

# AHD Waterproof IR Camera User Manual



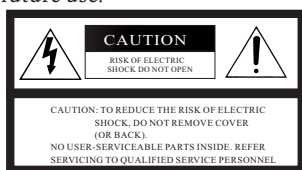
## BLSDFP20/2.0FHD

### DESCRIPTION

The waterproof camera adopt 2.0 Megapixel pixels 1080P@25/30fps high performance AHD sensor, no compressed, no delay, and realtime transmission image. IP66 waterproof standard, IR-CUT filter, smart-IR control. Fashionable and professional design.

### 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. 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 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.

#### 5. 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.

#### 6. 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 wear to appear irrespective of whether the camera is operating or not. This can damage the sensor.

#### 7. 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

★2.0Megapixel high performance SONY322+NVP2441 sensor with 25/30fps@1080P, no compressed, no delay, and real-time transmission image .

★Built in IR-CUT, ensure the camera work properly both day and night.

★IP66 waterproof standard

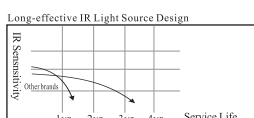
★Long-life IR LED design, whose brightness is several times higher and service life longer than ordinary LED's

★SMART-IR,20 meters IR range

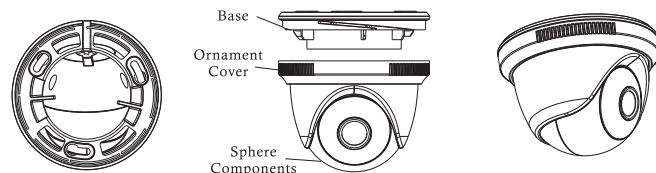
★Image transmission up to 500 meters.

★Adopts special algorithm, reducing video and color noise and thus improve image resolution, to produce clearer and sharper image.

★Powerful OSD menu allows for various function settings.

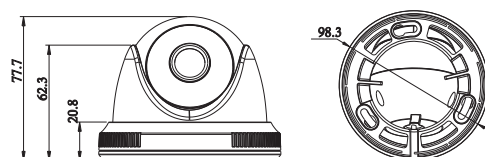


### PARTS INSTRUCTION AND INSTALLATION



- Affix the Installation instructions to the wall;
  - cement wall: drill a hole according to the stickers position and put the plastic expansion pipe into this hole;
  - wooden wall: no need drill a hole.
- Hold the pedestal, clockwise rotate the decorative cover and remove the pedestal.
- Let base holes align the holes on the wall and use screws to secure the base on the wall.
- put the Sphere components into the up cover, then put the decorative covers to this up case
- assemble the Sphere components, roof cover and decorative cover, put the whole into the pedestal, then counterclockwise rotate the decorative cover the first gear
- This series of camera has a three-axis adjustment function, the direction of this as shown in the picture
- finally counterclockwise rotate the decorative cover into the second gear to fix the sphere, then finish the installation.

### DIMENTION(MM)



### SPECIFICATION

|                            |                                   |
|----------------------------|-----------------------------------|
| Model                      | BLSDFP20/2.0FHD                   |
| Sensor                     | SONY322+NVP2441                   |
| Effective Pixels           | 1920(H)x1080(V)                   |
| Video Frame Rate           | 25/30fps@1080P                    |
| Max. transmission distance | 500M                              |
| Video format               | PAL/NTSC                          |
| Mini-illumination          | 0Lux (IR ON)                      |
| S/N Ration                 | More than 80dB (with AGC OFF)     |
| OSD                        | Support                           |
| AGC                        | AUTO                              |
| White Balance              | AUTO                              |
| Backlight                  | AUTO                              |
| NR                         | 2D-DNR/3D-DNR                     |
| Brightness                 | Adjustable                        |
| Smart IR                   | Support                           |
| Sync code                  | Internal                          |
| Voltage                    | DC12V                             |
| Current                    | 200mA±15%(IR ON);80mA±15%(IR OFF) |
| DAY/NIGHT                  | Support ICR                       |
| Lens                       | 3.6mm HD Lens                     |
| IR range                   | 20m                               |
| Waterproof standard        | IP66                              |
| Video output               | AHD/CVBS                          |
| Storage temperature        | -20℃~70℃                          |
| Operate Temperature        | -10℃~50℃RH90% MAX                 |
| Size                       | 98.3mm (H)*77.7mm(Φ)              |
| Weight                     | 269g ±15%                         |

\*Specifications subject to change without notice.

