

CCD COLOR CAMERA SPECIFICATIONS

(Rev 1.00)

ZCB – 20Z12 (NTSC)

ZCB – 21Z12 (PAL)

Aegis Electronic Group
www.aegiselect.com

FOR PRICING INFORMATION, PLEASE CALL:

The logo for Aegis Electronic Group, Inc. features the word "Aegis" in a stylized, cursive font with a red underline that extends to the right.

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Specification and Function Table

1. SPECIFICATIONS

1. SPECIFICATIONS

MODEL		ZCB-20Z12F	ZCB-21Z12F
Signal System		NTSC	PAL
Effective Pixels		768[H] x 494[V]	752[H] x 582[V]
Image Sensor		1/4 inch High Sensitivity CCD	
Video Output		1.0Vp-p Composite Signal(75 ohms)	
Sync. System		Internal Sync / L/L [0~359]	
Luminance S/N Ratio		52dB Min.[AGC OFF]	
Horizontal Resolution		550 TV Lines[B/W 600 TV Lines]	
Lens		12x D&N Zoom Video AF , F1.65.W, ~F1.99.T, f = 3.68mm ~ 43.53mm	
Digital-ZOOM		x1 ~ x12	
Sensitivity / Min.Illumination		Day : 0.05 Lux / Night : 0.0002 Lux [Sens-Up x128]	
Brightness		0 ~ 100	
IRIS		AUTO / MANUAL [0 ~ 100]	
Shutter		AUTO / A.FLK / MANUAL[1/160~1/90000 , x2~512] / OFF	
DSS		OFF / AUTO[2~128]	
3D-DNR	LEVEL	OFF / ON [0~63]	
	Global Motion	OFF / ON	
White Balance Mode	Mode	AWB / ATW / PUSH / MANUAL	
	Color Temp.	INDOOR / OUTDOOR	
	Anti Color Rolling	OFF / ON	
AGC		OFF / HIGH / MIDDLE / LOW / MANUAL [0dB~32dB]	
WDR		W-FRONT / W-CENTER / W-REAR / W-USER [Long & Short]	
BLC		HIGH / MIDDLE / LOW	
ECLIPSE		OFF / ON [16 Zones]	
STABILIZER		OFF / ON	
Day & Night		AUTO [IR Cut Filter] / DAY / NIGHT / EXT	
Motion Detection		OFF / ON [4 Zones]	
Privacy		OFF / ON [8 Zones]	
D-EFFECT		OFF / V-FLIP / MIRROR / ROTATE	
Image Freeze		OFF / ON	
Color		OFF / ON	
Sharpness		0 ~ 100	
Gamma		CRT , LCD , USER , 0.45~1.00	
Protocol		CNB-ASCII / CNB-HEX / PELCO-D / PELCO-P	
Camera ID		0 ~ 255	
Baudrate		4800 / 9600 / 19200 / 38400 / 57600	
OSD Language		Only ENG	
Supply Voltage		12VDC ±20% [9.6VDC ~ 14.4VDC]	
Power Consumption		Normal : 2.04W [170mA] / Max : 4.2W [350mA] Zoom/Focus Operation	
Operating Temperature / Humidity		-10°C to 50°C [14°F to 122°F] / 20% ~ 60% RH	
Storage Temperature / Humidity		-20°C to 60°C [-4°F to 140°F] / 20% ~ 90% RH	

2. ENVIRONMENT CONDITION AND TEST

1) Operating Condition

Temperature -10°C to 50°C [14°F to 122°F]
Humidity 20% ~ 60% RH

2) Storage Condition

Temperature -20°C to 60°C [-4°F to 140°F]
Humidity 20% ~ 90% RH

3) High Temperature storage Test

Leaving the packed at Temperature of 60. C for 72 Hours, and after leaving it at Normal Temperature for 8 Hours, there should be no Problem in Performance.

4) Low Temperature storage Test

Leaving the packed at Temperature of -20. C for 72 Hours, and after leaving it at Normal Temperature for 8 Hours, there should be no Problem in Performance.

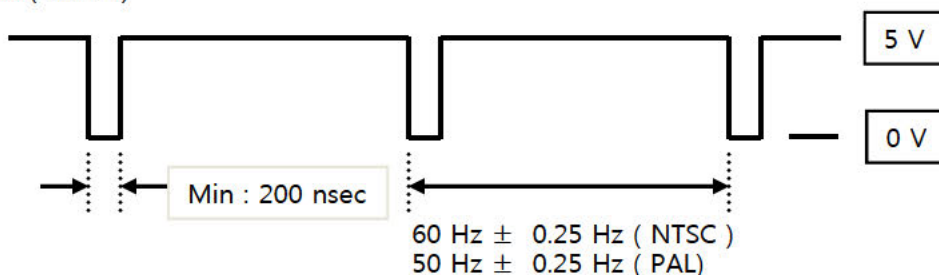
3. INTERFACE

1) Pin Assignment : TTL Communication

(9 Pin FFC Connector ; Maker ELCO 1.0mm Pitch ,Upper Contact)

PIN No.	NAME	I/O	LEVEL
1	GND(For Line)		
2	Line IN	Input	EX. FV (Negative. 5 Vp-p)
3	GND(For Video)		
4	VIDEO OUT	Output	1V ± 0.2 Vp-p
5	GND(For Power)		
6	DC IN	Input	9.6 V ~ 14.4 V (Recommendation 12±0.5 V)
7	GND(For Data)		
8	TD(For RS- 232C)	Output	CMOS Level 5V (Low : Max 0.8V , High : Min 3.7V)
9	RD(For RS-232C)	Input	CMOS Level 5V (Low : Max 0.8V , High : Min 3.7V)

2) Line In Pulse (EX. FV)

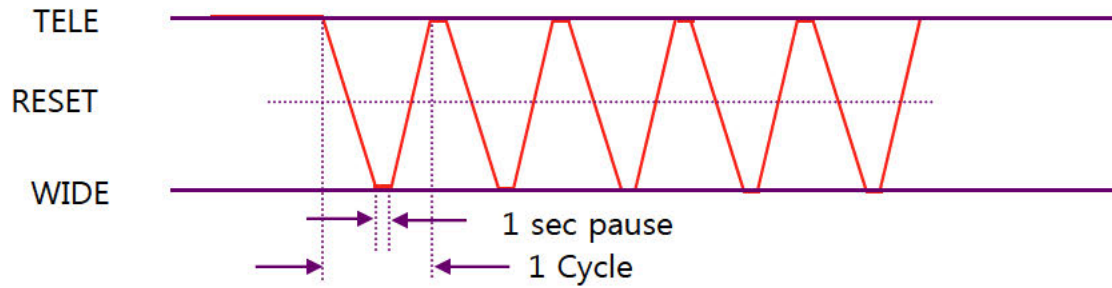


A) Pulse- Signal Spec of EX.FV

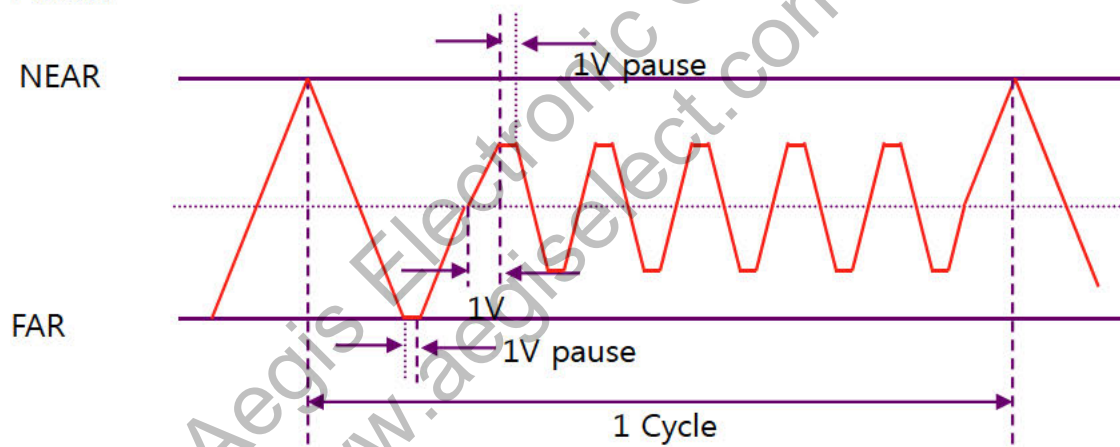
* The 10 pin Connector (JAE) over the camera module is used for manufacturing. (Not for user)

