Watch**NET** *XDD*

XTREME DIGITAL DYNAMICS
ULTRA HI RESOLUTION CAMERA
with *SENSEFIER* technology

USER MANUAL

3D-DNR Day & Night
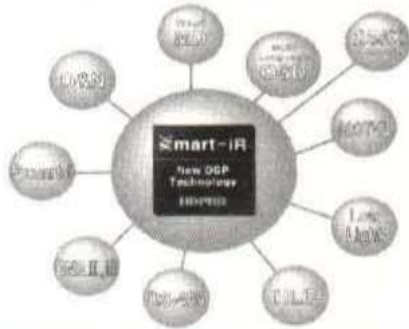## 600 TVL Camera
SMART - IR

www.watchnetdvr.com

Contents

About Smart-IR/D-WDR/BLC/3D DNR(600TVL)

Core Technology

New Smart-HD DSP Chipset Ensures 600TVL Ultra High Resolution.

Innovative Technology of Powerful Sens Up under Ultra Low Light Level : Min. Illumination 0.00001 Lux
Smart-i HD DSP is the 3rd generation core chipset actualizing 600TVL ultra high resolution!
One Step Upgrade: The best video quality even at night is ensured
through 2D/3D filtering with the function of noise removal.
3D-DNR, Min. Illumination 0.00001 Lux (sens-up*258x)
All In One: 3DDNR, Smart IR, HSBLC, Privacy Zone, RS-485 (Option)

Smart-IR OFF

Smart-IR ON

3D-DNR OFF

3D-DNR ON

Standard Camera

600TV Lines Camera

Digital WDR OFF

Digital WDR ON

Normal BLC

HS BLC

Standard Image

Minimum Illumination Image

Smart-IR
No Saturation Image, Vivid Image in darkness!
HDPRO "Smart IR" camera makes very sharp video image in darkness!
This technology eliminates saturation of video image of the closer object in darkness by control of the IR sensitivity. Saturation never happens in our "Smart IR" cameras, you can enjoy vivid image in any dark condition!

3D Filtering Method of Newly Advanced DNR Function
Newly developed 3D filtering enhances Digital Noise reduction at low light levels. 3D Filtering of the Video Signal Optimises the Signal to Noise ratio, giving vastly improved low light visivility and a powerful Sens-Up function (up to 256 times magnification).

600TV Lines
The combination of a Sony Super HAD CCD image sensor and DNR DSP provides an excellent resolution of 600 TV lines.

D-WDR(Digital Wide Dynamic Range)
D-WDR is a powerful and ultra advanced technology that captures cleaner and superior high Resolution pictures even where images appear dark because there is a strong back light present.

High Spotlight BLC Function
High Spotlight BLC Function is Especially Effective to Read the Number Plate of the Vehicles in the Street or Parking Lot at Night Time. Especially Users Can Adjust and Select the Special Required Area to Observe the Target Object Under the Strong Spots of Light Exist.

Illumination
With an Incredibly Minimum Illumination of Amazing 0.00001Lux can Capture Good Images Even in Extremely Low Light Conditions and Related Noises are Significantly Reduced by the Ultra Advanced DNR(Digital Noise Reduction) Technology.

General Features

3D Filtering Method of Newly Advanced DNR Function

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Additional Functions

☞ OSD - On Screen Display menu with multi-Language support.
Privacy Masking - 8 zones, Sens-Up - x256 times, Digital Zoom - x32

Precautions

Only use the camera under conditions where temperatures are between -10°C and ~50°C. Be especially careful to provide ventilation when operating under high temperatures.

Do not install or use the camera in an environment where the humidity is high.

Severe lighting change or flicker can cause the camera to work improperly.

This is one of the most important parts of the camera. Be careful not to leave fingerprints on the lens cover.
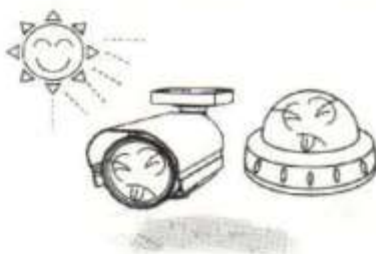
It can cause malfunctions to occur.

Severe lighting change or flicker can cause the camera to work improperly.

If it gets wet, wipe dry immediately Liquids can contain minerals that corrode the electronic components.

If exposed to radioactivity the CCD will fail.

NOTE

* If the camera is exposed to spotlight or object reflecting strong light, smear or blooming may occur.

* please check that the power satisfies the normal specification before connecting the camera.

Sefety Instructions

Precautions for use

◑ This camera should be installed by qualified personnel only

◑ There are no user serviceable parts inside

◑ Do not disassemble this camera other than to make initial adjustments

◑ Use a UL approved regulated 24 volt AC or 12 volt DC power supply

◑ Use appropriate low voltage power cable to prevent fire or electrical shock

◑ Please insure that your installation area can support the weight of the camera

Please handle this camera carefully :

◑ Do not use a strong or abrasive detergent when cleaning the camera

◑ Do not expose the camera to direct sun

◑ Do not install camera in places where humidity is high

◑ Do not install near cooling or heating device

◑ Do not expose camera to rain or moisture

OSD Control Button

1. Type A, Type B, Type C of OSD button could be used when it needs to OSD control.
2. Type D is extra Option (wired Remote controller)

Type A
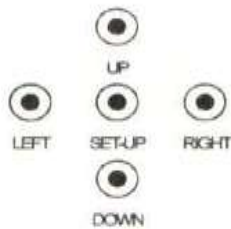
Type.B

Type C

Type D (Option)