EN-A01-524F-20150529

## OSD MENU

Press the button into the main menu, set the LENS mode, EXPOSE, BACKLIGHT, WHITE BALANCE, DAY&NIGHT, NR, SPECIAL, ADJUST as needed.

| MAIN MENU   |  |
|-------------|--|
| 1.LENS      | DC (MANUAL)                                  |
| 2.EXPOSURE  | ↵  |
| 3.BACKLIGHT | OFF (BLC, HSBLC)                             |
| 4.WHITE BAL | ATW(AWC → SET, INDOOR, OUTDOOR, MANUAL, AWB) |
| 5.DAY&NIGHT | EXT (AUTO, COLOR, B/W)                       |
| 6.NR        | ↵  |
| 7.SPECIAL   | ↵  |
| 8.ADJUST    | ↵  |
| 9.EXIT      | RET  |

1. LENS  
After set the LENS mode, press the menu button into the submenu, can adjust the P-IRIS MODE, LEVEL and LIMIT as needed.

| DC LENS MODE |                 |
|--------------|-----------------|
| 1.MODE       | INDOOR(OUTDOOR) |
| 2.IRIS SPEED | 8 (0-15)        |
| 3.RETURN     | RET             |

| OUTDOOR MODE |   |
|--------------|---|
| 1.MIN SHU    | DC (MANUAL)   |
| 2.MAX SHU    | 1/50(1/200, 1/400, 1/1000, 1/2000, 1/5000, 1/10000, 1/50000, FLK) |
| 3.RETURN     | ATW(AWC → SET, INDOOR, OUTDOOR,                                   |

2. EXPOSURE  
Press the menu button into the expose's submenu, set the SHUTTER\AGC\ SENS-UP\ BRIGHTNESS\ D-WDR and DEFOG as needed.

| EXPOSURE     |               |
|--------------|---------------|
| 1.SHUTTER    | ---           |
| 2.ACG        | 15 (0-15)     |
| 3.SENS-UP    | OFF(ON)       |
| 4.BRIGHTNESS | 34 (0-100)    |
| 5.D-WDR      | AUTO(OFF, ON) |
| 6.DEFOG      | OFF(AUTO)     |
| 7.RETURN     | RET           |

| D-WDR    |         |
|----------|---------|
| 1.LEVEL  | 0 (0-8) |
| 2.RETURN | RET     |

| DEFON       |         |
|-------------|---------|
| 1.POS/SIZE  | ↵       |
| 2.GRADATION | 0 (0-2) |
| 3.DEFAULT   | ↵       |
| 4.RETURN    | RET     |

3. BLC  
Press the menu button into the BLC's submenu, set the GAIN\ AREA\ DEFAULT as needed.

| BLC       |                   |
|-----------|-------------------|
| ▶ 1.GAIN  | MIDDLE(HIGH, LOW) |
| 2.AREA    | ↵                 |
| 3.DEFAULT | ↵                 |
| 4.RETURN  | RET(END)          |

| HSBLC        |                 |
|--------------|-----------------|
| 1.SELECT     | AUTO(ARE1-ARE4) |
| 2.DISPLAY    | ON(OFF)         |
| 3.BLACK MASK | ON(OFF)         |
| 4.LEVEL      | 20 (0-100)      |
| 5.MODE       | ALL DAY(NIGHT)  |
| 6.DEFAULT    | ↵               |
| 7.RETURN     | RET             |

4. WB (WHITE BALANCE)  
Press the menu button into the WB's submenu, set the BLUE\ RED tone as needed.

| NIGHT       |            |
|-------------|------------|
| 1.AGC GRADE | 20 (0-100) |
| 2.RETURN    | RET        |

| MANUAL WB |            |
|-----------|------------|
| 1.BLUE    | 50 (0-100) |
| 2.RED     | 50 (0-100) |
| 3.RETURN  | RET        |

5. D&N (DAY & NIGHT)  
Press the LEFT OR RIGHT button choose the D&N's mode, and then press the menu button into the submenu, set the params as needed.

| D&N EXT     |          |
|-------------|----------|
| 1.D-N DELAY | 2 (0-60) |
| 2.N-D DELAY | 2 (0-60) |
| 3.RETURN    | RET      |

| D&N AUTO    |           |
|-------------|-----------|
| 1.D→N(AGC)  | 18 (0-18) |
| 2.D-N DELAY | 1 (0-60)  |
| 3.N→D(AGC)  | 18 (0-18) |
| 4.N-D DELAY | 1 (0-60)  |
| 5.RETURN    | RET       |

| B/W        |     |
|------------|-----|
| 1.BURST    | RET |
| 2.IR SMART | RET |
| 3.RETURN   | RET |

| IR SMART |          |
|----------|----------|
| 1.LEVEL  | 2 (0-15) |
| 2.AREA   | ↵        |
| 3.RETURN | RET      |

6. NR (NOISE REDUCE)  
Press the menu button choose the NR mode, and then press the menu button into the submenu, set the params as needed.

