HIKVISION

Mobile Network Camera

Quick Start Guide

Legal Information

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/).

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

Trademarks

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Disclaimer

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

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.

Symbol Conventions

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

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

Safety Instructions

● Proper configuration of all passwords and other security settings is the responsibility of the installer and/or end-user.

● In the use of the product, you must be in strict compliance with the electrical safety Input voltage should meet limited power source or PS2 requirements regulations of the nation and region. Please refer to technical specifications for detailed information.

● Input voltage should meet limited power source or PS2 requirements according to the IEC60950-1 or IEC 62368-1 standard. Please 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.

● Please make sure that the plug is firmly connected to the power socket.

● 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.

TABLE OF CONTENTS

Chapter 1 Packing List and Cable Description

Before You Begin

Before unboxing, check if the package is intact. Refer to the list to make sure that all the assembly parts are included. The 3 types of packing lists of the mobile network camera is shown below.

1.1 Packing List

There are 3 type of cable available, differing on their support for power, alarm and internet interface. Please choose according to your actual need.
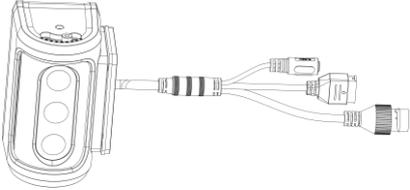
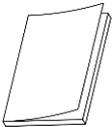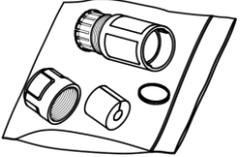Table 1-1 Packing List of Type I Camera

No	Picture	Name	Number
1		Camera	1
2		Wrench	1
3		ST4.8×25 Screws	1
4		QSG	1
5		Tape	2
6		Waterproof Suit (Only Available for RJ45 Cable)	1

Table 1-2 Packing List of Type II Camera
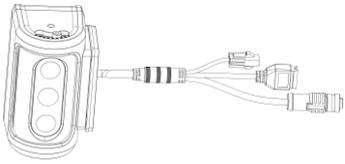
No	Picture	Name	Number
1		Camera	1
2		Wrench	1
3		ST4.8×25 Screws	1
4		QSG	1
5		Tape	3

Table 1-3 Packing List of Type III Camera
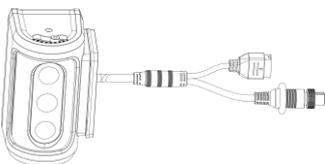
No	Picture	Name	Number
1		Camera	1
2		Wrench	1
3		ST4.8×25 Screws	1

4		QSG	1
5		Tape	2

1.2 Cable Description

There are 3 types of cables for the network camera, as shown in the following figures. Please refer to the relevant instructions according to the physical equipment.
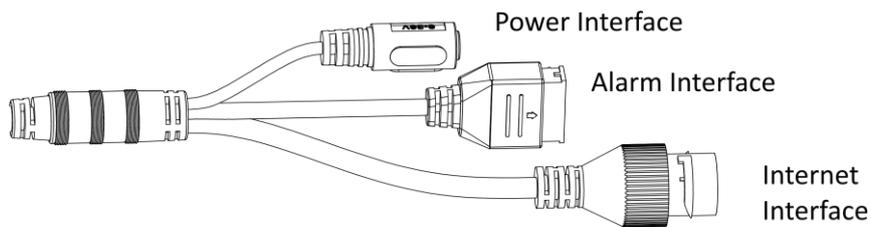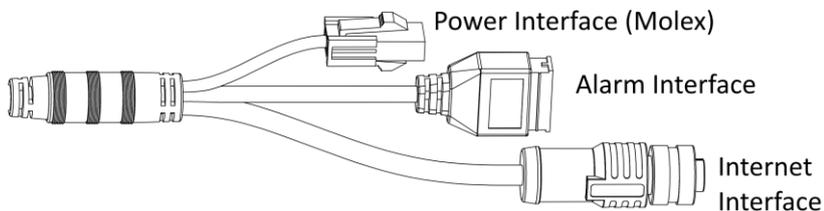