4. LENS TEST CONDITION

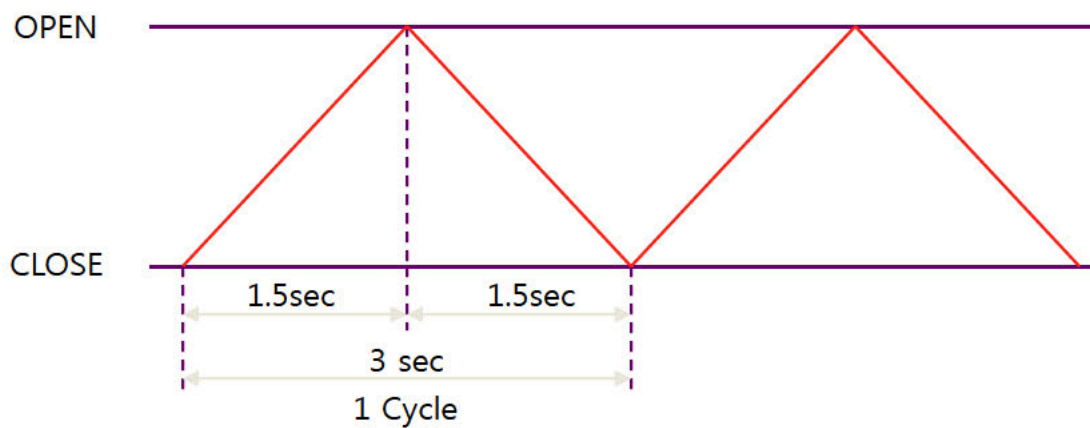
1) Zoom



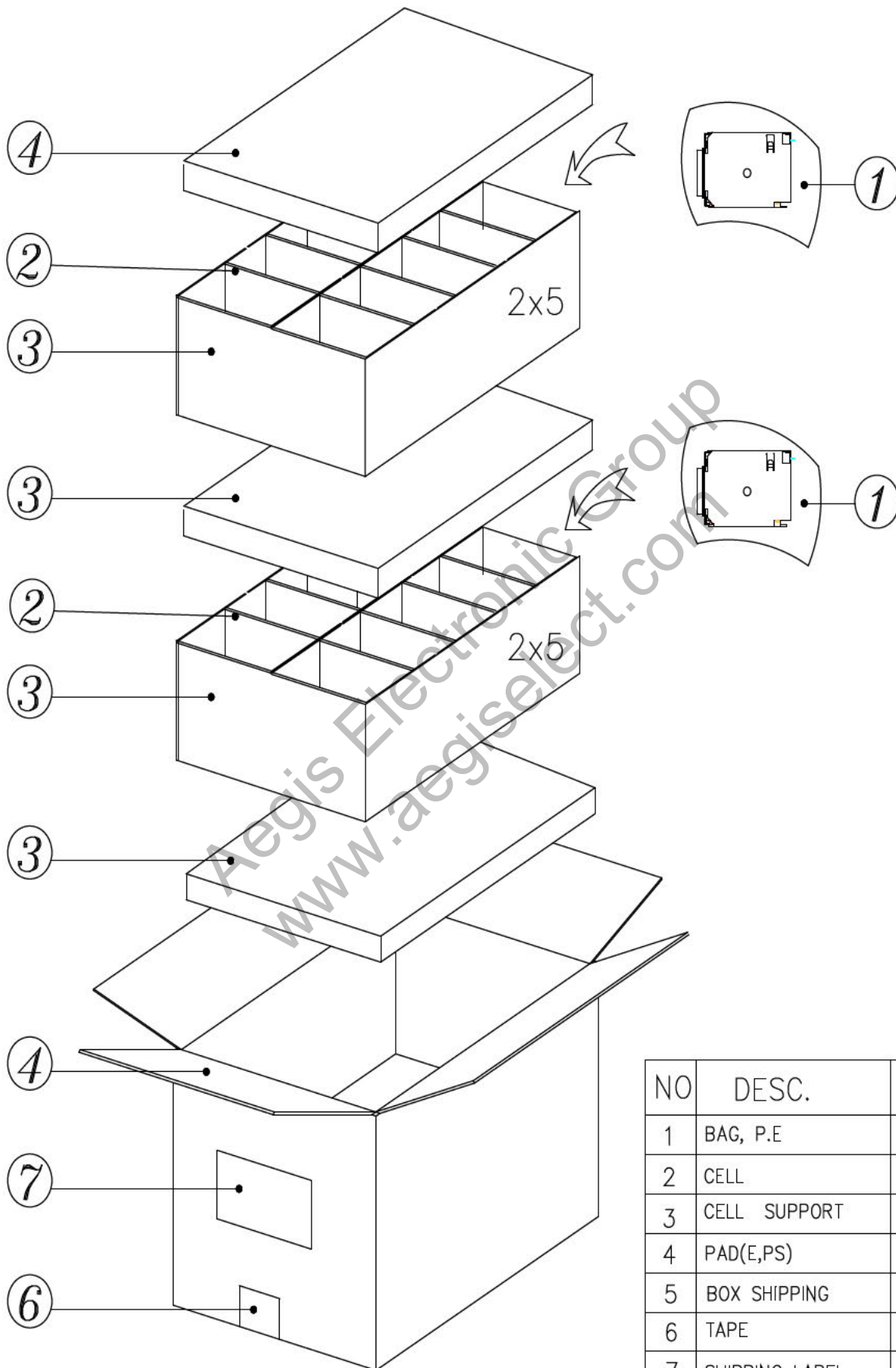
2) Focus



3) Auto Iris



8. PACKING METHOD



NO	DESC.	QT'Y
1	BAG, P.E	1/1
2	CELL	8/20
3	CELL SUPPORT	2/20
4	PAD(E,PS)	3/20
5	BOX SHIPPING	1/20
6	TAPE	1/1000
7	SHIPPING LABEL	1/20

Detailed information about the menu options and functions

2. MENU AND FUNCTIONS

2. Menu and Functions

Use the button on the back panel of the camera to bring up the menu screen for controlling functions and operations of the camera.

Same to the Rear side of X27
Module

1. Key Operations

- Menu :: Low Middle [LIGHT] → [MENU On] , [MENU Set]
- Accessing Sub Menu :: Center Side [I] , [O] → [Up] , [Down]
- Select a Value :: Low Side [B] , [NW] → [Left] , [Right]

Use Five buttons above to browse the menu options.

2. Entering Menu Screen

- When camera is turned on, press and hold the middle [MENU On] button for 2 seconds.
- [MENU] button is used for [MENU On] and [MENU Set]


3. Main Menu

- Main Menu Screen like the following will appear when Menu button is pressed for two seconds.



< Figure 1. Main Menu >

3. Browsing through Menu Options

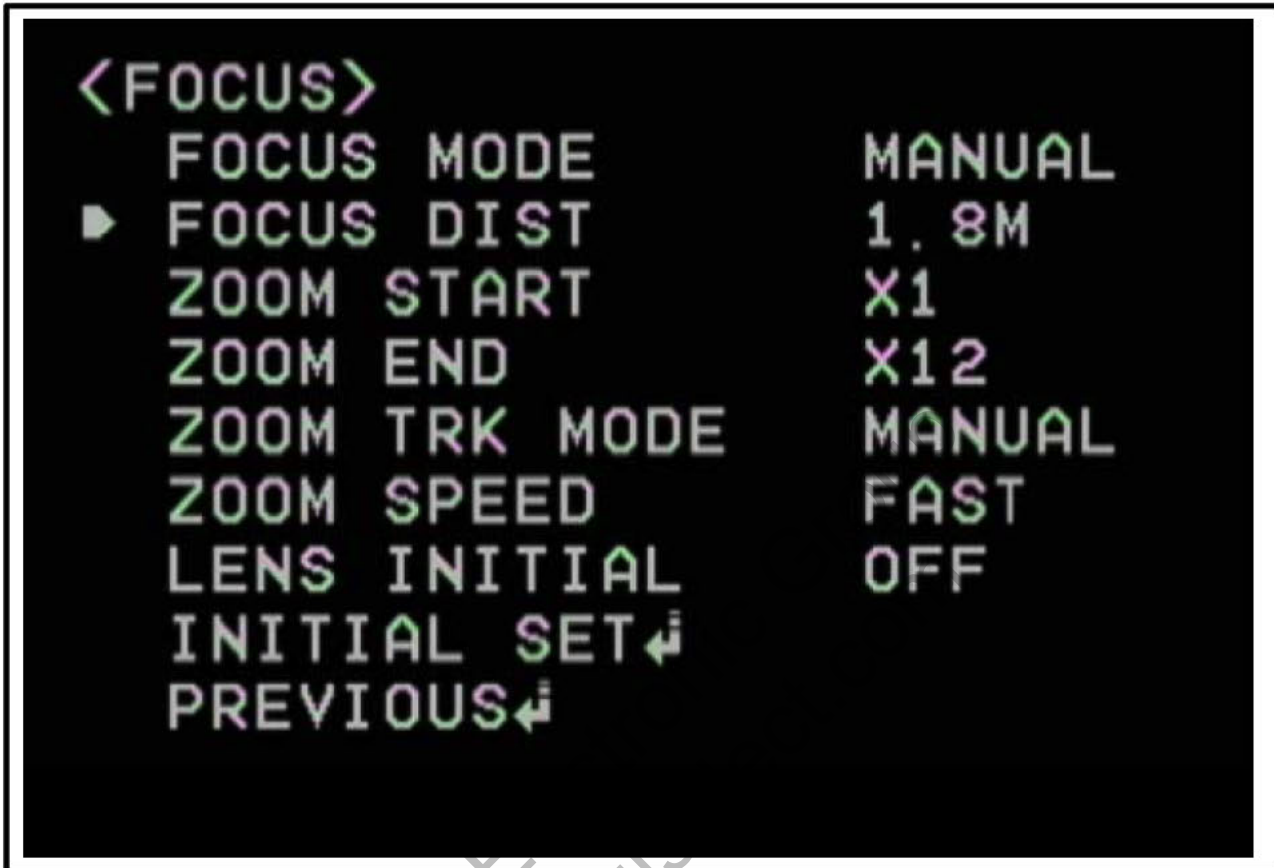
- The cursor will be initially at [FOCUS].
- [] gets displayed in front of the selected menu options.
- Use [UP] and [DOWN] button to move the cursor.
- When the cursor is at the desired position, press the [menu Set] button to go into the selected sub menu screen.

4. Exiting the Menu

- Bring the cursor to [SAVE & EXIT] and press the Menu button. Then the Menu Screen will disappear.


5. Focus Menu

- In the Main Menu, go into the [FOCUS] sub menu screen by bringing the cursor  to [FOCUS] and pressing [menu Set] button.




< Figure 2. Focus Menu >


5-1. FOCUS MODE

- Changes the Focus Mode.
- Bring the cursor  to [FOCUS MODE], and change the option using [LEFT] or [RIGHT] button.
- The following options are available.
 - AUTO : The camera will focus automatically. <Recommended>
 - MANUAL : The focus will be focused by the user manually.
 - PUSH : The Focus gets automatically set by pressing the Menu button shortly.


5-2. Focus Distance

- Changes the focal distance of an object.
- Bring the cursor  to [FOCUS DIST], and change the value using [LEFT] or [RIGHT] button.
- The following options are available.
 - 10cm → 50cm → 1m → 1.5m → 2m → 3m → 5m


5-3. Zoom Start

- Changes the minimum zoom magnification rate.
- Bring the cursor  to [ZOOM START], and change the value using [LEFT] or [RIGHT] button.
- The following options are available.(x1~x12)
 - Any ratio between X1 and x35 can be selected.


5-4. Zoom End

- Changes the maximum zoom magnification rate.
- Bring the cursor  to [ZOOM END], and change the value using [LEFT] or [RIGHT] button.
- The following options are available.(X2 ~ X144)
 - Please note that x1 cannot be selected for Maximum zoom.


5-5. Zoom Tracking Mode

- Changes the Zoom Tracking.
- Bring the cursor  to [ZOOM TRK MODE], and change the value using [LEFT] or [RIGHT] button.
- The following options are available.
 - AUTO : The focus gets adjusted automatically when zoom Lens is moved.
 - OFF : The focus stays at its setting when zoom Lens is moved.
 - MANUAL : The focus gets adjusted to the position specified by the user when zoom Lens is moved.


