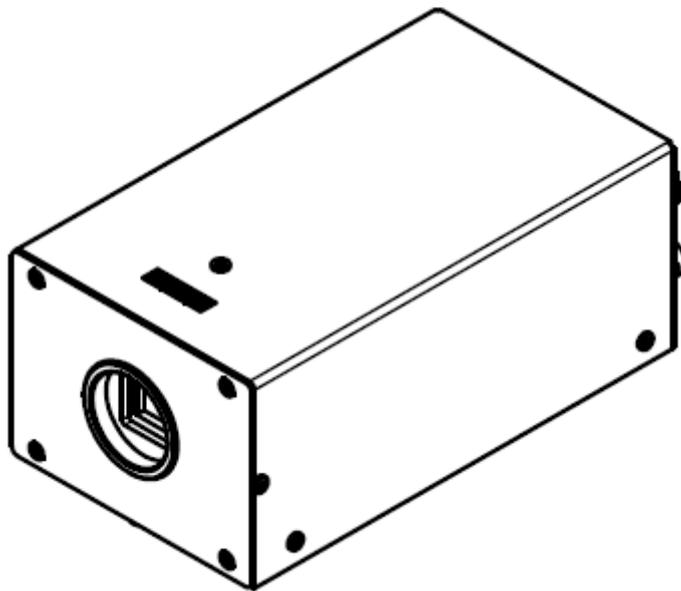




Instruction Manual

Falcon Eye KC-1100MK2



Komamura Corporation

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1. Safety Notice

 WARNING
Mount the unit on the firm place.
Tighten the unit and camera with screws firmly. If the screws are loosened, the unit may fall resulting in injury.
Use at correct power supply and voltage. The rated input voltage of this unit is DC12 V. Supplying a power beyond the rated value may cause damage on the unit, and it emits smoke or causes fire in the worst case. Use only specified AC adaptor supplied with this unit.
This unit is able to divert lightning conduction to itself and the connecting cables at a certain level, but this is not 100 % guaranteed. For installation locations subject to lightning strikes, make sure to apply lightning induction to the connecting cables.

 CAUTION
 Avoid touching the unit's sharp metal edge to prevent injury.

2. Precautions

Maintenance and operating environment

- The unit is intended for indoor use only. Do not use the unit outdoor.
- Avoid operating or storing the product in the following locations, as these can be a cause of a malfunctions or failure.
 - Extremely hot or cold places (Operating temperature: -10 °C to +50 °C [14 °F to 122 °F])
 - Extremely humid places (Operating humidity: 35%RH to 90%RH, without condensation)
 - Close to sources of strong magnetic fields, such as transmitters or motors
 - Close to sources of powerful radio waves, such as transceivers or cellular phones.
 - Locations near the high-voltage wires or railroad.
 - Extremely dusty or sandy locations
 - Locations subject to strong vibration or shock, such as inside vehicles or ships
 - Locations exposed to rain or condensation, such as window side.
 - Locations subject to steam or oil, such as kitchens.
 - Special environment, such as in combustible atmosphere
 - Locations emit radiation, X-rays, salt attack or corrosive gases
 - Locations where medicine water is used, such as swimming pools and hot springs.
 - To prevent heat buildup, do not block air circulation around the unit. The unit discharges heat from the surface (side) of the main unit. Do not install it close to walls.

Disclaimer

- We will not be responsible for any inconveniences or disturbances caused in the event of privacy invasion as a result of camera footages of this product.
- Before starting an important recording, make sure to take a test recording in order to confirm a normal recording possible.
- We do not accept liability for the damage of recording or storing image and/or the missing opportunity of recording in the case caused by a problem of the unit.

Transportation

- Always turn off the power when transporting.
- Handle the unit with care and avoid heavy shock or vibration.

Care of the unit

- Remove dust or dirt on the surface of the lens with a blower (commercially available). Do not use a spray type blower to clean the lens. Liquid will seep into a lens and eventually cause internal fog.

Phenomena specific to CMOS image sensors

- The following phenomena that may appear in images are specific to CMOS (complementary metal-oxide semiconductor) image sensors. They do not indicate malfunctions.
 - . White flecks

Although the CMOS image sensors are produced with high-precision technologies, fine white flecks may be generated on the screen in rare cases, caused by cosmic rays, etc. This is related to the principle of CMOS image sensors and is not a malfunction. The white flecks especially tend to be seen in the following cases:

 - When operating at a high environmental temperature
 - When you have raised the master gain (sensitivity)
 - . Aliasing

When fine patterns, stripes, or lines are shot, they may appear jagged or flicker.

