



# Network Traffic Camera

Quick Start Guide

© 2019 Hangzhou Hikvision Digital Technology Co., Ltd. All rights reserved.

This Manual is the property of Hangzhou Hikvision Digital Technology Co., Ltd. or its affiliates (hereinafter referred to as “Hikvision”), and it cannot be reproduced, changed, translated, or distributed, partially or wholly, by any means, without the prior written permission of Hikvision. Unless otherwise expressly stated herein, Hikvision does not make any warranties, guarantees or representations, express or implied, regarding to the Manual, any information contained herein.

### **About this Manual**

The Manual includes instructions for using and managing the Product. Pictures, charts, images and all other information hereinafter are for description and explanation only. The information contained in the Manual is subject to change, without notice, due to firmware updates or other reasons. Please find the latest version of this Manual at the Hikvision website (<https://www.hikvision.com/en/>).

Please use this Manual with the guidance and assistance of professionals trained in supporting the Product.

### **Trademarks Acknowledgement**

- **HIKVISION** and other Hikvision’s trademarks and logos are the properties of Hikvision in various jurisdictions.
- Other trademarks and logos mentioned are the properties of their respective owners.

### **LEGAL DISCLAIMER**

- TO THE MAXIMUM EXTENT PERMITTED BY APPLICABLE LAW, THIS MANUAL AND THE PRODUCT DESCRIBED, WITH ITS HARDWARE, SOFTWARE AND FIRMWARE, ARE PROVIDED “AS IS” AND “WITH ALL FAULTS AND ERRORS”. HIKVISION MAKES NO WARRANTIES, EXPRESS OR IMPLIED, INCLUDING WITHOUT LIMITATION, MERCHANTABILITY, SATISFACTORY QUALITY, OR FITNESS FOR A PARTICULAR PURPOSE. THE USE OF THE PRODUCT BY YOU IS AT YOUR OWN RISK. IN NO EVENT WILL HIKVISION BE LIABLE TO YOU FOR ANY SPECIAL, CONSEQUENTIAL, INCIDENTAL, OR INDIRECT DAMAGES, INCLUDING, AMONG OTHERS, DAMAGES FOR LOSS OF BUSINESS PROFITS, BUSINESS INTERRUPTION, OR LOSS OF DATA, CORRUPTION OF SYSTEMS, OR LOSS OF DOCUMENTATION, WHETHER BASED ON BREACH OF CONTRACT, TORT (INCLUDING NEGLIGENCE), PRODUCT LIABILITY, OR OTHERWISE, IN CONNECTION WITH THE USE OF THE PRODUCT, EVEN IF HIKVISION HAS BEEN ADVISED OF THE POSSIBILITY OF SUCH DAMAGES OR LOSS.
- YOU ACKNOWLEDGE THAT THE NATURE OF INTERNET PROVIDES FOR INHERENT SECURITY RISKS, AND HIKVISION SHALL NOT TAKE ANY RESPONSIBILITIES FOR ABNORMAL OPERATION, PRIVACY LEAKAGE OR OTHER DAMAGES RESULTING FROM CYBER-ATTACK, HACKER ATTACK, VIRUS INSPECTION, OR OTHER INTERNET SECURITY RISKS; HOWEVER, HIKVISION WILL PROVIDE TIMELY TECHNICAL SUPPORT IF REQUIRED.
- YOU AGREE TO USE THIS PRODUCT IN COMPLIANCE WITH ALL APPLICABLE LAWS, AND YOU ARE SOLELY RESPONSIBLE FOR ENSURING THAT YOUR USE CONFORMS TO THE APPLICABLE LAW. ESPECIALLY, YOU ARE RESPONSIBLE, FOR USING THIS PRODUCT IN A MANNER THAT DOES NOT INFRINGE ON THE RIGHTS OF THIRD PARTIES, INCLUDING WITHOUT LIMITATION, RIGHTS OF PUBLICITY, INTELLECTUAL PROPERTY RIGHTS, OR DATA PROTECTION AND OTHER PRIVACY RIGHTS. YOU SHALL NOT USE THIS PRODUCT FOR ANY PROHIBITED END-USES, INCLUDING THE DEVELOPMENT OR PRODUCTION OF WEAPONS OF MASS DESTRUCTION, THE DEVELOPMENT OR PRODUCTION OF CHEMICAL OR BIOLOGICAL WEAPONS, ANY ACTIVITIES IN THE CONTEXT RELATED TO ANY NUCLEAR EXPLOSIVE OR UNSAFE NUCLEAR FUEL-CYCLE, OR IN SUPPORT OF HUMAN RIGHTS ABUSES.
- IN THE EVENT OF ANY CONFLICTS BETWEEN THIS MANUAL AND THE APPLICABLE LAW, THE LATER PREVAILS.