How to Set Up the camera menu

● Setup Menu

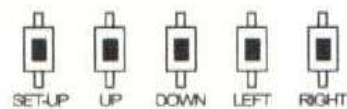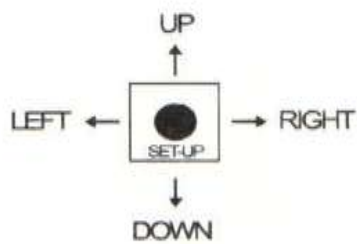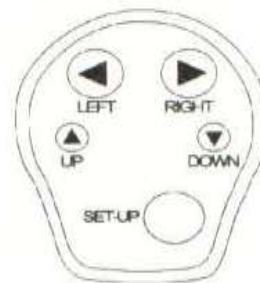| SET UP MENU	DEFAULT SET	MENU		
LENS	DC	BRIGHTNESS (0~100 Adjustable)		
		RETURN	RET	
			END	
	MANUAL			
EXPOSURE	SHUTTER	AUTO,1/60,1/50, FLK, 1/250, 1/500, 1/1000, 1/2000, 1/5000, 1/10000,1/100000, x256, x128, x64, x32, x16, x8, x4, x2		
	AGC	OFF		
		LOW		
		MIDDLE		
		HIGH		
	SENSE-UP	OFF		
		AUTO	SENSE-UP(x2 ~ x256 Level Selectable)	
			RETURN	RET
				END
	BLC	OFF		
		BLC	GAIN	LOW
				MIDDLE
				HIGH
			AREA	POSITION
				SIZE
				AGAIN
			DEFAULT	
			RETURN	RET
				END
		HSBLC	LEVEL	0~8 Selectable
			MODE	ALL DAY
				NIGHT ONLY
			AREA	POSITION
				SIZE
				AGAIN
			DEFAULT	
			RETURN	RET
				END
	D-WDR	INDOOR	LOW-LEVEL (0 ~15 Adjustable)	
			HIGH-LEVEL (0 ~15 Adjustable)	
			RETURN	RET
				END
		OUTDOOR	LOW-LEVEL (0 ~15 Adjustable)	
			HIGH-LEVEL (0 ~15 Adjustable)	
			RETURN	RET
				END
		OFF		
	RETURN	RET		
		END		
WHITE BAL	ATW			
	AWB			
	AWC->SET			
	MANUAL	BLUE (0 ~100 Level Selectable)		
		RED (0 ~100 Level Selectable)		
		RETURN	RET	
			END	
	INDOOR			
	OUTDOOR			

(600TVL) 3D-DNR DAY & NIGHT COLOR CAMERA

DAY/NIGHT	COLOR				
	AUTO	DELAY (0 ~63 Adjustable)			
		D->N(AGC) (48 ~208 Adjustable)			
		N->D(AGC) (0 ~160 Adjustable)			
		RETURN	RET		
			END		
	EXT				
	B/W	BURST	ON/OFF		
		IR SMART	ON	GAIN	
				AREA	
				RETURN (RET/END)	
			OFF		
3DNR	ON	LEVEL (RANGE 0 ~100 Level Selectable)			
		RETURN	RET		
			END		
	OFF				
SPECIAL	CAM TITLE	ON/OFF			
	D-EFFECT	FREEZE	ON/OFF		
		MIRROR	MIRROR		
			V-FLIP		
			ROTATE		
			OFF		
		D-ZOOM	ON	D-ZOOM (x1 ~ x32)	
				PAN (100 ~ 100)	
				TILT (-100 ~ 100)	
				RETURN (RET/END)	
		NEG. IMAGE	ON/OFF		
		RETURN	RET		
			END		
	RS485 (OPTION)	CAM ID			
		ID DISPLAY	ON/OFF		
		BAUDRATE			
		RETURN	RET		
			END		
	MOTION	ON	AREA SELECT (AREA1 ~ AREA4)		
			AREA DISPLAY	POSITION	
				SIZE	
				AGAIN	
			SENSITIVITY (0 ~ 40)		
			MOTION VIEW	ON/OFF	
			RETURN	RET	
				END	
		OFF			
	PRIVACY	ON	AREA SELECT		
			AREA DISPLAY	POSITION	
				SIZE	
				AGAIN	
			COLOR		
			RETURN	RET	
				END	
		OFF			
	SYNC (OPTION)	INT			
		L/L			

		SENSE-UP (x4 ~ x64)		
		DIFFERENCE (1 ~6)		
	DEFECT	START		
		RETURN	RET	
			END	
	RETURN	RET		
		END		
	SHARPNESS	0 ~31 Level Adjustable		
			LEVEL (0 ~63)	
			BLUE GAIN (0 ~100)	
		CRT	RED GAIN (0 ~100)	
			RETURN	RET
				END
			GAMMA (USER ~ 1.00)	
			LEVEL (0 ~63)	
		LCD	BLUE GAIN (0 ~100)	
ADJUST	MONITOR		RED GAIN (0 ~100)	
			RETURN	RET
				END
			GAMMA (USER ~ 1.00)	
			LEVEL (0 ~63)	
		USER	BLUE GAIN (0 ~100)	
			RED GAIN (0 ~100)	
			RETURN	RET
				END
	RETURN	RET		
		END		
	FACTORY	RESET		
RESET	RETURN	RET		
		END		
EXIT				

Menu Set Up

Menu items can be selected by using the OSD buttons of the camera

1. Press the Set Up button.

* The Set Up menu will be displayed on the monitor.

```
                    SETUP
► 1.LENS            DC    ◄┘
  2.EXPOSURE             ◄┘
  3.WHITE BAL           ATW
  4.DAY / NIGHT         COLOR
  5.3DNR                ON ◄┘
  6.SPECIAL             ◄┘
  7.ADJUST              ◄┘
  8.RESET               ◄┘
  9.EXIT
```
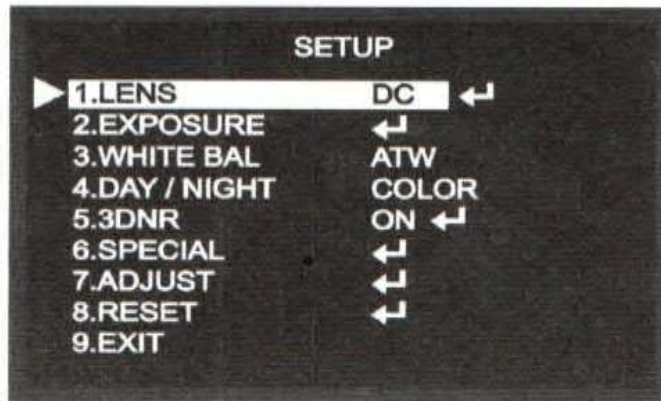
2. Move and select the required function using the Up and Down button.

* Move the arrow indicator Up or Down to select the desired feature by pressing
  the Up or Down button.

```
                    SETUP
► 1.LENS            DC    ◄┘
  2.EXPOSURE             ◄┘
  3.WHITE BAL           ATW
  4.DAY / NIGHT         COLOR
  5.3DNR                ON ◄┘
  6.SPECIAL             ◄┘
  7.ADJUST              ◄┘
  8.RESET               ◄┘
  9.EXIT
```

(600TVL) 3D-DNR DAY & NIGHT COLOR CAMERA
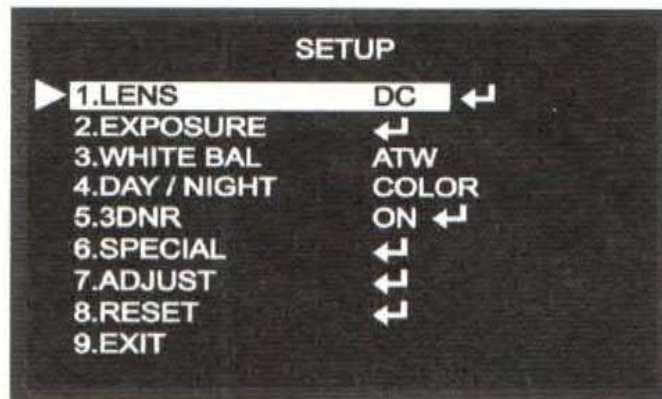
3. Change menu settings using the Left or Right button.