| NR       |      |
|----------|------|
| 1.2D NR  | HIGH |
| 2.3D NR  | LOW  |
| 3.RETURN | RET  |

7. Special  
Press the menu button into the submenu, set the CAMERA TITLE, D-EFFECT, MOTION, PRIVACY, LANGUAGE DEFECT as needed.

| SPECIAL     |   |
|-------------|---|
| 1.CAM TITEL | OFF (ON)  |
| 2.D-EFFECT  | ↵   |
| 3.MOTION    | OFF (ON)  |
| 4.PRIVACY   | ATW(AWC → SET, INDOOR, OUTDOOR, END (CHN1, CHN2, TUR, NED, POR, RUS, POL, SPA, ITA, FRA, GER) |
| 5.LANGUAGE  | ↵   |
| 6.DEFECT    | ↵   |
| 7.RS485     | ↵   |
| 8.RETURN    | RET   |

| SPECIAL |                       |
|---------|-----------------------|
|         | 0 1 2 3 4 5 6 7 8 9   |
|         | A B C D E F G H I J K |
|         | L M N O P Q R S T U V |
|         | W X Y Z ▶ ▶ ▶ ◀ ◀ ◀   |
|         | ( ) --- ■ / = & ~ , . |
|         | ◀ ▶ CLR POS END       |
|         | AHD 2.0               |
|         | -----                 |

| D-EFFECT    |                             |
|-------------|-----------------------------|
| 1.FREEZE    | OFF(ON)                     |
| 2.MIRROR    | OFF(MIRROR, V-FLIP, ROTATE) |
| 3.NEG IMAGE | OFF(ON)                     |
| 4.RETURN    | RET                         |

| MOTION        |                            |
|---------------|----------------------------|
| 1.SELECT      | AREA1(AREA2, AREA3, AREA4) |
| 2.DISPLAY     | ON (OFF)                   |
| 3.SENSITIVITY | GREEN                      |
| 4.COLOR       | 64 (0-100)                 |
| 5.TRANS       | 1.00                       |
| 6.ALARM       | ↵                          |
| 7.DEFAULT     | ↵                          |
| 8.RETURN      | RET                        |

| PRIVACY   |                            |
|-----------|----------------------------|
| 1.SELECT  | AREA1(AREA2, AREA3, AREA4) |
| 2.DISPLAY | COLOR (MOZAIC)             |
| 3.COLOR   | WHITE                      |
| 4.TRANS   | 1.00                       |
| 5.DEFAULT | ↵                          |
| 6.RETURN  | RET                        |

| DEFECT      |         |
|-------------|---------|
| 1.LIVE DPC  | OFF(ON) |
| 2.WHITE DPC | ON      |
| 3.BLACK DPC | ON      |
| 4.RETURN    | RET     |

| LIVE DPC    |             |
|-------------|-------------|
| 1.AGC LEVEL | 64 (0-100)  |
| 2.LEVEL     | 100 (0-100) |
| 3.RETURN    | RET         |

| WHITE DPC  |   |
|------------|---|
| 1.POS/SIZE | ↵                                       |
| 2.START    | ↵                                       |
| 3.DPC VIEW | OFF                                     |
| 4.LEVEL    | 8 (0-100)                               |
| 5.AGC      | 14 (0-15)                               |
| 6.SENS-UP  | x2(x4, x6, x8, x10, x15, x20, x25, x30) |
| 7.RETURN   | RET                                     |

| BLACK DPC  |             |
|------------|-------------|
| 1.POS/SIZE | ↵           |
| 2.START    | ↵           |
| 3.DPC VIEW | OFF         |
| 4.LEVEL    | 100 (0-100) |
| 5.RETURN   | RET         |

| RS485        |                             |
|--------------|-----------------------------|
| 1.CAM ID     | 0 (0-255)                   |
| 2.ID DISPLAY | OFF(ON)                     |
| 3.BAUDRATE   | 38400(2400/4800/9600/19200) |
| 4.RETURN     | RET                         |

8. ADJUST  
Press the menu button into the submenu, set the SHARPNESS, MINITOR, LSC, VIDEO OUT as needed.

| ADJUST      |      |
|-------------|------|
| 1.SHARPNESS | AUTO |
| 2.MONITOR   | LCD  |
| 3.LSC       | ON   |
| 4.VIDEO.OUT | PAL  |
| 5.RETURN    | RET  |