

# COSTAR

## 2MP 1080P 4-in-1 WDR Camera

### Operating Instruction



#### CCT2L00

##### DESCRIPTION

This camera resolution HD mode(TVI / CVI / AHD) reach to 1080P, analog mode(CVBS) reach to 960H, and the industry-leading wide dynamic range (WDR) is upto 120dB. This WDR ensures brilliant image quality under any lighting environment. The image and color quality is also excellent in low illumination environments. This camera series is a ultra wide dynamic range camera in the real sense using digital sampling which can't be paralleled by average wide dynamic range cameras using older generation sensor imagers. The application of 3D-DNR technology ensures higher S/N, which efficiently reduces the digital storage and transmission data saving system cost. Fashionable and professional exterior design and special 3-axis bracket, makes round-the-clock surveillance easy and convenient.



Average camera with BLC off



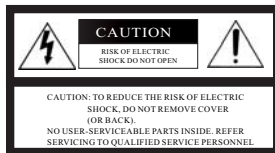
Average camera with BLC on



Ultra Wide Dynamic Range camera

##### ATTENTION

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



##### 1. Use the Appropriate Power Supply

The input power for the camera is DC12V/AC24V. Be sure to connect it to the appropriate power. Wrong connection may cause malfunction and/or damage to the video camera.

##### 2. Do not attempt to disassemble the camera.

To prevent electric shock, do not remove screws or covers. There are no user serviceable parts inside. Ask a qualified service person for servicing.

##### 3. Handle the camera with care.

Do not abuse the camera. Avoid striking, shaking, etc. The camera could be damaged by improper handling or storage.

##### 4. Do not expose the camera to rain or moisture, or try to operate it in wet areas.

Do not place the camera in the following locations:

① Locations where temperature is lower than -10°C or higher than 50°C;

② Locations where humidity is higher than 95%;

③ Locations where there are large amounts of water vapor and steam.

##### 5. Do not use strong or abrasive detergents when cleaning the camera body.

Use a dry cloth to clean the camera when dirty. In case the dirt is hard to remove.

Use a mild detergent and wipe gently.

##### 6. Clean the sensor faceplate with care.

When cleaning the sensor panel, do not use strong or abrasive detergents. Use a piece of lens tissue or cotton tipped applicator and ethanol.

##### 7. Do not attempt to aim the camera at the sun

Do not attempt to aim the camera at the sun or other extremely bright objects that causes glare to appear irrespective of whether the camera is operating or not. This can damage the sensor.

##### 8. Do not put the camera in a place with interference.

When this camera is installed near the equipment like wireless communication device which emits strong electromagnetic field, some irregularity such as noise on monitor screen may happen.

##### FEATURES

##### ★SONY 2.13Mp CMOS Image Sensor

This camera adopts SONY 2.13Mp CMOS image sensor and Eyenix DSP technology. The sensor picks up details from each pixel based on hundreds of samples per video frame. Vs CCD's limited exposures, to ensure wider dynamic range than is possible with analog CCD. The image quality is even brilliant under extreme lighting conditions.

##### ★Ultra Wide Dynamic Range

The captured wide dynamic range can reach 120dB maximum.

##### ★High Effective Resolution

Image resolution reach to 1080P in HD mode(TVI / CVI / AHD) and to 960H in analog mode(CVBS), offering enhanced horizontal and vertical resolution useable in existing as well as new CCTV systems.

##### ★Low illumination working capability

Color DSS: 0.00008 Lux, BW DSS: 0.00008 Lux

##### ★3D Noise Eliminating Technology

Adopts Sony fully digitalized 3D noise reduction technology to minimize noise, extending DVR storage by 30%+.

##### ★3-axis bracket

All directional bracket, easy control.

##### ★IR-CUT

Built-in filter switch-over device, ensures the cameras work properly both in day and night.

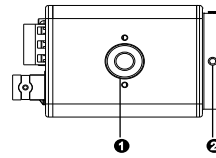
##### ★OSD Menu(optional)

Powerful OSD menu allows for various function settings.