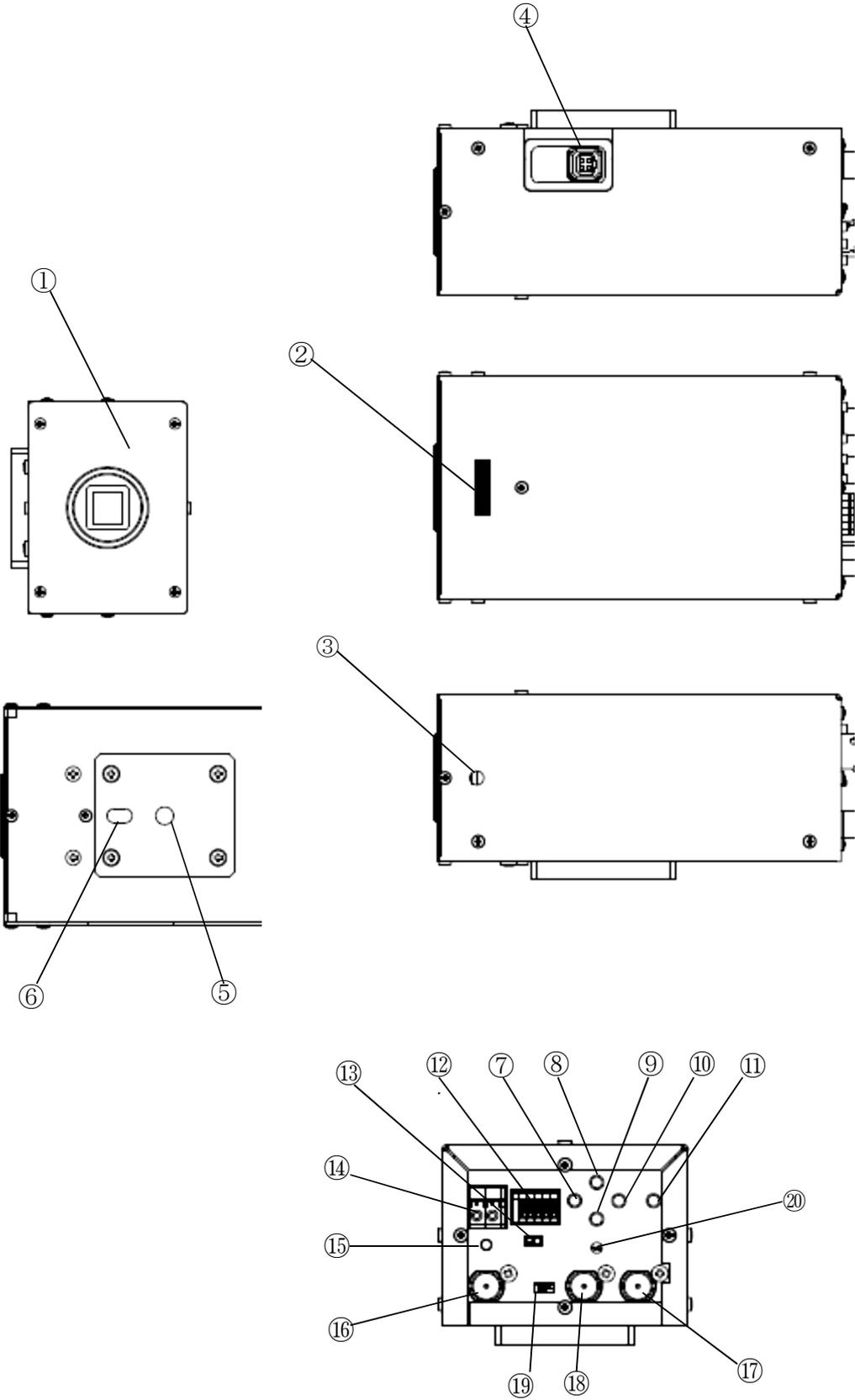
3. Introduction

This product is a single panel color camera of ultra-high sensitivity, equipped with a 2.2 million pixel, 2/3 type CMOS sensor, and is ideal for nighttime and low-light surveillance around international borders and ports, and for other specialized applications.

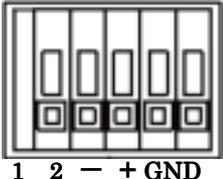
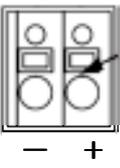
4. Features

- Enables color imaging with high sensitivity under low-light conditions, down to 0.005 lx.
- Maintains excellent SN ratio even at high-gain settings, with the original 2D/3D noise reduction function.
- Delivers sharp images even in foggy conditions, with the original de-fog Function.
- Capable of establishing an advanced surveillance system with the RS-485 communication function.

5. Names and Functions of Parts



Names and Functions

No.	Name	Function
①	Lens Mount (CS mount)	Mount lens here. Various CS mount lenses can be accommodated.
②	Flange Back Adjuster	The flange back (distance from the lens mounting surface to the imaging plane) is adjusted.
③	Flange Back Locking Screw	Secure by tightening after adjusting the flange back of the camera.
④	Auto Iris Connector	Connector for an auto iris lens. Only compatible with DC auto iris.
⑤	Tripod Socket	Socket for securing onto a tripod etc. Use 1/4"-20 UNC screws with length of 5.5 mm or less.
⑥	Securing Hole	Can be used to prevent rotation.
⑦- ⑪	Setup Function Switches	Refer to: 6. Operation (⇒P. 9).
⑫	RS-485 / Day/Night Switching Terminal Block	Used to connect the RS-485 or to remote control the day/night switching.
		
⑬	RS-485 Terminal Switch	During RS-485 communication, for one-to-one control, switch "on", and for daisy-chain connection, turn "off". (last connection device is ON)
⑭	DC 12 V Connection Terminal Block	Input DC 12 V. Be aware of each polarity.
		
⑮	Power Indicator	Green LED light is lit while the camera is turned on.
⑯	HD-SDI Output Terminal	Image output terminal for HD-SDI.
⑰	SD Output Terminal	Analog image output terminal for SD VIDEO.
⑱	Genlock IN	External synchronization input terminal. Input VBS, BBS, or VS signal for external synchronization.
⑲	Genlock IN Terminal Switch	Whilst Genlock is in use, when looping a signal using a T- connector, turn this switch OFF. Usually, this should be ON.
⑳	RESET button	By pressing this button, the device will return to the state when

		the power was turned on.
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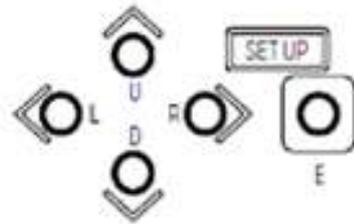
6. Operation

6-1 User setup

Setup menu can be set on the OSD display.

6-2 Names and functions of setup buttons

Operated with 5 push buttons (figure on the right) on the back of the camera.



Sign	Name	Function
U	Up Switch	Selection of setup items (vertical direction)
D	Down Switch	
L	Left Switch	Changing of setup contents (horizontal direction)
R	Right Switch	
E	Enter Switch	Entry to / exit from setup mode Determination and execution of setup

6-3 Structure of setup mode

The setup menu consists of 5 pages of MAIN MENU.

6-4 Contents of MAIN MENU

MAIN MENU will appear after holding down the E button for 2 seconds or longer.

Various settings for the camera operation are now available. The flashing text area indicates selection items. To turn to the next page, select PAGE and press the R button. To go back to the previous page, press the L button.

MAIN MENU	(PAGE 1/5)	
SENSE UP	MOVE	↓
SHUTTER	x16 x1	
BLC MODE	OFF	
ALC LEVEL	L****I****H	
GAIN	HYP-AGC	
WHITE BAL	ATW1	
DNR	HIGH	
MENU LOCK	OFF	↓
EXIT	CANCEL	RESET

6-4-1-1 SENSE (Sensitivity) UP

(1) GAIN will be set automatically on AGC (Auto Gain Control) when anything other than OFF or MANUAL is selected.

It can also be switched to HYP-AGC (Hyper Auto Gain Control).

① OFF

Electronic sensitivity UP will not function.

② S/N

Signal Noise priority mode. Used for photographing of a subject with less motion.

Maximum GAIN: +15 dB, up to +21 dB on HYP-AGC

③ STD (Standard)

Used when photographing by suppressing both blurring and roughness of the screen.

Maximum GAIN: +36 dB, +up to 42 dB on HYP-AGC

④ MOVE

Move priority mode.

Maximum GAIN: +54 dB, up to +72 dB on HYP-AGC

⑤ MANUAL

Setting for fixed magnification. Required magnification can be set in the SHUTTER item.

(2) After selecting the above modes, the sub-menu SENSE UP will be activated by pressing the E button. Now, setting for 4 patterns of ALC (Auto Level Control),

setting for DAY/NIGHT, and setting for ON/OFF of FLICKER LESS function can be made.

(3) Setting for ALC (Auto Level Control)

4 patterns can be set by combinations of BASED SHUTTER (OFF / Set Value) and HS-SHT LIMIT (OFF / Set Value). Refer to 7. ALC explanatory diagram (P. 23-24) for details.

① BASED SHUTTER : OFF HS-SHT LIMIT : OFF

Normal mode.

② BASED SHUTTER : Set Value HS-SHT LIMIT : OFF

The shutter speed becomes slower according to a reduction of incoming light volume. When the shutter speed comes to the BASED SHUTTER set value, it is fixed and the Lens-Iris moves toward the opening direction. The shutter will head to 1/30 at full opening. Gain will follow after the shutter value enters 1/30. The frame accumulation mode is entered when Gain becomes maximum, and electronic sensitivity is increased up to 16 times maximum.

