

Bullet Camera HD-TVI Motorized Vari-focal IR

User Manua

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

bullet camera This manual applies to motorized vari-focal IR

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

Privacy Notice

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

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

Regulatory Information

FCC Information

a residential area is likely to cause harmful communications. Operation of this equipment in in accordance with the instruction manual, may generates, uses, and can radiate radio a commercial environment. This equipment Rules. These limits are designed to provide tested and found to comply with the limits for a FCC compliance: This equipment has been required to correct the interference at his own interference in which case the user will be cause harmful interference to radio trequency energy and, if not installed and used interference when the equipment is operated in reasonable protection against harmful digital device, pursuant to part 15 of the FCC

FCC Conditions

expense.

conditions: Rules. Operation is subject to the following two This device complies with part 15 of the FCC

- 1. This device may not cause harmful interference.
- 2. This device must accept any interference cause undesired operation. received, including interference that may

EU Conformity Statement

supplied accessories too are marked with "CE" and comply therefore with the applicable harmonized Europear This product and - if applicable - the

standards listed under the Low Voltage Directive the RoHS Directive 2011/65/EU. 2006/95/EC, the EMC Directive 2004/108/EC,

2012/19/EU (WEEE directive):



municipal waste in the European cannot be disposed of as unsorted Union. For proper recycling, return Products marked with this symbol this product to your local supplier

upon the purchase of equivalent new equipment. or dispose of it at designated collection points. For more information see: www.recyclethis.info

> See the product documentation for specific 2006/66/EC (battery directive):This be disposed of as unsorted municipal product contains a battery that cannot waste in the European Union.

more information see: www.recyclethis.info. supplier or to a designated collection point. For For proper recycling, return the battery to your indicate cadmium (Cd), lead (Pb), or mercury (Hg) this symbol, which may include lettering to battery information. The battery is marked with

standards requirements. This device meets the CAN ICES-3 (A)/NMB-3(A). Industry Canada ICES-003 Compliance

1 Introduction

1.1 Product Features

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

- 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 2 MP CMOS sensor and high
- resolution bring high-quality image;

õ.

Heater function will only be enabled with 24V AC. Device supports 12V DC and 24V AC power supply.

1.2 Overview

1.2.1 Overview of Vari-Focal IR Bullet Camera



Figure 1-1 Overview of Bullet Camera

Motorized Vari-Focal Lens

2 Installation

Before you start:

- Please make sure that the device in the package are included. is in good condition and all the assembly parts
- 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
- If the product does not function properly, with your power output to avoid damage.
- service center. Do not disassemble the camera please contact your dealer or the nearest for repair or maintenance by yourself.

2.1 Ceiling Mounting

Steps:

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



Figure 2-1 Drill Template

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

PA4 screws



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.



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 ($0^{\circ} \sim 360^{\circ}$).

2). Loosen No.2 adjusting screw to adjust the tilting position $(0^{\circ} \sim 90^{\circ})$.

3). Loosen No.3 adjusting screw to adjust the rotation position ($0^{\circ} \sim 360^{\circ}$).

4). Tighten the adjusting screws.



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

Menu	
VIDEO OUT SETUP	LAUGUAGE
SCENE LENS EXPOSURE BACKLIGHT WB DAY&NIG	HT NR SPECIAL ADJUST RESET EXIT
INDOOR SPEED SHUTTER BLC ATW AUTO	2D NR CAM SHARPNESS
OUTDOOR PRESET AGC HSBLC AWC-SET COLOR	3D NR D-EFFECT (MONITOR
MODE SENS-UP WDR MANUAL B/W	
	PRIVACY
AFLIMIT D-WDR	DEFECT
ZOOM VIEW DEFOG	CTRL

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		HSBL	HSBLC	
1. EXPOSURE 2. SHUTTER 3. AGC 4. SENS-UP 5. BRIGHTNESS 6. D-WDR 7. DEFOG 8. RETURN	IRIS-PRI AUTO OFF 40 OFF OFF RETURN	1. SELECT 2. DISPLAY 3. LEVEL 4. MODE 5. BLACK MASK 6. DEFAULT 7. RETURN	AREA 1 ON	
Figure 3-2 Exposure		Figure 3-3	HSBL	

ALL DAY ON RETURN

--|---- 20

Figure 3-3 HSBLC

3.3.4 Backlight

1. 2.

3.

WDR: Set the WDR status as ON or OFF. **Backlight Con**

-GAIN: Set th w. -AREA: Press 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 \rightarrow 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	3D NR 1. SMART NR OFF 2. LEVEL 8 0
2. 3DNR ON ↔ 3. RETURN RETURN	3. START. AGC - 10 4. END. AGC - 10 5. RETURN RETURN
Figure 3-4 NR	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.

SPECI	AL	MOTION	
1. CAM TITLE	OFF		
2. D-DFFECT	ب	1. SELECT	AREA 1
3. MOTION	OFF	2. DISPLAY	ON⊷
4. PRIVACY	OFF	3. SENSITIVITY	30
5. DEFECT	ц.	4. MOTION VIE	EW ON
6. HEATCTRL	ц.	5. DEFAULT	ц
7. RETURN	RETURN	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			ADJUST	
1. SELECT	AREA 1			
2. DISPLAY	MOSAIC -		1. SHARPNESS	15
3. COLOR	10		2. MONITOR	LCD⊷
4. TRANS.	1		3. LSC	OFF
5. DEFAULT	ц		4. RETURN	RETURN
6. RETURN	RETURN			
ure 3-8 Privacy Mask		Figure 3-9	9 Adjust	

Figure 3-8 Privacy Mask

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.

WDR Status us ON OF OFF.
npensation (BLC):
e gain of BLC as High, Middle, or Lov
the up/down/left/right button to