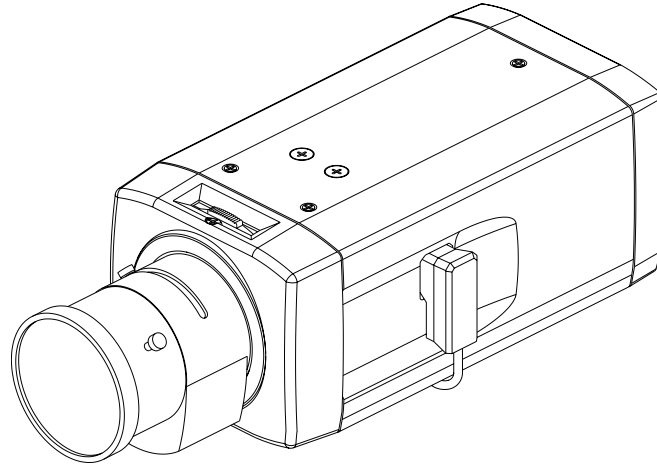


Wide-Dynamic Range Real Day/Night Camera Instructions Manual



ZEIM-0050692G
290. A.7

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Before attempting to connect or operate this product, please read these instructions carefully and save this manual for future use.

PRECAUTIONS



The lightning flash with arrowhead symbol, within an equilateral triangle, is intended to alert the user to the presence of uninsulated "dangerous voltage" within the product's enclosure that may be of sufficient magnitude to constitute a risk of electric shock to persons.



The exclamation point within an equilateral triangle is intended to alert the user to the presence of important operating and maintenance (servicing) instructions in the literature accompanying the appliance

The serial number of this product may be found on the top of the unit. You should note the serial number of this unit in the space provided and retain this book as a permanent record of your purchase to aid identification in the event of theft.

Model No. _____

Serial No. _____

NOTE: This equipment has been tested and found to comply with the limits for a Class A digital device, pursuant to Part 15 of the FCC Rules. These limits are designed to provide reasonable protection against harmful interference when the equipment is operated in a commercial environment. This equipment generates, uses, and can radiate radio frequency energy and, if not installed and used in accordance with the instruction manual, may cause harmful interference to radio communications.

Operation of this equipment in a residential area is likely to cause harmful interference in which case the user will be required to correct the interference at his own expense.

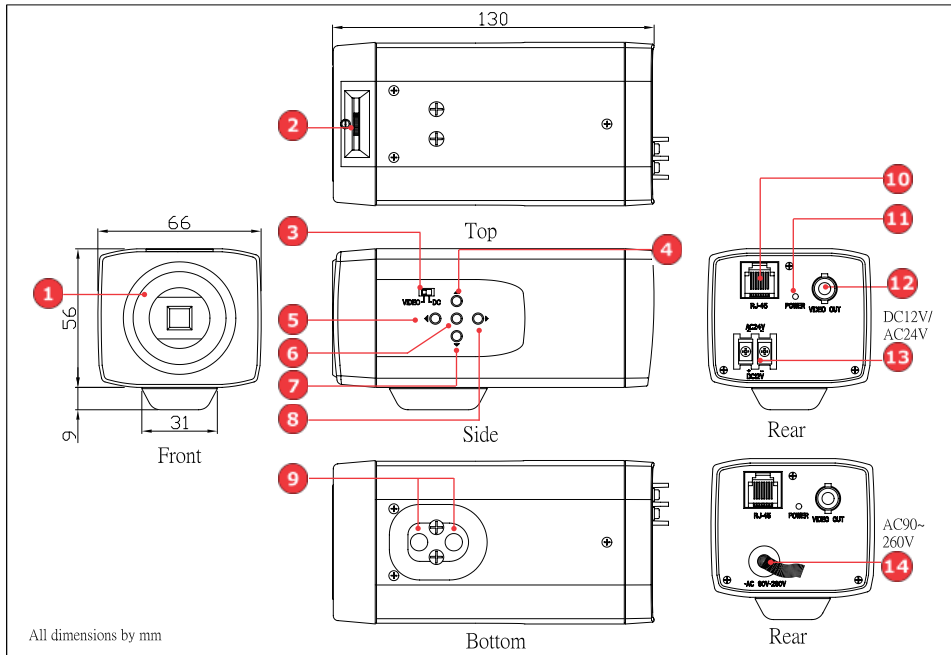
FCC Caution: To assure continued compliance, (example – use only shielded interface cables when connecting to computer or peripheral devices). Any changes or modifications not expressly approved by the party responsible for compliance could void the user's authority to operate this equipment.