③ BASED SHUTTER : OFF HS-SHT LIMIT : Set Value

The shutter speed becomes slower according to a reduction of incoming light volume. Once HS-SHT LIM set value has been reached, the shutter speed is fixed and remains unchanged (will not become slower than the set value). The Lens-Iris moves toward the opening direction. Gain will follow after full opening, and Gain becomes maximum.

④ BASED SHUTTER : Set Value HS-SHT LIMIT : Set Value

The shutter speed becomes slower according to a reduction of incoming light volume. When the shutter speed comes to the BASED SHUTTER set value, it is fixed and the Lens-Iris moves toward the opening direction. The shutter will head to the HS-SHT LIM value at full opening. Once the shutter value has reached the HS-SHT LIM value, the shutter speed is fixed and remains unchanged (will not become slower than the set value). After that, Gain will follow, and Gain becomes maximum.

(4) Setting for DAY/NIGHT

① COLOR

Outputs color images (with IR cut) at all times.

② B/W

Outputs monochrome images (without IR cut) at all times.

③ AUTO

Automatically switches to color images of high quality during daytime and black-and-white images of high sensitivity at night.

GAIN setting in this mode is either AGC or HYP-AGC.

After selecting this mode, SWITCH LEVEL (switching brightness level) can be set by pressing the E button.

LEVEL setting Switchable to any one of the following brightness levels

- DARK The switching brightness level is dark.
- MID The switching brightness level is in between DARK and BRIGHT.
- BRIGHT The switching brightness level is bright.
- MANUAL Switching brightness level is set manually.

MANUAL setting When LEVEL is set at MANUAL, the following settings can be performed.

- COLOR⇒B/W Set the brightness to be switched from day to night.
- B/W⇒COLOR Set the brightness to be switched from night to day.

④ REMOTE

Switchable between DAY/NIGHT modes by external operation.

Names and Functions of Parts ⑫ RS-485 / Day/night switching terminal block 1-2 can set B/W COLOR by short circuit or open.

Short circuit and Open statuses change as below, by IR TRIG.POL setting on MAIN MENU (PAGE 4/5)

		RS-485/ Day/night switching terminal block 1-2	
		Short Circuit	Open
IR TRIG POL.	BRAKE	COLOR	B/W
	MAKE	B/W	COLOR

(5) FLICKER LESS

- ① OFF Normal mode.
- ② ON Fixes SHUTTER at 1/100 when flicker is in the way under a florescent lamp.

6-4-1-2 SHUTTER

(1) Available when SENSE UP=OFF.

High shutter speed can be selected by using the L and R buttons.

OFF (1/30 or 1/25) , 1/50, 1/60, 1/100, 1/125, 1/250, 1/500, 1/1000, 1/2000, 1/4000, 1/10000

(2) When SENSE UP=S/N, STD, MOVE, or MANUAL

Electronic sensitivity increase ratio can be selected by using the L and R buttons.

x1, x2, x4, x8, x16

*Note on the MENU display

Two forms of increase ratios will be displayed next to SHUTTER.

SHUTTER

x16

x1

The increase ratio set as above

Actual sensitivity increase ratio

As above, it is likely that the amount of light is sufficient when the actual increase ratio is lower than the set increase ratio.

When SENSE UP = MANUAL is selected, the same value will be displayed.

6-4-1-3 BLC (Backlight Control) MODE

Backlight correction can be selected by using the L and R buttons.

(1) OFF

Normal mode.

(2) ON

Can perform backlight correction.

(3) SPOT

Select the photometry area.

When entering SPOT SET, grids of 9 × 5 appear on the display.

By moving the cursor using the U, D, L, and R buttons, press the E button at the required position to fill in the grid. The area filled in is excluded from photometry.

Note that in this setting, even when an n-fold display is selected in 6-4-3-2 **ZOOM** (MAIN MENU PAGE 3/5), the zoom level forcibly becomes 1.0, and returns to the original n-fold display after the setting is completed.

6-4-1-4 ALC LEVEL

Adjust the convergence value for automatic exposure using the L and R buttons. Moving the marker to the right will enhance the brightness. Adjust to the appropriate position while looking at the actual image.

6-4-1-5 GAIN

GAIN can be selected by using the L and R buttons.

*When SENSE UP is on either S/N, STD, or MOVE, or when DAY/NIGHT setting is on AUTO, the GAIN selection can only be (2) AGC and (3) HYP-AGC.

*When SENSE UP is on either OFF or MANUAL, and DAY/NIGHT setting is not on AUTO, (1) MANUAL can be selected.

(1) MANUAL

GAIN is adjusted manually. When the E button is pressed, the adjustment screen will appear, and GAIN can be fixed at a value of 0 to 72 dB (0.3 dB steps).

(2) AGC (Auto Gain Control)

Sensitivity is automatically adjusted according to the brightness of the scene.

(3) HYP-AGC (Hyper Auto Gain Control)

An automatic adjustment mode which has higher sensitivity than AGC. Compared to AGC, it increases the sensitivity by +6 dB on S/N, +6 dB on STD, and +18 dB on MOVE.

6-4-1-6 WHITE BAL

The mode for white balance can be switched using the L and R buttons.

(1) ATW 1 (Auto Tracking White Balance)

Automatically tracks and adjusts white balance.

(2) ATW 2

Automatically tracks and adjusts white balance. Has wider color temperature area than ATW 1, and also supports sodium lamp.

However, compared to ATW 1, there is a possibility of color shifting.

(3) AWC (Auto White Balance Control)

For one push auto white balance control.

Align white balance by projecting the target achromatic (white, gray) subject and pressing the E button.

(4) MANUAL

Preferred white balance is acquired by adjusting R GAIN and B GAIN.

6-4-1-7 DNR (Digital Noise Reduction)

Select the effect of noise reduction using the L and R buttons

(1) OFF

Noise reduction will not operate

(2) LOW

Noise reduction operates on LOW

(3) HIGH

Noise reduction operates on HIGH

*Operation amount of noise reduction will work in proportion to the amount of AGC GAIN.

When GAIN is low, the operation amount of noise reduction is small, and when GAIN is high, the operation amount of noise reduction is large.

*When the GAIN is increased by selecting HIGH, an afterimage may occur under the influence of 3D noise reduction.

6-4-1-8 MENU LOCK

There is a menu lock function to prevent the setup contents of the MENU being reset inadvertently.

(1) To lock

Set to ON using the E button.

(2) Operation

When locked, only EXIT is available, and the other operations will be invalid.

(3) To unlock

Press the button in the order of U→L→D→R→U→D→E.

Start over again when mistake is made.

6-4-1-9 EXIT, CANCEL, RESET

(1) EXIT

Saves the setting and exits the menu.

(2) CANCEL

Returns to the previously saved setting.

(3) RESET

Resets setup contents to the original factory setting.