Figure 1-1 RJ45 Cable
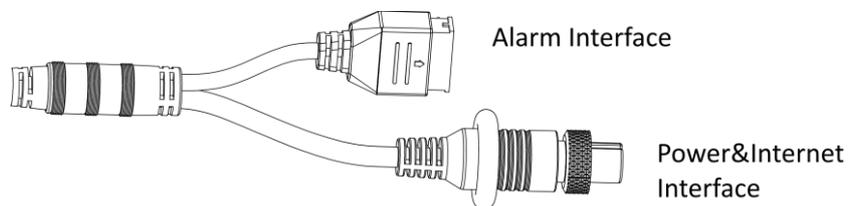

Figure 1-2 4 Core Cable

Figure 1-3 6 Core Cable

● Power Interface: the camera supports 9V-36V power supply. Please connect the positive and negative poles of the power supply correctly.

● Internet Interface: network signal output.

● Alarm Interface: support alarm input and output.

Chapter 2 Product Introduction

This mobile network camera is a digital monitoring product that integrates picture capturing and network transmission and other functions. It is generally installed outside the vehicle for plate capture, sending and uploading alarm. With embedded operating system and high-performance hardware processing platform, it has high stability and reliability.

You can browse real-time video and configure settings through browser.

Main features include:

- Adopt high-performance processing chip and platform, with reliable and stable performance
- Adopt advanced algorithm for various scenes
- Support night mode
- Support 8GB EMMC storage
- Support allow list and unauthorized list up to 1, 000 items
- Support a variety of intelligent alarm functions

Typical application:

- Installed on the school bus. When students are boarding the school bus and the stop-arms sign have been placed, the camera will capture the plate of the surrounding vehicles that refuse to stop will be captured and uploaded.
- Installed on the police vehicle to search for a list of plates.
- Installed on the ambulance to capture the plate of vehicles that refuse to make way.

Chapter 3 Installation

3.1 Installation Requirements

3.1.1 Installation Position Requirements

Before you begin

Puncture a hole on the body of the vehicle for the cable of the camera to go through. Match the sheet metal fixed support with the hole when installing the camera.

The camera can be installed both horizontally and vertically, though the later is preferred. Typically, horizontal installation is recommended for the police vehicle, and the vertical installation is recommended for school bus and ambulance.

To install the camera vertically, two requirements should be met for the best capture performance and the ease of installation:

● The height of installation should be between 1-1.6 m

● The surface of installation should be vertical to the ground.

When both requirements can be met, refer to 3.2.1 Vertical Installation Method 1. If not and camera is to be installed on a tilted surface, refer to 3.2.2 Vertical Installation Method 2. On the tilted surface, the camera requires further calibration of its angle.

3.1.2 Installation Surface Requirements

For the stability of the camera, two further requirements of the material of the surface of the installation should be met:

● When the camera is installed on the sheet metal, its thickness should be more than 1.2 mm. If the thickness is bellow this number, it is recommended to strengthen the sheet metal with a reinforcing plate.

● When the camera is installed on a plastic surface, it is recommended to strengthen the surface with a reinforcing plate.

3.1.3 Water Proof Requirements

The throwing line of the camera should not be exposed outside of the vehicle. It is recommended to get the cable connection part water-proof treatment.

3.2 Vertical Installation

Since the installation process of cameras with differing cables are the same, we take one type to illustrate the installation process.

3.2.1 Vertical Installation Method 1

Step 1 Use the hexagon wrench in the package to unfasten the two the screws at the back of the camera.
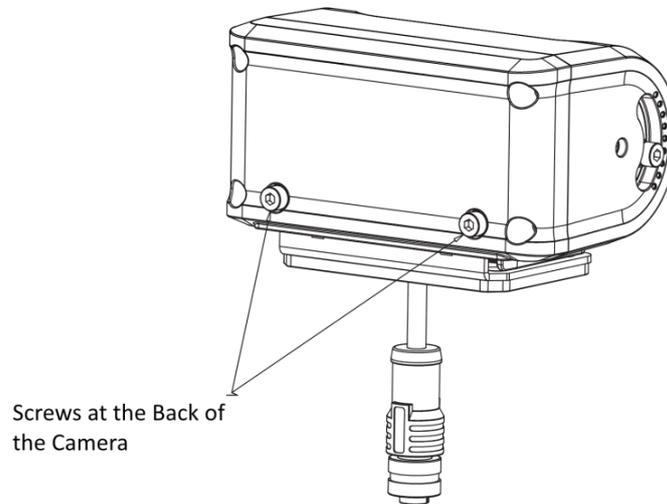