## Regulatory Information

### FCC Information

Please take attention that changes or modification not expressly approved by the party responsible for compliance could void the user's authority to operate the equipment.

**FCC compliance:** This equipment has been tested and found to comply with the limits for a Class 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 EMC Directive 2014/30/EU, the LVD Directive 2014/35/EU, 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.

## Applicable Models

This manual is applicable to the models listed in the following table.

Model
iDS-2CD9136-AIS
iDS-2CD9396-AIS
iDS-2CD9136-AS
iDS-2CD9396-AS

## Symbol Conventions

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

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

## Safety Instructions

- To reduce the risk of fire or electrical shock, do not expose this product to rain or moisture.
- This installation should be made by a qualified service person and should conform to all the local codes.
- Please install blackouts equipment into the power supply circuit for convenient supply interruption.
- If the product does not work properly, please contact your dealer or the nearest service center. Never attempt to disassemble the camera yourself. (We shall not assume any responsibility for problems caused by unauthorized repair or maintenance.)

## Preventive and Cautionary Tips

- 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 sensor modules with fingers. If cleaning is necessary, use a clean cloth with a bit of ethanol and wipe it gently. If the camera will not be used for an extended period of time, put on the lens cap to protect the sensor from dirt.
- Do not aim the camera lens at the strong light such as sun or incandescent lamp. The strong light can cause fatal damage to the camera.
- The sensor may be burned out by a laser beam, so when any laser equipment is being used, make sure that the surface of the sensor not be exposed to the laser beam.
- Do not place the camera in extremely hot, cold temperatures, dusty or damp environment, and do not expose it to high electromagnetic radiation.
- To avoid heat accumulation, good ventilation is required for a proper operating environment.
- Keep the camera away from water and any liquid.
- While shipping, the camera should be packed in its original packing.

# TABLE OF CONTENTS

<b>Chapter 1 Introduction .....</b>	<b>6</b>
1.1 Overview .....	6
1.2 Key Feature.....	6
1.3 System Requirement.....	6
1.4 Appearance and Interfaces .....	7
1.4.1 Appearance.....	7
1.4.2 Rear Panel.....	7
<b>Chapter 2 Construction Solution .....</b>	<b>9</b>
2.1 Construction Solution I .....	9
2.2 Construction Solution II .....	9
<b>Chapter 3 Installation .....</b>	<b>11</b>
3.1 Install Lens.....	11
3.2 Insert TF card.....	11
3.3 Insert Guard Shield .....	11
3.4 Install Cardan Joint .....	12
<b>Chapter 4 Network Connection .....</b>	<b>14</b>
4.1 Wire over the LAN .....	14
4.2 Activate the Camera .....	15
4.2.1 Activate via Web Browser .....	15
4.2.2 Activate via SADP Software .....	16
<b>Chapter 5 Login.....</b>	<b>18</b>

# Chapter 1 Introduction

## 1.1 Overview

Integrated with video collection, smart encoding compression, and network transmission, network traffic camera can capture and recognize vehicle features, such as license plate, vehicle type, vehicle color, and vehicle logo. It is widely used in highway safety checkpoint, city safety checkpoint, and crossroad intersection.

## 1.2 Key Feature

- High video compression.
- Multiple application modes, e.g. external input, checkpoint vehicle detector, RS-485 radar, mixed-traffic lane, and video analysis E-police.
- Supports violation detection, e.g. driving on the lane line, red light running, wrong-way driving, prohibition violation, etc., which can effectively prevent violations.
- Supports dual shutters, enabling the camera to capture while video monitoring.
- Supports flash light control according to brightness condition and time schedule, enabling the camera to capture while IO output.
- Supports multiple supplement light types, e.g. strobe, burst, simultaneous, sequential, etc.
- Supports violation image composition, forming full evidence for enforcement.