6-4-2 MAIN MENU PAGE 2/5

MAIN MENU	(PAGE 2/5)	
DETAIL	L****I****H	
CHROMA	L****I****H	
BLACK LEVEL	L****I****H	
IRIS SPEED	L****I****H	
WDR MODE	OFF	
FOG	OFF	
GAMMA	0.45	
COLOR MATRIX	SETUP ↓	
EXIT	CANCEL	RESET

6-4-2-1 DETAIL

Adjust the contour emphasize level of the camera image using the L and R buttons.

6-4-2-2 CHROMA

Adjust the chroma level of the camera image using the L and R buttons.

6-4-2-3 BLACK LEVEL

Adjust the black level of the camera image using the L and R buttons.

6-4-2-4 IRIS SPEED

Adjust the control speed of the lens iris using the L and R buttons. Adjust if hunching occurs.

6-4-2-5 WDR (Wide Dynamic Range) MODE

Effective when photographing a scene with high contrast.

(1) OFF

Normal mode.

(2) WDR

Displays by expanding the dark portion, and compressing the bright portion.

(3) AUTO KNEE

Displays by compressing the bright portion.

(4) AUTO B STR (Black Stretch)

Displays by expanding the dark portion.

6-4-2-6 FOG

Even when the background and/or the contour of the subject are among fog, haze, or smoke, as long as they are slightly visible, the function corrects the image by providing contrast so that they become more visible.

Select the correction level using the L and R buttons.

(1) OFF

Normal mode (no correction).

(2) LOW

Low correction level.

(3) MID

Medium correction level.

(4) HIGH

High correction level.

6-4-2-7 GAMMA

Depending on the DISPLAY (monitor) being used, the gamma characteristics for the camera can be selected.

(0.45 / 0.75 / 1)

6-4-2-8 COLOR MATRIX

Adjusts hue and saturation of six axes: R, G, B, Ye, Cy, and Mg.

After selecting each color, the adjustment on HUE and SATURATION can be made using the L and R buttons.

MAIN MENU	(PAGE 3/5)
FLIP/MIRROR	NORMAL
ZOOM	L*I*****H
CAMERA ID	OFF
RS485 ID	1
P.MASK	OFF
RS485 BAUD	9600
VIDEO TEST	LIVE
EXIT	CANCEL RESET

6-4-3-1 FLIP/MIRROR

Setting for reversing the image.

(1) NORMAL

Normal mode.

(2) FLIP

Flip the vertical direction.

(3) MIRROR

Flip the horizontal direction.

(4) FLIP & MIRROR

Flip the vertical and the horizontal directions.

6-4-3-2 ZOOM

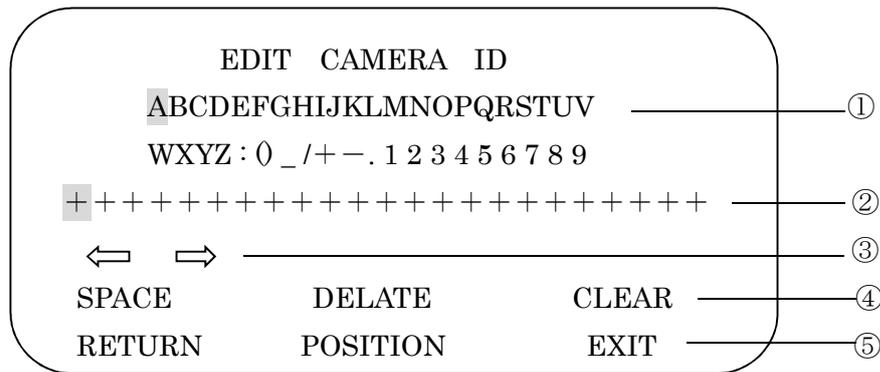
Set the electronic zooming ratio.(x1, x1.1, x1.2, … x9.9, x10)

6-4-3-3 CAMERA ID

The camera ID will be displayed when the device is turned ON.

When pressing the E button after turning the device ON, the screen below will appear, and enters the edit mode.

By pressing the E button at the cursor position (flashing), the below procedure is performed.



①	The character is input when pressing the E button at the cursor position.
②	Displays the input character.
③	Changes the position of the character to input.
④	SPACE/ERASE/ERASE ALL
⑤	Set the display position.

After selecting ⑤POSITION, ID appears on DISPLAY when pressing the E button. The re-positioning can be made by the U,D,L, and R buttons.

6-4-3-4 RS-485 ID

Set the camera number when controlled via RS-485.

6-4-3-5 P.MASK

Up to 8 different Privacy Masks can be individually set up.

(1) OFF

Privacy Mask will not be used.

(2) ON

Privacy Mask will be used.

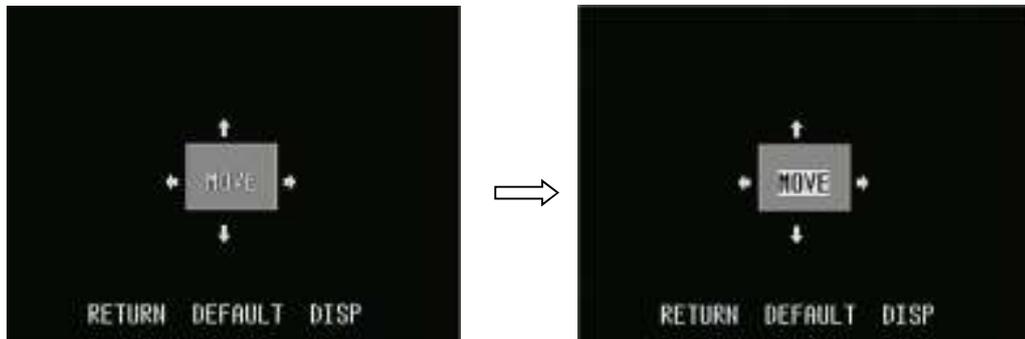
Privacy Mask display screen will appear by pressing the E button.



ON or OFF can be selected for each of MASKs 1 to 8.

The color of MASK can be selected from GRAY, WHITE, and BLACK.

Setup screen for positioning and sizing of MASK will appear when setting ON a selected MASK and pressing the E button.



Move the cursor to the position to which you want the MASK to reposition, then press the E button. The cursor display will change from normal flashing to bold (blackened) flashing. In the above figure, the MOVE (= position) can be changed using the U, D, L, and R buttons.

Furthermore, the arrow  (= size) can be changed using the U, D, L, and R buttons.

To change the position for repositioning, press the E button, and the cursor display will change from bold (blackened) flashing to normal flashing. Then, move the MASK using the U, D, L, and R buttons.

6-4-3-6 RS-485 BAUD

Sets the baud rate to be used when control of the camera from a control equipment (PC etc.) is performed via RS-485.

BAUD rate can be selected from 9600 / 19200 / 38400.

See the Communication Specifications (Attachment) for more information.

6-4-3-7 VIDEO TEST

- (1) LIVE

Normal state.

- (2) GRAY SCALE
- (3) COLOR BAR
- (4) CROSS LINE

6-4-4 MAIN MENU PAGE 4/5

MAIN MENU	(PAGE 4/5)	
SDI FORMAT	1080I/59.94	
SDTV FORMAT	NTSC-J	
SDTV ASPECT	SIDE CUT	
SDTV C. BURST	ON	
IR TRIG POL.	MAKE	
GENLOCK	OFF	
EXIT	CANCEL	RESET

6-4-4-1 SDI (Serial Digital Interface) FORMAT

Select signal format for HD output.