* Available values or Status are displayed by pressing the Left or Right buttons.
  Press the button until desired value / status is displayed.

4. After Changing the setting move the arrow indicator to EXIT and press the
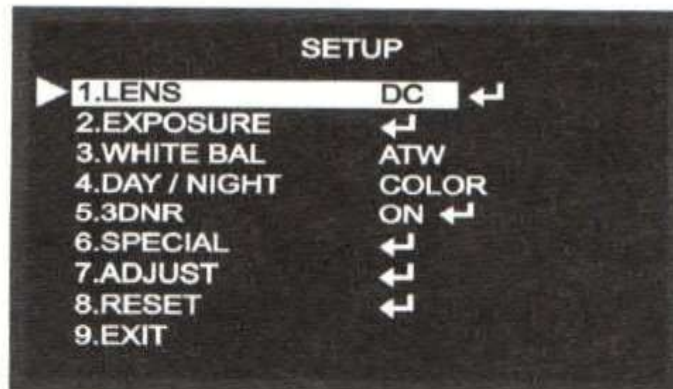   SET button to EXIT.

NOTE

* Move to the available submenu by moving ← arrow to desired feature.
* Submenu is not available when this symbol is display " - - - - "

Lens

1. Move the arrow indicator to LENS using the Up and Down buttons on the Set Up menu screen.
2. Select the desired lens type by pressing the Left or Right button.

```
                    SETUP
  ►1.LENS            DC    ←
    2.EXPOSURE              ←
    3.WHITE BAL     ATW
    4.DAY / NIGHT   COLOR
    5.3DNR          ON ←
    6.SPECIAL              ←
    7.ADJUST               ←
    8.RESET               ←
    9.EXIT
```

➜ DC:DC Auto Iris Lens

NOTE

* When DC is selected, the brightness can be adjusted. The brightness control range is 1 ~ 100.

```
                           Lens


      ▶ BRIGHTNESS        |........|........| 100
        RETURN ↵
```
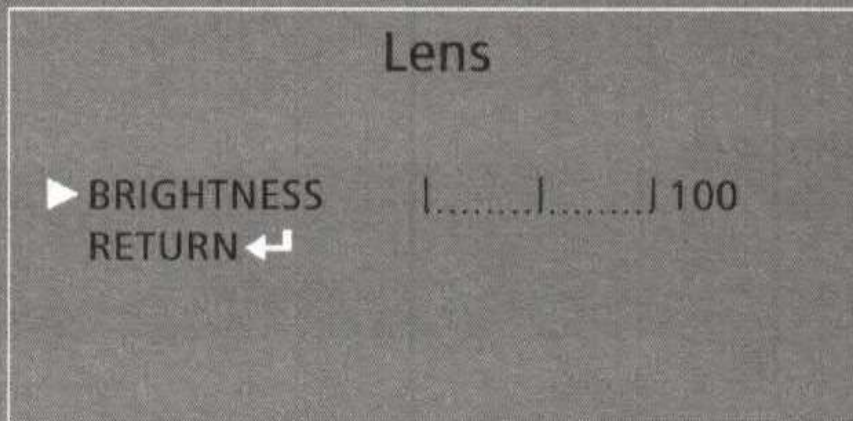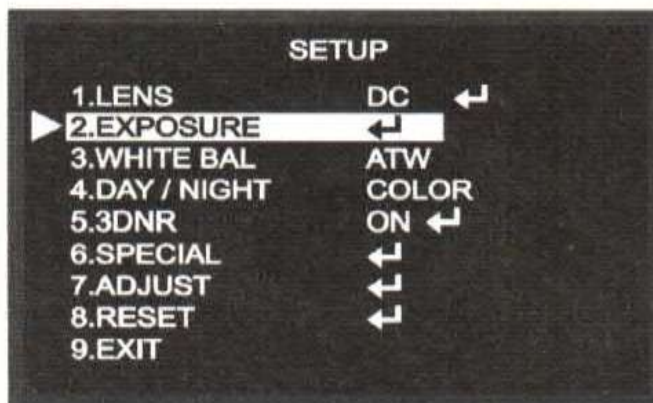
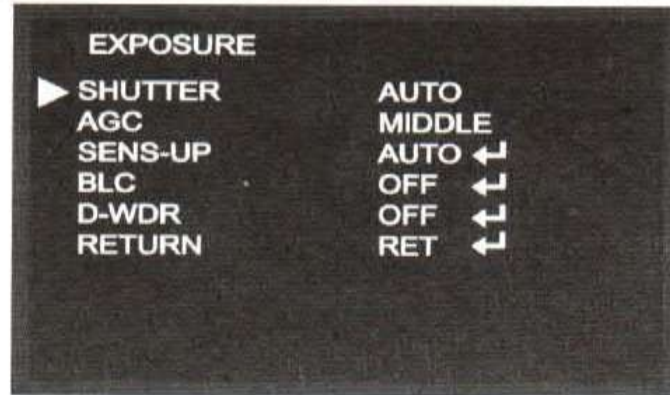3. Press the RETURN to return to the SETUP menu.

Exposure

This function is used to select Automatic or Manual shutter speed control.

1. On the Set Up menu screen select EXPOSURE by using the Up or Down button.

2. Select the desired shutter mode by pressing the Left or Right button.

```
                    SETUP
        1.LENS          DC    ↵
      ▶ 2.EXPOSURE           ↵
        3.WHITE BAL     ATW
        4.DAY / NIGHT   COLOR
        5.3DNR          ON ↵
        6.SPECIAL            ↵
        7.ADJUST            ↵
        8.RESET             ↵
        9.EXIT
```

* FLK : Select FLK mode when flickering occurs; caused by the unmatched frequency of electric lights.

```
EXPOSURE
► SHUTTER          AUTO
  AGC             MIDDLE
  SENS-UP         AUTO ↵
  BLC             OFF  ↵
  D-WDR           OFF  ↵
  RETURN          RET  ↵
```

NOTE

*Shutter: Select Shutter using the Up or Down button, you can adjust the shutter speed from 1/60, FLK, 1/250~1/100,000.