### NOTE

Functions may vary with different models. Please refer to actual product.

## 1.3 System Requirement

- Operating System: Microsoft Windows XP SP1 and above version/Vista/Win 7/Win 10/Server 2003/Server 2008 32bits.
- CPU: 1.0 GHz or higher.
- RAM: 1 G or higher.
- Display: 1024 × 768 resolution or higher.
- Web Browser: Internet Explorer 8.0 and above version, Mozilla Firefox 5.0 and above version.

## 1.4 Appearance and Interfaces

### 1.4.1 Appearance

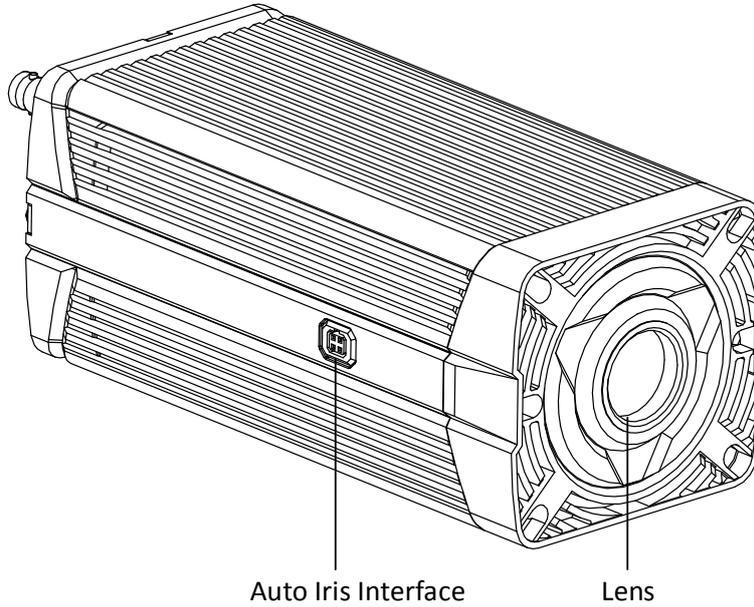


Figure 1-1 Appearance

### 1.4.2 Rear Panel

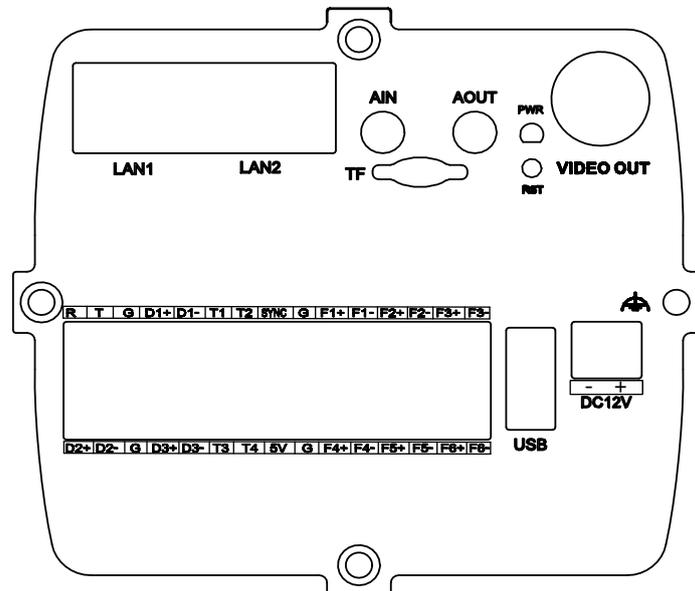


Figure 1-2 Rear Panel

Table 1-1 Rear Panel Interface

Interface	Description
LAN1/LAN2	10/100/1000M Ethernet interface, connecting switch and computer.
AIN	Audio input.
TF	TF card slot.
AOUT	Audio output.
PWR	Power indicator.
VIDEO OUT	Analog video output interface, supporting CVBS output.
RST	Reserved.
	Ground.
RTG	RS-232 interface for debugging and temperature shield control via transparent channel.
D1~D3	RS-485 interface, for transferring RS-485 input information (such as radar, vehicle detector, etc.).
SYNC	Synchronization input interface.
T1~T4	Input trigger interface.
F1~F6	Flash light trigger output interface.
USB	USB interface.
DC 12V	12 DC power input.