IMPORTANT SAFETY INSTRUCTIONS

- 1) **Read these instructions**
All the safety and operating instructions should be read before the product is operated.
- 2) **Keep these instructions**
The safety instructions and instruction manual should be retained for future reference.
- 3) **Heed all warnings**
All warnings on the product and in the instruction manual should be adhered to.
- 4) **Follow all instructions**
All operating and use instructions should be followed.
- 5) **Cleaning**
Disconnect this video product from the power supply before cleaning.
- 6) **Attachments**
Do not use attachments not recommended by the video product manufacturer as they may cause hazards.
- 7) **Water and Moisture**
Do not use this video product near water, for example, near a bath tub, wash bowl, kitchen sink, or laundry tub, in a wet basement, or near a swimming pool and the like.
- 8) **Accessories**
Use only with stand, tripod, bracket, or table recommended by the manufacturer, or sold with the video product. Any mounting of the product should follow the manufacturer's instructions, and should use a mounting accessory recommended by the manufacturer. The video product may fall, causing serious injury to a child or adult, and serious damage to the product.
- 9) **Ventilation**
This video product should never be placed near or over a radiator or heat register. This video product should not be placed in a built-in installation
- Power-Supply cords should be routed so that they are not likely to be walked on or pinched by items placed upon or against them. Paying particular attention to cords at plugs, screws and the point where they exit from such as a bookcase or rack unless proper ventilation is provided or the manufacturer's instructions have been adhered to.
- 10) **Servicing**
Do not attempt to service this video product yourself as opening or removing covers may expose you to dangerous voltage or other hazards. Refer all servicing to qualified service personnel.
- 11) **Power Source**
This video product should be operated only from the type of power source indicated on the marking label. If you are not sure the type of power supply to your location, consult your product dealer.
- 12) **Damage Requiring service**
Disconnect this video product from the power supply and refer servicing to qualified service personnel under the following conditions.
 - a. When the power-supply cord or plug is damaged.
 - b. If liquid has been spilled, or objects have fallen into the video product.
 - c. If the video product has been exposed to rain or water directly.
 - d. If the video product does not operate normally by following the operating instructions in this manual. Adjust only those controls that are covered by the instruction manual as an improper adjustment of other controls may result in damage and will often require extensive work by a qualified technician to restore the video product to its normal operation.
- 13) **Safety Check**
Upon completion of any service or repairs to this video product, ask the service technician to perform safety checks to determine that the video product is in proper operating condition.

NOTES OF USE

●PARTS' NAMES AND LOCATIONS



(1) **Lens mount**

This camera uses CS mount to connect the lens, if you are using a C mount lens, you can find the C-to-CS mount in the accessory.

(2) **Easy backfocus adjust**

You can use this adjust to micro adjust the focus.

(3) **Auto Iris switch(Video/DC)**

Use this switch to select which type of auto iris control you want to use.

(4) **Up button**

Use this button to move the cursor upward or to select different settings in the OSD menu.

(5) **Left button**

Use this button to move the cursor to the left or to exit the selected item in the OSD menu.

(6) **Enter button**

Use this button to enter the selected item or to confirm the settings in the OSD menu.

(7) **Down button**

Use this button to move the cursor downward or to select different settings in the OSD menu.

(8) **Right button**

Use this button to move the cursor to the right or to enter the selected item in the OSD menu.

NOTES OF USE

(9) Tripod mounting holes

Use these holes to connect to a bracket or to a housing according to your applications.

(10) RJ45 port

External devices can use RS485 protocol to control this camera via this port.

(11) Power indicator

(12) BNC connector

Connect this cable to the video-in connector of respective apparatus.

(13) DC12V/AC24V power connector

Connect this connector to the respective power.(DC12V/AC24V model only)

WARNING: This apparatus must be EARTHED.

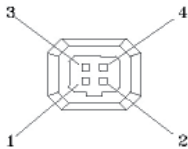
(14) AC90V~260V

Connect this connector to the respective power.(AC90~260V model only)

WARNING: This apparatus must be EARTHED.

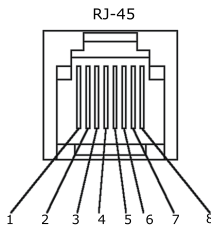
● CONNECTIONS

(1) Iris connector



NO	Video Lens	DC Lens
1	+12V	Damp-
2	NC	Damp+
3	Video	Drive+
4	GND	Drive-

(2) RJ45 connector



NO	Function
1	Data+ (RS-485)
2	Data- (RS-485)
3	NC
4	C
5	G
6	B
7	GND
8	NC

SETUP PROCEDURES

● OSD SETUP MENU (Default settings)

MAIN MENU 1

```

D / N MODE      AUTO
D / N LEVEL     HIGH
D / N DELAY     15 SEC
ALC / ELC      <ALC>
SHUTTER        OFF
SENS UP        OFF
GAIN           TURBO
SYNC           - - -
BLC            OFF
WHITE BAL      ATW2
NEXT EXIT CANCEL DEFAULT
    
```

