HD-TVI Motorized Vari-focal IR Bullet Camera

User Manual

Thank you for purchasing our product. If there are any questions, or requests, please do not hesitate to contact the dealer.

This manual applies to motorized vari-focal IR bullet camera.

This manual may contain several technical incorrect places or printing errors, and the content is subject to change without notice. The updates will be added to the new version of this manual. We will readily improve or update the products or procedures described in the manual.

Privacy Notice

Surveillance laws vary by jurisdiction. Check all relevant laws in your jurisdiction before using this product for surveillance purposes to ensure that your use of this product conforms.

Please refer to the product specification for camera parameters and functions.

1 Introduction

1.1 Product Features

This series of camera adopts new generation sensor with high sensitivity and advanced circuit design technology. It features high resolution, low image distortion and low noise, etc., which makes it suitable for surveillance system and image processing system.

- HD1080p video output
- 0.1Lux @ (F1.2,AGC ON), 0 Lux with IR
- 5-50mm motorized VF lens, auto focus
- Smart IR Mode
- OSD menu, parameters are configurable
- Auto white balance, auto gain control, WDR funtion
- High performance 2MP CMOS sensor and high resolution bring high-quality image;

2 Installation

1.2 Overview

1.2.1 Overview of Vari-Focal IR Bullet Camera

Power Cable
HD Video Cable
CVBS Cable
Mounting Base
Sun Shield
Motorized Vari-Focal Lens
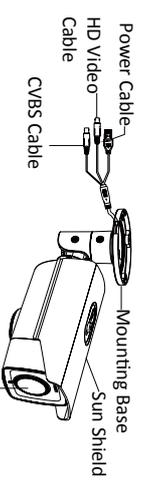
Figure 1-1 Overview of Bullet Camera

Before you start:

- Please make sure that the device in the package is in good condition and all the assembly parts are included.
- Make sure that all the related equipment is power-off during the installation.
- Check the specification of the products for the installation environment.
- Check whether the power supply is matched with your power output to avoid damage.
- If the product does not function properly, please contact your dealer or the nearest service center. Do not disassemble the camera for repair or maintenance by yourself.

2.1 Ceiling Mounting

Steps:

1. Drill the screw holes and the cable hole in the ceiling according to the supplied drill template.
2. Hammer the supplied plastic expansion bolt into the screw holes.
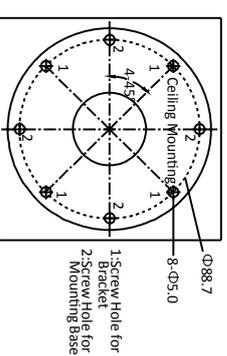
Figure 2-1 Drill Template

Φ88.7
8-Φ5.0
1:Screw Hole for Bracket
2:Screw Hole for Mounting Base
Ceiling Mounting

3. Route the cables to the cable hole and connect the corresponding cables.
4. Fix the camera to the ceiling with the supplied PA4 screws.

Device supports 12V DC and 24V AC power supply. Heater function will only be enabled with 24V AC.
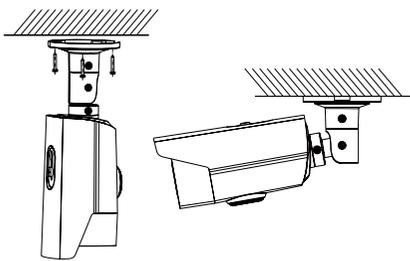
Figure 2-2 Fix the Camera to the Ceiling

5. Rotate the cover of camera anticlockwise and the direction button, auxiliary video interface, and the DIP switch show.

2
3
1

1. Direction Button
2. Auxiliary Video Output
3. DIP Switch

Figure 2-3 Image Adjustment

NOTE

● A small monitor can be connected to the auxiliary video output to adjust the video.
● DIP switch is used to enable/disable WDR function. (By disabling WDR function, video output can be realized by both CVBS output and HD video output.) (By enabling WDR function, video output cannot be realized by CVBS output.)