## Chapter 2 Construction Solution

### 2.1 Construction Solution I

The following construction takes example of 3 MP camera in the scene of 4 lanes without speed detection.

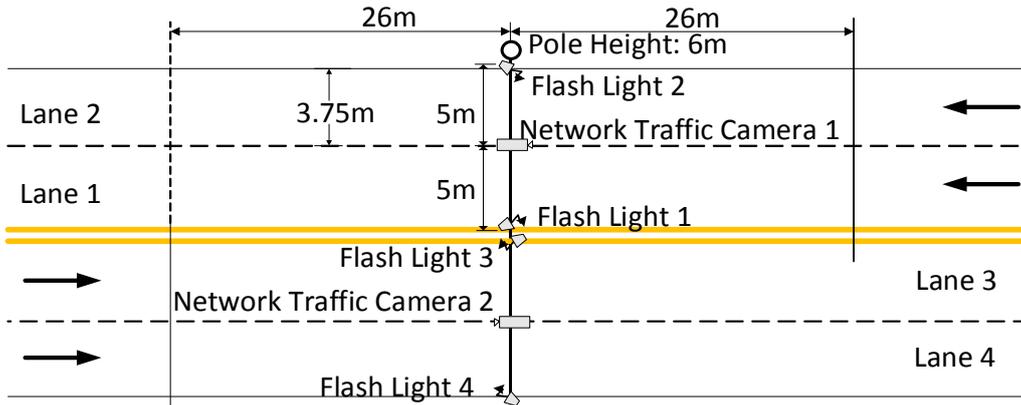


Figure 2-1 Construction Solution for 3 MP Camera

- The pole height is 6 m. We recommend that captured position should be 26 m or above horizontal distance from the camera, to keep a complete face imaging.
- Flash light is built in the guard shield for multiple lanes light supplement, improving license plate capturing and recognizing rate.
- The camera will capture multiple pictures continuously. To guarantee the second picture quality, the picture bottom in captured position should be 18 to 20 m horizontal distance from the pole.

### 2.2 Construction Solution II

The following construction takes example of 9 MP camera in the scene of 6 lanes with radar speed detection.