ALC/ELC SETUP

```

          ALC/ELC MENU
ALC/ELC      ALC
WD           OFF
WD LEVEL     DISABLE
WD CONTRAST  DISABLE

LENS         DC
LEVEL        -----*-----

EXIT
    
```

MAIN MENU 2

```

GAMMA        0 . 4 5
APERTURE     MID
PTZ          <SET>
MIRROR       OFF
PRIVACY ZONE <OFF> .....
ID           <SETTING> .....
BLEMISH      <DET>
FLICKERLESS OFF
WITHIRLAMP   NO
BACK EXIT CANCEL DEFAULT
    
```

PRIVACY ZONE SETUP

```

          PRIVACY ZONE MENU

PRIVACY ZONE OFF
BLOCK      1 SET CLR

EXIT CLEAR ALL
    
```

PROTOCOL MENU

```

ADDRESS      0 0 1
PROTOCOL     PELCO P
BAUD RATE    4 8 0 0
SOFT VER     A . X . X

EXIT        DEFAULT
    
```

CAMERA ID Setup

```

          ID MENU
IP POS      OFF
ID [ ] [ ] [ ] [ ] [ ] [ ] [ ] [ ] [ ] [ ] [ ] [ ] [ ] [ ] [ ] [ ]
ABCDEF GHIJ KLM
NOPQRS TUVW XYZ
0 1 2 3 4 5 6 7 8 9 : < >
' ' - . , ; * /
EXIT CLEAR
    
```

SETUP PROCEDURES

This camera offers a user friendly on-screen setup menu. All setups except auto iris control type are set up here.

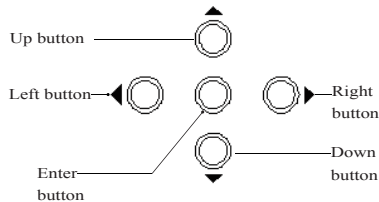
● Entering OSD menu

STEP1

Press the **Enter** button for 2 secs or more, the OSD setup menu will appear on the monitor.

D / N MODE	AUTO
D / N LEVEL	HIGH
D / N DELAY	15 SEC
ALC / ELC	< ALC >
SHUTTER	AUTO
SENS UP	OFF
GAIN	NORMAL
SYNC	LL : 000
BLC	OFF
WHITE BAL	ATW
NEXT EXIT	CANCEL DEFAULT

STEP2



Up button: Press it to move the cursor upward.

Down button: Press it to move the cursor downward.

Enter button: Press it to enter the selected item or change the settings of the selected item.

Right button: Press it to change the settings of the selected item.

Left button: Press it to change the settings of the selected item.

NOTE: When an item is selected, it will start blinking.

STEP3

When satisfied all the settings, move the cursor to the 'EXIT' item and press the enter button to exit the OSD setup menu.

You can also restore the settings to factory default by moving the cursor to the "DEFAULT" item, then press the Enter button.

You can also restore the settings to what you had set up last time entering the OSD menu by moving the cursor to the "CANCEL" item, then press the Enter button.

● Setup the protocol for remote control

To control this camera by a controller via RS485, you have to setup the protocol, baud rate and the camera address first. Please following the procedures below to setup.

Press the **UP** button for 2 secs or more, the PROTOCOL setup menu will appear on the monitor.

ADDRESS	001
PROTOCOL	PELCO P
BAUD RATE	4800
SOFT VER	A.X.X
EXIT	DEFAULT

SETUP PROCEDURES

(1) Address setup

STEP1

Move the cursor to the setting to the right of "ADDRESS" by pressing the Up or the Down button.

STEP2

Press the **Enter** button to select the quantity of the first number. Then press the **Right** button to move the cursor to the right.

Repeat the procedures above to setup the quantity of three numbers of the camera address .

(2) Protocol Setup

STEP1

Move the cursor to the setting to the right of "PROTOCOL" by pressing the Up or the Down button.

STEP2

Press the **Enter** button then select the PROTOCOL setting to be either PELCO-P or PELCO-D.

PELCO-P : Camera can be controlled by PELCO-P protocol.

PELCO-D : Camera can be controlled by PELCO-D protocol.

NOTE: Camera controller must have the same protocol and baud rate with the camera before it can control the camera.

(3) Baud rate setup

STEP1

Move the cursor to then setting to the right of "BAUD RATE" by pressing the Up or the Down button.

STEP2

Press the **Enter** button then select the BAUD RATE setting to be either 1200, 2400, 4800, 9600.

NOTE: Camera controller must have the same protocol and baud rate with the camera before it can control the camera.

(4) Software version

This item indicates the firmware version of the camera. This information will be useful in future maintainese or RMA needs.

