C600BCDNVFIR 600 Line Outdoor Bullet Camera

D/N, OSD, WDR, DNR, 2.8-12mm LENS — 80' IR Range

USER MANUAL

Northern

CAUTION

RISK OF ELECTRIC SHOCK
DO NOT OPEN

CAUTION:TO REDUCE THE RISK OF ELECTRIC SHOCK
DO NOT REMOVE COVER(OR BACK).
NO USER-SERVICEABLE PARTS INSIDE.
REFER SERVICING TO QUALIFIED SERVICE PERSONNEL.

ISO14001 CE FC
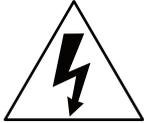
The lightning flash with an arrowhead symbol, within an equilateral triangle is intended to alert the user to the presence of uninsulated dangerous voltage within the product's enclosure that may be of sufficient magnitude to constitute a risk of electric shock to persons.

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.

INFORMATION - This equipment has been tested and found to comply with limits for a Class A digital device, pursuant to part 15 of the FCC Rules & CE 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.

WARNING - Changes or modifications not expressly approved by the manufacturer could void the user's authority to operate the equipment.

CAUTION : To prevent electric shock and risk of fire hazards:
☞Do NOT use power sources other than those specified.
☞Do NOT expose this appliance to rain or moisture.

This installation should be made by a qualified service person and should conform to all local codes.

OSD QUICK MANUAL

EASY QUICK MANUAL TO SET UP OSD 600TVL (2D-DNR)

About Smart-IR/D-WDR/BLC/2D DNR(600TVL)

Smart MD
Multi Language OSD
D&N
Smart-iR
New DSP Technology
600TVL
Smart-i
Low Light
DNR II
RS-485
HLC
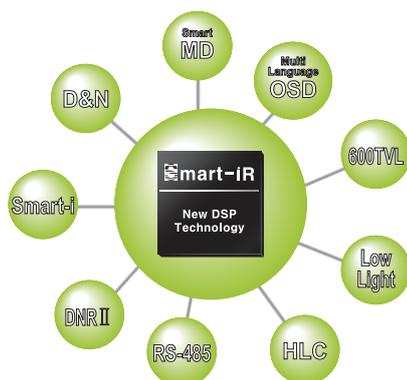
Core Technology

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

Innovative Technology of Powerful High-Resolution 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 filtering with the function of noise removal.
2D-DNR, Min. Illumination 0.01 Lux
All In One: 2D DNR, Smart IR, Privacy Zone, RS-485 (Option)

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
  ► LENS                      DC
    EXPOSURE                  ↵
    WHITE BAL.              ATW1
    BACKLIGHT               OFF
    DAY&NIGHT            AUTO ↵
    DPC                       ↵
    SPECIAL                   ↵
    RESET                     ↵
    EXIT
```
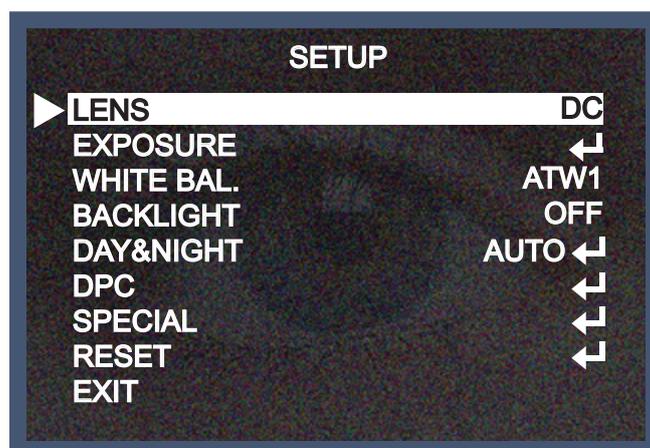
➡ DC:DC Auto Iris Lens

※ Default: Fixed board lens & Manual vari-focal lens are set at MANUAL.

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

     LENS                        DC
   ▶ EXPOSURE                     ↵
     WHITE BAL.                  ATW1
     BACKLIGHT                   OFF
     DAY&NIGHT                  AUTO ↵
     DPC                           ↵
     SPECIAL                       ↵
     RESET                         ↵
     EXIT
```
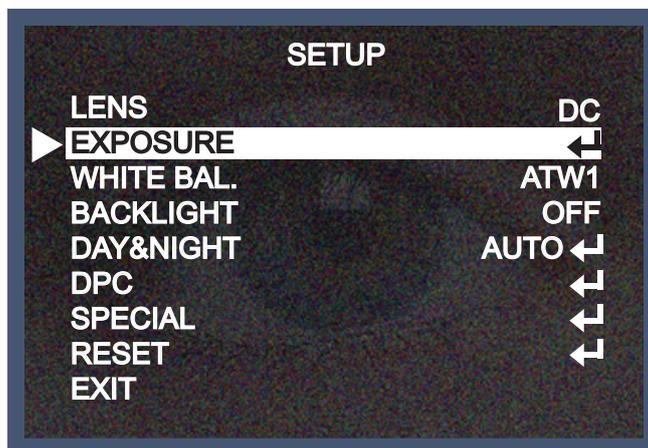
* FLK : Select FLK mode when flickering occurs; caused by the unmatched frequency of electric lights.