Figure 3-1 Unfasten the Screws

Step 2 Take off the sheet metal from the camera, and the rubber seal of the cable from the sheet metal.
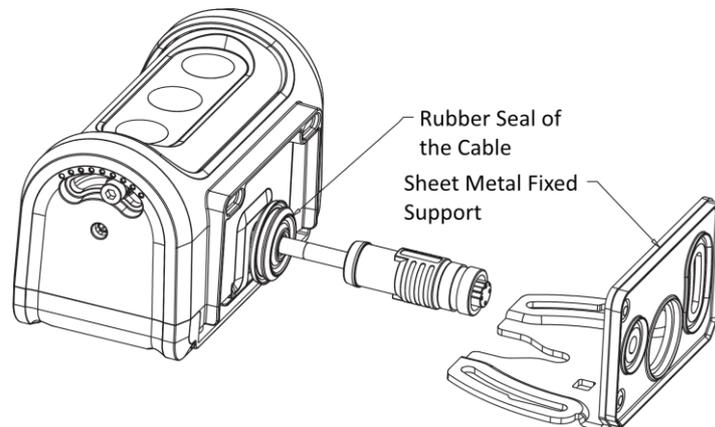

Figure 3-2 Take Off the Sheet Metal and Rubber Seal

Step 3 Vertically place the sheet metal fixed support on the place where the camera is to be installed, and then fix it with the screw.
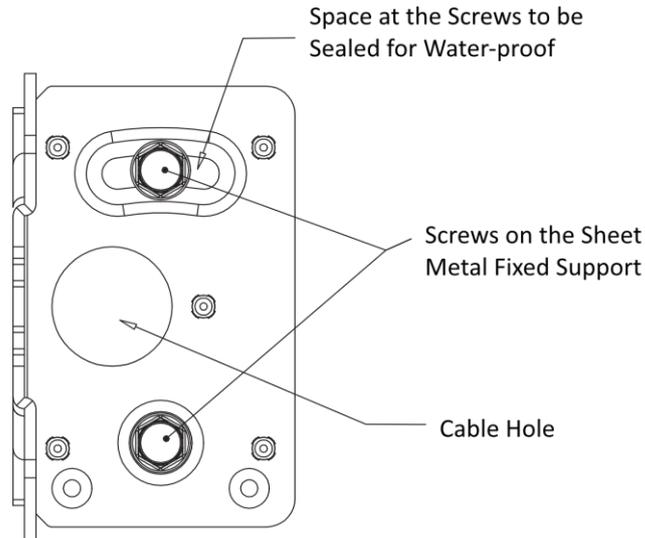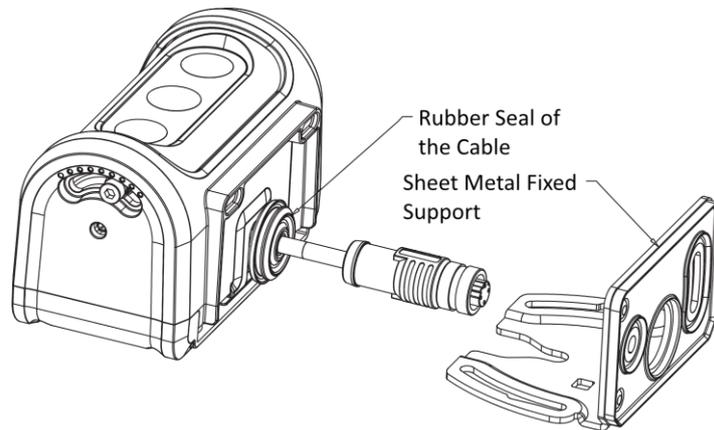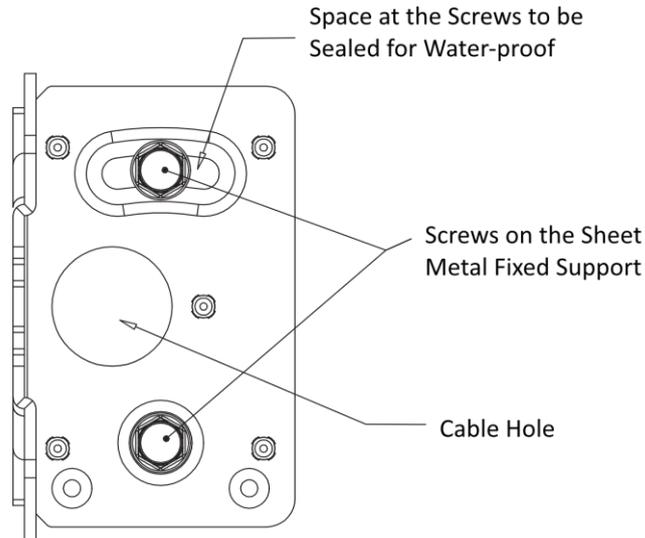
Figure 3-3 Fix the Sheet Metal Fixed Support