(5)Restore default settings

You can use this item to retore the remote control settings of the camera. ONLY the control settings will be restored by this function.

STEP1

Move the cursor to the "DEFAULT" by pressing the Up or the Down button.

STEP2

Press the **Enter** button to retore the factory default settings for remote control.

● MAIN CAMERA SETUP MENU1

These items let you setup camera D/N mode, camera D/N level, ALC/ELC, shutter speed, BLC function, gain control, sync funciton, white balance and increase shutter period of time.

(1) Day/Night switch mode

STEP1

Move the cursor to the setting to the right of "D/N MODE" by pressing the Up or the Down button.

SETUP PROCEDURES

STEP2

Press the **Enter** button then select the D/N mode setting to be color, mono, auto or B.C.G..

AUTO:The camera will switch between color and B&W mode automatically according to the lighting conditions

COLOR:Switch the camera to color mode.

MONO:Switch the camera to B&W mode.

B.C.G.: Set the camera as color mode (C.G. connect together) or B&W (B.G connect together) modes by external device.

STEP3

When satisfied all the settings, move the cursor to other items or to the 'EXIT' item and press the enter button to exit OSD setup menu.

You can also restore the settings to factory default by moving the cursor to the "DEFAULT" item, then press the Enter button.

(2)Day/Night switching level

STEP1

Move the cursor to the setting to the right of "D/N LEVEL" by pressing the Up or the Down button.

STEP2

Press the **Enter** button the select the D/N level setting to be high or low.

HIGH: The camera will switch between from B&W to color mode at brighter lighting conditions respectably to the LOW setting.

LOW: The camera will switch between from B&W to color mode at darker lighting conditions respectably to the HIGH setting.

STEP3

When satisfied all the settings, move the cursor to other items or to the 'EXIT' item and press the enter button to exit OSD setup menu.

You can also restore the settings to factory default by moving the cursor to the "DEFAULT" item, then press the Enter button.

(3)Day/Night DELAY

Set DELAY time for D/ N function. Move the cursor to D/N DELAY set up item. Use the LEFT/ RIGHT button to select 0,5,10,15 60 sec for delay of DN mode switching time. This function only affective when D/N Mode to be set as AUTO.

(4)ALC/ELC and wide dynamic setup

STEP1

Move the cursor to the setting to the right of "ALC/ELC" by pressing the Up or the Down button. Then press the Enter button the ALC/ELC menu appears on the monitor.

ALC/ELC MENU	
ALC/ELC	ALC
WD	OFF
WD LEVEL	DISABLE
WD CONTRAST	DISABLE
LENS	DC
LEVEL	----*-----
EXIT	

SETUP PROCEDURES

STEP2

When satisfied all the settings, move the cursor to the 'EXIT' item and press the enter button to exit to the previous OSD setup menu.

(A)ALC/ELC setup

STEP1

Move the cursor to the setting to the right of "ALC/ELC" by pressing the Up or the Down button.

STEP2

Press the **Enter** button then select the ALC/ELC setting to be ALC or ELC.

ALC: The camera will adjust the brightness by using auto iris control of the lens. This setting will effect only if you are using an auto iris lens.

ELC: The camera will adjust the brightness by using auto electric shutter control.

NOTE: During ELC mode, WD function is not available.

STEP3

When satisfied all the settings, move the cursor to the 'EXIT' item and press the enter button to exit to the previous OSD setup menu.

(B)Wide dynamic setup

STEP1

Move the cursor to the setting to the right of "WD" by pressing the Up or the Down button.

STEP2

Press the **Enter** button then select the WD setting to be either ON or OFF.

ON: In this mode, camera's WD(wide dynamic) function is activated, and the camera will deliver excellent images with

an incredible 128X dynamic range wider than conventional camera. You can see both bright objects and dark objects clearly in the same monitor.

OFF: In this mode, the WD(wide dynamic) function is not activated.

NOTE: WD function is not available during ELC mode.

STEP3

Please set up **WD LEVEL** and **WD CONTRAST** as user's demands or environment conditions.

WD LEVEL: Press the Right or Left button to move the "WD level" indicator between the ten levels.



WD CONTRAST: Press the **Enter** button then select the WD CONTRAST setting to be either **TURBO** or **NORMAL**.

STEP4

When satisfied all the settings, move the cursor to the 'EXIT' item and press the enter button to exit to the previous OSD setup menu.

(C)Lens(Iris control info)

STEP1

This item shows the iris control info according to the Iris control switch.

STEP2

After viewing the infomation, move the cursor to the 'EXIT' item and press the enter button to exit to the previous OSD setup menu.

SETUP PROCEDURES

(D)Level setup(Brightness)

STEP1

Move the cursor to the "level" set up by pressing the UP and the DOWN button.

