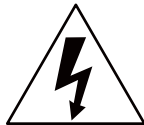
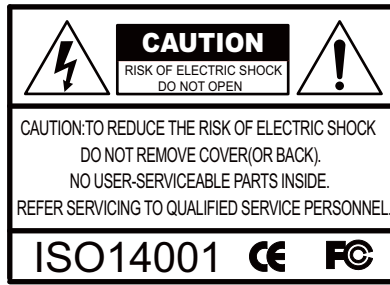


COSTAR
VIDEO SYSTEMS

USER MANUAL

CDT2312IR



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.

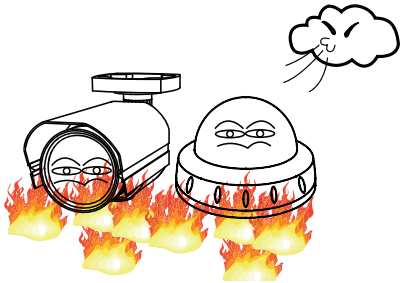
This installation should be made by a qualified service person and should conform to all local codes.

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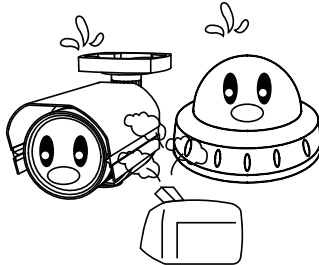
Precautions

Do not install the camera in extreme temperature conditions.



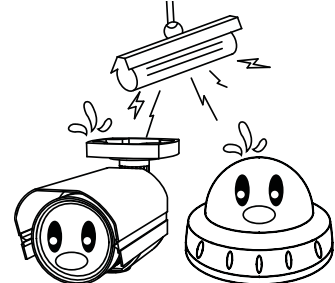
Only use the camera under conditions where temperatures are between -10°C and +50°C. Be especially careful to provide ventilation when operating under high temperatures.

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



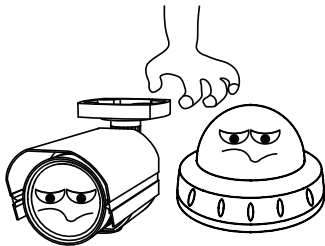
Do not install or use the camera in an environment where the humidity is high.

Do not install the camera under unstable lighting conditions.



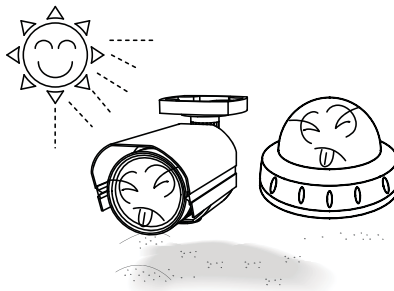
Severe lighting change or flicker can cause the camera to work improperly.

Do not touch the front lens of the camera.



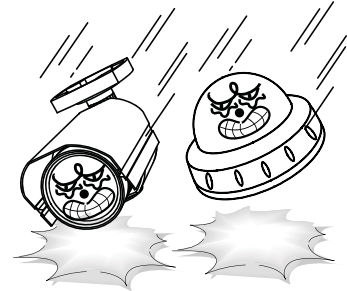
This is one of the most important parts of the camera. Be careful not to leave fingerprints on the lens cover.

Never keep the camera pointed directly at strong light.

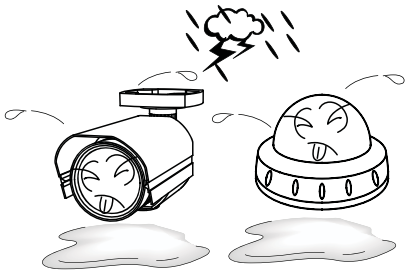


It can cause malfunctions to occur.

Do not drop the camera or subject it to physical shocks.

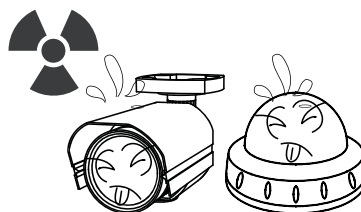


Do not expose the camera to rain or spill liquids on it.



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

Do not expose the camera to radioactivity.



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.