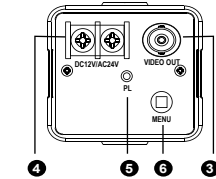
##### ★Auto D/N shift mode

Adopt color mode in day, because the light is enough in day; at night the illumination is lower which need higher sensitivity and better image quality, so it change to B/W mode automatically.

##### PARTS INSTRUCTION AND INSTALLATION



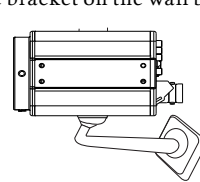
1. NO. DC Drive  
1. Control -  
2. Control +  
3. Drive +  
4. Drive -
- Auto Iris Interface Definition



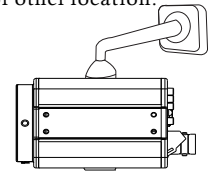
1. The hole for Bracket screw  
2. Fixed Lens Screw  
3. Video Output  
4. Power Input  
5. Power Indicator  
6. Button for OSD menu

##### Camera Installation

This camera can be installed by brackets from both upside and bottom, fixed the bracket on the wall by screw or other location.



Installation from bottom



Installation from upside

##### DIMENSIONS (UNIT: MM)



Model	CCT2L00
Image Sensor	Sony 1/2.8" imx290LQR CMOS
Signal Mode	NTSC / PAL; Progressive Scan
Effective Pixels	1945 (H) × 1097 (V) approx. 2.13M pixels
Max Resolution	1920 x 1080
Frame Rate	1080P @25/30 fps / 720P @50/60 fps
Electronic Shutter	AUTO/ Manual 1/50 ( 1/60) -1/60,000sec
Min. Illumination	Color DSS: 0.00008 Lux, BW DSS: 0.00008 Lux
S/N Ratio	≥50dB (AGC OFF)
Video Output	HD: AHD / CVI / TVI. Analog: CVBS(960H)
Synchronization	Internal
Day/Night	Auto (ICR) / Color / B&W / External
Noise Reduction	3D-NR (Off / Low / Middle / High)
Wide Dynamic Range	Off / Low / Middle / High: WDR SNR: 120dB
Backlight Compensation	Off / BLC
Auto White Balance	Auto / Auto ext / Preset / Manual
Auto Gain Control	YES (0 - 20 Steps)
Sence Up	Off / X2 / X4 / X8 / X16 / X32
Defog	Off / On: Low / Middle / High
OSD Menu	via DVR Coaxial Controlled or via OSD Black Button
Power Supply	DC12V / AC24V
Working Temperature	-4°F ~ 122°F (-20° C ~ +50° C)
Humidity	0% ~ 90%
Dimensions	2.05" x 2.20" x 3.86" (52mm x 56mm x 98mm)
Weight	0.48 lbs. (216g)

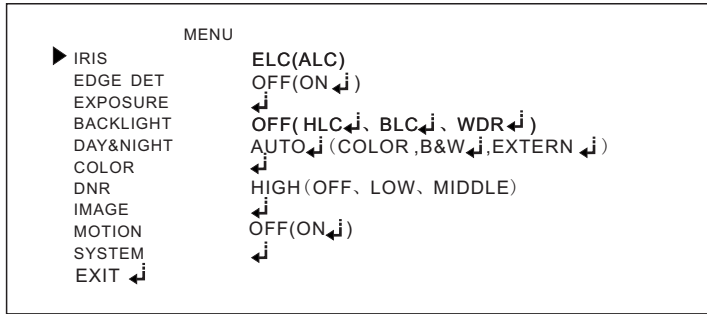
\*Specifications subject to change without notice.

CCL2L00-20180725

## OSD MENU

### MENU:

Press the MENU button to display MENU. You can set the IRIS, EDGE DET, EXPOSURE, BACKLIGHT, DAY&NIGHT, COLOR, DNR, IMAGE, MOTION and SYSTEM to ensure the image quality.

