HIKVISION

Vehicle-Mounted Came

User Manual



UD02783B-A

User Manual

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

This manual applies to Vehicle-Mounted Camera.

This manual may contain several technically incorrect places or printing errors. The content is subject to change without notice, and 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.

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 2014/35/EC, the EMC Directive 2014/30/EC.

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.

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.

Industry Canada ICES-003 Compliance

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

Safety Instruction

These instructions are intended to ensure that user can use the product correctly to avoid danger or property loss.

The precaution measure is divided into "Warnings" and "Cautions"

Warnings: Seriousinjury or death may occur if any of the warnings are neglected.

Cautions: Injuryor equipment damage may occur if any of the cautions are neglected.

	
Warnings Follow these safeguards to prevent serious injury or death.	**Cautions** Follow these precautions to prevent potential injury or material damage.



Warnings

In the use of the product, you must be in strict compliance with the electrical safety regulations of the nation and region.

Refer to technical specifications for detailed information.

Input voltage should meet both the SELV (Safety Extra Low Voltage) and the Limited Power Source with AC 24V or DC 12V according to the IEC60950-1 standard. Refer to technical specifications for detailed information.

Do not connect several devices to one power adapter as adapter overload may cause over-heating or a fire hazard.

Make sure that the plug is firmly connected to the power socket.

When the product is mounted on wall or ceiling, the device shall be firmly fixed.

If smoke, odor or noise rise from the device, turn off the power at once and unplug the power cable, and then please contact the service center.

If the product does not work properly, contact your dealer or the nearest service center. Never attempt to disassemble the camera by yourself. (We shall not assume any responsibility for problems caused by unauthorized repair or maintenance.)



Cautions

Make sure the power supply voltage is correct before using the camera.

Do not drop the camera or subject it to physical shock.

Do not touch senor modules with fingers. If cleaning is necessary, use clean cloth with a bit of ethanol and wipe it gently. If the camera will not be used for an extended period, replace the lens cap to protect the sensor from dirt.

Do not aim the camera at the sun or extra bright places. Blooming or smearing may occur otherwise (which is not a malfunction), and affect the endurance of sensor at the same time.

The sensor may be burned out by a laser beam, so when any laser equipment is in using, make sure that the surface of sensor will not be exposed to the laser beam.

Do not place the camera in extremely hot, cold, dusty or damp locations, and do not expose it to high electromagnetic radiation.

To avoid heat accumulation, good ventilation is required for operating environment.

Keep the camera away from liquid while in use.

While in delivery, the camera shall be packed in its original packing, or packing of the same texture.

Symbol Conventions

The symbols that may be found in this document are defined as follows.

Symbol	Description
	Provides additional information to emphasize or supplement important points of the main text.
	Indicates a potentially hazardous situation, which if not avoided, could result in equipment damage, data loss, performance degradation,o r unexpected results.
	Indicates a hazard with a high level of risk, which if not avoided, will result in death or serious injury.

1 Introduction

1.1 Product Features

This series of camera adopts high performance sensor and advanced circuit board design technology. It features high resolution, low distortion, and low noise, etc. It is suitable for monitoring system and image process system.

The main features are as follows:

Low illumination, 0.1 Lux @ (F1.2, AGC ON), 0 Lux with IR.

High performance CMOS sensor and high resolution bring high-quality image.

Build-in microphone.

Aviation plug design.

Advanced 3-axis design meets different installation requirements.

1.2 Overview

1.2.1 Overview of Type I Camera

The overview of type I camera is shown below.

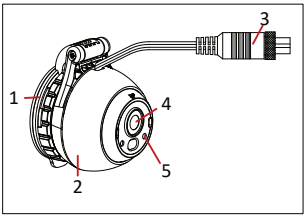


Figure 1-1 Overview of Type I Camera

Table 1-1 Description of Type I Camera

NO.	Description
1	Suction Mounting Base
2	Main Body
3	Aviation Plug
4	Lens
5	Microphone

1.2.2 Overview of Type II Camera

The overview of Type II camera is shown below.

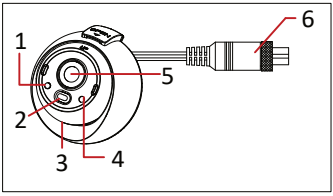


Figure 1-2 Overview of Type II Camera

Table 1-2 Description of Type II Camera

NO.	Description
1	Photosensitive Resistor
2	IR LED
3	Main Body
4	Microphone
5	Lens
6	Aviation Plug

1.2.3 Overview of Type III Camera

The overview of type III camera is shown below.

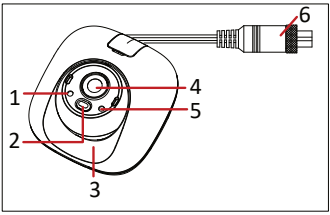


Figure 1-3 Overview of Type III Camera

Table 1-3 Description of Type III Camera

NO.	Description
1	Photosensitive Resistor
2	IR LED
3	Main Body
4	Lens
5	Microphone
6	Aviation Plug

1.2.4 Overview of Type IV Camera

The overview of type IV camera is shown below.