STEP2

Press the Right or Left button to move the "light" indicator between the ten levels.



NOTE: This function is not available when the camera is in ELC mode. please refer to P.10 for more info about ELC.

STEP3

When satisfied all the settings, move the cursor to the 'EXIT' item and press the enter button to exit to the previous OSD setup menu.

(5)Shutter speed setup

STEP1

Move the cursor to the setting to the right of "SHUTTER" by pressing the Up or the Down button.

STEP2

Press the **Enter** button then select the shutter speed setting to OFF, AUTO or Manual (1/60sec~1/120K sec). The available settings might be different because of in ELC or ALC modes, please refer to the table below.

Shutter Settings	ELC	ALC	
		WD OFF	WD ON
OFF	NA*	A	NA
AUTO	A*	NA	NA
MANUAL (1/60s~1/120Ks)	A	A	NA

remark: A: active, NA: not active

OFF: The camera's shutter speed will be fixed in 1/60sec (NTSC) or 1/50sec(PAL)

AUTO: The camera will adjust its shutter speed according to the light condition of the environment.

1/60~1/120K: The camera's shutter speed will be fixed in the number you set.

STEP3

When satisfied all the settings, move the cursor to other items or to the 'EXIT' item and press the enter button to exit OSD setup menu.

You can also restore the settings to factory default or cancel all the modification you made this time. Please refer to P.7 for more details.

SETUP PROCEDURES

(6)Sens up (Slow shutter setup)

STEP1

Move the cursor to the setting to the right of "SENS UP" by pressing the Up or the Down button.

STEP2

Press the **Enter** button then select the sens up (shutter speed) setting to **OFF** or **AUTO**.

Note: The slow shutter's settings might be different according to other settings such as shutter speed and WD fuction.

OFF: The slow shutter function is not activated.

AUTO: The camera will adjust its shutter speed according to the lighting condition of the enviroment. You can setup the adjustment range, please refer to the table right for the slow shutter range.

STEP3

When satisfied all the settings, move the cursor to other items or to the 'EXIT' item and press the enter button to exit OSD setup menu.

You can also restore the settings to factory default or cancel all the modification you made this time. Please refer to P.7 for more details.

SENS UP	SHUTTER SPEED
	AUTO (Shutter speed range)
X2	N*:1/60s~1/30s P*: 1/50s~1/25s
X4	N: 1/60s~1/15s P: 1/50s~1/13s
X6	N: 1/60s~1/10s P: 1/50s~1/8s
X8	N: 1/60s~1/7s P: 1/50s~1/6s
X12	N: 1/60s~1/5s P: 1/50s~1/4s
X16	N: 1/60s~1/4s P: 1/50s~1/3s
X20	N: 1/60s~1/3s P: 1/50s~1/2.5s
X40	N: 1/60s~1/1.5s P: 1/50s~4/5s
X80	N: 1/60s~4/3s P: 1/50s~8/5s
X160	N: 1/60s~8/3s P: 1/50s~16/5s
X320	N: 1/60s~16/3s P: 1/50s~32/5s

remark: N: NTSC, P: PAL

SETUP PROCEDURES

(7)GAIN setup

STEP1

Move the cursor to the setting to the right of "GAIN" by pressing the Up or the Down button.

STEP2

Press the **Enter** button then select the camera gain setting to normal or turbo.

NORMAL: The camera's gain will be set to 24dB.

TURBO: The camera's gain will be set to 30dB.

OFF: The camera's gain will be set to 0dB

STEP3

When satisfied all the settings, move the cursor to other items or to the 'EXIT' item and press the enter button to exit OSD setup menu.

You can also restore the settings to factory default or cancel all the modification you made this time. Please refer to P.7 for more details.

(8)SYNC setup

STEP1

Move the cursor to the setting to the right of "SYNC" by pressing the Up or the Down button.

STEP2

Press the **Enter** button then select the camera synchronizing mode.

INT:The camera is in internal sync.mode..

LL: The camera is in line-lock sync. mode.

You can adjust the phase angle from 0~300 degree accordingly.

NOTE: For camera using DC power, the OSD will show"---" instead of "INT", but the sync will be set INT automatically.

STEP3

When satisfied all the settings, move the cursor to other items or to the 'EXIT' item and press the enter button to exit OSD setup menu.

You can also restore the settings to factory default or cancel all the modification you made this time. Please refer to P.7 for more details.

(9)BLC setup

STEP1

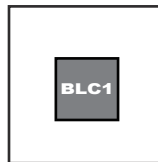
Move the cursor to the setting to the right of "BLC" by pressing the Up or the Down button.

STEP2

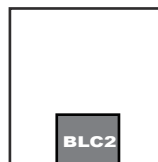
Press the **Enter** button then select the BLC setting to OFF, BLC1, BLC2, BLC3, BLC4 or user.