→FLK: Select FLK mode if flickering occurs; caused by the unmatched frequency of electric light. If select FLK mode, sense-up does not operate.

* AGC(AUTO GAIN CONTROL):

A higher gain increases brightness but also increases any noise.

OFF : Deactivates the AGC function

LOW : Sets automatic gain control to LOW.

MIDDLE : Sets automatic gain control to MIDDLE.

HIGH : Sets automatic gain control to HIGH

* SENS - UP:

At night and/or in dark conditions, the Sens-Up mode can be selected to desired value from x2 ~ x256.

```
SENS-UP
► SENS-UP         x 4
  RETURN          ↵
```
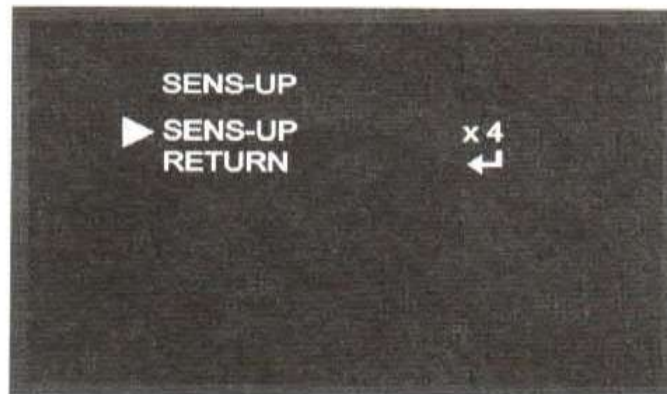
* RETURN:

Select Return to save the changes in the EXPOSURE menu and retun to the SETUP menu.

NOTE

* Pressing the SET button in AUTO mode allows adjustment of image brightness by increasing or decreasing the shutter speed (x2 ~x256).
* The higher the level, the brighter the image becomes, but it is possible that an after image (ghosting) could appear.
* When SENS-UP is activated the increased magnification can induce noise and pixelation; this is quite normal.

Back Light(BLC)

This camera witch is using 3D-DNR DSP provides intelligent light level control to overcome even strong backlight conditions.

```
BLC

GAIN            MIDDLE
AREA            ↵
DEFAULT         ↵
RETURN          RET
```

* OFF: BLC function does not operate.

* BLC: Select LOW/MID/HIGH

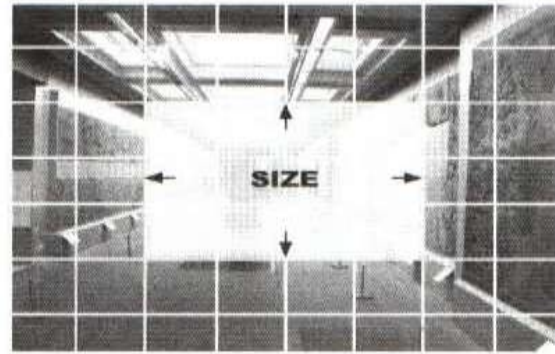User can select and define a specific area in scene and view the area clearly.

Press the "ENTER" button at the AREA menu, you can change the area like a picture 1.

Press the "ENTER" button again after area setting, you can change the area like a picture 2.

Default: Press the Default to return to factory defaults.
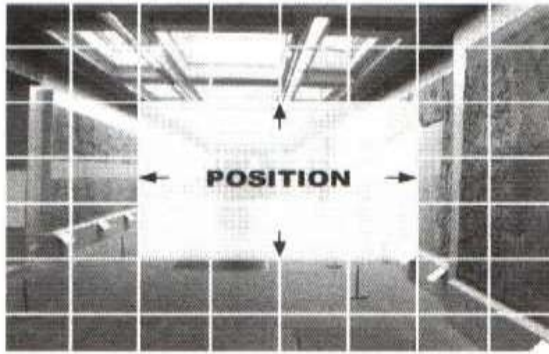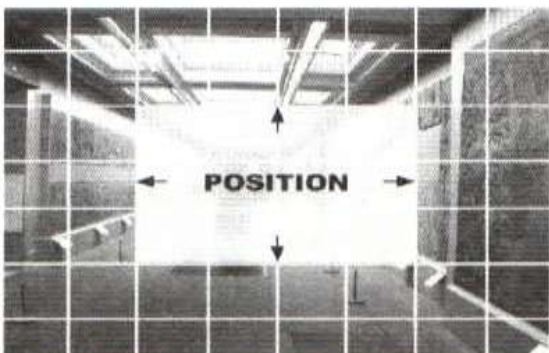
PICTURE 1

PICTURE 2

* HSBLE: HSBLC function is especially effective for reading car number plates at the night time.

You can select and define the required observation area for the target object and ignore a strong light area.

Press the "ENTER" button at the AREA menu, you can change the position as shown in Picture 1.

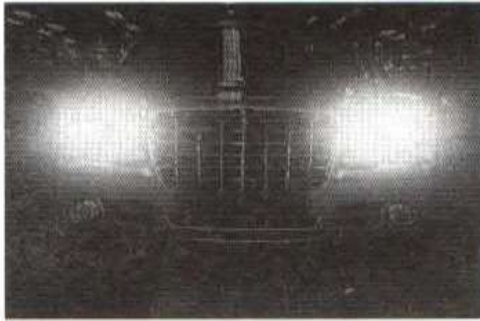Press the "ENTER" button again after area setting, you can change the position as shown in Picture 2.

Default: Press the Default to return to factory defaults.

PICTURE 1

PICTURE 2

(600TVL) 3D-DNR DAY & NIGHT COLOR CAMERA
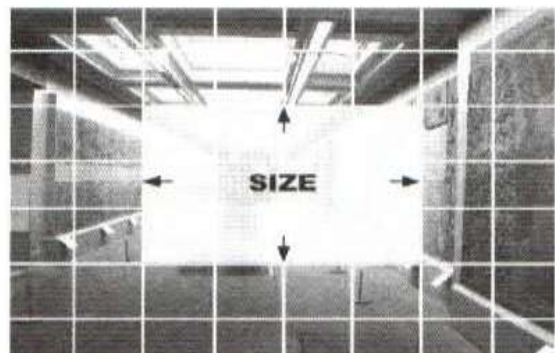
HSBLC OFF

HSBLC ON

* D-WDR: This camera which is using 3D-DNR DSP provides intelligent light level control to overcome even strong backlight conditions.

→OFF: D-WDR function does not operate.