EXPOSURE	SHUTTER	AUTO,1/60,1/50, FLK, 1/250, 1/500, 1/1000, 1/2000, 1/4000, 1/5000,1/10000,1/100000	
	BRIGHTNESS	MIN:000, DEFAULT: 050, MAX: 255	
	AGC	OFF	
		LOW	
		MIDDLE	DEFAULT
		HIGH	
	DWDR	OFF	DEFAULT
		ON	LEVEL: MIN 000, DEFAULT 035, MAX 063
	RETURN		

* DWDR: This camera which is using 2D-DNR DSP provides intelligent light level control to overcome even strong backlight conditions. When there are simultaneous bright & dark image areas DWDR makes them both distinct.

→OFF: D-WDR function does not operate.

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.
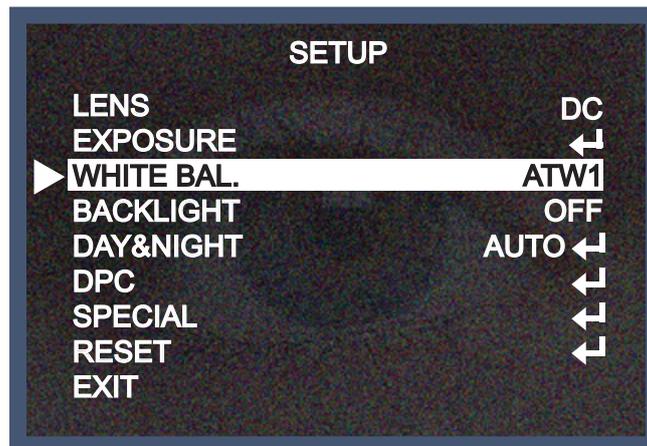
* **There are three user's selectable White Balance settings.**

* ATW1 : (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)

* 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 ATW1 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.

▶ OUTDOOR / INDOOR / MANUAL selectable.

(600TVL) 2D-DNR DAY & NIGHT COLOR CAMERA

Back Light(BLC)

This camera witch is using 2D-DNR DSP provides intelligent light level control to overcome even strong backlight conditions.

```
                    BLC
AREA SEL.                    AREA1
AREA STATE                      ON
GAIN              ||||||||||||||||095
HEIGHT           ||||||||||||||||005
WIDTH            ||||||||||||||||004
LEFT/RIGHT       ||||||||||||||||006
TOP/BOTTOM       ||||||||||||||||005
RETURN                       RET ↵
```
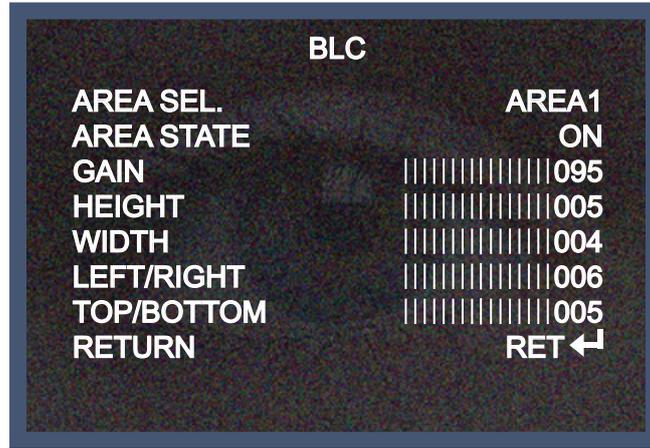
* OFF: BLC function does not operate.