Safety Instructions

Precautions for use

- ① This camera should be installed by qualified personnel only
- ① There are no user serviceable parts inside
- ① Do not disassemble this camera other than to make initial adjustments
- ① Use appropriate low voltage power cable to prevent fire or electrical shock
- ① Please insure that your installation area can support the weight of the camera

Please handle this camera carefully :

- ① Do not use a strong or abrasive detergent when cleaning the camera
- ① Do not expose the camera to direct sun
- ① Do not install camera in places where humidity is high
- ① Do not install near cooling or heating device
- ① Do not expose camera to rain or moisture

How to Set Up the camera menu

● Setup Menu

SET UP MENU	DEFAULT SET	MENU																		
VIDEO OUT	FRAME RATE	25f/30f																		
	RETURN																			
DAY/NIGHT	MODE	AUTO	DELAY TIME	1 ~ 60 SEC Selectabl (Default : 2 SE																
		EXT	D TO N	1 ~ 63 Level Selectabl (Default : 50)																
			N TO D	1 ~ 63 Level Selectabl (Default : 15)																
			DELAY TIME	1 ~ 60 SEC Selectabl (Default : 2 SE																
		COLOR																		
		B/W	D TO N	1 ~ 63 Level Selectabl (Default : 50)																
N TO D	1 ~ 63 Level Selectabl (Default : 15)																			
DELAY TIME	1 ~ 60 SEC Selectabl (Default : 2 SE																			
AWB	MODE	AUTO	IN/OUT DOOR	INDOOR/OUTDOOR																
			RETURN																	
			R-G GAIN	0 ~ 255 Level Selectabl (Default : 12																
			B-G GAIN	0 ~ 255 Level Selectabl (Default : 13																
		USER	RED GAIN	0 ~ 255 Level Selectabl (Default : 95																
			GREEN GAIN	0 ~ 255 Level Selectabl (Default : 65																
			BLUE GAIN	0 ~ 255 Level Selectabl (Default : 95																
			RETURN																	
		PUSH,8000K,6000K,4200K,3200K,HOLD																		
		RETURN																		
AE	MODE	ESC/DC/HOLD																		
	BRIGHT	0 ~ 255 Level Selectabl (Default : 135)																		
	SHUTTER	AUTO,1/25,1/30,1/50,1/60,1/100,1/120,1/250,1/500,1/1000,1/3000,1/10000																		
	FLICKER	OFF,50Hz,60Hz																		
	BLC	0 ~ 17 Level Selectabl (Default : 0)																		
	AGC	1 ~ 5 Level Selectabl (Default : 5)																		
	LSC	OFF,ON																		
	RETURN																			
SPECIAL	PRIVACY	AREA1	MASK PAT	OFF,BLACK,GRAY,WHITE																
			SK(LEFT)	0 ~ 240 Level Selectabl																
			EX(RIGHT)	0 ~ 240 Level Selectabl																
			SY(UP)	0 ~ 135 Level Selectabl																
		EY(DOWN)	0 ~ 135 Level Selectabl																	
		AREA2	MASK PAT	OFF,BLACK,GRAY,WHITE																
			SK(LEFT)	0 ~ 240 Level Selectabl																
			EX(RIGHT)	0 ~ 240 Level Selectabl																
	SY(UP)		0 ~ 135 Level Selectabl																	
	EY(DOWN)	0 ~ 135 Level Selectabl																		
	RETURN																			
	MOTION	MOYION	OFF,ON																	
		SENSITI	0 ~ 255 Level Selectabl (Default : 30)																	
		ALARM	OFF,TRACE,ICON																	
		HOLD TIME	1 ~ 10 SEC Selectabl (Default : 1 SEC)																	
		OFF																		
	HLC	ON(AREA SELECT)	AREA SET	<table border="1" style="border-collapse: collapse; text-align: center;"> <tr> <td>(X)</td><td>(X)</td><td>(X)</td><td>(X)</td> </tr> <tr> <td>(X)</td><td>(X)</td><td>(X)</td><td>(X)</td> </tr> <tr> <td>(X)</td><td>(X)</td><td>(X)</td><td>(X)</td> </tr> <tr> <td>(X)</td><td>(X)</td><td>(X)</td><td>(X)</td> </tr> </table>	(X)	(X)	(X)	(X)	(X)	(X)	(X)	(X)	(X)	(X)	(X)	(X)	(X)	(X)	(X)	(X)
		(X)	(X)	(X)	(X)															
		(X)	(X)	(X)	(X)															
		(X)	(X)	(X)	(X)															
(X)		(X)	(X)	(X)																
RETURN																				
MASK VALUE	0 ~ 255 Level Selectabl (Default : 32)																			
THRESHOLD	0 ~ 255 Level Selectabl (Default : 250)																			
RETURN																				