5-6. Zoom Speed

- Changes the Speed of the Zoom lens movement.
- Bring the cursor  to [ZOOM SPEED], and change the option using [LEFT] or [RIGHT] button.
- The following options are available.
 - NORMAL
 - QUICK
 - SLOW


5-5. Lens Initial

- Initializes to the default Focus and Zoom values.
- Bring the curser  to [LENS INITIAL] , and change the option using [LEFT] or [RIGHT] button.
- The following options are available.
 - AUTO
 - OFF
 - ONE PUSH
- Select [ONE PUSH] and press [menu Set] button to manually initialize the lens.
- Select [AUTO] and press [menu Set] to set an automatic Lens initialization period.
1day ~ 7day


5-6. INITIAL SET (Same for all sub menus)

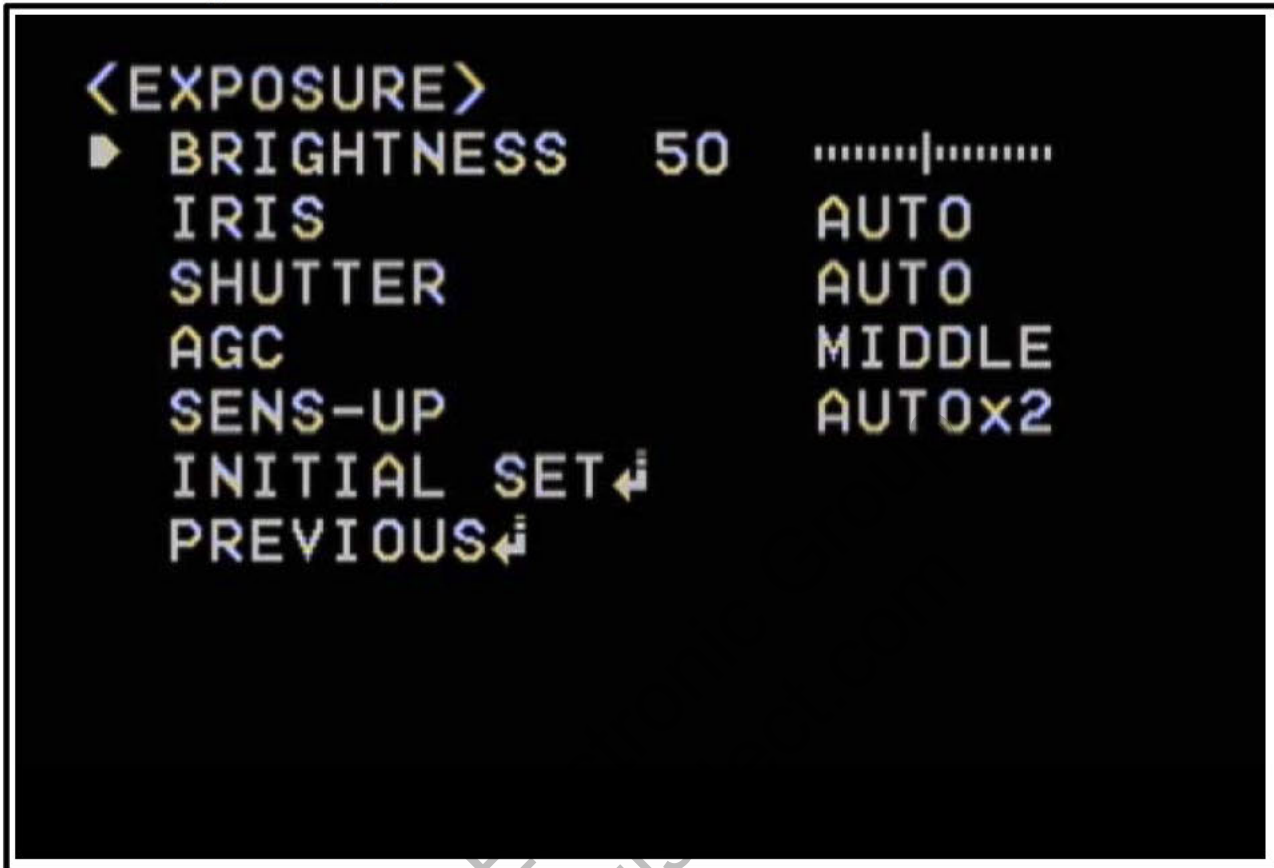
- All values in Focus Menu will be set to default.
- Bring the curser  to [INITIAL SET] , and press the [menu Set] button to execute reset.
All configurations in FOCUS MODE~ LENS INITIAL option will be set to default value

5-7. PREVIOUS (Same for all sub menus)

- Brings the screen to previous screen.
- Move the curser  to [PREVIOUS], and press the [menu Set] button to go to the upper menu screen.
- Selecting this at FOCUS Menu will bring the root [Main Menu] Screen.


6. Exposure Menu

- In the Main Menu, go into the [Exposure] sub menu screen by bringing the cursor  to the [Exposure] and pressing [menu Set] button.




< Figure 3. Exposure Menu >

6-1. Brightness

- Changes the Brightness level.
- Move the cursor  to [BRIGHTNESS], and change the value using [LEFT] or [RIGHT] button.
 - It can be set in between 0 and 100, where 50 is the normal brightness.

6-2. Iris

- Changes the Iris mode.
- Move the cursor  to [Iris], and change the option using [LEFT] or [RIGHT] button.
 - AUTO
 - MANUAL ※ Manual control is disabled when using WDR in BackLight option.
 - It can be set between 0 and 100, where 60 is considered to be normal.

6-3. Shutter

- Changes the electrical shutter operation.
- Move the cursor **█** to [SHUTTER], and change the option using [LEFT] or [RIGHT] button.
- When the setting is changed to [MANUAL], press [menu Set] button to go into the manual shutter speed change menu screen.
 - AUTO : The camera automatically changes the shutter Speed.
 - A- FLK : The shutter speed sets to 1/100(NTSC) or 1/120(PAL).
 - MANUAL : The shutter speed gets set by the user manually.
 - The value can be selected between X512 and X2(LOW) , 1/60 and 1/90000(HIGH) seconds.
 - ※ Manual control is disabled when using WDR in the BackLight option

6-4. AGC

- Changes the maximum value for the Automatic Gain Control.
- Move the cursor **█** to [AGC], and change the value using [LEFT] or [RIGHT] button.
 - LOW → 12 dB
 - MIDDLE → 24 dB
 - HIGH → 32 dB
 - MANUAL → 0~32 dB ※ Manual control is disabled when 3D-DNR or D/N mode is set to [ON]


6-5. Sense-Up

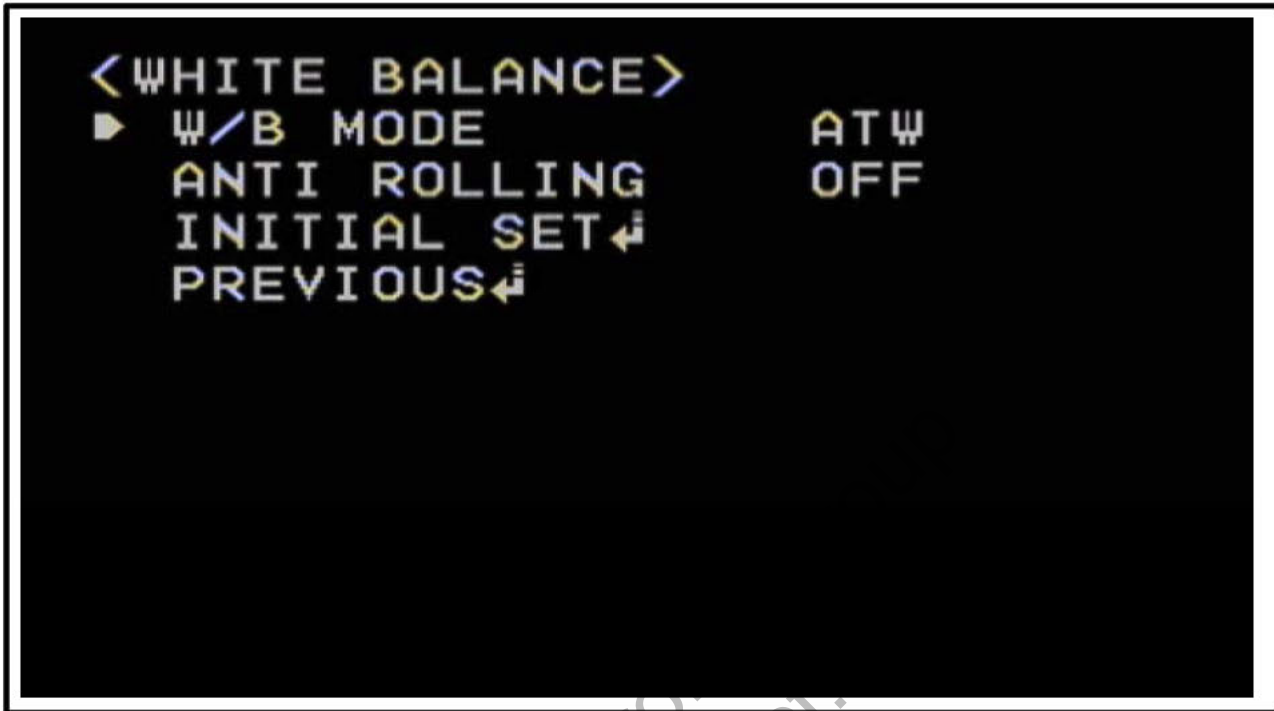
- Changes the number of images to be accumulated at low light
- Move the cursor **█** to [SENS-UP], and change the value using [LEFT] or [RIGHT] button.
 - OFF
 - AUTO X2 ~ X128

6-6. INITIAL SET (Same for all sub menus)

6-7. PREVIOUS (Same for all sub menus)


7. White Balance Menu

- In the Main Menu, go into the [WHITE BALANCE] menu screen by bringing the cursor  to the [WHITE BALANCE] and [MENU SET] button.




< Figure 4. White Balance Menu >

7-1. W/B Mode

- Selects the White Balance Mode
- Move the cursor  to [W/B MODE], and change the value using [LEFT] or [RIGHT] button.
 - AWB : 2,200 ~ 7,000 K
 - ATW : 2,000 ~ 18,000 K
 - PUSH : Execute the ATW operation when [MENU SET] button is pressed.
 - IN DOOR : Sets the standard color temperature to an indoor level. (3200 K)
 - OUTDOOR : Sets the standard color temperature to an outdoor level. (5100 K)
 - MANUAL : The user sets the W/B value for RED and BLUE color (refer to 7-5)

7-2. Anti – Color Rolling

- Eliminates Color-rolling effect when using High – shutter speed.
- Move the cursor  to [ANTI ROLLING], and change the option using [LEFT] or [RIGHT] button.
 - ON : Turns the feature on.
 - OFF : Turns the feature off.