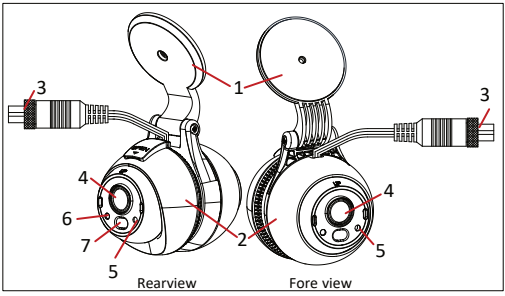


Figure 1-4 Overview of Type IV Camera

Table 1-4 Description of Type IV Camera

NO.	Description
1	Sunction Mounting Base
2	Main Body
3	Aviation Plug
4	Lens
5	Microphone
6	Photosensitive Resistor
7	IR LED

NOTE

The rearview camera of type IV camera has IR LED and it can monitor the inside of car. The fore view camera can monitor the outside of car.

1.3 Interfaces of Aviation Plug

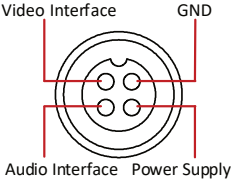


Figure 1-5 Interfaces of Aviation Plug

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 required output to avoid damage.

Please make sure the wall is strong enough to withstand four times the weight of the camera and the mounting.

If the wall is the cement wall, you need to insert expansion screws before you install the camera. If the wall is the wooden wall, you can use self-tapping screw to secure the camera.

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 Installation of Type I Camera

This camera supports windshield mounting with sticker. The installation steps are as follows.

Step 1 Loosen the secure screw of the camera, as shown in Figure 2-1.

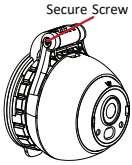
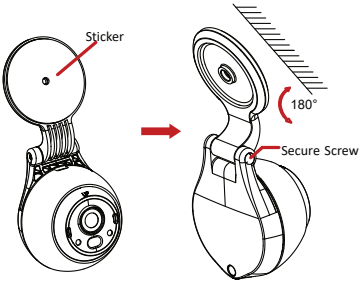


Figure 2-1 Secure Screw

Step 2 Adjust the double-side tape sticker base to a suitable installation angle.

Step 3 Press the double-side tape sticker base to the windshield.



Step 4 Adjust the camera angle.

Step 5 Secure the camera by tightening the secure screw.

2.2 Installation of Type II Camera

This camera supports wall mounting. Two methods are available for wall mounting of Type II camera. The following procedures are the wall mounting application with screws/sticker.

Step 1 Wall mounting with screws or sticker.

Attach the drill template (supplied) to the wall.(*wall mounting with screws*)

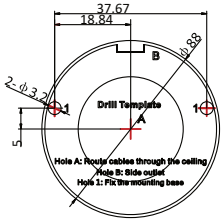


Figure 2-2 Drill Template

Attach the sticker to the base plate and align the notches of sticker to the screw holes. (*wall mounting with sticker*)

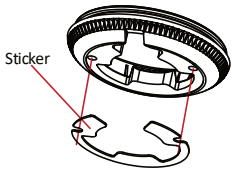


Figure 2-3 Attach the Sticker

Step 2 Route the cable through the cable hole. (in the cable notch)

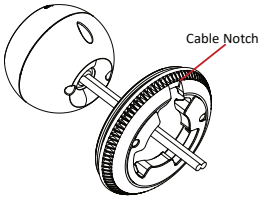


Figure 2-4 Route Cables

Step 3 Fix the base plate onto the wall with screws.(wall mounting with screws)

Step 4 Install the camera onto the wall. In Figure 2-7, part A is for wall mounting with sticker and press the camera to the wall. Part B is for wall mounting with screws and use screws to install the camera.

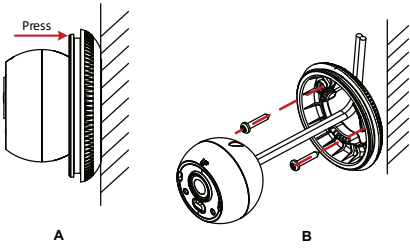


Figure 2-5 Install the Camera

Step 5 Make sure the enclosure is properly fixed with the base plate.

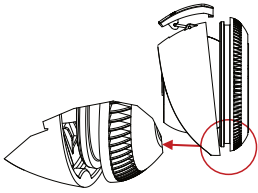


Figure 2-6 Enclosure

NOTE

Insert the clips of enclosure into the slot of the base plate.

Step 6 Insert the adjustment ring into the camera to perform the 3-axis adjustment.

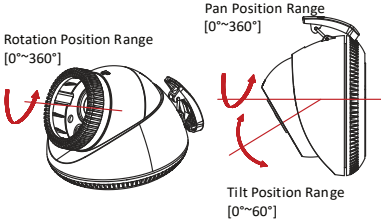


Figure 2-7 3-axis Adjustment

Step 7 Secure the camera by locking the lock catch.