By setting to EXIT after selecting a format, the camera will start rebooting, and the format will change.

Image is not output while reboot is operating.

6-4-4-2 SDTV (Standard Definition Television) FORMAT

- (1) NTSC (National Television System Committee)-J

For Japan

PEDESTAL: 0 IRE

- (2) NTSC-M

For USA and other NTSC areas.

PEDESTAL: 7.5 IRE

6-4-4-3 SDTV ASPECT

- (1) LETTER BOX

While maintaining the aspect ratio, the entire image is displayed, with black bands added above and below.

(2) SIDE CUT

While maintaining the aspect ratio, the left and right sides of the image are cut off, and only the middle portion is displayed.

(3) SQUEEZE

The entire image is displayed, resized in a horizontal direction.

6-4-4-4 SDTV C.BURST

Select ON/OFF of burst signal during black and white.

(1) OFF

Burst signal will not be added.

(2) ON

Burst signal will be added.

6-4-4-5 IR TRIG POL

Can set the polarity of the connection point of RS-485 / Day/Night Switching Terminal Block 1-2 when REMOTE is selected in Setting for DAY/NIGHT of SENSE UP, MAIN MENU (PAGE 1/4).

Refer to the above for details.

6-4-4-6 GENLOCK

When inputting external synchronization signal, by turning GENLOCK ON, H phase adjustment can be made using the L and R buttons.

6-4-5 MAIN MENU PAGE 5/5

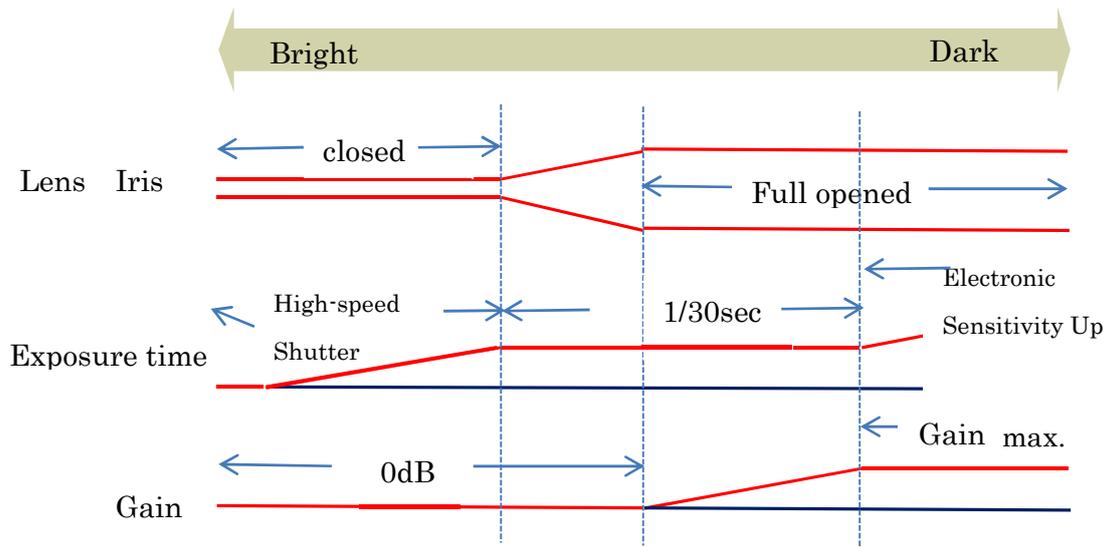
MAIN MENU		(PAGE 5/5)
MAIN	VERSION	0.00
FIRM	VERSION	106
FPGA	VERSION	601F
EXIT	CANCEL	RESET

6-4-5-1 MODEL NAME & VERSION INFORMATION

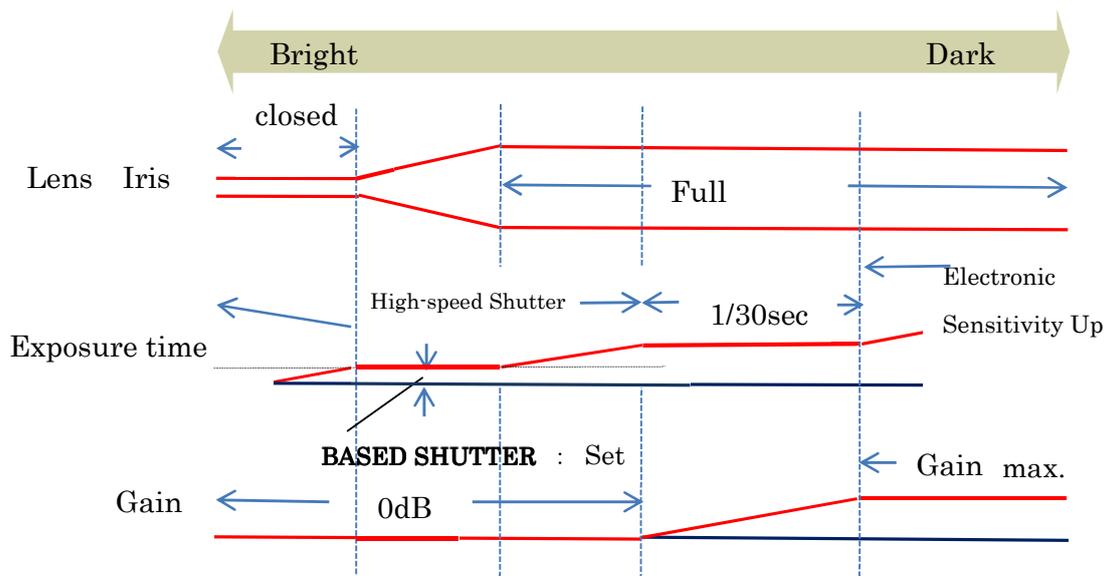
- (1) MAIN VERSION
- (2) FIRM VERSION
- (3) FPGA VERSION