7-3. INITIAL SET (Same for all Sub Menus)

7-4. PREVIOUS (Same for all Sub Menus)

```

<MENUAL WHITE BALANCE>
▶ W/B RED      0      .....|.....
  W/B BLUE     0      .....|.....
  INITIAL SET ←
  PREVIOUS ←

```

<Figure 5. Manual White Balance Menu>

7-5 a. W/B RED (Adjusting the Red gain level)

- Changes the Red Gain Level.
- Move the cursor **█** to [W/B RED], and change the value using [LEFT] or [RIGHT] button.
 - Can be changed between -100 and 100, where 0 is the normal value.


b. W/B BLUE (Adjusting the Blue gain Level)

- Changes the Blue Gain Level.
- Move the cursor **█** to [W/B Blue], and change the value using [LEFT] or [RIGHT] button.
 - Can be changed between -100 and 100, where 0 is the normal value.

c. INITIAL SET ,Same for all sub menus,

d. PREVIOUS (Same for all sub menus)


8. Day/ Night Menu

- In the Main Menu, go into the [DAY / NIGHT] sub menu screen by bringing the cursor  to the [DAY / NIGHT] and pressing [menu Set] button.




< Figure 6. Day/ Night Menu >


8-1. Day/ Night mode change

- Configures the operation of IR-CUT filter according to Day/Nightlight light level.
- Move the cursor  to [D/N MODE], and change the option using [LEFT] or [RIGHT] button.
 - AUTO : Camera will automatically determine the light level
 - DAY : Always in Day mode. (IR-CUT filter engaged all the time)
 - NIGHT : Always in Night mode. (IR-CUT filter disengaged all the time)
 - EXT : Mode changes according to an external signal.
 - CDS : Mode changes according to the CDS SENSOR.

8-2. Day/Night Level

- Changes the light level for Day/Night switching
- Move the cursor  to [D/N Level], and change the value using [LEFT] or [RIGHT] button.
 - Can be changed in between 0 and 10, where 5 is the normal value. (Switching light level is $0 < 5 < 10$)

8-3. Day/Night delay


- Sets the delay time for Day/Night switching
- Move the cursor  to [D/N Delay], and change the value using [LEFT] or [RIGHT] button.
 - Can be set in between 5 ~ 60 seconds.

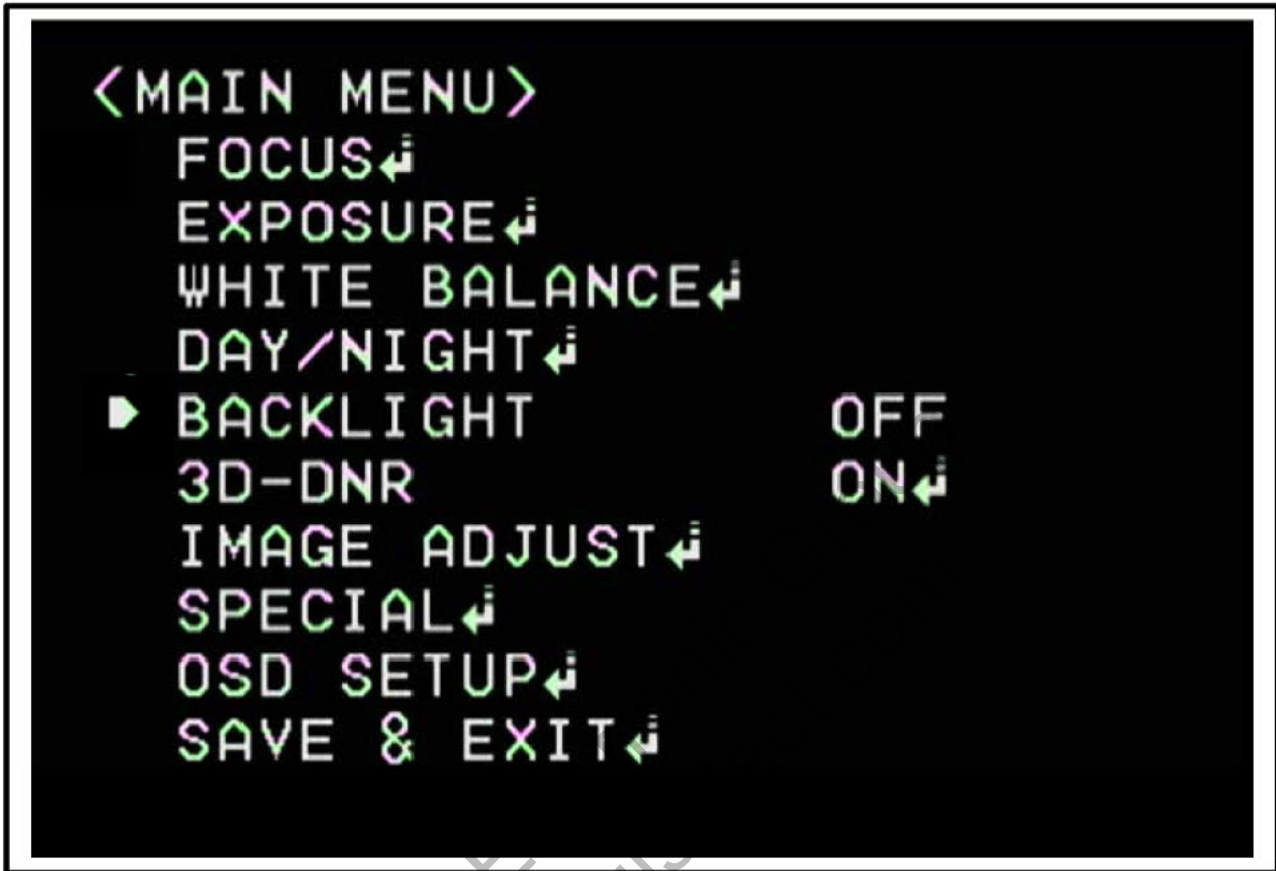
8-4. INITIAL SET (Same for all sub menus)

8-5. PREVIOUS (Same for all sub menus)

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9. Backlight Menu

- In the Main Menu, go into the [BACKLIGHT] sub menu screen by bringing the cursor  to the [BACKLIGHT] and pressing [menu Set] button.



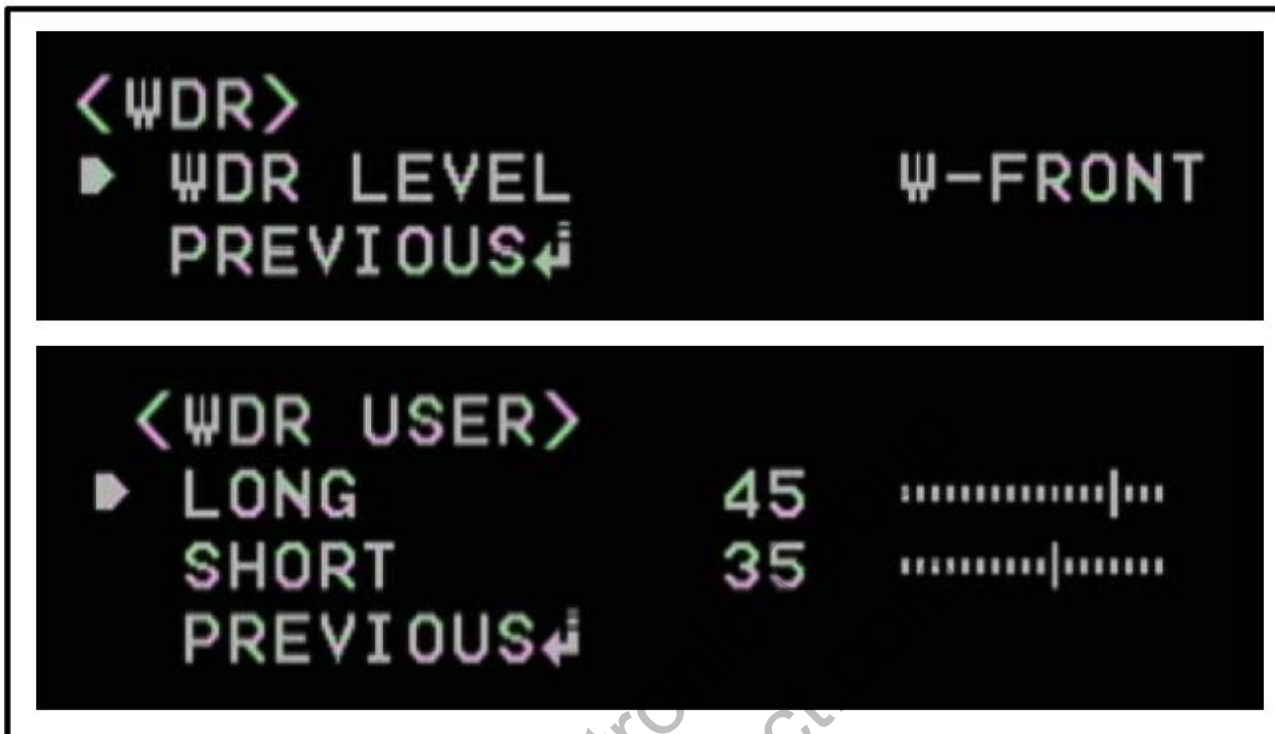
< Figure 7. BACKLIGHT option in the main menu >

9-1. Backlight mode

- Changes Backlight Mode.
- Move the cursor  to [BACKLIGHT], and change the option using [LEFT] or [RIGHT] button.
 - OFF : No Back Light Compensation
 - WDR : Wide Dynamic Range
 - BLC : Back Light Compensation
 - ECL : Eclipse
- Press [menu Set] button when desired mode option gets displayed to go into the sub menu screen for further configuration.