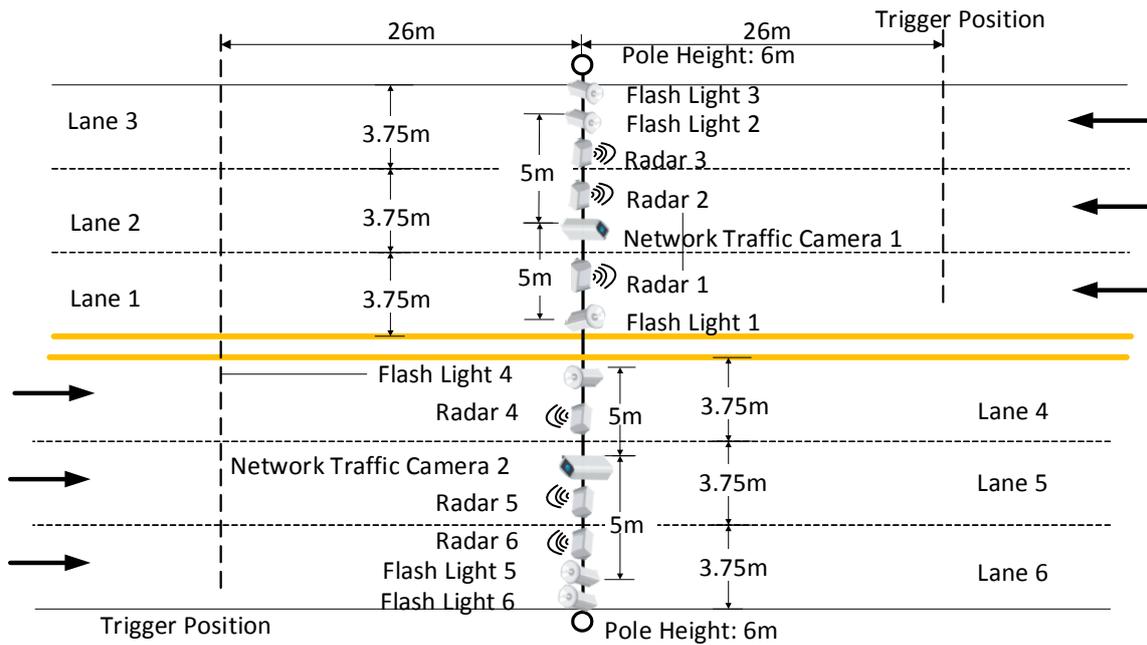


Figure 2-2 Construction Solution for 9 MP Camera

- The pole height is 6 m. We recommend that captured position should be 26 m or above horizontal distance from the camera, to keep a complete face imaging.
- Flash light is built in the guard shield for multiple lanes light supplement, improving license plate capturing and recognizing rate. If there is no built-in flash light, you can connect supported strobe light.
- Radar should be in the middle of lanes.
- Network traffic camera or flash light should be 0.6 m or above away from the radar.
- The camera will capture multiple pictures continuously. To guarantee the second picture quality, the picture bottom in captured position should be 18 to 20 m horizontal distance from the pole.

**NOTE**

- Radar is used for speed detection.
- Radar is not recommended in Video Analysis E-police mode.

## Chapter 3 Installation

### 3.1 Install Lens

Step 1 Pull out the sensor protective cover. Install the lens, and rotate it 90 clockwise until it is fixed.

Step 2 Connect the lens cable plug to the auto iris interface.



If the camera only supports manual iris, skip step 2.

### 3.2 Insert TF card

Install the TF card according to arrow direction as shown in the Figure 3-1.



If you want to take out the TF card, press it inwards lightly to pop it up.

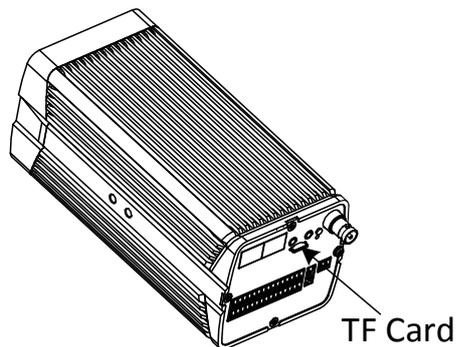


Figure 3-1 Install TF Card

### 3.3 Insert Guard Shield

Step 1 Pull upward the buckle, and take hook off the guard shield cover. Open the guard shield.

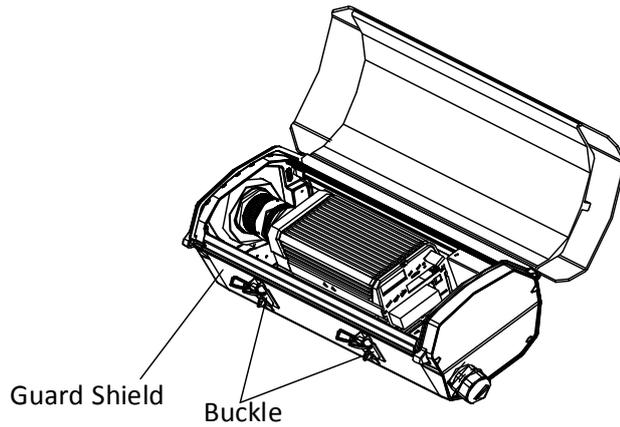


Figure 3-2 Open Guard Shield

Step 2 Take off the bottom plate from the guard shield, and fix the camera on it by included screws.

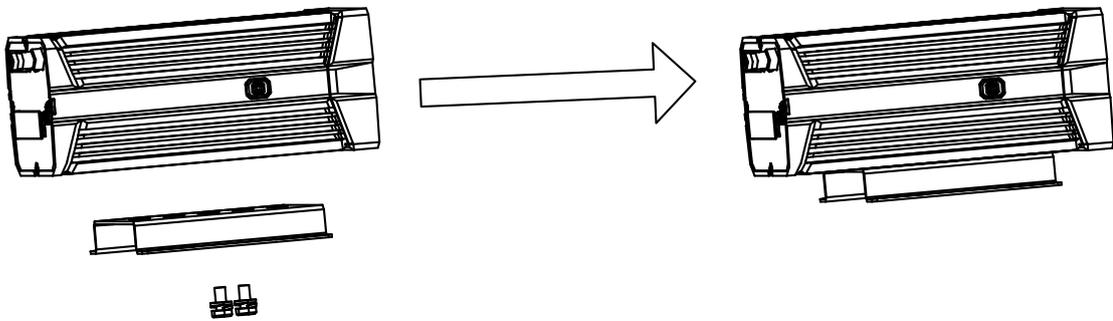


Figure 3-3 Fix Camera on Bottom Plate

Step 3 Fix the guard shield cover on the camera.