How to Set Up the camera menu

● Setup Menu

IMAGE	COLOR GAIN	0 ~ 255 Level Selectabl (Default : 55)
	COLOR HUE	0 ~ 71 Level Selectabl (Default : 0)
	SHARPNESS	0 ~ 255 Level Selectabl (Default : 20)
	CONTRAST	0 ~ 255 Level Selectabl (Default : 125)
	BRIGHT OFF	127 ~ -128 (Default : 2)
	MIRROR	OFF,ON
	FLIP	OFF,ON
	RETURN	
SYSTEM	CAMERA ID	0 ~ 255 Level Selectabl (Default : 0)
	ID DISP	OFF,ON
	NAME DISP	OFF,ON
	LANGUAGE	ENG,CHN
	FACTORY INIT	OFF,ON(PUSH)
	RETURN	
EXIT	SAVE & EXIT	
	EXIT	
	RETURN	

Menu Set Up

Menu setting can be selected by the button inside the camera.

1. Press the set button.

* The MAIN menu will be displayed on the monitor.



2. Move and select the required function using the Up and Down button.

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



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.

VIDEO OUT

1. Move the triangular indicator to VIDEO OUT using the Up and Down buttons on the MAIN menu screen.
2. Select the desired lens type by pressing the Left or Right button.



◆ FRAME RATE : 25f / 30f selectable.

DAY/NIGHT

You can change the color mode of color or black / white by setting up the mode.

1. Select Day&Night using the Up or Down button on the MAIN menu screen.
2. Select the desired mode using the Left or Right buttons.



- AUTO : Automatically, It shifts into the color mode in the bright environment and the B/W mode in the low light condition. It can adjust the delay time, starting brightness and end brightness according to the ambient conditions by pressing the Set button.

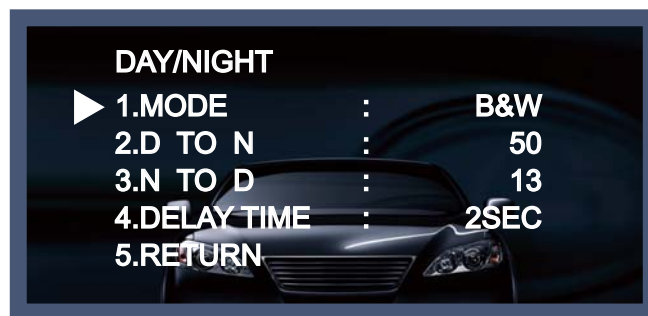
- D TO N : Not available.
- N TO D : Not available.
- DELAY TIME : Not available.



- EXT : It can change the color or B/W mode automatically through the connection with the ground terminal.(Option for box camera and IR camera)
 - D TO N : Not available.
 - N TO D : Not available.
 - DELAY TIME : Set the delay time for switching between color and B/W.



- COLOR : Making the video output color always.

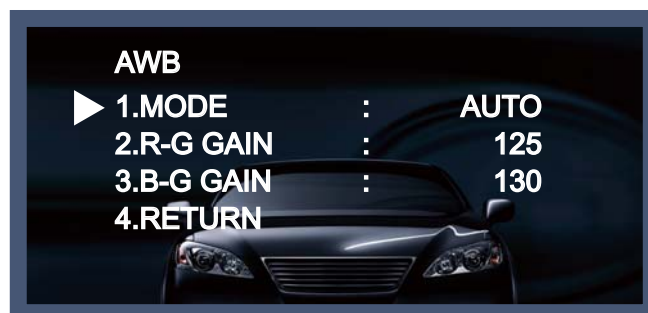


- B&W : Making the video output B/W always.
 - D TO N : Not available.
 - N TO D : Not available.
 - DELAY TIME : Not available.

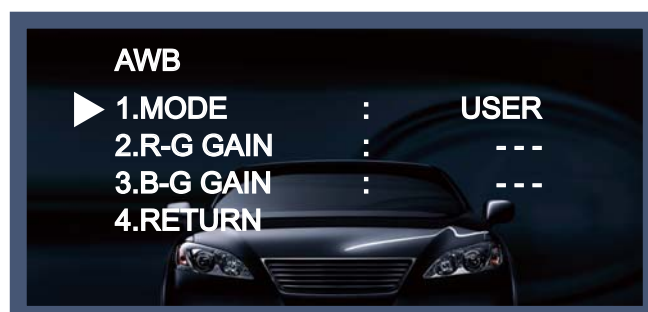
AWB

The function to search for the color which is matched well with the ambient environment.