10. WDR Menu

- In the [BACKLIGHT] option, press the [Menu Set] Button when WDR is displayed to go into the [WDR] sub menu screen



< Figure 8. WDR Menu >

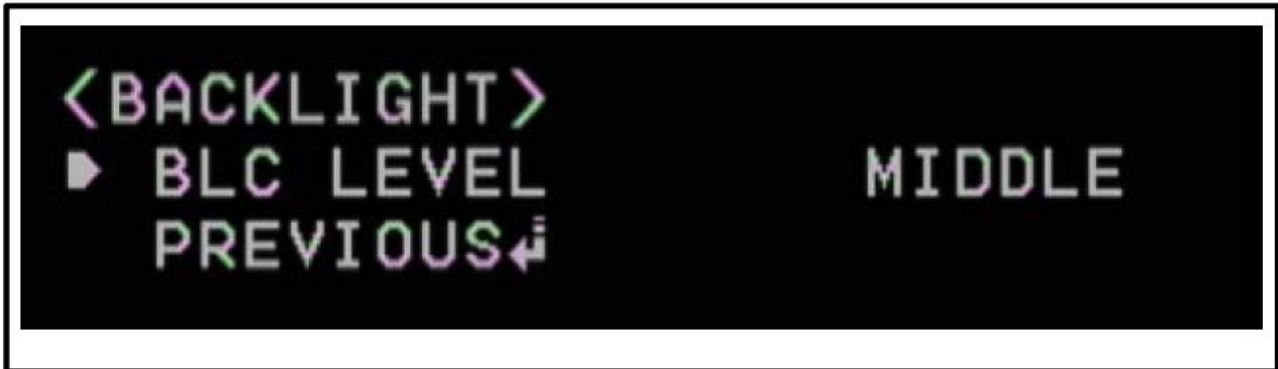
10-1. WDR

- Selects which WDR Mode to use.
- Move the cursor to [WDR LEVEL], and press [LEFT] or [RIGHT] button to change the option.
 - W-FRONT : Compensation for Dim Light Area
front 00 % , Back 00 %
 - W-CENTER : Compensation for Normal Light Area
front 00 % , Back 00 %
 - W-REAR : Compensation for Strong Light Area
front 00 % , Back 00 %
 - W-USER : The user configures the desired value
- Press the [menu Set] button when W-USER is displayed to go into the W-USER menu screen.
 - LONG : selects in between 0 and 60.
 - SHORT : selects in between 0 and 60.

10-2. PREVIOUS (Same for all sub menus)


11. Backlight Menu

- In the [BACKLIGHT] option, press the [Menu Set] Button when [BLC] is displayed to go into the [BLC] sub menu screen



< Figure 9. Backlight menu >

11-1. Backlight

- Selects which BLC Mode to use.
- Move the cursor  to [BLC LEVEL], and press [LEFT] or [RIGHT] button to change the option
 - MIDDLE : Normal Back light compensation
 - HIGH : Strong Back light compensation.
 - LOW : Dim Back light compensation.

11-2. PREVIOUS (Same for all sub menus)


12. ECL Menu

- In the [BACKLIGHT] option, press the [Menu Set] Button when ECL is displayed to go into the [ECL] menu screen




< Figure 10. ECL Menu >


12-1. ECL Area

- Configures Eclipse Area.
- Move the cursor  to [AREA SETTING], and press [menu Set] button to go into the sub menu.
 - The total area consists of 16 cells (4 by 4)
 - Use [LEFT] or [RIGHT] buttons to move to the desired area.
 - Use [UP] or [DOWN] buttons to turn each Eclipse area ON or OFF
 - Press [menu Set] button to go back to the upper menu screen .
- Select [ALL AREA SET] option using [LEFT] or [RIGHT] button.
 - Selects all 16 areas.

12-2. Mask Color

- Selects the Eclipse Mask Color.
- Move the cursor  to [MASK COLOR], and use [LEFT] or [RIGHT] button to change the color.
 - BLACK, GRAY, and Dark GRAY can be selected.

12-3. ECL activate level


- Sets the light level for Eclipse activation
- Move the cursor  to [ECL LEVEL], and press [LEFT] or [RIGHT] button -- change the value.
 - Can be selected in between 0 and 100, where 50 is the normal level.

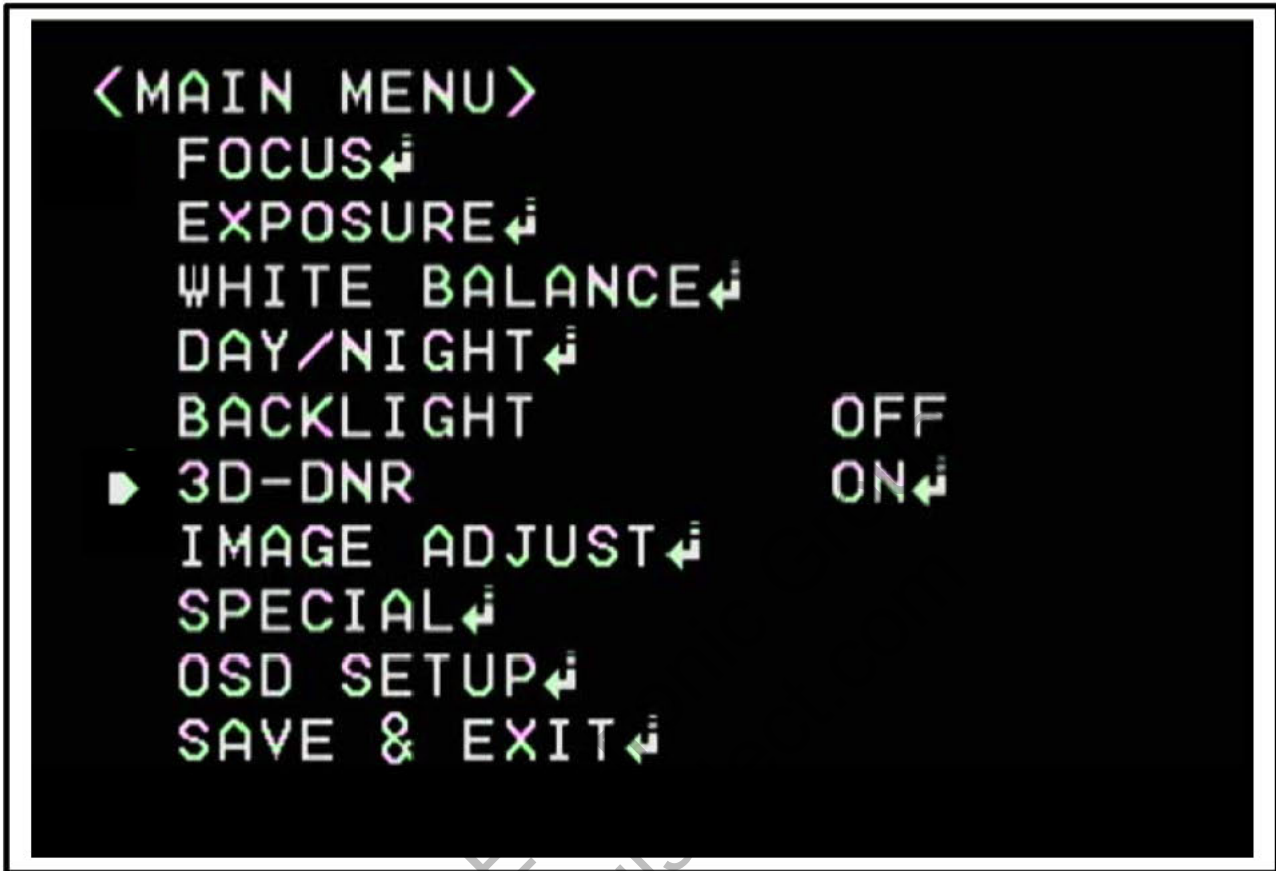
12-4. INITIAL SET (Same for all sub menus)

12-5. PREVIOUS (Same for all sub menus)

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13. 3D DNR Menu

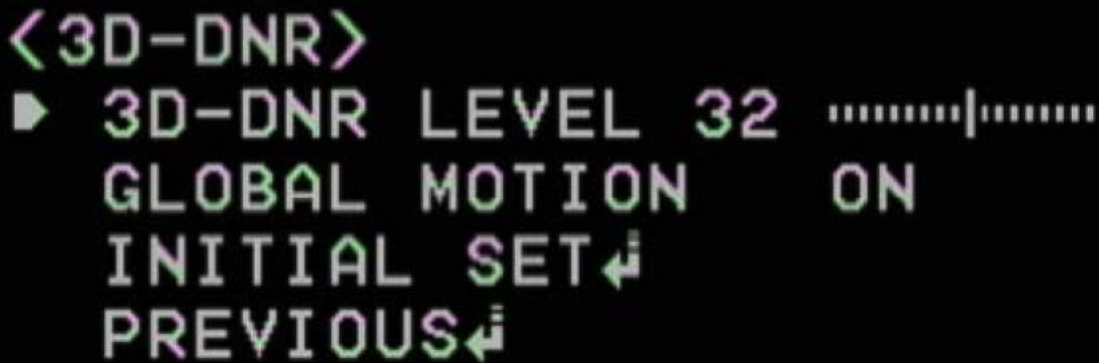
- In the main menu, move the cursor  to [3D-DNR], and press the [LEFT] or [RIGHT] button to show different options. Press [menu Set] button when [On] is displayed to go into the 3D DNR Menu Screen.



< Figure 11. 3D-DNR Option in the Main Menu >

13-1. 3D DNR mode


- Turns 3D digital Noise Reduction option on or off.
- Move the cursor  to [3D-DNR], and press [LEFT] or [RIGHT] button to change the option.
 - OFF : 3D DNR disabled.
 - ON : 3D DNR enabled.




```
<3D-DNR>
▶ 3D-DNR LEVEL 32 .....|.....
GLOBAL MOTION ON
INITIAL SET ←
PREVIOUS ←
```

< Figure 12. 3D - DNR Menu >

13-2. 3D-DNR level

- Configures Noise Reduction level.
- Move the cursor  to [3D - DNR], and press [LEFT] or [RIGHT] button to change the value.
 - Can be selected in between 0 and 63, where 32 is the normal value.