6. Adjust the surveillance angle.
1). Loosen No.1 adjusting screw to adjust the pan position (0° ~ 360°).
2). Loosen No.2 adjusting screw to adjust the tilting position(0° ~ 90°).
3). Loosen No.3 adjusting screw to adjust the rotation position(0° ~ 360°).
4). Tighten the adjusting screws.

360°
1
2
90°
3
360°

Figure 2-4 3-axis Adjustment

2.2 Wall Mounting

Steps:

1. Drill the screw holes and the cable hole in the ceiling according to the supplied drill template.
2. Hammer the supplied plastic expansion bolt into the screw holes.
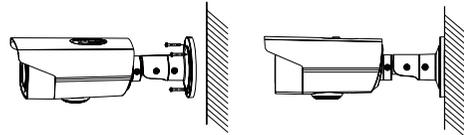
Figure 2-5 Fix the Camera to the Wall

3. Route the cables to the cable hole and connect the corresponding cables.
4. Fix the camera to the ceiling with the supplied PA4 screws.
5. Adjust the surveillance angle as shown in the figure 2-4.

3 Menu Operation
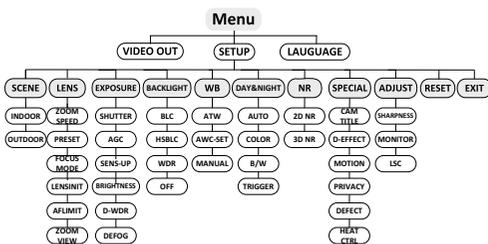
Figure 3-1 Main Menu

NOTE

You can call the menu and adjust the camera parameters with the direction button or a coaxial camera controller (purchase separately). You can also call the menu with supported DVR.

3.1 VIDEO.OUT
PAL or NTSC is selectable .

3.2 LANGUAGE
Chinese and English are selectable.

3.3 SETUP
3.3.1 SCENE
You can select indoor and outdoor scene modes according to the working environments.

3.3.2 LENS
The camera is equipped with 5-50mm motorized vari-focal lens.
Click Zoom + and Zoom - on the DVR PTZ to zoom in and zoom out. The camera automatically focuses after zooming in/out.
ZOOM SPEED: Move the cursor left/right to adjust the zoom speed.
PRESET: You can set, delete, and call the preset. 1 to 64 presets are configurable.

FOCUS MODE: Manual, Auto, and Trigger modes are selectable. In auto mode, the camera focuses automatically, and in manual mode, you can click Zoom+ and Zoom- to focus.
LENSINIT: You can reset the lens.
AFLIMIT: 20m, 10m, 6m, 3m, 1.5m, 1m, 30cm, and 10cm are selectable as the Min. focus distance limit.
ZOOM VIEW: Enable the zoom view and the zoom ratio displays while lens zooming in/out.
3.3.3 EXPOSURE
EXPOSURE: Manual and IRIS-PRI are selectable.
SHUTTER: AUTO,1/25, 1/75, 1/100, 1/120…1/3.5k, 1/6k, 1/10k, 1/20k and 1/30 kare selectable.
AGC: You can set the AGC value from 0 to 15.
SENS-UP: You can set the SENS-UP to OFF or AUTO.
BRIGHTNESS: You can set the brightness value from 1 to 14.
D-WDR: You can set the D-WDR as ON or OFF.
DEFOG: You can set the defog function as ON to enable the function. Position, size, and the defog gradation are configurable.