Step 4 Guide the cable through the cable hole, seal the hole with the rubber seal, and install the camera back to the sheet metal fixed support.
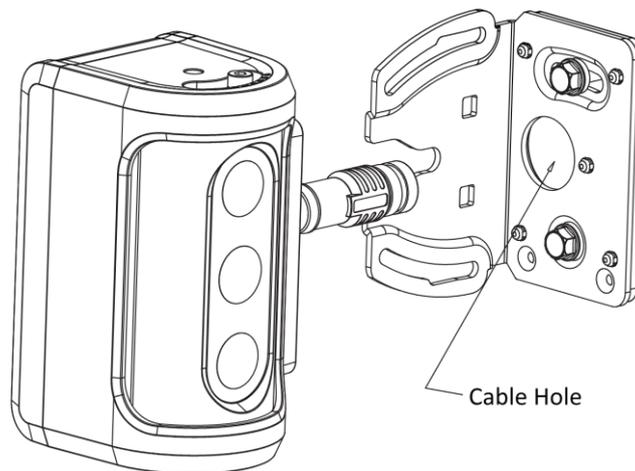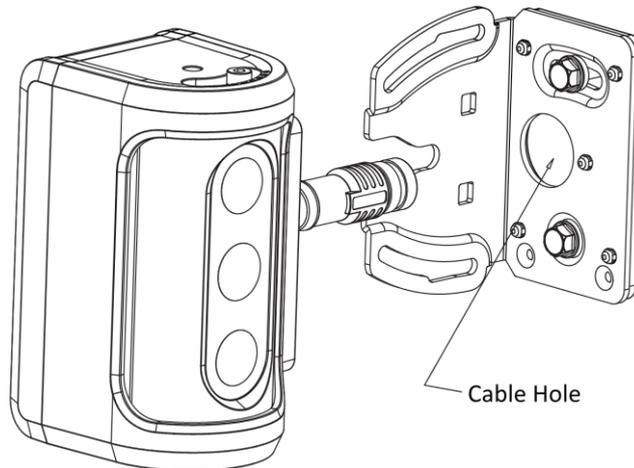

Figure 3-4 Reinstall the Camera to the Fixed Support

Step 5 Tighten the two screw on the back of the camera.