OFF: The BLC(backlight compensation function) is not activated.

BLC1: You can see the active area of BLC1 function. It's a small window at center.

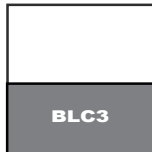


BLC2: You can see the active area of BLC2 function. It's a smaller and lower window.

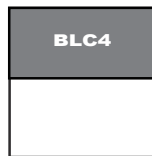


SETUP PROCEDURES

BLC3: You can see the active area of BLC3 function. It covers lower half size of the monitor.



BLC4: You can see the active area of BLC4 function. It covers upper half size of the monitor.



USER: You can see the active area of on the screen. Please follow the procedures below set up the area location and size.

- When the setting of BLC is USER, there is a "SET" item next to USER. Move the cursor to "SET" by pressing the right button.
- Press the Enter button to start the active area setting. You can see a little grey square blinking on the monitor.
- Move the grey square to the start point of your active area. Then press the Enter button.
- Move the grey square to stretch out the active area to your desired size then press the Enter button.

STEP3

When satisfied all the settings, move the cursor to other items or to the 'EXIT' item and press the enter button to exit OSD setup menu.

You can also restore the settings to factory default or cancel all the modification you made this time. Please refer to P.7 for more details.

(10)White balance setup

STEP1

Move the cursor to the setting to the right of "WHITE BAL" by pressing the Up or the Down button.

STEP2

Press the **Enter** button the select the camera white balance setting to be ATW1, ATW2 or manual.

ATW1: The camera will use TTL autotrace white balance algorithm to implement a perfect colour reproduction. Colour temperature range is 2600°K~6000°K.

ATW2: The camera will use TTL autotrace white balance algorithm to implement a perfect colour reproduction. Colour temperature range is 2500°K~10000°K.

MANUAL: You can setup the white balance by adjusting the R and B (red and blue) values.

Note:The default setting:**R:15 B:15**

STEP3

When satisfied all the settings, move the cursor to other items or to the 'EXIT' item and press the enter button to exit OSD setup menu.

You can also restore the settings to factory default or cancel all the modification you made this time. Please refer to P.7 for more details.

SETUP PROCEDURES

● MAIN CAMERA SETUP MENU2

These items let you setup camera gamma value, aperture, electric-zoom, privacy zone, camera ID and use blemish auto recovery function.

(1) Enter the menu

STEP1

Move the cursor to the "NEXT" item in the MAIN CAMERA SETUP MENU1 by pressing the Up or the Down button, then press the Enter button. The MAIN CAMERA SETUP MENU2 displays on the monitor.

MAIN MENU 2

GAMMA	0 . 4 5
APERTURE	M I D
PTZ	< S E T >
IMAGE	O F F
PRIVACY ZONE	< O F F >
ID	< S E T T I N G >
BLEMISH	< D E T >
FLICKERLESS	O F F
WITH IR LAMP	N O
BACK EXIT CANCEL	D E F A U L T

STEP2

When satisfied all the settings, move the cursor to the 'EXIT' item and press the enter button to exit the OSD setup menu.

You can also restore the settings to factory default by moving the cursor to the "DEFAULT" item, then press the Enter button.

You can also restore the settings to what you had set up last time entering the OSD menu by moving the cursor to the "CANCEL" item, then press the Enter button.

(2) Gamma setup

STEP1

Move the cursor to the setting to the right of "GAMMA" by pressing the Up or the Down button.

STEP2

Press the **Enter** button then select the gamma value to 0.45 or 1.

0.45: The camera's gamma value is set to 0.45. This value is generally used in CCTV monitoring.

1: The camera's gamma value is set to 1. This value is generally used in image processing.

STEP3

When satisfied all the settings, move the cursor to other items or to the 'EXIT' item and press the enter button to exit OSD setup menu.

You can also restore the settings to factory default or cancel all the modification you made this time. Please refer to P.7 for more details.

(3) Aperture setup

STEP1

Move the cursor to the setting to the right of "APERTURE" by pressing the Up or the Down button.

STEP2

Press the **Enter** button then select the aperture to high, low or mid.
HIGH: Camera will produce sharper images.
MID: Camera will produce normal images.
LOW: Camera will produce sharpless images.

STEP3

When satisfied all the settings, move the cursor to other items or to the 'EXIT' item and press the enter button to exit OSD setup menu.

You can also restore the settings to factory default or cancel all the modification you made this time. Please refer to P.7 for more details.

SETUP PROCEDURES

(4)P-T-Z setup

STEP1

Move the cursor to the setting to the right of "E-ZOOM" by pressing the Up or the down button.

STEP2

Press the Right or Left button to move the "zoom" indicator between the levels. And set the pan and tilt as well.
1X zoom 2X zoom



NOTE: This function is not available when the camera is in WD mode.