13-3. Global Motion

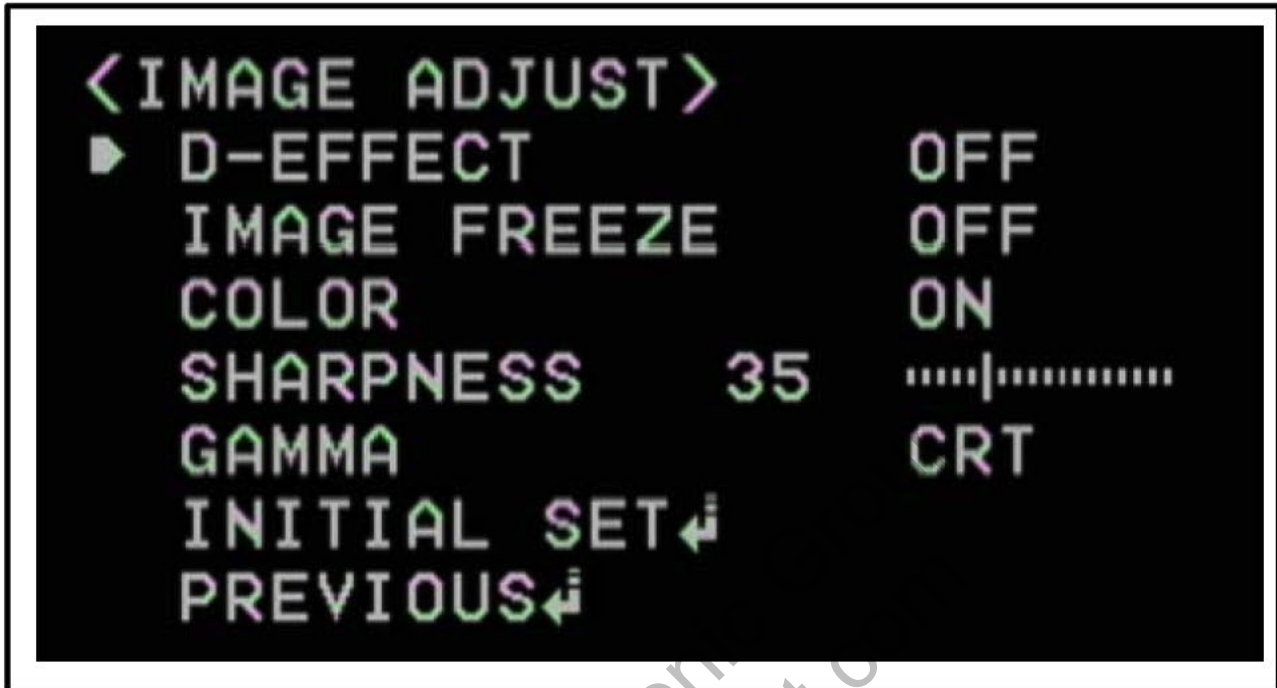
- Eliminates 'the ghost effect' when using 3D-DNR feature.
- Move the cursor  to [GLOBAL MOTION], and press [LEFT] or [RIGHT] button to change the option.
 - ON : Enables Global Motion Compensation.
 - OFF : Disables Global Motion Compensation.

13-4. INITIAL SET (Same for all sub menus)

13-5. PREVIOUS (Same for all sub menus)

14. Image Adjust Menu

- In the Main Menu, select [IMAGE ADJUST] using [menu Set] button to go into [IMAGE ADJUST] menu screen.



< Figure 13. Image Adjust Menu >


14-1. D-Effect

- Selects which Digital Effect Option to use.
- Move the cursor ▶ to [D - EFFECT], and press [LEFT] or [RIGHT] button to change the option.
 - OFF : No digital Effect.
 - V-FLIP : Flips the image vertically.
 - MIRROR : Flips the image horizontally.
 - ROTATE : Flips the image both horizontally and vertically.


14-2. Image Freeze

- Freezes the image.
- Move the cursor ▶ to [IMAGE FREEZE] , and press [LEFT] or [RIGHT] button to change the option.
 - OFF : Displays the Real time image
 - ON : Freezes the image Display.


14-3. Color / Black and White

- Selects the image output to be color or B/W.
- Move the cursor  to [COLOR], and press [LEFT] or [RIGHT] button -- change the selection.
 - ON : Color Image Output
 - OFF : B/W Image Output

14-4. Sharpness

- Changes the Image's Sharpness level.
- Move the cursor  to [SHARPNESS], and press [LEFT] or [RIGHT] button to change the value.
 - Can be changed in between 0 and 100, where 60 is the normal value.
 - OFF : Displays Black and White.

14-5. Gamma

- Adjusts the Image's Gamma Level.
- Move the cursor  to [GAMMA], and press [LEFT] or [RIGHT] button to change the option.
- Select [USER] option by pressing [menu Set] button to go into the [USER] menu screen.
 - CRT : pre-configured gamma level for a CRT monitor (0.45)
 - LCD : pre-configured gamma level for an LCD monitor (1.00)
 - USER : The user can select the level.
Select in between 0.45~ 1.

14-6. INITIAL SET (same for all sub menus)

14-7. PREVIOUS (same for all sub menus)

15. Special Menu

- In the main menu, move the cursor **▶** to [SPECIAL] and press [menu Set] button to go into [SPECIAL] menu screen.



< Figure 14. Special Menu >

15-5. Stabilizer

- Stabilizes the image on slight fluctuations.
- Move the cursor **▶** to [STABILIZER] and press [LEFT] or [RIGHT] button to turn on or off.

15-6. L/L Sync

- Sets the source for the line lock.
- Move the cursor **▶** to [L/L SYNC] and press [LEFT] or [RIGHT] button to change the value.
 - INT , L/L(0~359)

15-7. Factory Initial

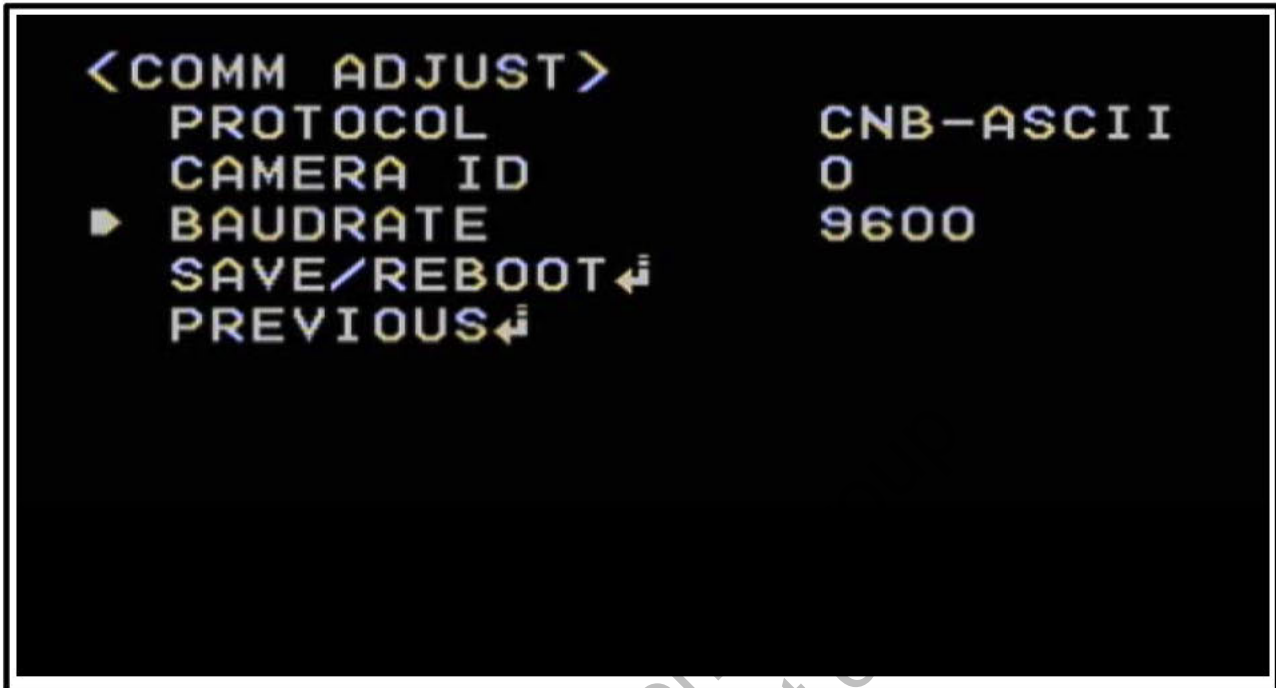
- Initializes the camera to factory default mode.
- Move the cursor **▶** to [FACTORY INITIAL] and press [Menu Set] button for reset.

15-8. Reboot

- Move the cursor **▶** to [REBOOT] and press [Menu Set] button to reboot the camera.

15-1. Comm. Adjust

- In [Special] Menu, select [COMM ADJUST] by pressing [menu Set] button to go into [COMM ADJUST] menu screen.



< Figure 15. Comm. Adjust menu >

15-1-1. Protocol

- Selects communication protocol to use.
- Move the cursor ▶ to [PROTOCOL] and press [LEFT] or [RIGHT] button to change the option.
 - Five protocols are selectable - CNB-ASCII , CNB-HEX , PELCO-D , PELCO-P

15-1-2. Camera ID

- Configures the Camera's ID.
- Move the cursor ▶ to [CAMERA ID] and press [LEFT] or [RIGHT] button to change the ID.
 - Can be selected in between 0 and 255 where 0 is the initial value.

15-1-3. Save/ Reboot

- The change in the configuration setting will apply after it was saved/ rebooted.

15-1-4. PREVIOUS (same for all sub menus)

- Exit without saving


15-2. Motion Detection Menu

- In the Special Menu Screen, Select [MOTION DET] by pressing [menu Set] button to go into the [MOTION DET] menu screen.




< Figure 15. Motion Det. Menu >


15-2-1. Detection Zone

- U₁ to 4 zones can be configured.
- Move the cursor  to [ZONE NUMBER] and press [LEFT] or [RIGHT] button to select the desired zone.
 - Configuration for each zone needs to be done separately when you select a different zone.


15-2-2. Zone State

- Turns on or off the selected movement detection zone.
- Move the cursor  to [ZONE STATE] and press [LEFT] or [RIGHT] button to change the selection.
 - Can be configured to be ON or OFF.


15-2-3. Size of the Detection Zone

- Configures the size of the selected detection zone
- Move the cursor  to [WIDTH] or [HEIGHT] and press [LEFT] or [RIGHT] button to change the value.
 - WIDTH : Changes the width of the detection zone.
 - HEIGHT. : Changes the height of the detection zone.


15-2-4. Location of the Detection Zone

- Configures the location of the selected detection zone
- Move the cursor  to [MOVE X] or [MOVE Y] and press [LEFT] or [RIGHT] button to change the value.
 - Move X : Moves the detection zone horizontally.
 - Move Y : Moves the detection zone vertically.