Screws at the Back of the Camera
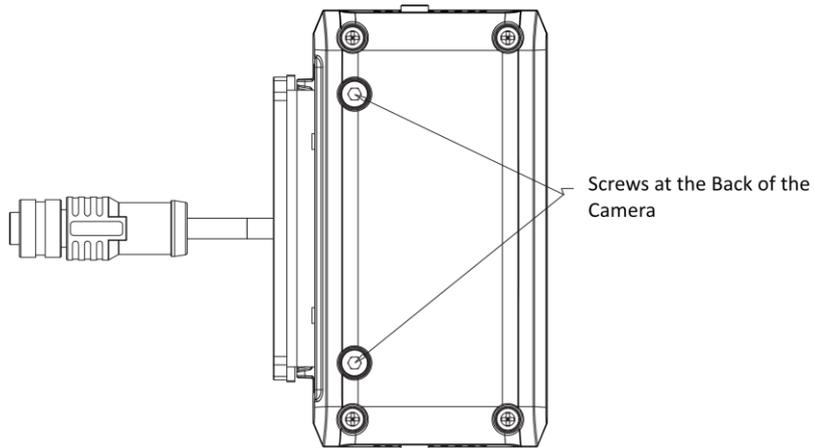
Figure 3-5 Tighten the Screws

Step 6 Loose the screw on the two sides of the camera with the hexagon wrench, adjust the angle of the camera for the best vision and tighten the two fixation screw to avoid wobble.

Fixation Screw

Angle Adjustment Hole
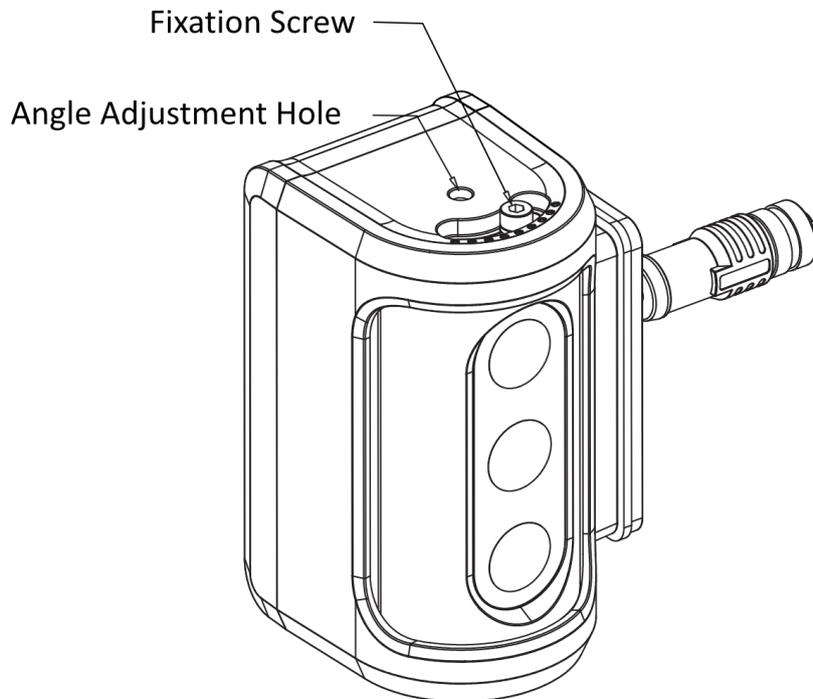
Figure 3-6 Adjust the Angle of the Camera