Step 4 Connect the cable with the camera, and thread the cable through the hole in bottom.

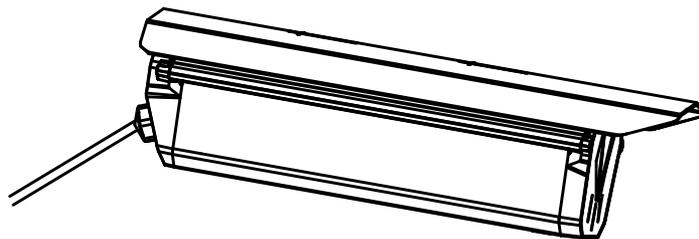


Figure 3-4 Connect Camera with Cable

### 3.4 Install Cardan Joint

 NOTE

Cardan joint is divided into 2 parts. Upper part includes 2 screw holes, and under part is flute connected with hoop.

Step 1 Fix the cardan joint on bottom holes of the guard shield by 2 screws.

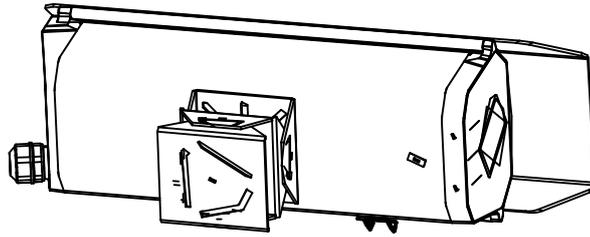


Figure 3-5 Fix Cardan Joint

Step 2 Fix the whole camera with guard shield on the horizontal rod with the cardan joint as a base.

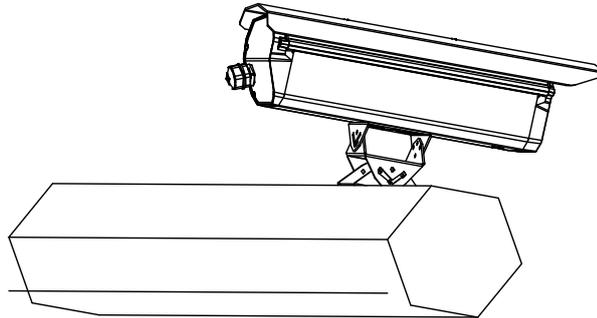


Figure 3-6 Fix Camera on Horizontal Rod

## Chapter 4 Network Connection

### NOTE

- You shall acknowledge that the use of the product with Internet access might be under network security risks. For avoidance of any network attacks and information leakage, please strengthen your own protection. If the product does not work properly, please contact with your dealer or the nearest service center.
- To ensure the network security of the camera, we recommend you to have the camera assessed and maintained termly. You can contact us if you need such service.

### **Before you start:**

To view and configure the camera via a LAN, you need to connect the camera in the same subnet with your computer, and install the SADP to search and change the IP address of the camera.

### 4.1 Wire over the LAN

The following figures show the two ways of cable connection of a camera and a computer.

- Directly connect the camera to the computer with a network cable.
- Set camera over the LAN via a switch or a router.