15-2-5. Motion Zoom

- Can zoom in the image when a motion is detected on the selected detection zone.
- Move the cursor  to [MOTION ZOOM] and press [LEFT] or [RIGHT] button to change the setting.
- Change the option to [ON] and press [menu Set] button to go into the sub menu screen.
 - [TARGET ZOOM] : sets the zoom magnification upon motion detection.
 - The maximum zoom is limited to the optical zoom
 - [D – WELL] : dwell time to stay on that zoom magnification
 - Can be selected in between 10 and 60 seconds.

15-2-6. Sensitivity

- Sensitivity to detect motion on the selected detection zone.
- Move the cursor  to [SENSITIVITY] and press [LEFT] or [RIGHT] button to change the setting.
 - Can be selected in between 0 and 100, where 50 is the normal value.

15-2-7. MD Alarm Out

- Sets the Alarm Output upon when motion is detected.
- Move the cursor  to [MD ALARM OUT] and press [LEFT] or [RIGHT] button to change the setting.
 - ON : [MD] gets displayed on the screen, and the Alarm Output gets activated.
 - OFF : Motion Detection does not get alerted.

15-2-8. INITIAL SET (Same for all Sub menus)

15-2-9. PREVIOUS (Same for all Sub menus)

15-4. Privacy Mask Menu

- In the Special Menu screen, select [PRIVACY MASK] and press [menu Set] button to go in to the [PRIVACY MASK] menu screen.



< Figure 16. Privacy Mask Menu >


15-4-1. Masking Zone

- Up to 8 zones can be configured.
- Move the cursor ▶ to [MASK NUMBER] and press [LEFT] or [RIGHT] button to change the value.
 - Configuration for each zone needs to be done separately when you select a different zone.


15-4-2. Mask State

- Turns on or off the selected masking zone.
- Move the cursor ▶ to [MASK STATE] and press [LEFT] or [RIGHT] button to change the State.
 - Select in between ON and OFF.


15-4-3. Mask Color.

- Selects the color for the masking.
 - Move the cursor  to [MASK COLOR] and press [LEFT] or [RIGHT] button -- change the --a--.
- Can be selected in between GRAY, YELLOW, GREEN, RED, BLUE, BLACK, and WHITE.


15-4-4. Size of the Masking Zone

- Configures the size of the selected Masking zone.
- Move the cursor  to [WIDTH] or [HEIGHT] and press [LEFT] or [RIGHT] button to change the value.
 - WIDTH : Changes the width of the Masking zone.
 - HEIGHT. : Changes the height of the Masking zone.

15-4-5. Location of the Masking Zone

- Configures the location of the selected Masking zone.
- Move the cursor  to [MOVE X] or [MOVE Y] and press [LEFT] or [RIGHT] button to change the value.
 - Move X : Moves the Masking zone horizontally.
 - Move Y : Moves the Masking zone vertically.

15-4-6. Reset Mask

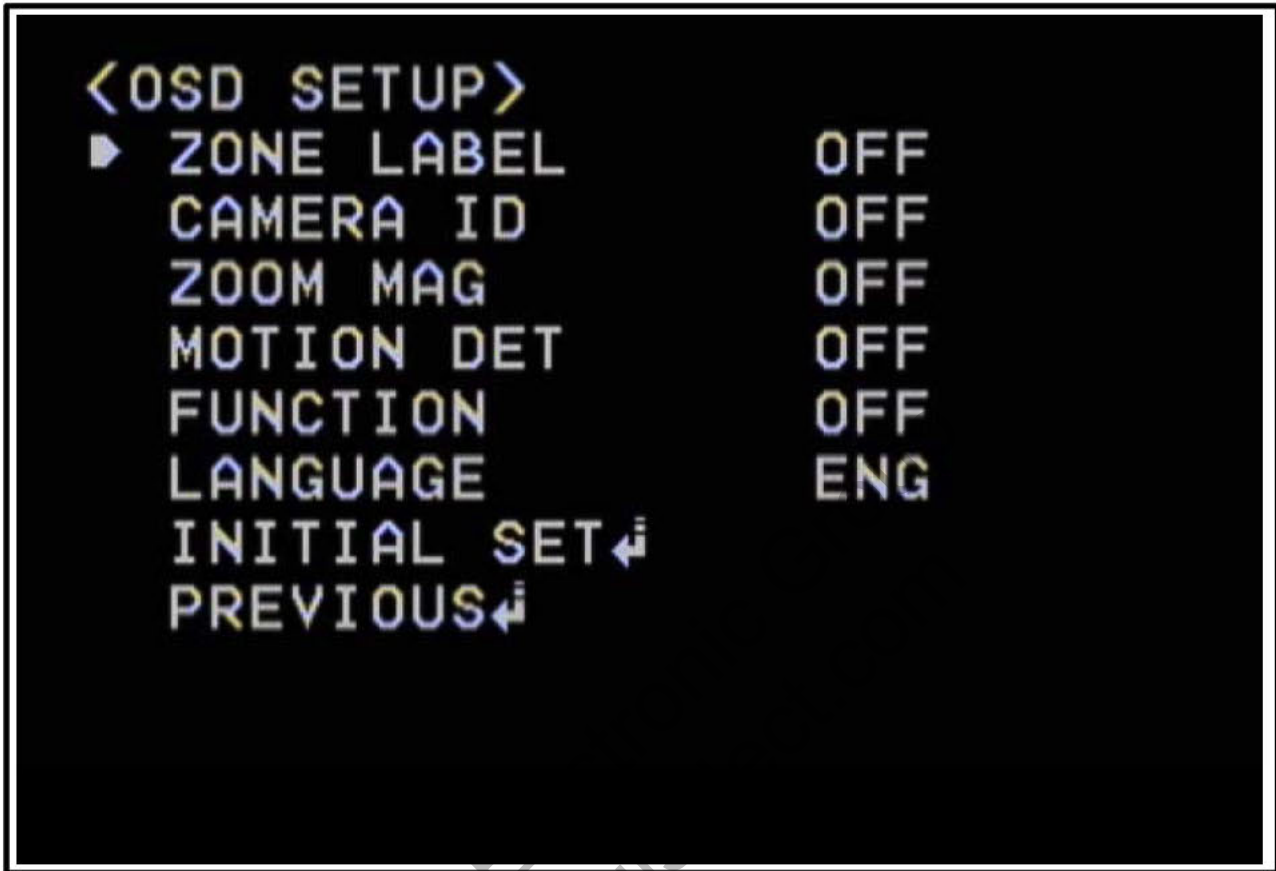
- The configured size and location on the selected masking zones can be set back to the initial state.
- Move the cursor  to [RESET MASK] and press [menu Set] button for reset.

15-4-7. INITIAL SET (same for all sub menus)

15-4-8. PREVIOUS (same for all sub menus)

16. OSD Setup Menu

- In the main menu screen, move the cursor **▶** to [OSD SETUP] and press [menu Set] button to go into the [OSD SETUP] screen.



< Figure 17. OSD Setup Menu >

16-1. Zone Label

- Configures the name of the zone and turns On or Off its display.
- Move the cursor **▶** to [ZONE LABEL] and press [LEFT] or [RIGHT] button to change the state.
 - Press [menu Set] button when selecting [On] to go into the sub menu screen.

16-2. Location of Camera ID

- Use this to label certain Cam ID (configured at Comm. Adjust menu) to a specific name or change the location of the label display.
- Move the cursor **▶** to [CAMERA ID] and press [LEFT] or [RIGHT] button to change the state.
 - Select [On] and press [menu Set] button to go into the sub menu screen.



< Figure 18. Zone Label Screen >


16-1-1. Zone Label

- Sets the name of the zone and display location in the screen
 - Letter selection section on the top, and preview section at the bottom. Blinking cursor indicates which section you are at.
 - You can browse through the letter selection section on the top and the menu section in the middle using [LEFT] , [RIGHT] , [UP], or [DOWN] button.
 - Press [menu Set] button to select the highlighted letter, and it will get displayed on the preview section at the bottom.
 - [←][→] : Moves the cursor. Can also be used as a space bar.
 - [CLR] : erases all letters written
 - [POS] : Sets the position of the name display.
 - [END] : Save/ Exit to the upper menu screen.


16-2-1. Camera ID label

- Sets the position of the Camera ID.
 - Go into the sub menu screen and change the position using [LEFT] or [RIGHT] button.

16-3. Zoom magnification Display

- Sets the zoom magnification display on or off and also configures the display position
- Move the cursor  to [ZOOM MAG] and press [LEFT] or [RIGHT] button to change the option.


16-4. Motion Zoom Display

- Sets the display of Motion Zoom. When turned on, it displays [MD] upon detecting motions.
- Move the cursor  to [MOTION DET] and press [LEFT] or [RIGHT] button to change the option.

16-5- FUNCTION Display.

Sets the display of various functions such as BLC, D-EFFECT, DAY&NIGHT, and W/B mode on the screen.

16-6. Language

- This version can only display English.
- In case another language is added, move the cursor  to [MOTION DET] and press [LEFT] or [RIGHT] button to change the setting.

16-7. INITIAL SET (same for all sub menus)

16-8. PREVIOUS (same for all sub menus)