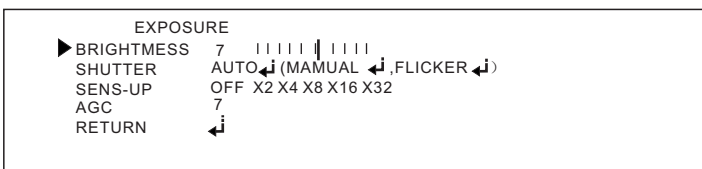


### EDGE DET:



### EXPOSURE:

Press the MENU button into the exposure submenu, and can setup the BRIGHTNESS, SHUTTER, SENS-UP, AGC to what you need.



### BACKLIGHT:

#### 1.BLACKLIGHT-HLC:

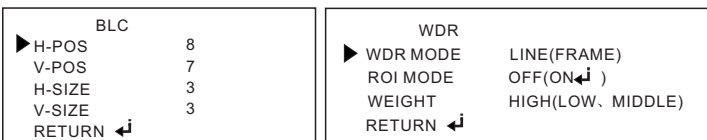
Press the MENU button into the HLC submenu, can adjust HLC's level.

#### 2.BLACKLIGHT-BLC:

Press the MENU button into the BLC submenu, can adjust BLC area's position and size.

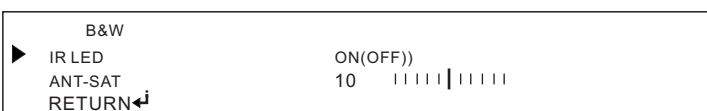
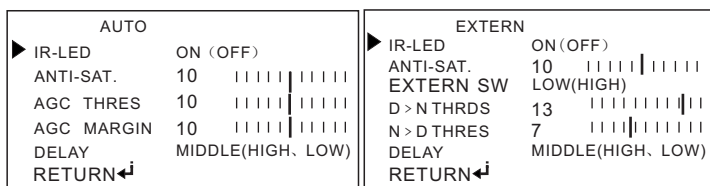
#### 3.BLACKLIGHT-WDR:

Press the MENU button into the WDR submenu, can adjust WDR MODE to: HIGH, MIDDLE and LOW.



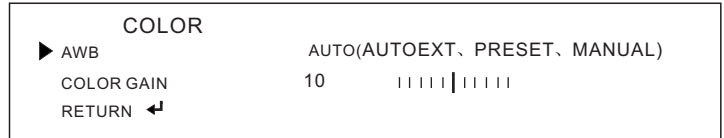
### DAY&NIGHT

Press the MENU button into the DAY&NIGHT submenu, can adjust AUTO, COLOR, B&W, EXTERN etc.



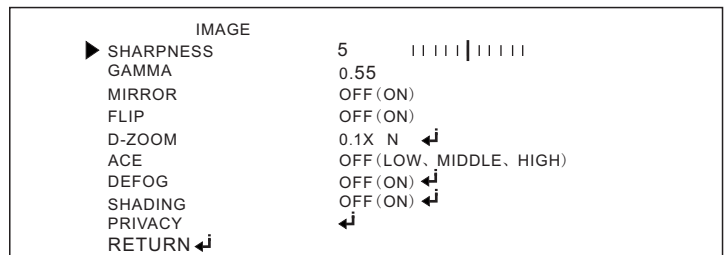
### COLOR:

Press the MENU button into the MANUAL submenu, can adjust AWB, COLOR GAIN.



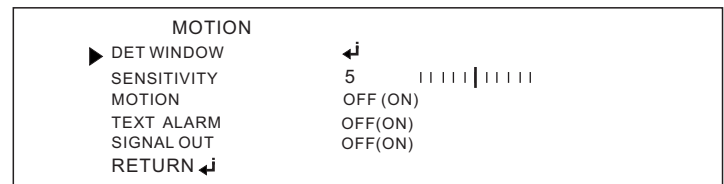
### IMAGE:

Press the MENU button into the IMAGE submenu, can as needed SHARPNESS, GAMMA, MIRROR, FLIP, D-ZOOM, ACE, DEFOG, SHADING, PRIVACY.



### MOTION:

Press the MENU button into the IMAGE submenu, can as needed DET WINDOW, SENSITIVITY, MOTION, TEXT ALARM, SIGNAL OUT.



### SYSTEM:

Press the MENU button into the SYSTEM submenu, set the CAMERA ID, SYSTEM, LANGUAGE, RESET as needed.