EXPOSURE	
1. EXPOSURE	IRIS-PRI
2. SHUTTER	AUTO
3. AGC	OFF
4. SENS-UP	---
5. BRIGHTNESS	---|------ 40
6. D-WDR	OFF
7. DEFOG	OFF
8. RETURN	RETURN

Figure 3-2 Exposure

HSBLC	
1. SELECT	AREA 1
2. DISPLAY	ON ↵
3. LEVEL	---|------ 20
4. MODE	ALL DAY
5. BLACK MASK	ON
6. DEFAULT	↵
7. RETURN	RETURN

Figure 3-3 HSBLC

3.3.4 Backlight
WDR: Set the WDR status as ON or OFF.
Backlight Compensation (BLC):
-GAIN: Set the gain of BLC as High, Middle, or Low.
-AREA: Press the up/down/left/right button to define the BLC position and size. Select RET or AGAIN to go back the BLC menu or re-define the BLC area.
-Default: Restore the BLC settings to the default.
HSBLC: Select an HSBLC area. Set the DISPLAY status as ON. Press the up/down/left/right button to define the area position and size. Set the HSBLC LEVEL from 0 to 100. Select ALL DAY or Night for the HSBLC mode. Set the BLACK MASK status as ON or OFF.

3.3.5 White Balance (WB)
MANUAL, ATW (Auto-tracking White Balance), AWC→SET are selectable.

3.3.6 Day & Night
Auto, Trigger, Color, and B/W are selectable for DAY and NIGHT switches. You can enable IRF in trigger mode.

3.3.7 NR
2D NR: You can set 2D NR status as ON or OFF.
3D NR: Set the Smart NR status as ON and adjust the 3D smart NR sensitivity ranges from 0 to 100. Set the 3D NR LEVEL ranges from 0 to 100. Set the

START. AGC level as the threshold to enable AGC, and set the END. AGC level as the threshold to disable AGC.

2D&3D NR	
1. 2DNR	OFF
2. 3DNR	ON ↵
3. RETURN	RETURN

Figure 3-4 NR

3D NR	
1. SMART NR	OFF
2. LEVEL	------|--8 0
3. START. AGC	-|--------10
4. END. AGC	-|--------10
5. RETURN	RETURN

Figure 3-5 3D NR

3.3.8 SPECIAL
Camera Title: Edit the camera title on this section.
D-effect:
-FREEZE: Set the freeze function as ON or OFF.
-MIRROR: OFF, MIRROR, V-FLIP, and ROTATE are selectable for mirror.
-D-ZOOM: Define the zoom ratio of certain area from 2 to 62.
-NEG.IMAGE: Set the NEG IMAGE as ON or OFF.

SPECIAL	
1. CAM TITLE	OFF
2. D-DFFECT	↵
3. MOTION	OFF
4. PRIVACY	OFF
5. DEFECT	↵
6. HEATCTRL	↵
7. RETURN	RETURN

MOTION	
1. SELECT	AREA 1
2. DISPLAY	ON↵
3. SENSITIVITY	----|---- 30
4. MOTION VIEW	ON
5. DEFAULT	↵
6. RETURN	RETURN

Figure 3-6 Special   Figure 3-7 Motion Detection

Motion: Select a MOTION area. Set the DISPLAY status as ON or OFF. Press the up/down/left/right button to define the position and size of the area. Set the SENSITIVITY from 0 to 100. Set the MOTION VIEW status as ON or OFF.
Privacy: Select a PRIVACY area. Set the DISPLAY status as INV, MOSAIC, COLOR or OFF. Press the up/down/left/right button to define the position and size of the area. Up to 8 areas are configurable.
Defect: LIVE DPC and STATIC DPC are selectable in this section.

PRIVACY	
1. SELECT	AREA 1
2. DISPLAY	MOSAIC ↵
3. COLOR	10
4. TRANS.	1
5. DEFAULT	↵
6. RETURN	RETURN

ADJUST	
1. SHARPNESS	--------|15
2. MONITOR	LCD↵
3. LSC	OFF
4. RETURN	RETURN

Figure 3-8 Privacy Mask   Figure 3-9 Adjust

HEAT CTRL: AUTO, ON and OFF are selectable in this section.

3.3.9 ADJUST
Sharpness: Adjust the sharpness from 0 to 15.
Monitor: Monitor CRT, and Monitor LCD are selectable.
LSC: Set the LSC status as ON or OFF.
3.3.10 RESET
Reset all the settings to the default.
3.3.11 EXIT
Press OK to exit the menu.