STEP3

When satisfied all the settings, move the cursor to other items or to the 'EXIT' item and press the enter button to exit OSD setup menu.

You can also restore the settings to factory default or cancel all the modification you made this time. Please refer to P.7 for more details.

(5)Mirror function setup

STEP1

Move the cursor to the setting to the right of "MIRROR" by pressing the Up or the Down button.

STEP2

Press the **Enter** button then select the image effect to use.
OFF: None of the effect will be used.
ON: Video images will be reversed from right to left.

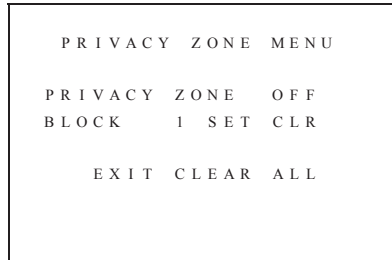
STEP3

When satisfied all then settings, move the cursor to other items or to the 'EXIT' item and press the enter button to exit OSD setup menu.

(6)Privacy zone setup

STEP1

Move the cursor to the setting to the right of "PRIVACY ZONE" by pressing the Up or the Down button. Then press the Enter button, the PRIVACY ZONE setup menu appears on the monitor.



STEP2

When satisfied all the settings, move the cursor to the 'EXIT' item and press the enter button to exit to the previous OSD setup menu.

(A)Privacy zone switch

STEP1

Move the cursor to the setting to the right of "PRIVACY ZONE" by pressing the Up or the Down button.

STEP2

Press the **Enter** button the select the privacy zone setting to be ON or OFF.
ON: The privacy zone function is on.
OFF: The privacy zone function is off.

STEP3

When satisfied all the settings, move the cursor to the 'EXIT' item and press the enter button to exit to the previous OSD setup menu.

SETUP PROCEDURES

(B)Masking area setup

STEP1

Move the cursor to the setting to the right of "BLOCK" by pressing the Up or the Down button.

STEP2

Press the **Enter** button then select the masking number you want to set(There are 8 privacy zones).

STEP3

Move the cursor to the "SET" item by pressing the Right and Left button. Then press the Enter button to start editing the masking area locations and size. Follow the procedures below.

- a. Move the black square (start point) by pressing the direction buttons to the center of the the area which you want to mask, and then press the enter button.
- b. Stretch out and adjust the active area by pressing the direction buttons till you are satisfied with the size and then press the enter button to save the settings.

STEP4

Repeat steps 1~3 to setup other masking areas.

STEP5

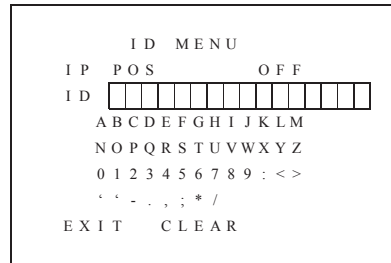
When satisfied all the settings, move the cursor to the "EXIT" item and press the enter button to exit to the previous OSD setup menu.

You can also clear all the privacy zone settings previously made by moving the cursor to the "CLEAR ALL" item then press the Enter button.

(7)Camera ID setup

STEP1

Move the cursor to the setting to the right of "ID" by pressing the Up or the Down button. Then press the Enter button, the PRIVACY ZONE setup menu appears on the monitor.



STEP2

When satisfied all the settings, move the cursor to the "EXIT" item and press the enter button to exit to the previous OSD setup menu.

(A)Display position setup

STEP1

Move the cursor to the setting to the right of "ID POS" by pressing the Up or the Down button.

STEP2

Press the **Enter** button then select the display position to be TOP, BOTTOM, or OFF.
TOP: The camera ID will be displayed at the top of the screen.
BOTTOM: The camera ID will be displayed at the top of the screen.
OFF:The camera ID will not be displayed.

STEP3

When satisfied all the settings, move the cursor to other items or to the "EXIT" item and press the Enter button to exit OSD setup menu.

SETUP PROCEDURES

(8) Camera ID setting

STEP1

Move the cursor to the setting to the right of "ID" by pressing the Up or the Down button.

STEP2

You can set the camera ID of up to 1 characters. Choose the character you wish to set by pressing the Right and Left button. Press the **Enter** button to move the cursor to the alphabet table below.

STEP3

Choose one of the letter by using Up, Down, Left, Right button, then press the Enter button to choose which one you want, and the cursor will move to the next automatically.

STEP4

Repeat step3 to setup other characters of the camera ID.

STEP5

When satisfied all the settings, move the cursor to the 'EXIT' item and press the enter button to exit to the previous OSD setup menu.

You can also clear all the camera ID settings previously made by moving the cursor to the "CLEAR" item then press the Enter button.