7. ALC Explanatory Diagram

① BASED SHUTTER : OFF HS-SHT LIMIT : OFF

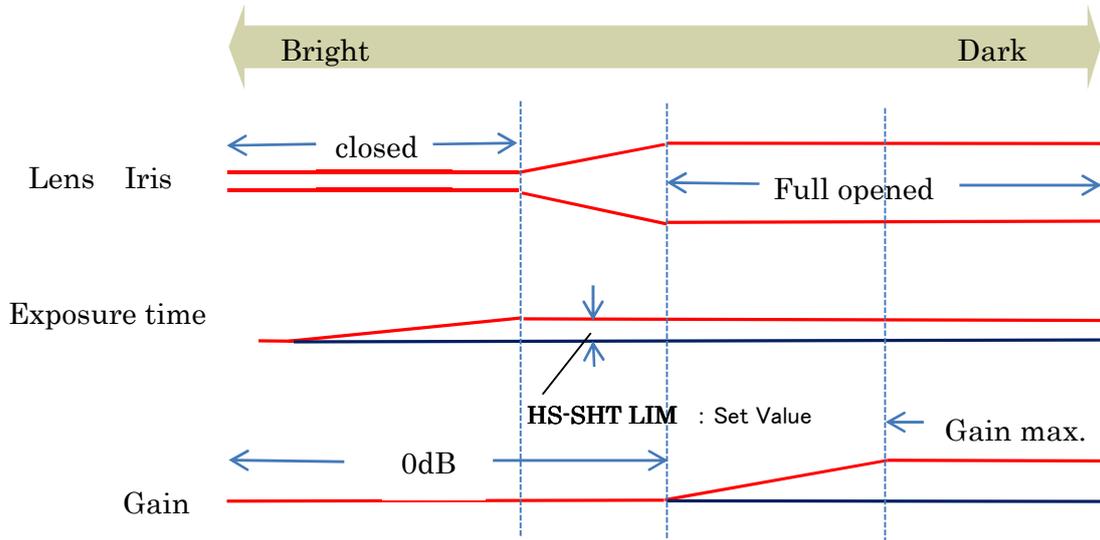


② BASED SHUTTER : Set Value HS-SHT LIMIT : OFF



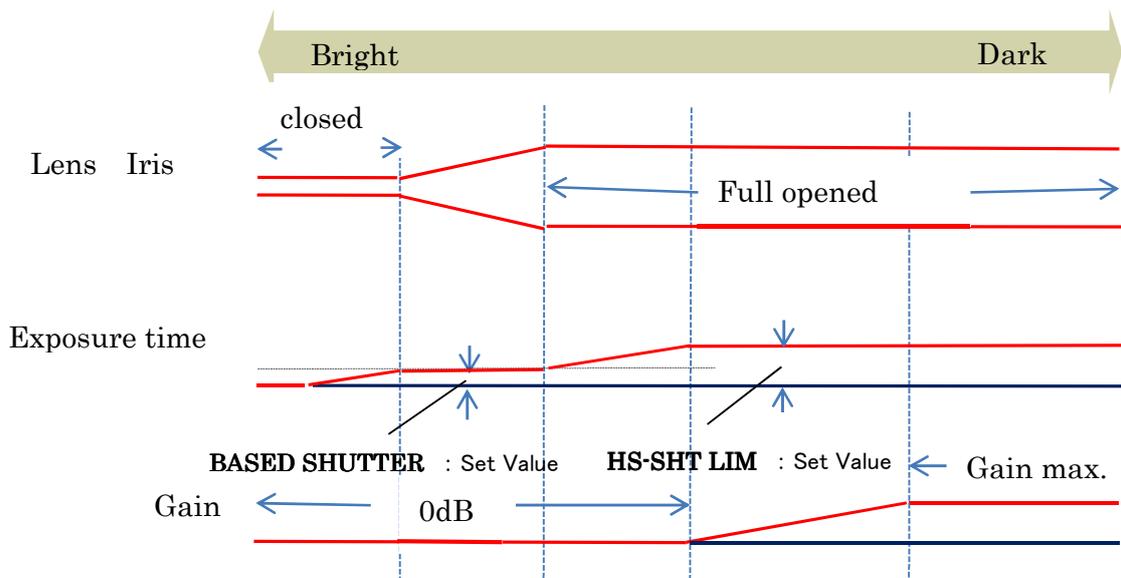
③ **BASED SHUTTER** : OFF **HS-SHT LIMIT** : Set Value

When the **HS-SHT LIMIT** is set, a set value is fixed, and the shutter will not enter the low-speed side thereafter.



④ **BASED SHUTTER** : Set Value **HS-SHT LIMIT** : Set Value

When the **HS-SHT LIMIT** is set, a set value is fixed, and the shutter will not enter the low-speed side thereafter.

