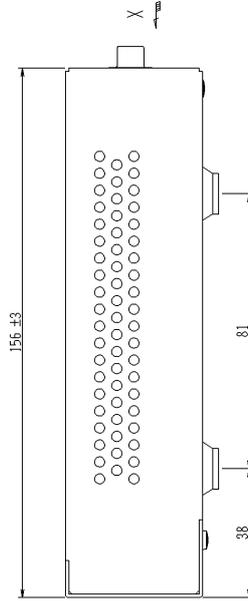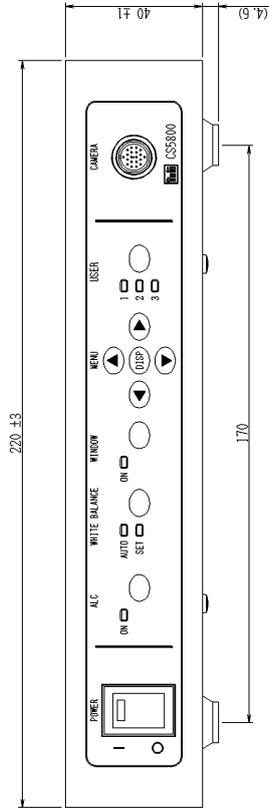
C.L.

Cマウント

40 ±1

20

30 ±1

(1)   40 ±1   (5.8)

φ28

4   33.5

18

C.L.

4-M3 (深さ3mm)

11.2 CCU

仕様
主材質 : 亜鉛メッキ鋼板
処理 : メラミン焼き付け塗装 (マンセル2.8Y7.1/0.3相当)

VIEW X

156 ±3

81

38

DC12V IN

VIDEO OUT

Y/C OUT

RGB/SYNC OUT

40 ±1

(4.6)

CAMERA

CS5800

USER

1
2
3

MENU

DISP

WINDOW

ALC

WHITE BALANCE

ON

AUTO

SET

ON

POWER

220 ±3

170

● **REFERENCE**

The design and specification is subject to change without notice.
Date of issue: 2002-07 Ver.1.0