3.2.2 Vertical Installation Method 2
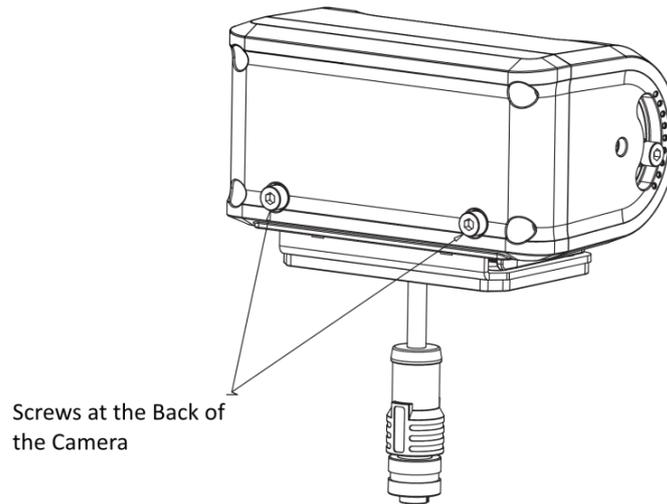
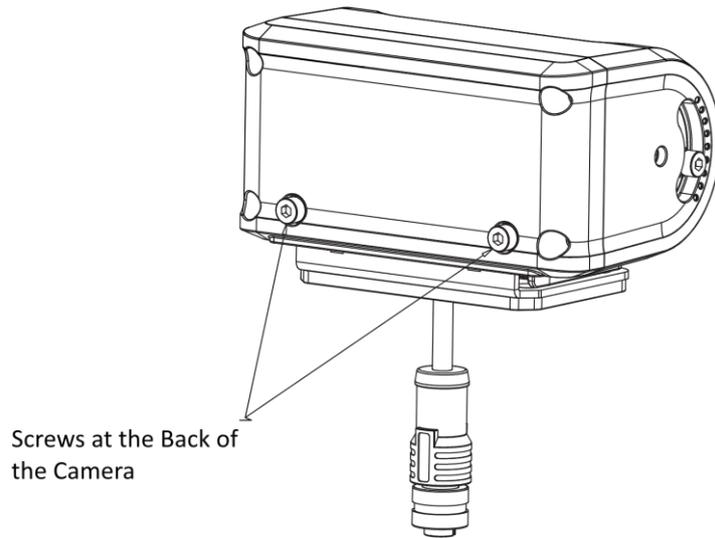Step 1 Use the hexagon wrench in the package to unfasten the two the screws at the back of the camera.

Figure 3-7 Unfasten the Screws

Step 2 Take off the sheet metal from the camera, and the rubber seal of the cable from the sheet metal.
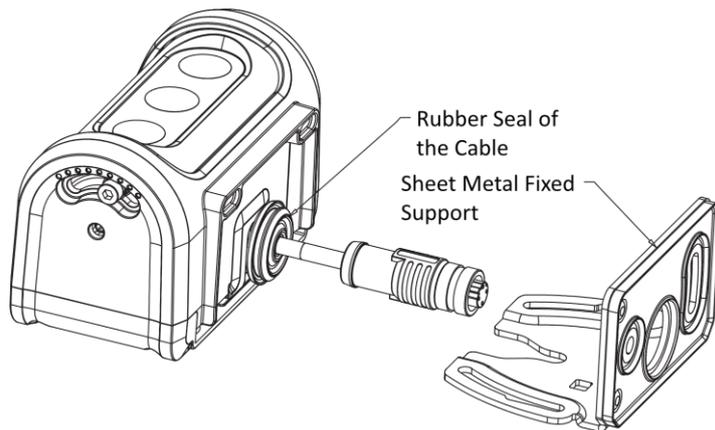

Figure 3-8 Take Off the Sheet Metal and Rubber Seal

Step 3 Vertically place the sheet metal fixed support on the place where the camera is to be installed, but do not tighten the screw to the end.

Figure 3-9 Fix the Sheet Metal Fixed Support

Step 4 Guide the cable through the cable hole, seal the hole with the rubber seal.

Figure 3-10 Reinstall the Camera to the Fixed Support

Step 5 Install the camera back to the sheet metal fixed support, adjust and record the angle of the camera for best vision. For details, see Chapter 4 Angle Adjustment.
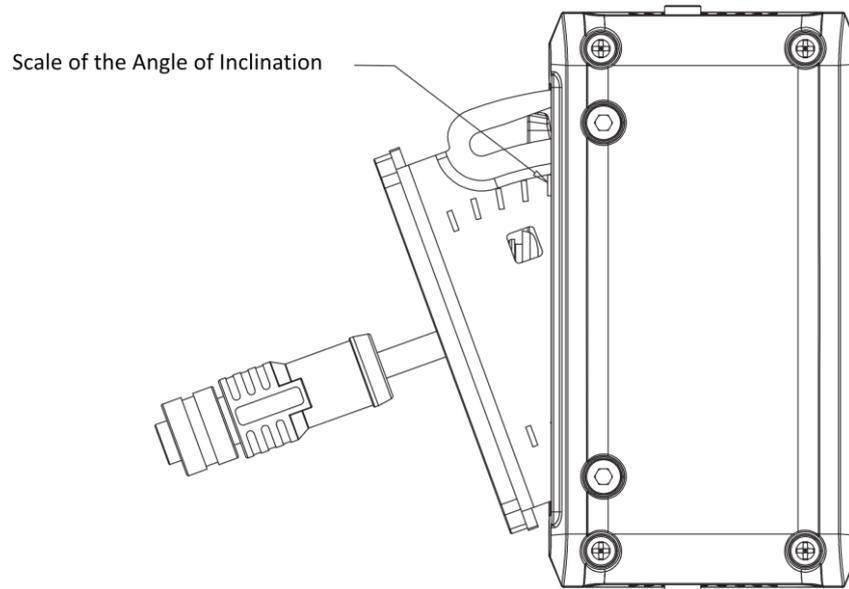
Figure 3-11 Adjust the Angle of the Camera