Aegis Electronic Group
www.aegiselect.com

3. MEASUREMENT SPECIFICATIONS

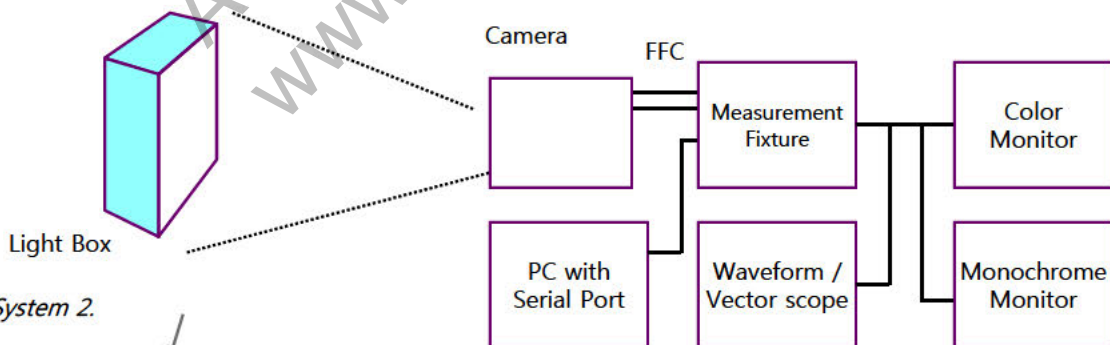
1. MEASUREMENT CONDITIONS

1) Standard Measurement Conditions

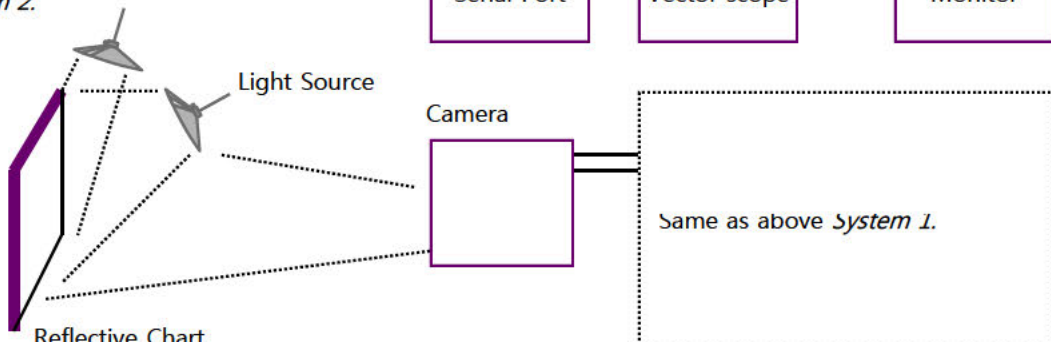
Supplied Voltage	DC 12V \pm 0.5 V	
Ambient Temperature	23 °C	
Humidity	60 % RH	
E Q U I P M E N T S	Measurement Fixture	Video output , DC input , RS-232C level Convert (5→12 Vpp)
	Power Supply	12V \pm 0.5 V
	Color Monitor	CMM20 - 11 , Shibasoku or Equivalent
	Monochrome Monitor	More than 800 TV Lines Horizontal Resolution
	Waveform Monitor / Vector Scope	1720A , Tektronix (NTSC / EIA) or Equivalent 1730A , Tektronix (PAL / CCIR) or Equivalent
	S / N (Signal ω Noise)Meter	VN31AX , Shibasoku (NTSC/PAL/EIA/CCIR) or Equivalent
	Illumination Meter / Color Temperature Meter	XY-1 / CL-100 , Minolta Camera or Equivalent
	Light Box	Dai Nippon Printing Co. - Color Temperature 3200。 K \pm 100 。 K - Illumination More than 2000 Lux
	Test Charts	(Transparent Chart) Color Bar Chart , Dai Nippon Printing Co. Gray Scale Chart , Dai Nippon Printing Co. (Gamma 0.45) Resolution Chart , Dai Nippon Printing Co. (Reflective Chart) Gray Scale Chart , Murakami Color Research Lab
	Light Source	Halogen Lamp (,with Dimmer Switch) - Color Temperature 3200。 K \pm 100 。 K - Illumination Variable with Dimmer
	Color Temperature Filter	LB 140 , Hoya or Kenko or Equivalent (Color Temperature Conversion Filter)
	Adjustment PC	With Serial Port 1 or 2
	RS-232C Cable	Each Terminal Connector (D-Sub 9 Pin)

2. Measuring System

1) System 1.



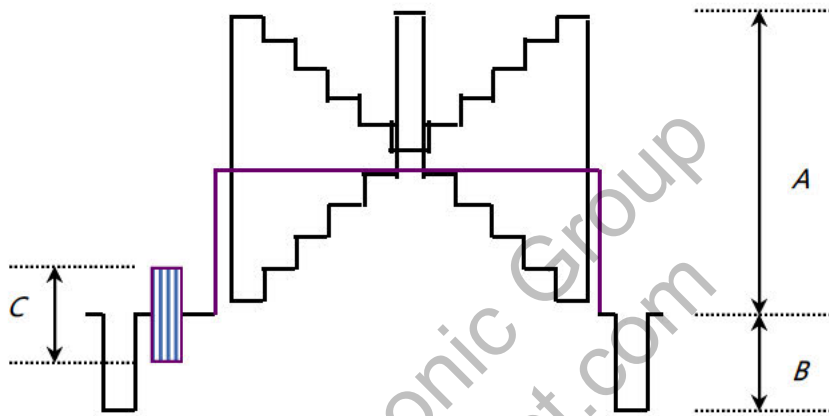
2) System 2.



2. MEASUREMENT PROCEDURE

1. VIDEO OUPUT LEVEL	
TEST CONDITIONS	Refer to " 1. MEASUREMENT CONDITIONS "
MEASURING SYSTEM	<i>System 1.</i>
PROCEDURE :	

1. Shoot the gray scale chart , and zoom WIDE or TELE to fit a scene of monitor fully by PC .
2. Measure the video output level on the waveform monitor
(Before the above measurement , Measure the SYNC and BURST level)



(Fig 1.) Video Output Waveform

SPECIFICATION :

NTSC	Video Level A	100 ± 10 IRE
	Sync Level B	40 ± 5 IRE
	Burst Level C	40 ± 5 IRE
PAL	Video Level A	700 ± 70 mV
	Sync Level B	300 ± 35 mV
	Burst Level C	300 ± 35 mV

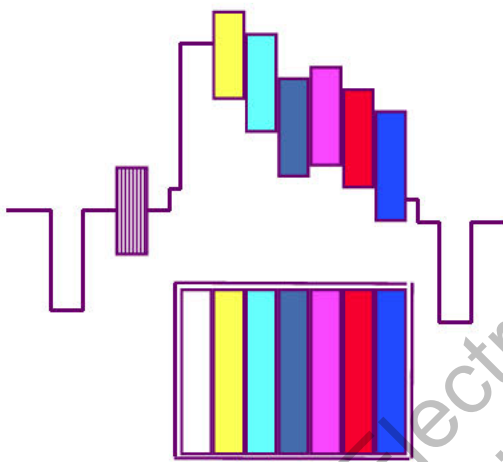
2. REPRODUCTION

TEST CONDITIONS Refer to " 1. MEASUREMENT CONDITIONS "

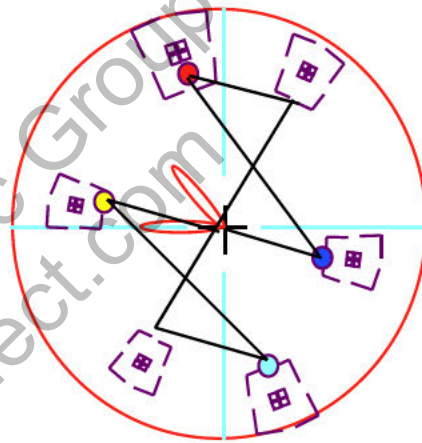
MEASURING SYSTEM *System 1.*

PROCEDURE :

1. Shoot the color bar chart , and Zoom WIDE or TELE to fit a scene of monitor fully by PC .
2. Measure the color amplitude and color phase on the vector scope of Red,Blue,Yellow .
(Before the above measurement , Adjust the burst amplitude and phase on the vectorscope so that the burst level becomes 100% and its phase becomes 180 ° . (NTSC) (135 ° . PAL)



(Fig 2.) Video Output Waveform



(Fig 3.) Video Output Color Vector

SPECIFICATION :

COLOR	Red	Green	Blue
CHROMA PULSE WIDTH	100 ± 20 [IRE]	50 ± 20 [IRE]	70 ± 20 [IRE]
PHASE	105 ± 30 °	240 ± 20 °	330 ± 30 °
CHROMA IRE LEVEL	70 ± 30 [IRE]	55 ± 30 [IRE]	30 ± 20 [IRE]

3. LUMINANCE S / N																			
TEST CONDITIONS	Refer to " 1. MEASUREMENT CONDITIONS "																		
MEASURING SYSTEM	<i>System 1.</i>																		
PROCEDURE :																			
<ol style="list-style-type: none"> 1. Shoot the light box , and Zoom WIDE or TELE to fit a scene of monitor fully by PC . 2. The noise meter settings are ; <table border="0" style="margin-left: 40px;"> <tr> <td>Input level</td> <td>:</td> <td>Preset</td> </tr> <tr> <td>High Pass Filter</td> <td>:</td> <td>100KHz</td> </tr> <tr> <td>Low Pass Filter</td> <td>:</td> <td>4.2 MHz</td> </tr> <tr> <td>Sub-carrier Trap</td> <td>:</td> <td>On</td> </tr> <tr> <td>Weighting</td> <td>:</td> <td>On</td> </tr> <tr> <td>Sag & Hue Comp.</td> <td>:</td> <td>Optimum</td> </tr> </table> 3. Measure the maximum S/N on the noise meter . 		Input level	:	Preset	High Pass Filter	:	100KHz	Low Pass Filter	:	4.2 MHz	Sub-carrier Trap	:	On	Weighting	:	On	Sag & Hue Comp.	:	Optimum
Input level	:	Preset																	
High Pass Filter	:	100KHz																	
Low Pass Filter	:	4.2 MHz																	
Sub-carrier Trap	:	On																	
Weighting	:	On																	
Sag & Hue Comp.	:	Optimum																	
SPECIFICATION :																			
NTSC : More than 52 dB PAL : More than 52 dB																			
4. HORIZONTAL RESOLUTION																			
TEST CONDITIONS	Refer to " 1. MEASUREMENT CONDITIONS "																		
MEASURING SYSTEM	<i>System 1.</i>																		
PROCEDURE :																			
<ol style="list-style-type: none"> 1. Shoot the resolution chart , and Zoom WIDE or TELE to fit a scene of monitor fully by PC . 2. Adjust the brightness and contrast of the B/W monitor so that each steps of gray scale part can be observed . 3. Change the scan size of monitor to underscan. 4. The reference arrows on the resolution chart are positioned at the edge of the underscanned picture . 5. Change the scan size of monitor from underscan to overscan . 6. Measure the maximum horizontal resolution on the picture . 																			
SPECIFICATION :																			
More than 550 TV Lines (High Resolution)																			

5. . . . LUMINANCE SENSITIVITY

TEST CONDITIONS Refer to " 1. MEASUREMENT CONDITIONS "

MEASURING SYSTEM *System 2.*

PROCEDURE :

1. Shoot the gray scale chart (reflective), and zoom WIDE fully by PC .
2. Adjust the brightness of the light source by using the dimmer switch so that the white peak level of the chart becomes 30 IRE (NTSC), (210 mV ,PAL) on the waveform monitor .
3. Measure the level of illumination by using the illumination meter .

SPECIFICATION :

High sensitivity CCD DAY MODE : 0.05 Lux
High sensitivity CCD NIGHT MODE : 0.01 Lux
High sensitivity CCD DSS MODE : 0.0002 Lux (128FLD)

FOR PRICING INFORMATION, PLEASE CALL:

