



# TURBO HD HLC HD Bullet Camera

## User Manual

**UD.6L0201D2020A01**

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 DS-2CE16C8T-IW3Z model HLC HD 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.

## Regulatory Information

### FCC Information

**FCC compliance:** This equipment has been tested and found to comply with the limits for a digital device, pursuant to part 15 of the FCC 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.

### FCC Conditions

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

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

### EU Conformity Statement



This product and - if applicable - the supplied accessories too are marked with "CE" and comply therefore with the applicable harmonized European standards listed under the Low Voltage Directive 2006/95/EC, the EMC Directive 2004/108/EC, the RoHS Directive 2011/65/EU.



2012/19/EU (WEEE directive): Products marked with this symbol cannot be disposed of as unsorted municipal waste in the European Union. For proper recycling, return 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](http://www.recyclethis.info).



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

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

### Industry Canada ICES-003 Compliance

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

## 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.

- High performance 1.37MP CMOS sensor and high resolution bring high-quality image
- OSD menu, parameters are configurable
- White Light Compensation
- 3D NR
- Auto white balance, auto gain control
- IP 66

### 1.2 Overview

#### 1.2.1 Overview of HLC Bullet Camera

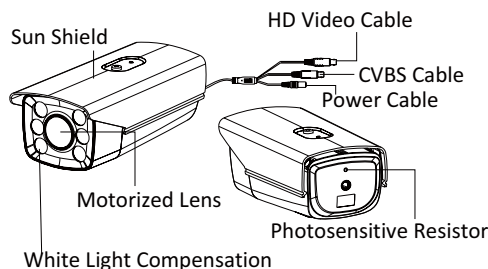


Figure 1-1 Overview of Bullet Camera

## 2 Installation

### 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.



Make sure that the wall is strong enough to withstand at least 4 times the weight of the camera and the bracket.

### 2.1 Wall Mounting

#### Steps:

1. Depart the tiltable bracket module from the bracket, as shown in Figure 2-1.

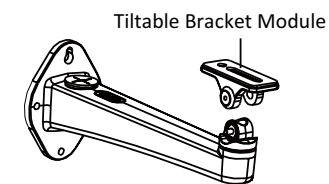


Figure 2-1 Depart the Tiltable Bracket Module

2. Fix the bracket onto the wall with M6 expansion screws, as shown in the figure 2-2.

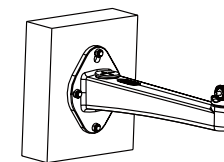


Figure 2-2 Fix the Bracket onto the Wall

- Attach the tiltable bracket module to the camera with the supplied 1/4-20UNC screws.

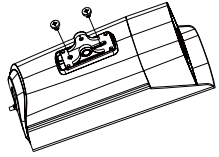


Figure 2-3 Attach the Tiltable Bracket Module

- Route the cables to the cable hole and connect the corresponding cables.
- Fix the camera and the tiltable bracket module to the bracket.

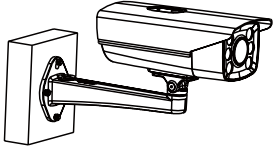
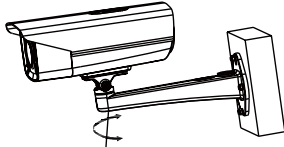
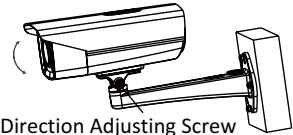


Figure 2-4 Fix the Camera to the Bracket

- Adjust the viewing angle.
  - Loosen P-Direction adjusting screw to adjust the pan position (0° ~ 360°).
  - Loosen T-Direction adjusting screw to adjust the tilting position (0° ~ 90°).



P-Direction Adjusting Screw



T-Direction Adjusting Screw

Figure 2-5 Image Adjustment

## 2.2 Pendent Mounting

### Steps:

- Attach the pole bracket to the pole with the supplied M6\*20\_3pcs screws.

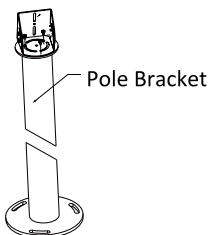


Figure 2-6 Fix the Bracket onto the Pole

- Attach the camera to the pole with the supplied 1/4-20UNC screws.

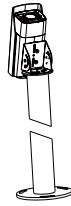


Figure 2-7 Attach the Bracket to the Camera

- Adjust the viewing angle.
  - Loosen P-Direction adjusting screw to adjust the pan position (0° ~ 360°).
  - Loosen T-Direction adjusting screw to adjust the tilting position (0° ~ 180°).