1. Move the triangular indicator to WHITE BAL on the MAIN menu screen using the Up and Down button.
2. Select the desired mode by using the left or Right button.



- AUTO : Use this mode when the color temperature is from 2,500K to 9,500K.
 - R-G GAIN : 1~255 level adjustable.
 - B-G GAIN : 1~255 level adjustable.



- USER
 - R-G GAIN : Not available.
 - B-G GAIN : Not available.

AE

Use this function when the color adjustment of a screen is needed.

1. Move the triangular indicator to WHITE BAL on the MAIN menu screen using the Up and Down button.
2. Select the desired mode by using the left or Right button.



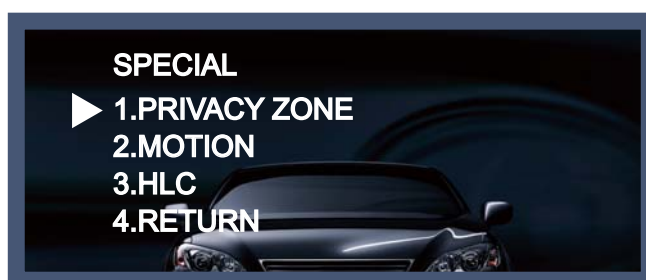
- ◆ **MODE** : ESC / DC / HOLD selectable.
- ◆ **BRIGHT** : The brightness can be adjusted. The brightness control range is 1~225.
- ◆ **SHUTTER** : DC lens is launched with the setting of 1/30 and the manual lens is launched with the setting of Auto shutter, but the shutter speed can be adjusted from 1/25 to 1/10,000.
- ◆ **FLICKER** : Select FLK mode if flickering occurs ; caused by the unmatched frequency of electric light.
- ◆ **BLC** : This function is used to counterbalance the screen image by increasing the brightness so that a subject which appears dark due to a strong backlight can be displayed in more detail. If you select BLC, a submenu appears where you can make finer adjustments. (1~17 Level selectable.)

- ◆ AGC : The higher the AGC level is, the more noises appear.
→ 1~5 Level selectable.
- ◆ LSC : Lens shading compensation.

SPECIAL

On this menu, backlight image can be compensated by users selecting one of modes.(HLC, BLC, WDR)

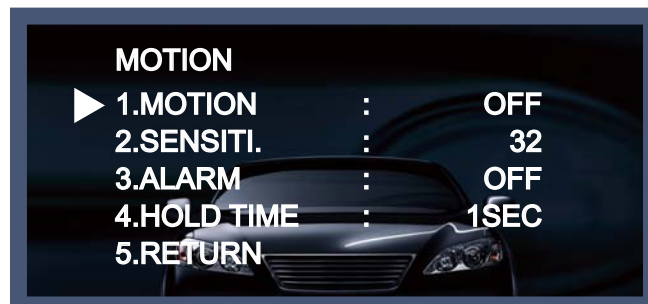
1. Move the triangular indicator to BACKLIGHT on the SETUP menu screen using the Up and Down button.
2. Select the desired mode by using the left or Right button.



- ◆ PRIVACY ZONE : This is used to hide certain areas on the monitor. You can designate each different 2 area. The size of a designated area can be adjusted. The color of a privacy area can be selected various colors. When you select the return, the setting values in this function menu are saved, then get out of this menu.



- AREA1 / AREA2 : Select a mask out of the 2 mask areas and set the options below for the selected mask.
- MASK PAT. : Define the OFF / BLACK / GRAY / WHITE of the mask color.
- SX : Define the horizontal size position of the privacy mask.
- EX : Define the horizontal size position of the privacy mask.
- SY : Define the vertical size position of the privacy mask.
- EY : Define the vertical size position of the privacy mask.



◆ **MOTION**

- MOTION : This function is used to detect moving objects in the monitored area. When choosing ON, the following submenu will appear where you can adjust the settings for the MOTION function.
- SENSITI. : The higher the setting value is, the higher the sensitivity gets, even though the movement of a subject.
- ALARM : In motion situation, you can select the detail of option setting.
- HOLD TIME : User can set up the duration of warning phrase or warning shape when alarm is activated.