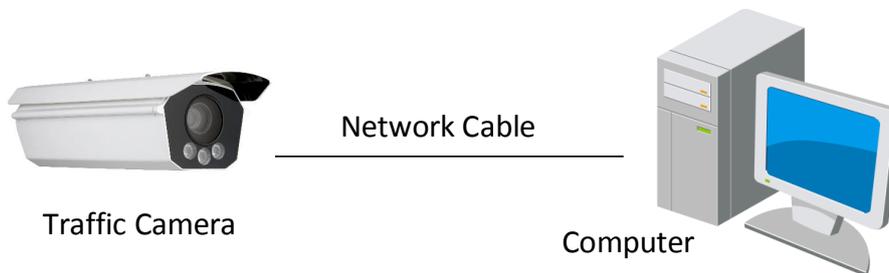


Figure 4-1 Direct Connection

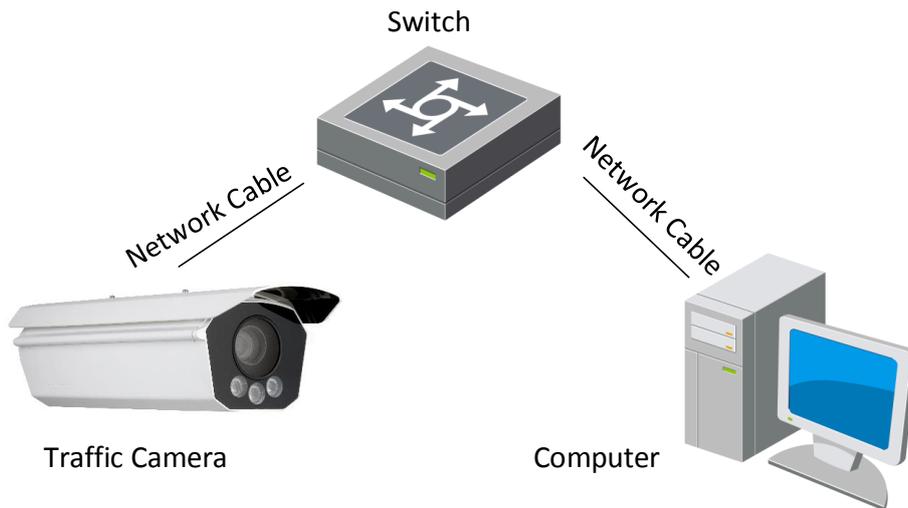


Figure 4-2 Connection via a Switch or a Router

## 4.2 Activate the Camera

You are required to activate the camera first by setting a strong password for it before you can use it. Multiple activation methods are supported. Here we take example of activation via web browser and SADP.

 **NOTE**

Refer to the user manual of client software for the activation via client software.

### 4.2.1 Activate via Web Browser

Step 1 Power on the camera, and connect the camera to the network.

Step 2 Input the IP address into the address bar of the web browser, and press Enter to enter the activation interface.

The screenshot shows a web browser window titled 'Activate'. It contains the following fields and text:

- User Name:** admin
- Password:** An empty text input field with a strength indicator below it.
- Confirm Password:** An empty text input field.
- Instructions:** Valid password range [8-16]. You can use a combination of numbers, lowercase, uppercase and special character for your password with at least two kinds of them contained.
- Buttons:** An 'OK' button is located at the bottom right of the form.

Figure 4-3 Activation Interface (Web)

Step 3 Create a password.



**WARNING**

**STRONG PASSWORD RECOMMENDED**– We highly recommend you create a strong password of your own choosing (using a minimum of 8 characters, including upper case letters, lower case letters, numbers, and special characters) in order to increase the security of your product. And we recommend you reset your password regularly, especially in the high security system, resetting the password monthly or weekly can better protect your product.

Step 4 Confirm the password.

Step 5 Click **OK** to save the password and enter the live view interface.

### 4.2.2 Activate via SADP Software

SADP software is used for detecting the online device, activating the camera, and resetting the password.



**NOTE**

Get the SADP software from the official website, and install the SADP according to the prompts.

Step 1 Run the SADP software to search the online devices.

Step 2 Check the device status from the device list, and select the inactive device.