When there are simultaneous bright & dark image area WDR makes them both distinct and can be selected as OUTDOOR and INDOOR.
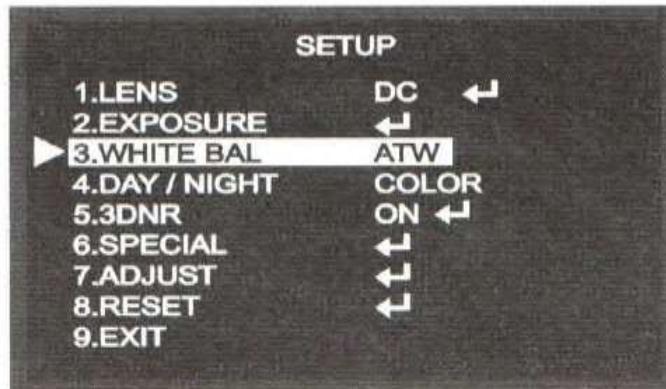

D-WDR

▶ LOW-LEVEL |||||||||||||| 5
  HIGH-LEVEL |||||||||||||| 5
  RETURN   RET ↵

D-WDR OFF

D-WDR ON

* RETURN: Select Return to save the changes in the EXPOSURE menu and return to the SETUP menu.

White Balance

The White Balance function is used to control the "on-screen" colors.

1. Move the arrow indicator to WHITE BAL on the SETUP menu screen using the Up and Down button.

2. Select the desired mode by using the Left or Right button.

```
                    SETUP
        1.LENS          DC    ↵
        2.EXPOSURE            ↵
      ▶ 3.WHITE BAL     ATW
        4.DAY / NIGHT   COLOR
        5.3DNR          ON    ↵
        6.SPECIAL             ↵
        7.ADJUST             ↵
        8.RESET              ↵
        9.EXIT
```

* There are three user selectable White Balance settings available.

* ATW : (Auto Tracking White Balance)

Normal setting; when the color temperature range is from 1,800°K to 10,500°K. (Ex: a fluorescent lamp or outdoors)

* AWB : The White Balance is automatically adjusted in a specific environment.

* AWC — SET : To obtain the best results press the SET button while the camera is focused onto white paper. If the environment, and/or light source changes, the White Balance will require re-adjustment.
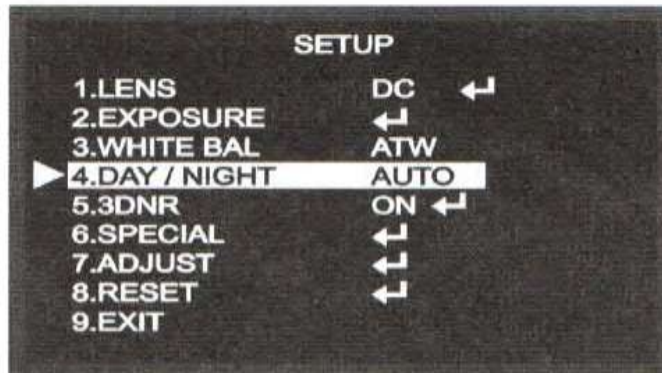
* MANUAL : Used for fine adjustment of White Balance. Set White Balance first using ATW or AWC then change to MANUAL and press SETUP button. Increase or decrease the value of R-Gain(Red) and B-Gain(Blue) while monitoring the color of the image.

```
            WHITE BAL MANUAL

      ▶ BLUE          |||||||||||||||||40
        RED           ||||||||||||||||21
        RETURN             RET ↵
```

Day / Night

Picture can be displayed in either colour of black and white.

1. Select DAY / NIGHT using the Up or Down button on the SETUP menu screen.

```
                    SETUP
        1.LENS           DC    ↵
        2.EXPOSURE             ↵
        3.WHITE BAL      ATW
    ►   4.DAY / NIGHT    AUTO
        5.3DNR           ON    ↵
        6.SPECIAL              ↵
        7.ADJUST              ↵
        8.RESET              ↵
        9.EXIT
```

2. Select the desired mode using the Left and Right buttons.

* COLOR : The picture is always displayed in color.

* BW : This picture is always displayed in black and white.

Select BW using the button and press the menu to activate COLOR BURST option.

IR SMART : It controls the IR LED(bright portion base), satuation is not expected.

```
    DAY NIGHT            B/W

  ► BURST               ON
    IR SMART            ON
    RETURN              RET ↵
```
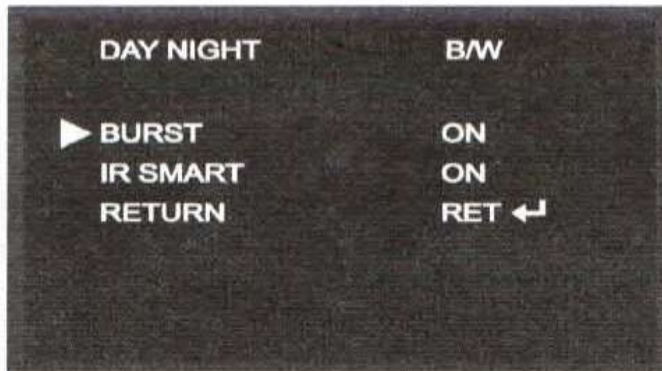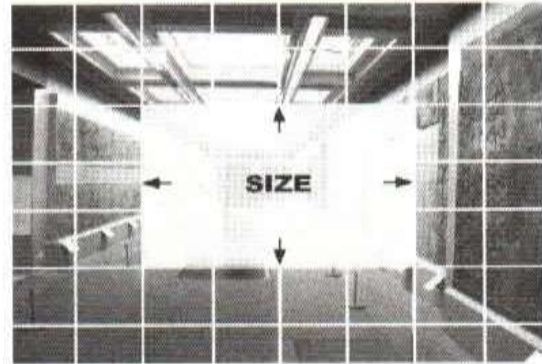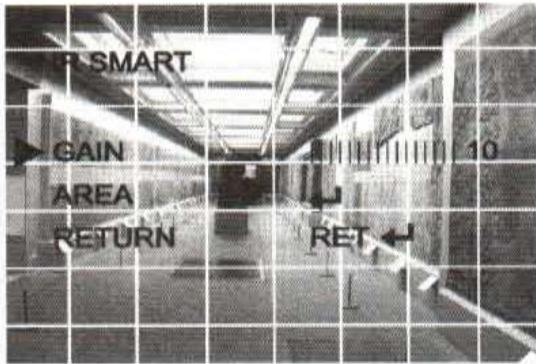
AREA

SMART IR OFF

SMART IR ON

→ AUTO: The mode will automatically switches to COLOR in normal condition and switches to BW mode when ambient illumination is low.
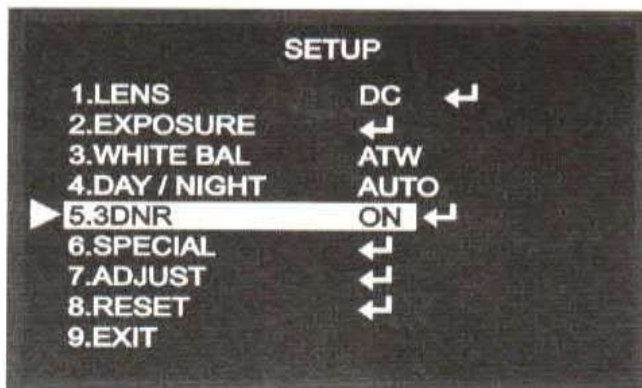
Press the SET button to set the switching time or D→N(AGC), N→D(AGC) in AUTO mode.