◆ HLC

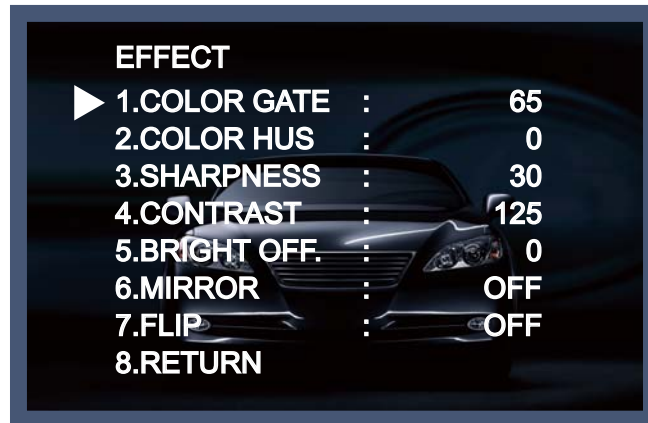
- HLC : This function is used to suppress or strong light source (for example, headlights of cars during nighttime) so that other subjects can be seen in more detail. If you select HLC, a submenu appears where you can make finer adjustments.
- MASK VALUM : Adjust the brightness level from which on the light source is to be masked out.
- THRESHOLD : Select the level of transparency.

EFFECT

This function is used to improve the picture quality by filtering the noise which is generated under low bright light conditions. You can set different levels here.

1. Move the triangular indicator to DNR by using the Up and Down button.
2. Select the mode to use by pressing the left or Right button and LOW/MIDDLE/HIGH level selectable.



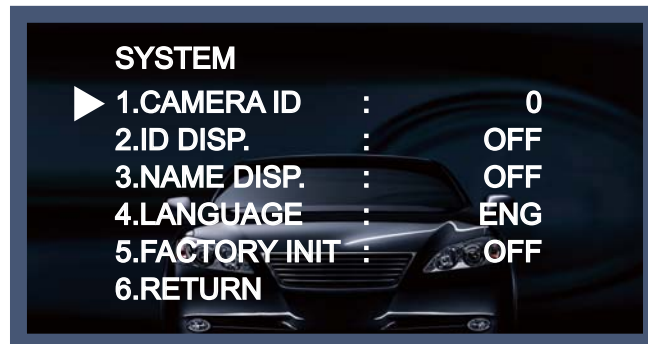


- ◆ COLOR GATE : Changes the color gain of the camera.
- ◆ COLOR HUS : Changed the color HUS of the camera.
- ◆ SHARPNESS : Adjusts the image sharpness. If the level goes up excessively, it may affect the video image and generate a noise.
- ◆ CONTRAST : Control between object and background.
- ◆ BRIGHT OFF. : Adjust the picture of color and brightness.
- ◆ MIRROR : Mirrors the image horizontally on the screen.
- ◆ FLIP : Flips the image vertically on the screen.

SYSTEM

This can be used when you want to select the additional function control.

1. When the MAIN menu is displayed, select SYSTEM using the Up and Down button.
2. Select one of the mode using the Up and Down button.



- ◆ CAMERA ID : Camera ID can be adjusted from 0 to 255.
- ◆ ID DISP. : When input, the camera ID is displayed on the monitor.
- ◆ NAME DISP. : Not available.
- ◆ LANGUAGE : ENG, CHN
- ◆ FACTORY INIT : Set factory default.

EXIT

Press the Set button in the exit menu to save the current settings and exit the MAIN menu.



Trouble Shooting

PROBLEM	POSSIBLE CAUSE
Nothing appears on the screen.	<ul style="list-style-type: none"> ☞ Check the power cable, power supply output and video connection between the camera and monitor.
The image on the screen is dim.	<ul style="list-style-type: none"> ☞ 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.	<ul style="list-style-type: none"> ☞ 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.	<ul style="list-style-type: none"> ☞ Check the camera is correctly connected to an appropriate regulated power source.
Motion Detection is not activated.	<ul style="list-style-type: none"> ☞ Has MOTION DET been set to ON in the menu? ☞ Has MD AREA been properly defined?
The color of the picture is not correct.	<ul style="list-style-type: none"> ☞ Check the settings in WHITE BALANCE menu.
The image on the screen flickers.	<ul style="list-style-type: none"> ☞ 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.	<ul style="list-style-type: none"> ☞ Check that the AGC setting in the EXPOSURE menu isn't set to OFF.

- MEMO -

- MEMO -

- MEMO -