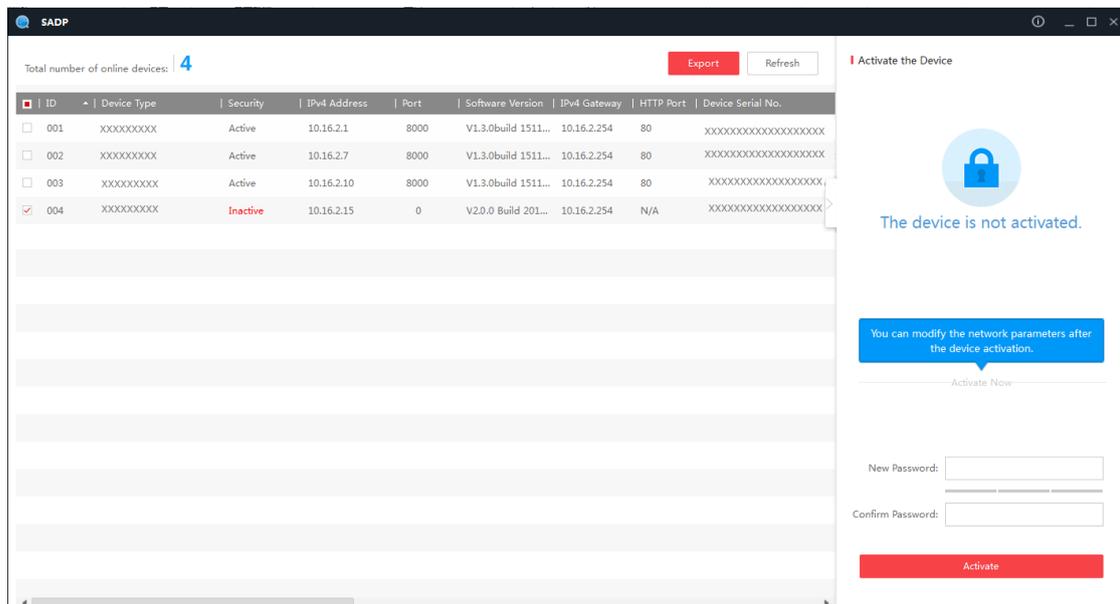


Figure 4-4 SADP Interface

Step 3 Create a password, and confirm it.

Step 4 Click **Activate** to activate the device.



**WARNING**

**STRONG PASSWORD RECOMMENDED**– We highly recommend you create a strong password of your own choosing (using a minimum of 8 characters, including upper case letters, lower case letters, numbers, and special characters) in order to increase the security of your product. And we recommend you reset your password regularly, especially in the high security system, resetting the password monthly or weekly can better protect your product.

Step 5 Change the device IP address to the same subnet with your computer by either modifying the IP address manually or checking **Enable DHCP**.

Modify Network Parameters

Enable DHCP

Device Serial No.: XXXXXXXXXXXX

IP Address: 10.16.2.15

Port: 0

Subnet Mask: 255.255.255.0

Gateway: 10.16.2.254

IPv6 Address:

IPv6 Gateway:

IPv6 Prefix Length: 0

HTTP Port: 0

Security Verification

Admin Password: ●●●●●●●

Modify

[Forgot Password](#)

Figure 4-5 Modify Network Parameters

Step 6 Input the password and click **Modify** to activate your IP address modification.

## Chapter 5 Login

You can log in to the camera via web browser.

Step 1 Open the web browser.

Step 2 In the browser address bar, input the IP address of the camera, and press the **Enter** key to enter the login interface.

Step 3 Input **User Name** and **Password**.

Step 4 Click **Login**.

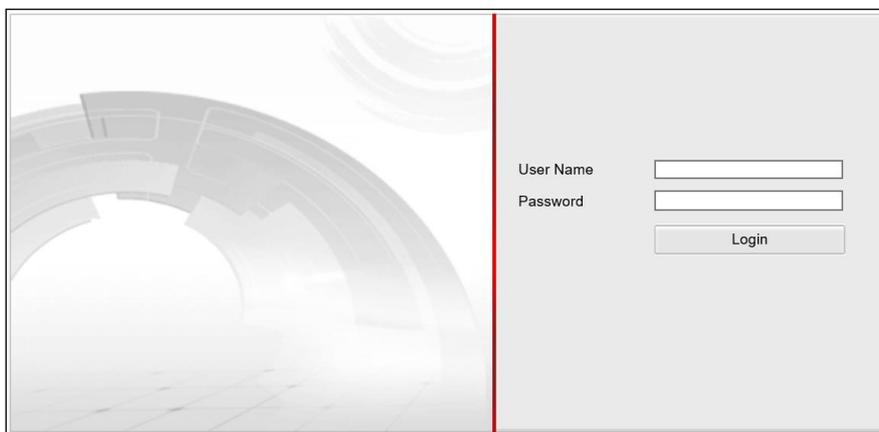


Figure 5-1 Login

Step 5 Install the plug-in before viewing the live video and operating the camera. Follow the installation prompts to install the plug-in.

 **NOTE**

You may have to close the web browser to install the plug-in. Please reopen the web browser and log in again after installing the plug-in.



See Far, Go Further