Step 6 Tighten the two screw on the back of the camera.
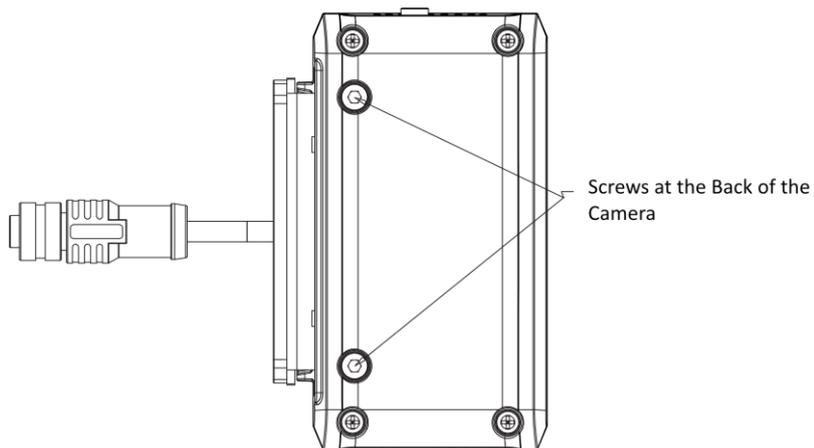
Figure 3-12 Tighten the Screws

Step 7 Again guide the cable through the cable hole, seal the hole with the rubber seal.
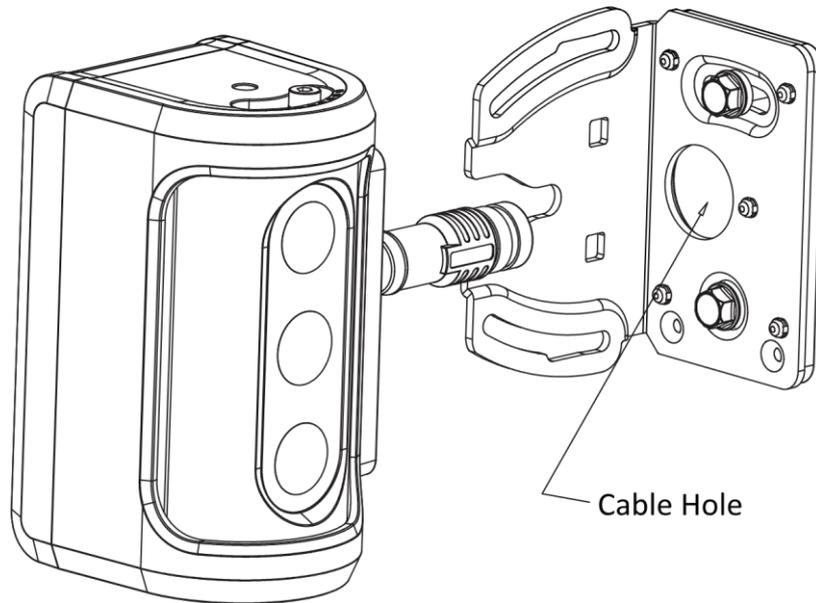
Figure 3-13 Organize the Cable