3DNR

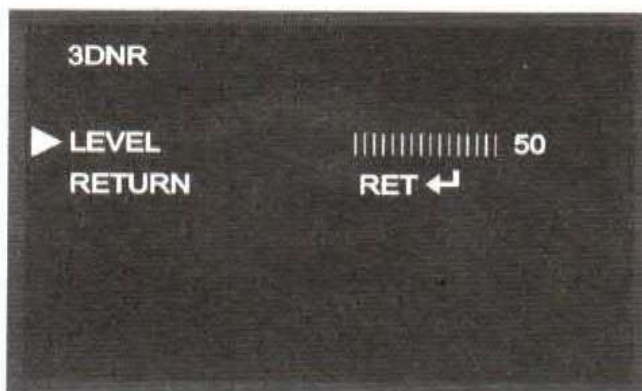3DNR is used to reduce the level of background noise in a low luminance environment.

1. Move the arrow indicator to 3DNR by using the Up and Down button.

2. Select whether or not to activate 3DNR by using the Left and Right buttons.

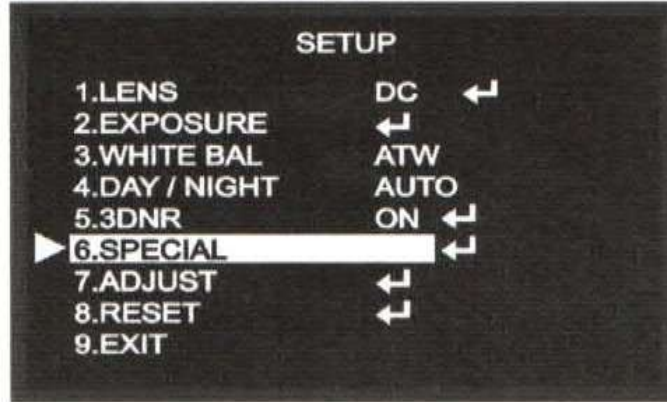* ON: Activates 3DNR - Digial noise reduction can be adjusted between 0 ~ 100.
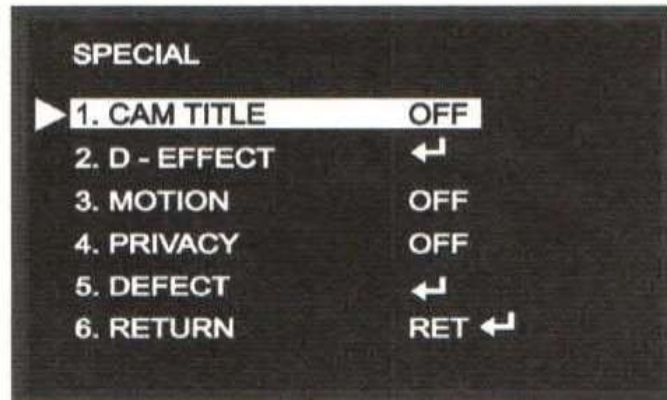
* OFF: Deactivates 3DNR - noise is not reduced.

* Select RETURN by using the Up or Down button to return to Set Up menu.

Special

When the SETUP menu screen is displayed, select SPECIAL using the Up and Down buttons.

```
                    SETUP
    1.LENS           DC   ↵
    2.EXPOSURE       ↵
    3.WHITE BAL      ATW
    4.DAY / NIGHT    AUTO
    5.3DNR           ON  ↵
►   6.SPECIAL            ↵
    7.ADJUST         ↵
    8.RESET          ↵
    9.EXIT
```

Select one of the mode using the Up and Down button.

```
    SPECIAL

►  1. CAM TITLE       OFF
   2. D - EFFECT      ↵
   3. MOTION          OFF
   4. PRIVACY         OFF
   5. DEFECT          ↵
   6. RETURN          RET ↵
```

1. CAM TITLE : When input, the Camera ID is displayed on the monitor.

1-1) Move the arrow indicator to CAMERA ID using the Up or Down button on the SETUP menu screen.

1-2) Set to ON using the Left or Right button.

1-3) Press the SETUP button.

1-4) The CAMERA TITLE can be up to 15 alphanumeric characters in length.

① Move the cursor to choose an alphanumeric character.

② Choose a character in displayed range A~Z, a~z, 0~9 using the Up, Down, Left and Right buttons.

③ Select the desired character by pressing the SETUP button.

- The cursor moves to the next position, after character input, by pressing the SETUP button.

④ Repeat the above steps until the Camera ID has been created.

NOTE

* In cases where the wrong Camera ID has been input........

Move the cursor to CLR and press SETUP button to erase characters from left to right, and repeat the above steps to input the characters again.

1-5) To select the position where the Camera ID should be displayed on the screen.

① Move the cursor to POS and press the SET button.

② Created camera ID is displayed.
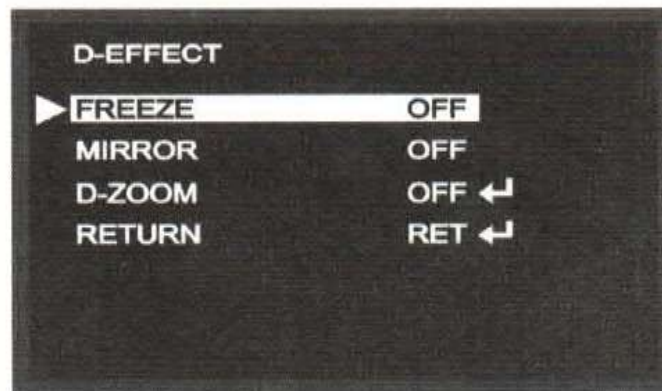
(Factory default position) ——

③ Select a new position by using the four directional button, Press the SET button to confirm the position.
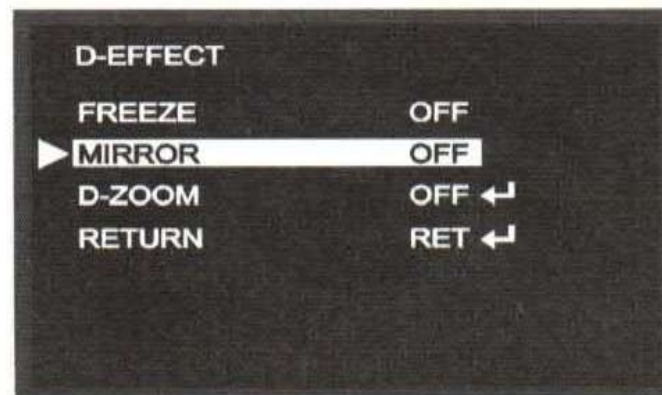

2. D - EFFECT

Move the cursor to D-EFFECT and press the SET button to set the other image functions.