2.3 Installation of Type III Camera

This camera supports in-ceiling mounting. The installation steps are as follows.

Step 1 Attach the drill template (supplied) to the ceiling.

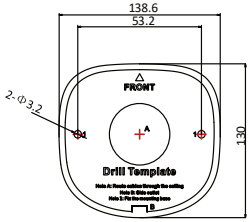


Figure 2-8 Drill Template

Step 2 Loosen the fixing screw and take apart the enclosure.

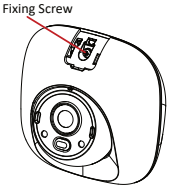


Figure 2-9 Take Apart the Enclosure

Step 3 Route the cable through the cable hole. (in the cable notch)

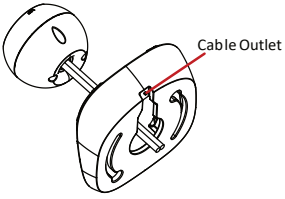


Figure 2-10 Route Cables

Step 4 Fix the base plate onto the wall with screws.

Step 5 Install the camera onto the ceiling.

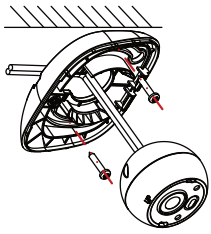


Figure 2-11 Install the Camera

Step 6 Make sure the enclosure is properly fixed with the base plate.

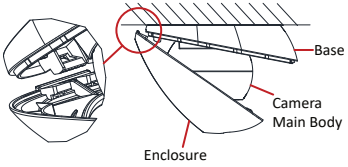


Figure 2-12 Enclosure

NOTE

Insert the clips of enclosure into the slot of the base plate.

Step 7 Insert the adjustment ring into the camera to adjust the angle of bracket position.

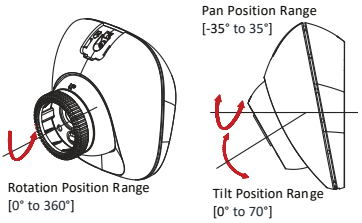


Figure 2-13 Adjust the Angle of Bracket Position

Step 8 Secure the camera by install the enclosure and fix the fixing screw.

2.4 Installation of Type IV Camera

This camera supports suction mounting. The installation steps are as follows.

Step 1 Tear off the protective film of the camera sticker, as shown in the figure.

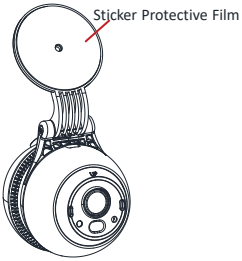


Figure 2-14 Sticker Protective Film

Step 2 Clear the front windshield of your vehicle and stick the camera onto it.

Step 3 Adjust the camera angle.

Step 4 Insert the adjustment ring into the camera to perform the 3-axis adjustment.

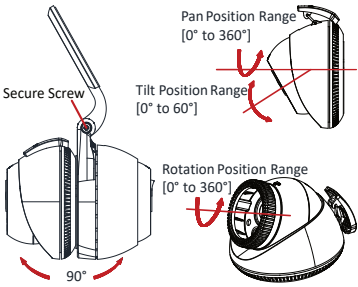


Figure 2-15 3-axis Adjustment

Step 5 Secure the camera by tightening the secure screw.

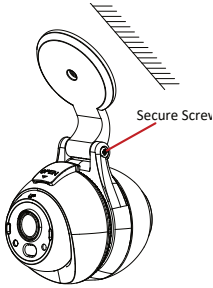


Figure 2-16 Secure the camera

3 PTZ Control

The PTZ function is only supported in vehicle mounted TVI dome camera, you can realize the related functions by calling presets. The details show as follows.

3.1 Camera Control

Restart the Camera

You can restart the camera by calling the preset NO. 94.

Restore Default Settings

You can restore default settings by calling the preset NO. 144

3.2 Day/Night Switch Mode

AGC mode can be realized via AGC judgement and IR mode can be realized via photosensitive resistor.

Enable AGC Mode

You can enable AGC mode by calling preset No. 125.

Enable IR mode

You can enable IR mode by calling preset No. 126.

3.3 IR LED Control

Enable IR LED:

You can enable IR LED by calling preset NO. 130.

Disable IR LED

You can disable IR LED by calling preset NO.131.

3.4 Mirror Mode

Disable Mirror Mode

You can disable mirror mode by calling preset No. 140.

Flip the Image Vertical

You can flip the image vertical by calling preset No. 141.

Flip the Image Horizontal

You can flip the image horizontal by calling preset No. 142.

Flip the Image Vertical and Horizontal

You can flip the image vertical and horizontal by calling preset No. 143.

3.5 Image Settings

Display Color Image

You can display color image by calling preset NO. 147.

Display Black/White Image

You can display black/white image by calling preset NO.148.

Auto

You can display the image automatically by calling preset NO. 149.

Enable Vibration-proof

You can enable vibration-proof by calling preset NO. 150.

Disable Vibration-proof

You can disable vibration-proof by calling preset NO. 151.