User can select and define a specific area on 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

(600TVL) 2D-DNR DAY & NIGHT COLOR CAMERA

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
    LENS                      DC
    EXPOSURE                  ↵
    WHITE BAL.                ATW1
    BACKLIGHT                 OFF
  ▶ DAY&NIGHT                 AUTO ↵
    DPC                       ↵
    SPECIAL                   ↵
    RESET                     ↵
    EXIT
```
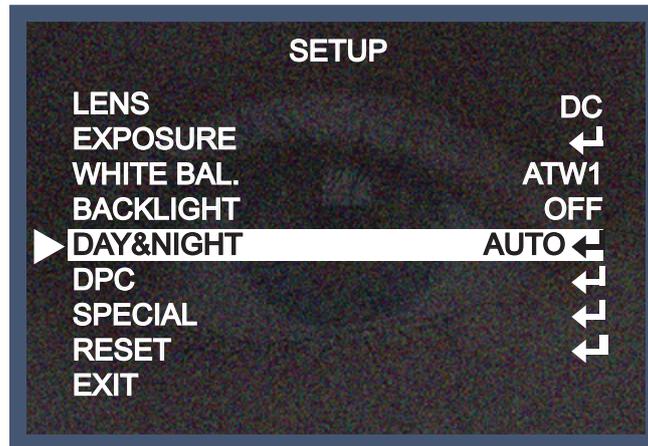
2. Select the desired mode using the Left and Right buttons.

* 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.

※ Smart-IR function is available to use for camera with IR LED only.

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

=> This function can be utmost only at BURST OFF.

```
            D&N B/W                              IR SMART
    BURST              OFF          IR GAIN        |||||||||||||||||090
    IR SMART           ON ↵         HEIGHT         |||||||||||||||006
    IR LEVEL           LOW          WIDTH          |||||||||||||||006
    RETURN             RET ↵        LEFT/RIGHT     ||||||||||||||004
                                    TOP/BOTTOM     ||||||||||||||004
                                    RETURN             RET ↵
```

(600TVL) 2D-DNR DAY & NIGHT COLOR CAMERA
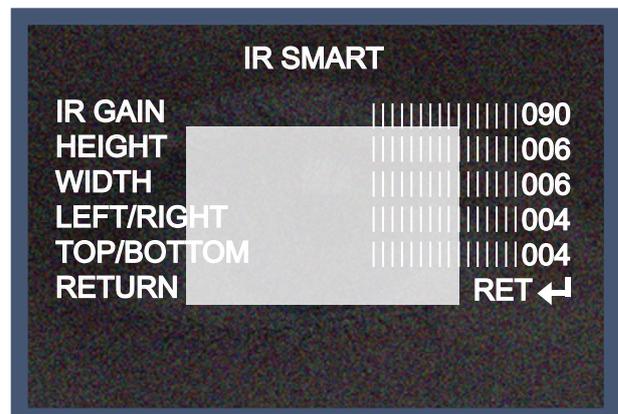
SMART IR OFF

SMART IR ON

* AUTO: The mode will automatically switches to COLOR in normal condition and switches to BW mode when ambient illumination is low.

DPC

When the camera becomes hot after operating a couple of days, white spots are shown on the screen especially at low light condition and they are recorded together with normal image. By using this function, white spots are removed and you can get clean images.

COVER THE LENS
THEN
PRESS ENTER KEY

PROCESSING NOW...
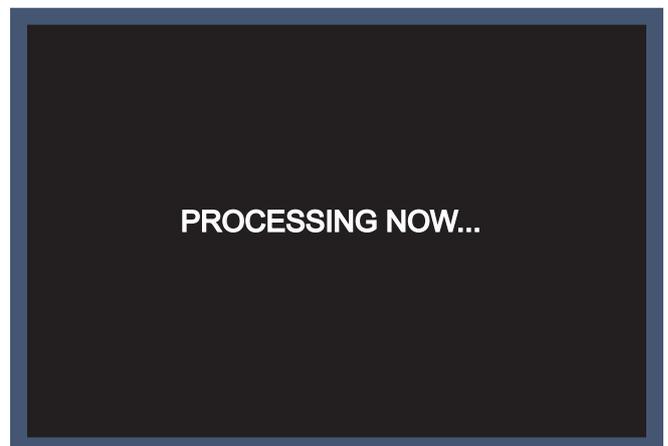
Special

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