(9) Blemish self-recovery

STEP1

CCD cameras will have blemish problem after operating for a long time. This camera can operate an auto-recovery function to solve this problem.

STEP2

Move the cursor to the setting to the right of "BLEMISH" by pressing the Up or the Down button.

STEP3

Press the **Enter** button, the <DET> item will become <WAIT> and the camera will start operating an auto-recovery function.

NOTE: This function operates best while shooting completely black environment. You MUST close the iris of the lens entirely before you use an auto-recovery function.

STEP4

Once the <WAIT> item become <DET> again, the auto-recovery operation is completed.

STEP5

When satisfied all the settings, move the cursor to other items or to the 'EXIT' item and press the enter button to exit OSD setup menu.

(10) Flickerless

Flickerless reduces flickers when NTSC camera is used with 50HZ power frequency and vice versa. Users can turn on/off the flickerless function.

ON: The shutter speed will be fixed in 1/100 sec in NTSC system, and 1/120 sec in PAL system.

OFF: The shutter speed will be fixed in 1/60 sec in NTSC system, and 1/50 sec in PAL system.

(11) WITH IR LAMP

Use enter to get into the submenu. Using LEFT/RIGHT button, to choose YES or NO.

*When the environment with extra IR lights, the ICR filter may hunt continually. If it occurs, turning this function YES is able to fix this issue.

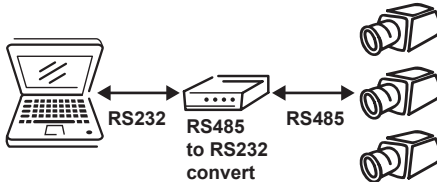
**The default setting is NO.

SETUP PROCEDURES

REMOTE CONTROL VIA COMPUTER

Remark: Please ask your camera provider for the remote controller software.

(a) Camera and computer settings, install the remote controller software.



(b) Connect the computer and the camera.

As connect the computer and camera together, the following three items need to be set as the same setting:

- 1.ADDRESS:The address on the software should be the same as the setting of the camera.
- 2.PROTOCOL : This software supports PELCO P protocol,the camera should be set as PELCO P protocol as well.
- 3.BAUD RATE:The baud rate on the software should be the same as the setting of the camera.

ADDRESS	0 0 1
PROTOCOL	PELCO P
BAUD RATE	4 8 0 0
SOFT VER	A . X . X
EXIT	DEFAULT

COM PORT setting: Select the COM PORT on the computer, which is the software output port °

When the settings are complete correct, the light on the right top corner of the screen will become green. Then the user can set the settings via computer.

SPECIFICATIONS

Signal system	NTSC		PAL	
Image system				
Imaging area	4.9mm x 3.7mm			
Image pickup device	1/3"-type vertical double density interline CCD			
Effective pixels(HxV)	768 x 494		752 x 582	
Electric				
Scanning system	2:1 Interface V: 59.94Hz,		2:1 Interface V: 50Hz,	
	H: 15.734KHz		H: 15.625KHz	
Sync system	Internal / line-lock			
Horizontal resolution	540/600 TV lines (day/night mode)			
Dynamic range	52dB			
Lens mount	CS with backfocus			
Digital zoom	2X			
Digital pan, tilt	YES			
Gamma correction	0.45 / 1.0 selectable			
Minimum illumination	Day: 0.018 lux/ Night: 0.0045 lux (F1.4, AGC on, 10 IRE) Day: 0.29 lux/ Night: 0.07 lux (F1.4, AGC on, 50 IRE)			
S/N ratio	More than 50dB (AGC off)			
Iris control	Video / DC driver			
Gain control	Auto(normal / turbo/OFF)			
White balance	ATW1 / ATW2 / manual			
Electric shutter	Auto 1/60(1/50) to 1/120,000sec. / manual			
	Auto slow shutter from 0.04 sec. to up to 5.3 sec.			
BLC	BLC1 / BLC2 / BLC3/ BLC4 / User define / off			
Privacy zone	On / off, up to 8 zones			
Day/Night mode	Auto / manual/B.C.G			
OSD	Yes			
Remote control	Pelco-P, Pelco-D via RS485(RJ45) interface			
	Remote control via computer with remote controller software			
Video output	1Vpp composite output, 75 ohm			
Power supply				
Power requirement	DC12V / AC24V	AC90~260V	DC12V / AC24V	AC90~260V
Power consumption	10W (max.)			
Environment				
Operating temperature	-10°C ~ 50°C			
Operating humidity	30% ~ 90% RH			
Storage temperature	-20°C ~ 60°C			
Mechanism				
Dimensions(WxHxD)	66mm x 55mm x 130mm			
	(2.6" x 2.16" x 5.11")			
Weight	500g approx.			