2 -1) MIRROR : Flip the image horizontally on the screen.

* V-FLIP : Flip the image vertically on the screen.

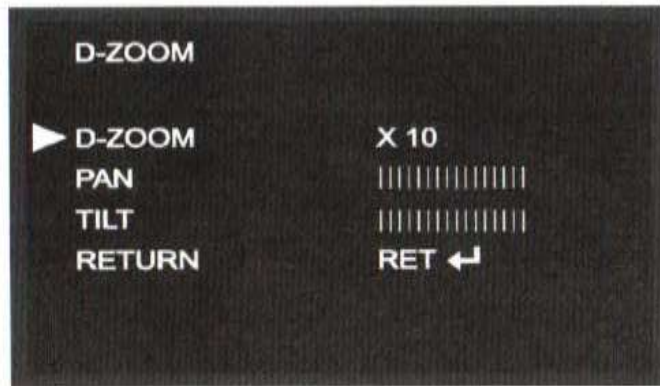* ROTATE : Flip the horizontal image vertically on the screen.

* OFF : Disabled.

MIRROR ON

MIRROR OFF

2-2) D - ZOOM: Digital zoom available, range x1 ~ x32.

PAN : The pan range can be controlled between -10 ~ + 100

TILT : The tilt range can be controlled between -10 ~ + 100

NOTE

* PAN and TILT function should be available when using the digital zoom.

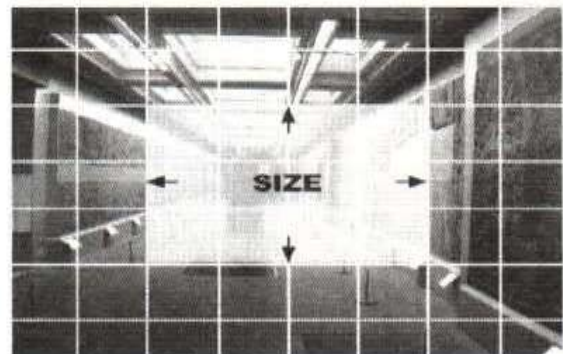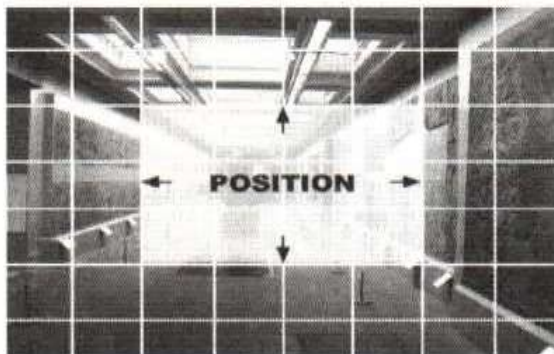2-3) GAMMA : Desired gamma values can be adjusted between 0.05 ~ 1.00.

2-4) NEG. IMAGE :

ON : Activates negative image just like film

OFF : Normal image

2-5) RETURN : Move the arrow indicator to RETURN after complete the setup to return to SPECIAL menu.

3. MOTION

3-1) When the special menu screen is displayed, use the Up or Down botton to access the MOTION menu.

AREA SELECT : You can select from area 1~4 position.

AREA DISPLAY) ON: Display the Motion Detected area on the screen. You can set the location and size like a picture 1,2.

SENSITIVITY: To setup the motion sensitivity. You can adjust the motion sensitivity of a movement between level 0~40.
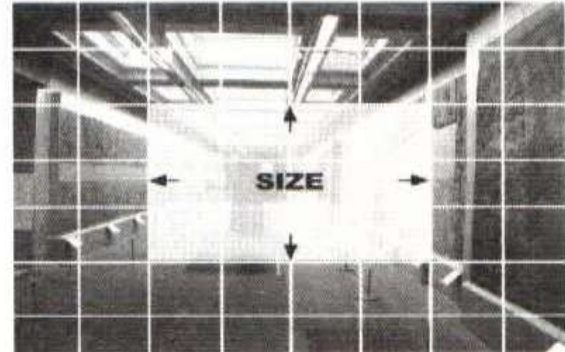
MOTION VIEW : If camera detects movement, the words of "MOTION DETECTION" will appear on the monitor.

RETURN : To return to the SPECIAL menu after completing the setup.

4. PRIVACY

Hide an area you want to hide on the screen.

4-1). When the SPECIAL menu screen is displayed, press the Up and Down buttons to set to PRIVACY.

```
PRIVACY

► AREA SELECT        AREA1
  AREA DISPLAY       ON
  COLOR              |||||||||||||||| 15
  RETURN             RET ◄┘
```


POSITION

SIZE

4-2). Set up the area mode using the 4 direction buttons.

① AREA SELECT : You can select up to 8 MD area.

② AREA DISPLAY : OFF : Disabled

　　　　　　　　　ON : Activates area displa

③ Move the arrow indicator to WIDTH to make desired width of cells to increase or decrease by using the

Left / Right button between the level 0 ~ 100.

④ Move the arrow indicator to HEIGHT to make desired height of cells to increase or decrease by using the

Left / Right button between the level 0 ~ 100.

⑤ Move the arrow indicator to the LEFT / RIGHT and TOP / BOTTOM to select the desired area positon by

using the LEFT or RIGHT button.

⑥ Move the arrow indicator to COLOR to select the desired color of each area cells by using the Left /

Right button to select between the 15 different color.

RETURN : Move the arrow indicator to RETURN after completing the setup to return to SPECIAL menu.

4-3) SYNC : INT (Internal Synchronisation)

Move the arrow indicator to RETURN after complete the setup to return to SETUP menu.

5. DEFECT

You can eliminate white spots (defect) up to max 128 point.