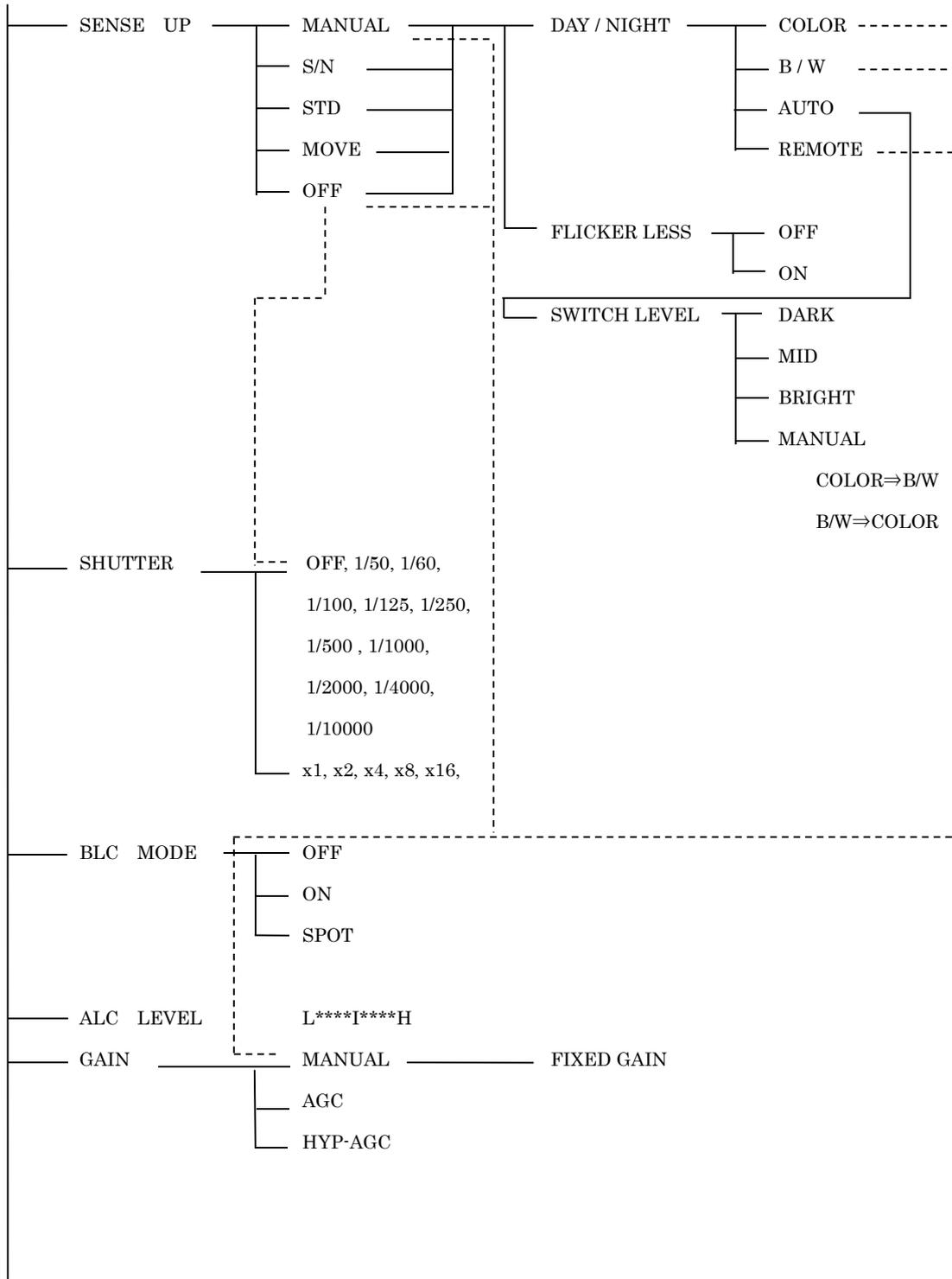


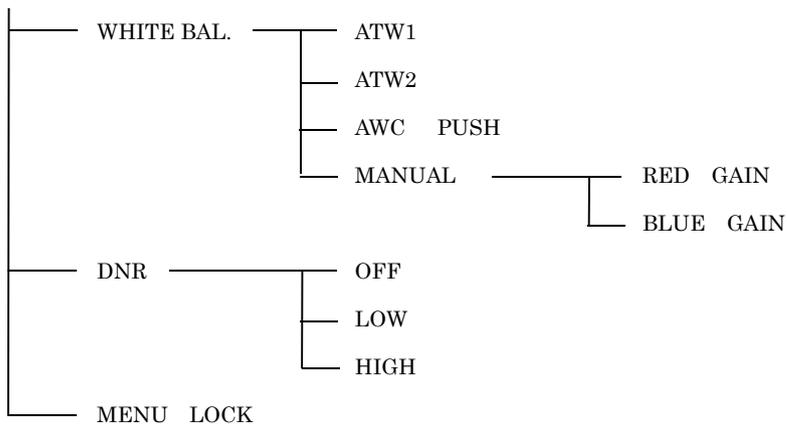
8. Menu Structure

8-1 MAIN MENU

PAGE

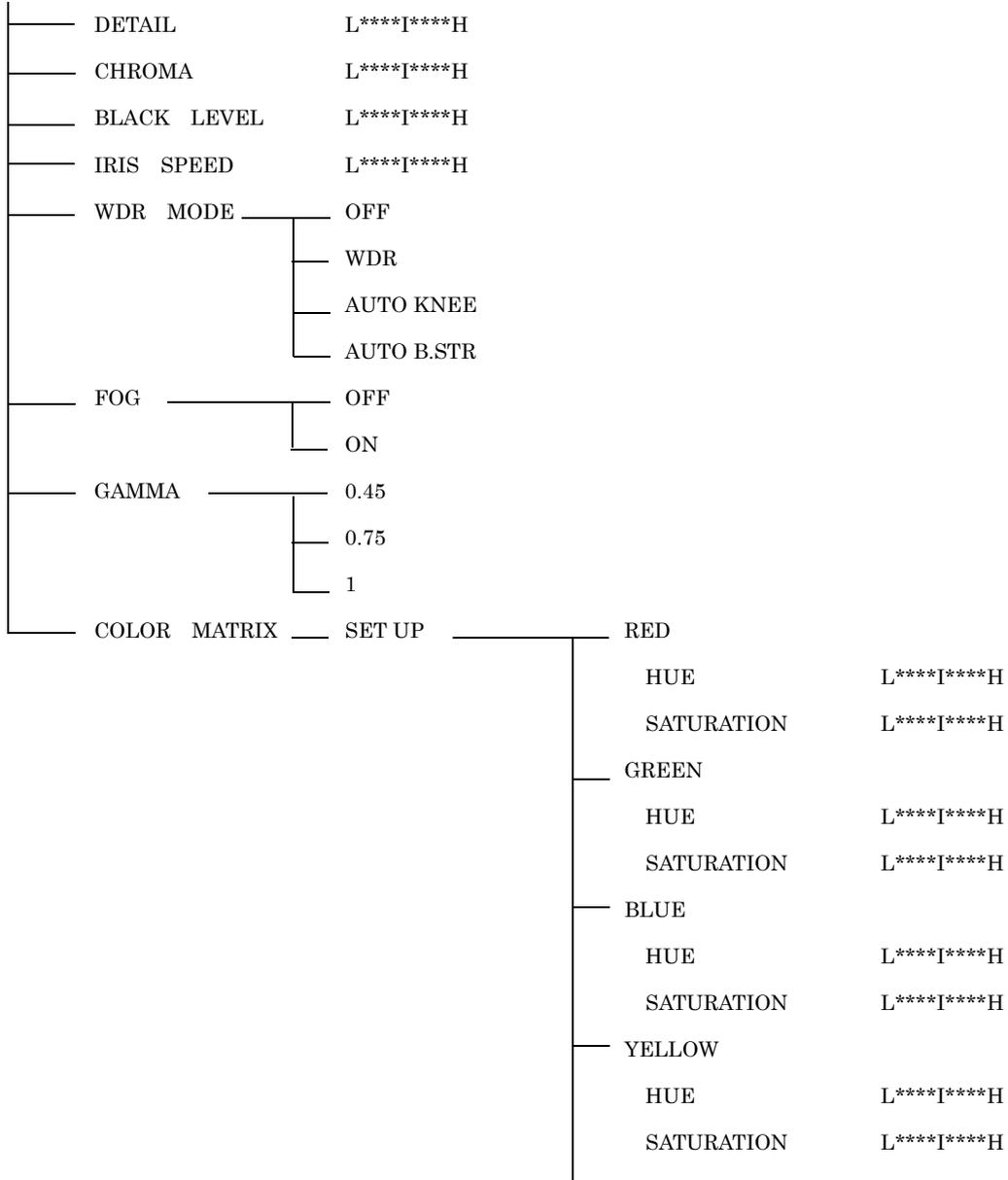
1/5





PAGE

2/5



CROSS LINE

PAGE

4/5

SDI FORMAT	1080I/59.94	
	1080P/30.00	
	1080P/29.97	
	720P/60.00	
	720P/59.94	
	720P/30.00	
	720P/29.97	
	1080I/50.00	
	1080P/25.00	
	720P/50.00	
	720P/25.00	
	SDTV FORMAT	NTSC-J
		NTSC-M
SDTV ASPECT	LETTER BOX	
	SIDE CUT	
	SQUEEZE	
SDTV C. BURST	OFF	
	ON	
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GENLOCK	OFF	
	ON	

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MODEL NAME
MAIN VERSION
FIRM VERSION
FPGA VERSION

9. Specifications

■ Camera Unit

Image Sensor	Single Panel CMOS/ RGB Bayer Array
Total Pixels	Approximately 2,600,000 pixels 2270 (H) × 1144 (V)
Valid Pixels	Approximately 2,200,000 pixels 1974 (H) × 1100 (V)
Pixel Size	5 μm (H) × 5 μm (V)
Optical Size	2/3 type
Scanning System	Progressive
Sensitivity	F11 2000 lx
Minimum Illumination	0.005 lx (1/30, 50 IRE, +72 dB)
Horizontal Resolution	900 TV lines
S/N Ratio	50 dB or above (γ = 1, Contour Correction OFF)
Lens Mount	CS Mount
Lens Control	4 pin DC iris control