```
                    SETUP
   LENS                       DC
   EXPOSURE                   ↵
   WHITE BAL.                 ATW1
   BACKLIGHT                  OFF
   DAY&NIGHT             AUTO ↵
   DPC                        ↵
 ▶ SPECIAL                    ↵
   RESET                      ↵
   EXIT
```
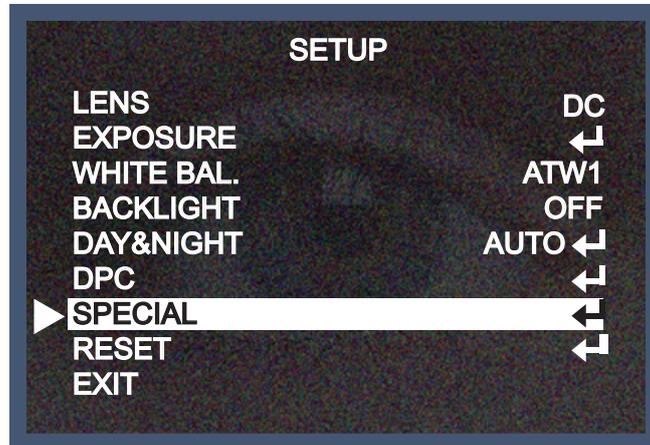
Select one of the mode using the Up and Down button.

```
                   SPECIAL
 ▶ CAM TITLE                  OFF
   MOTION                     OFF
   PRIVACY                    OFF
   PARK. LINE                 OFF
   IMAGE ADJ.                 ↵
   LANGUAGE              ENGLISH
   RETURN                RET ↵
```
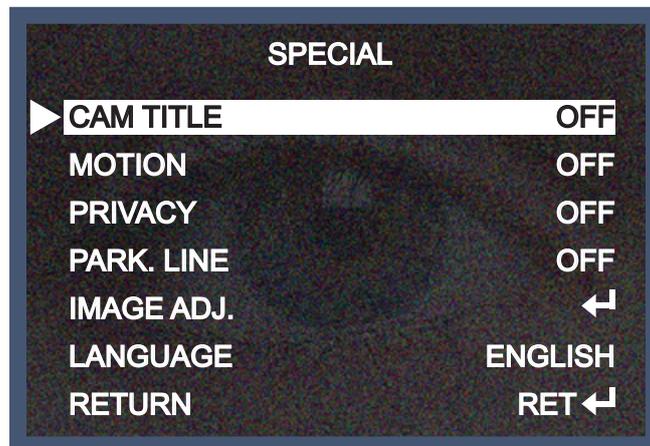
1. CAM TITLE : Give the name of the camera after selecing ON.

2. MOTION: Selecte areas (MAX 4 AREAS) where you want to make focus more.

3. PRIVACY: Select areas (MAX 8 AREAS) where you want to hide on the screen.

4. PARK. LINE: At this mode, possible parking line is shown on the screen.
              This technology can be applied to car rear view camera.

5. IMAGE ADJ.:   Select the sub-menu by using Up or Down button.

(600TVL) 2D-DNR DAY & NIGHT COLOR CAMERA

		OFF	DEFAULT
	LENS SHAD	ON	LEVEL: MIN 000, DEFAULT 006, MAX 255
	2DNR	OFF	
		ON	DEFAULT
	MIRROR	OFF	DEFAULT
		ON	
	FONT COLOR	WHITE	DEFAULT
			16 COLOR SELECTABLE
IMAGE ADJ.	CONRTAST	LEVEL: MIN 000, DEFAULT 135, MAX 255	
	SHARPNESS	LEVEL: MIN 000, DEFAULT 025, MAX 031	
	DISPLAY	CRT	DEFAULT
		LCD	
		USER	
	NEG. IMAGE	OFF	DEFAULT
		ON	

5-1) 2DNR

2DNR is used to reduce the level of background noise in a low luminance environment.

* ON: Activates 2DNR - Digial noise reduction can be adjusted.

* OFF: Deactivates 2DNR - noise is not reduced.