SENSE-UP : To eliminate defect, set the high level of sense-up. You can set to max 64x, but 32x is best

to eliminate defect.

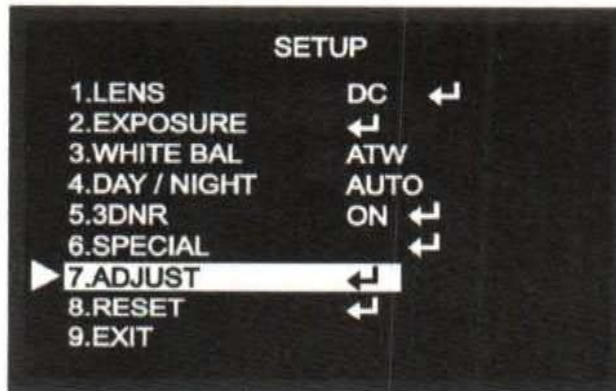DIFF : You can set the size of DEFECT from 1 to 6.

START : Press the "ENTER" button, it will start to eliminate defects "PROCESSING NOW..." will be displayed

on the monitor.

In case of manual IRIS lens, you should cover the lens.

ADJUST

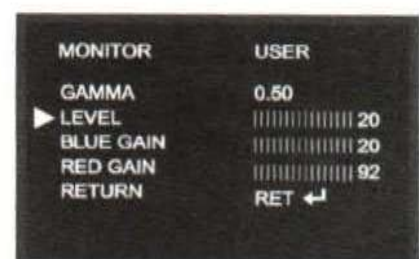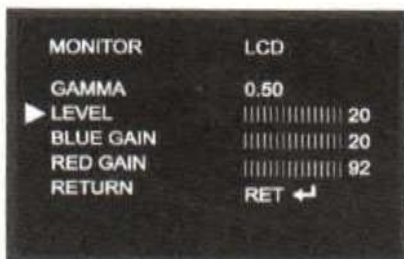1. When the SETUP menu screen is displayed, select ADJUST using the Up and Down buttons.

```
                        SETUP
        1.LENS           DC    ↵
        2.EXPOSURE       ↵
        3.WHITE BAL      ATW
        4.DAY / NIGHT    AUTO
        5.3DNR           ON    ↵
        6.SPECIAL              ↵
      ► 7.ADJUST               ↵
        8.RESET               ↵
        9.EXIT
```

2. Select the desired mode by using Up or Down button..

```
        ADJUST

      ► SHARPNESS       ||||||||||||||| 20
        MONITOR         LCD ↵
        RETURN          RET ↵
```

SHARPNESS : Improving image clarity. The level can be adjusted to obtain an improved image.
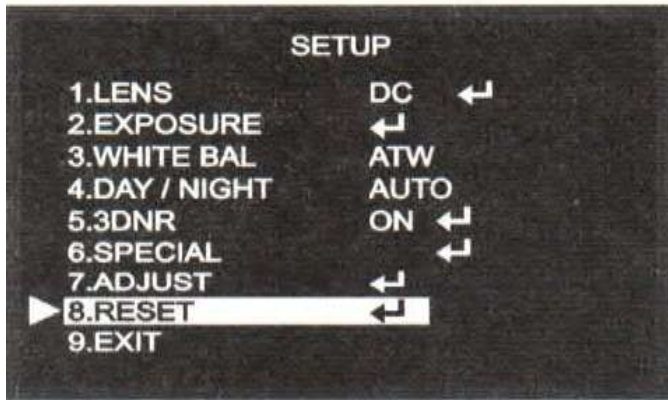
However, when the level is set too high it can distort the image or cause noise.

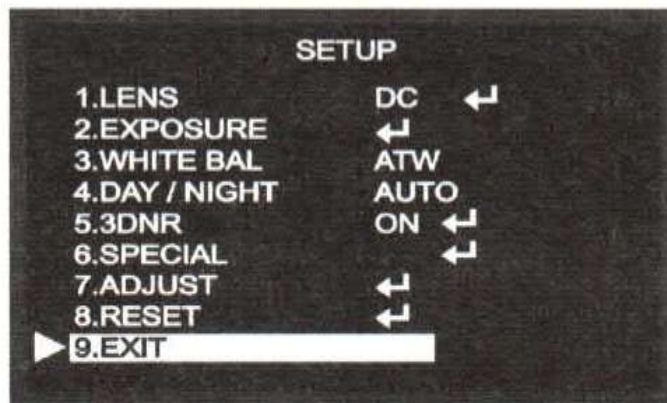You can adjust from level 1 to 31, and can set to monitor function as LCD, CRT and USER.

```
 MONITOR     LCD              MONITOR     CRT              MONITOR     USER

 GAMMA       0.50           ► LEVEL       |||||||||||| 20   GAMMA       0.50
► LEVEL      |||||||||||| 20   BLUE GAIN   |||||||||||| 20 ► LEVEL      |||||||||||| 20
 BLUE GAIN   |||||||||||| 20   RED GAIN    |||||||||||| 92   BLUE GAIN   |||||||||||| 20
 RED GAIN    |||||||||||| 92   RETURN      RET ↵            RED GAIN    |||||||||||| 92
 RETURN      RET ↵                                          RETURN      RET ↵
```

(600TVL) 3D-DNR DAY & NIGHT COLOR CAMERA

RESET

Resets the camera settings to the factory defaults.

EXIT

Press the SET button in the EXIT menu to save the current settings and exit the SETUP menu.

Trouble Shooting

PROBLEM	POSSIBLE CAUSE
Northing appears on the screen.	☞ Check the power cable, power supply output and video connection between the camera and monitor.
The image on the screen is dim.	☞ Are the camera lens or the lens glass dirty? Clean the lens / glass with a soft clean cloth. ☞ Adjust the monitor controls, as required. ☞ If the camera is facing a very strong light, change the camera position. ☞ Adjust the lens focus.
The image on the screen is dark.	☞ Adjust the contrast control of the monitor. ☞ If there is an intermediate device, correctly set the 75Ω/Hi-z.
The camera is not working properly and the surface of the camera is hot.	☞ Check the camera is correctly connected to an appropriate regulated power source.
Motion Detection is not activated.	☞ Has MOTION DET been set to ON in the menu? ☞ Has MD AREA been properly defined?
The color of the picture is not correct.	☞ Check the settings in WHITE BALANCE menu.
The image on the screen flickers.	☞ Make sure that the camera isn't facing direct sunlight or fluorescent lighting. If necessary,change the camera position.
The SENS-UP does not work.	☞ Check that the AGC setting in the EXPOSURE menu is't set to OFF. ☞ Check the EXPOSURE menu and make sure SHUTTER is set to------.