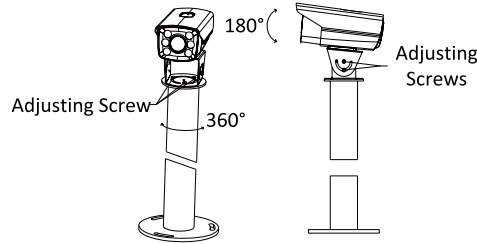


Figure 2-8 Image Adjustment

## 3 Menu Operation

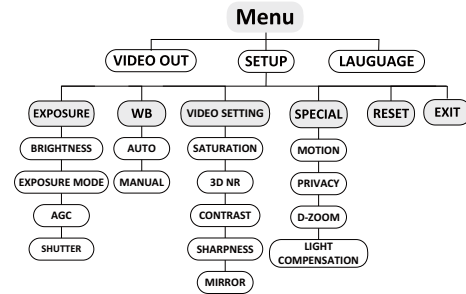


Figure 3-1 Main Menu



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 SET UP

#### 3.3.1 FOCUS

- Enter the focus interface and adjust the camera towards the scene.
- Move the cursor to FOCUS+ (-) and click to focus, and move the cursor to ZOOM+(-) and click to zoom in and out.
- After adjusting the camera lens, click Iris+ to save the settings and exit the focus interface.

#### 3.3.2 EXPOSURE

Move the cursor to EXPOSURE and confirm to enter the exposure setting interface. You can set the value of brightness, select the exposure mode, AGC and enable/disable the shutter.

**BRIGHTNESS:** You can set the brightness value from 1 to 10.

**EXPOSURE:** Global and HLC mode are selectable.

**AGC:** You can set the AGC as High, Middle, and Low.

**SHUTTER:** The default value is 1/100. You can set a higher shutter value as to improve the image quality when the vehicle speed is very high.

EXPOSURE	
1. BRIGHTNESS	-- -----10
2. EXPOSURE	HLC
3. AGC	HIGH
4. SHUTTER	OFF

Figure 3-2 Exposure

#### 3.3.3 White Balance (WB)

Move the cursor to White Balance and press left/right direction key to select the white balance mode as Manual and Auto.

Select manual mode and enter the white balance setting interface. You can adjust the value of Red and Blue.

MANUAL	
1. RED	5
2. BLUE	4
3. RETURN	

Figure 3-3 White Balance

#### 3.3.4 VIDEO SETTINGS

Move the cursor to Video Settings and confirm to enter the video setting interface.

VIDEO SETTING	
1. CONTRAST	5
2. SHARPNESS	↔
3. SATURATION	6
4. 3D NR	OFF
5. MIRROR	OFF
6. RETURN	↔

Figure 3-4 Video Settings

**Contrast:** Adjust the contrast from 1 to 10.

**Sharpness:** Adjust the sharpness from 1 to 10.

**Saturation:** Adjust the saturation from 1 to 10.

**3D NR:** Select the 3D NR level from high, middle, and low.

**Mirror:** Central, Vertical, Horizontal, and OFF are selectable.

#### 3.3.5 SPECIAL

Move the cursor to Special and confirm to enter the video setting interface. You can set the motion detection, privacy mask, digital zoom, and light compensation, as shown in the figure 3-5.

SPECIAL	
1. Motion	↔
2. Privacy Mask	↔
3. D-Zoom	-- -----20
4. Light	OFF
5. RETURN	↔

Figure 3-5 Special

**Motion:** Select a MOTION area. Set the sensitivity level as high, middle, or low.

Four areas are selectable for setting the motion detection.

MOTION	
1. SENSITIVITY	HIGH
2. AREA 0	↔
3. AREA 1	↔
4. AREA 2	↔
5. AREA 3	↔
6. RETURN	↔

Figure 3-6 Motion Detection

**Privacy:** Move the cursor to Privacy and confirm to enter the video setting interface. You can select the privacy color as mosaic, white, yellow, green, and other colors. Up to eight areas can be set.

#### 3.3.6 DIGITAL ZOOM

Move the cursor to D-Zoom and set the zoom ratio by pressing left/right direction keys. The zoom ratio range varies from 50 to 100.

#### 3.3.7 LIGHT COMPENSATION

Move the cursor to Light Compensation and set the light mode as ON, OFF, or AUTO.

The light compensation level can be set from 1 to 5.

#### 3.3.8 RESET

Reset all the settings to the default.

#### 3.3.9 EXIT

Press **OK** to exit the menu.