Image Control	Quality	Electronic Sensitivity Up	OFF / AUTO(S/N, STD, MOVE)/ MANUAL x1, x2, x4, x8, x16
		GAIN	AUTO : AGC / HYPER-AGC MANUAL: 0 dB to 72 dB
		Electronic Shutter	OFF, 1/50, 1/60, 1/100, 1/125, 1/250, 1/500, 1/1000, 1/2000, 1/4000, 1/10000 sec.
		Backlight Correction	9x5 area selection
		Gamma Correction	0.45 / 0.75 / 1
		DNR	OFF, LOW, HIGH
		White Balance	ATW1 / ATW2 / AWC / MANUAL
		WDR MODE	OFF / WDR / AUTO KNEE / AUTO BLACK STRETCH
		De Fog	OFF / LOW / MID / HIGH
		COLOR MATRIX	R/G/B/Ye/Cy/Mg SIX-AXIS ADJUSTMENT
		Others	DETAIL / CHROMA / BLACK LEVEL
		Electronic Zoom	x1, x1.1, x1.2, x9.9, x10
		Image Reversal	Mirror/Flip/Mirror Flip
Privacy Mask	8 Masks in GRAY/WHITE/BLACK		
Test Pattern	Color Bar, Gray Scale, Cross Line built in		
Operation	By OSD display		

■ **Interface**

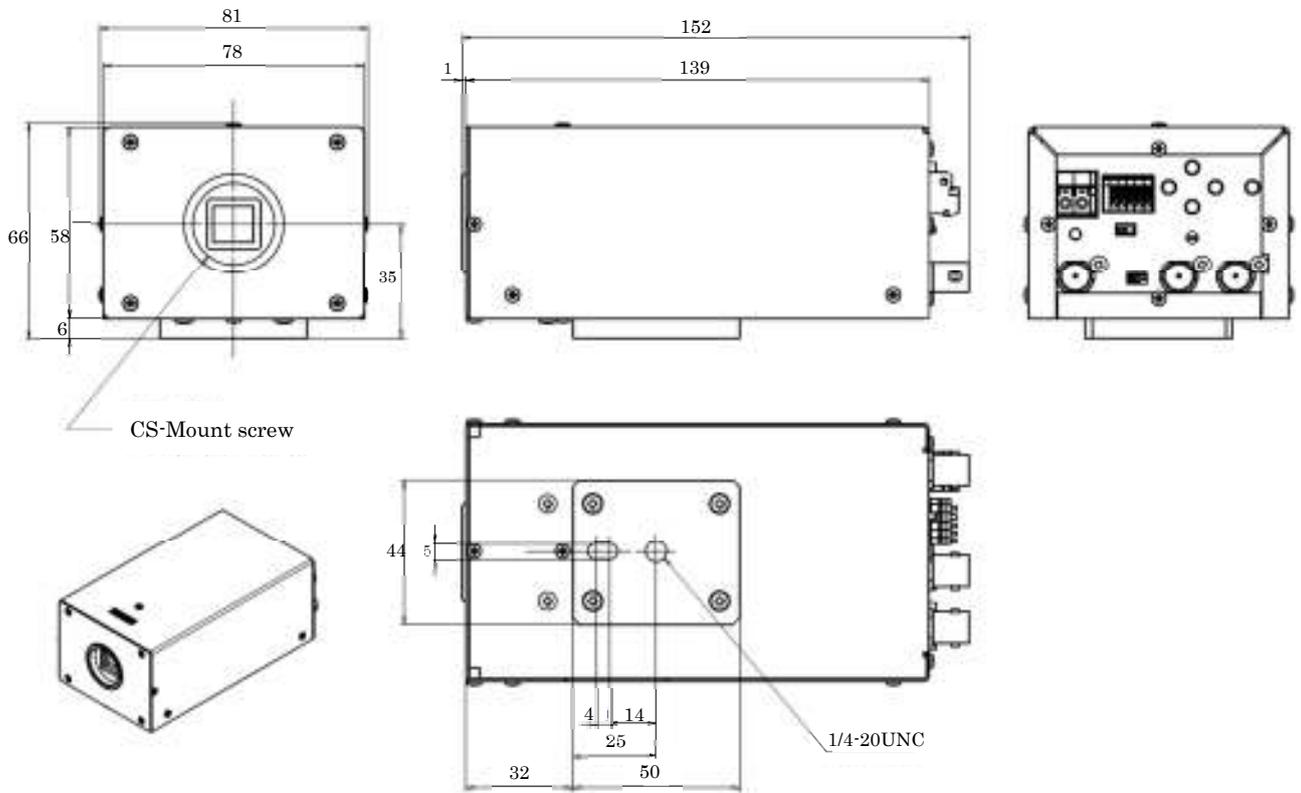
Image Terminal	Output	HD-SDI (BNC)×1 Composite Video (VBS) (BNC)×1
Synchronization Signal Input Terminal		External Synchronization Input (VBS/3 sync) BNC×1
Serial Port		RS-485
Contact Input		IR cut filter switch
Video Output	HD-SDI	1080I/59.94, 1080P/30.00, 1080P/29.97, 720P/60.00, 720P/59.94, 720P/30.00, 720P/29.97, 1080I/50.00, 1080P/25.00, 720P/50.00, 720P/25.00
	Composite Video	NTSC, PAL Down Convert LETTER BOX / SIDE CUT / SQUEEZE

■ **General**

Power Supply	DC 12 V ±10% (Ripple 50mVp-p or less)
Power Consumption	7 W
Operational Temperature/Humidity Range	-10 to 50°C / 35 to 90%
Storage Temperature/Humidity Range	-20 to 60°C / 20 to 90%
Measurement	78.0 (W)×66.0 (H)×139.0 (D)mm Excluding protrusions
Weight	650 g

- The specifications and/or appearance of the product are subject to change without prior notice.

10. Dimensions



WARRANTY CARD
(LIMITED WARRANTY)

IMPORTANT : TO BE VALID, THE DEALER'S RECEIPT MUST BE ATTACHED TO THIS WARRANTY CARD.

Product Name: KC1100MK2.....

Owner's Name and Address:.....
.....

Date of Purchase:.....

All new products have been thoroughly tested and inspected prior to shipment. This product is warranted against defects in materials and workmanship for a period of one (1) year from date of purchase. If this product fails to perform to its specifications during this period, it will be repaired or replaced FREE OF CHARGE at our option.

This Warranty does not cover damage resulting from accident, misuse, neglect or importer service or maintenance. Use of unauthorized service, replacement parts or attachments will void this Warranty. Misuse includes any use of this product in other than its intended applications.

No responsibility is assumed for any special, incidental or consequential damages. No other Warranty, written, oral or implied, is assumed or authorized. The liability of KOMAMURA CORPORATION hereunder is expressly limited to a claim for a repair or replacement for the goods sold or as otherwise started herein.

KOMAMURA CORPORATION

3-2-4 Nihonbashi Ningyo-cho, Chuo-ku, Tokyo 103-0013 Japan

KC-1100MK2 Instruction Manual

2014/09/11

Komamura Corporation

3-2-4 Nihonbashi-Ningyo-cho, Chuo-ku, Tokyo 103-0013

<http://www.falconeyenv.com/>