```
IMAGE ADJ.

LENS SHAD.              OFF
► 2 DNR                  ON
MIRROR                  OFF
FONT COLOR               ↵
CONTRAST      ||||||||||||||||140
SHARPNESS     ||||||||||||||||160
DISPLAY                LCD↵
NEG. IMAGE             OFF
RETURN                RET↵
```

(600TVL) 2D-DNR DAY & NIGHT COLOR CAMERA
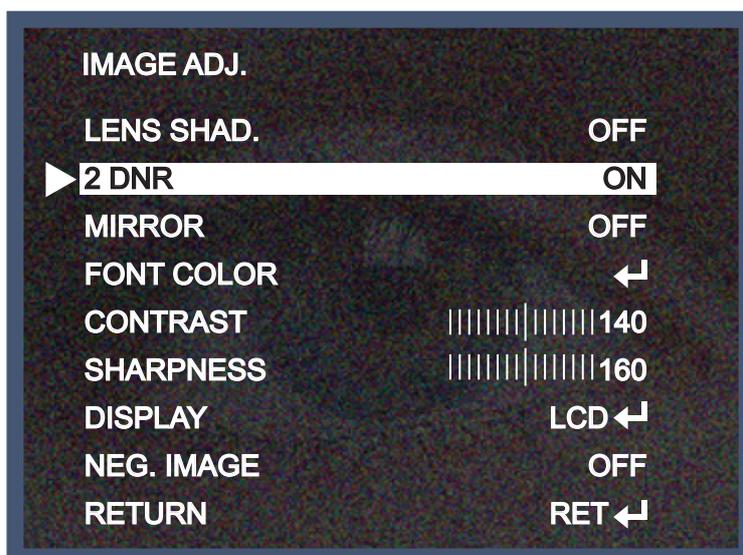
5-2) MIRROR

Horizontal flip is available according to the situation.

5-3) DISPLAY

Accoring to the sort of your monitor, select CRT or LCD or USER to optimize image on screen.

```
IMAGE ADJ.

LENS SHAD.              OFF
▶ 2 DNR                 ON
MIRROR                  OFF
FONT COLOR               ↵
CONTRAST        ||||||||||||||||140
SHARPNESS       ||||||||||||||||160
DISPLAY              LCD ↵
NEG. IMAGE             OFF
RETURN              RET ↵
```
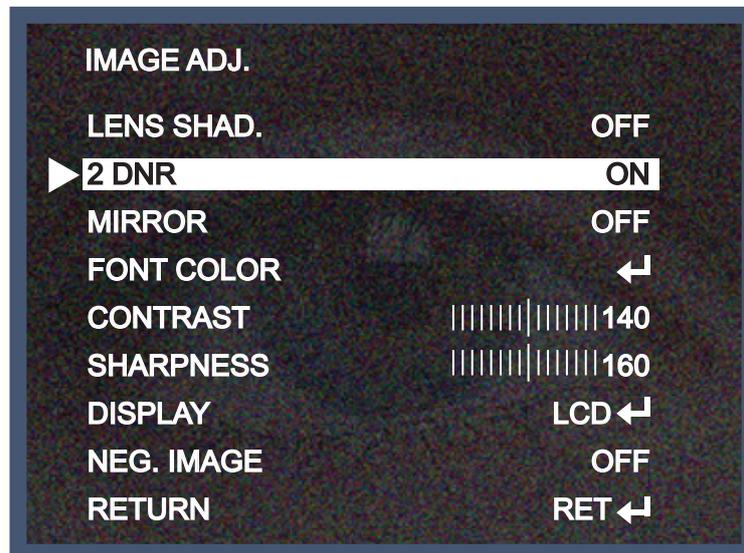
LANGUAGE

* English & Simplified Chinese are avaliable.

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.

OSD Control Button

UP

LEFT

RIGHT

SET-UP

DOWN

(600TVL) 2D-DNR DAY & NIGHT COLOR CAMERA