Step 8 Re-install the camera back to the sheet metal fixed support, adjust the angle of inclination of the camera to the angle recorded, and tighten the two fixation screw to avoid wobble.
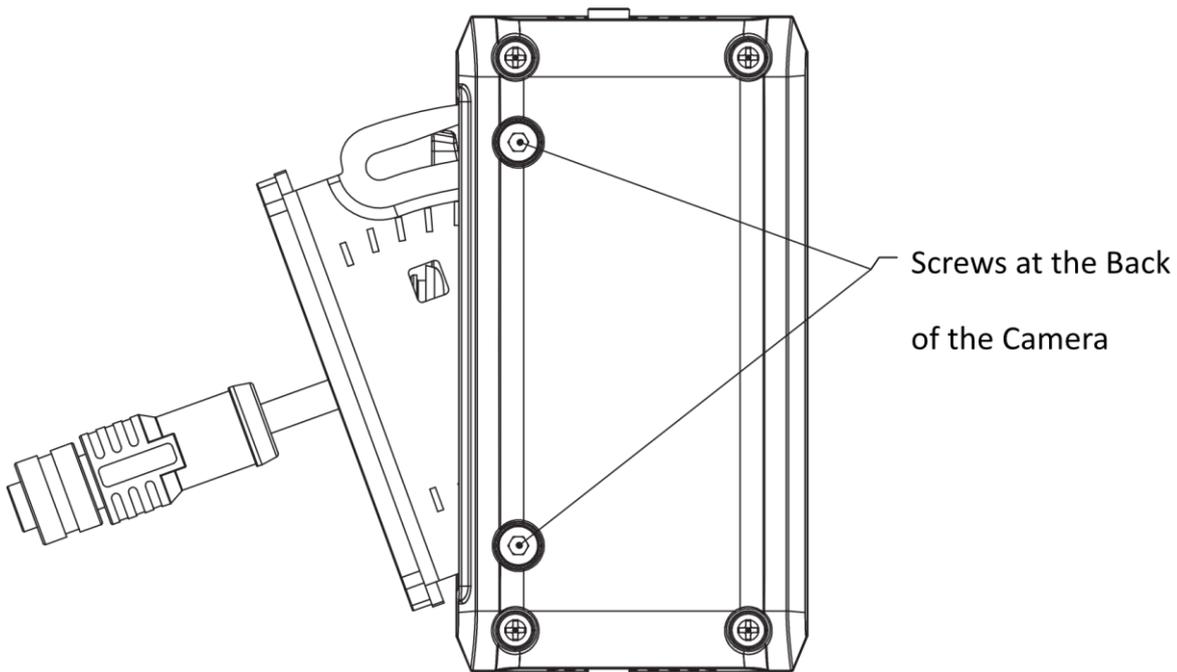
Figure 3-14 Reinstall the Camera

3.3 Horizontal Installation

Step 1 Use the hexagon wrench in the package to unfasten the two the screws at the back of the camera.

Figure 3-15 Unfasten the Screws

Step 2 Take off the sheet metal from the camera, and the rubber seal of the cable from the sheet metal.

Figure 3-16 Take Off the Sheet Metal and Rubber Seal

Step 3 Horizontally place the metal sheet on the position of installation and then fasten the screws.
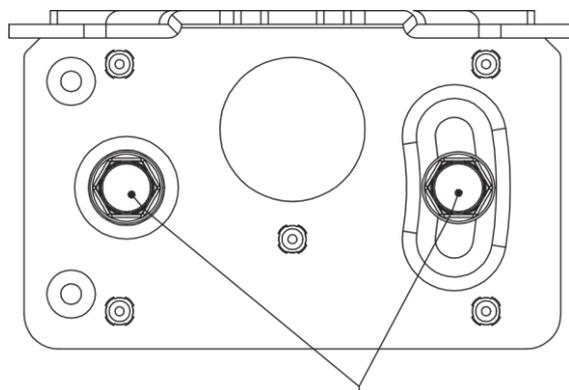
Figure 3-17 Place the Metal Sheet on Installation Position

Step 4 Guide the cable through the cable hole, seal the hole with the rubber seal, and install the camera back to the sheet metal fixed support.
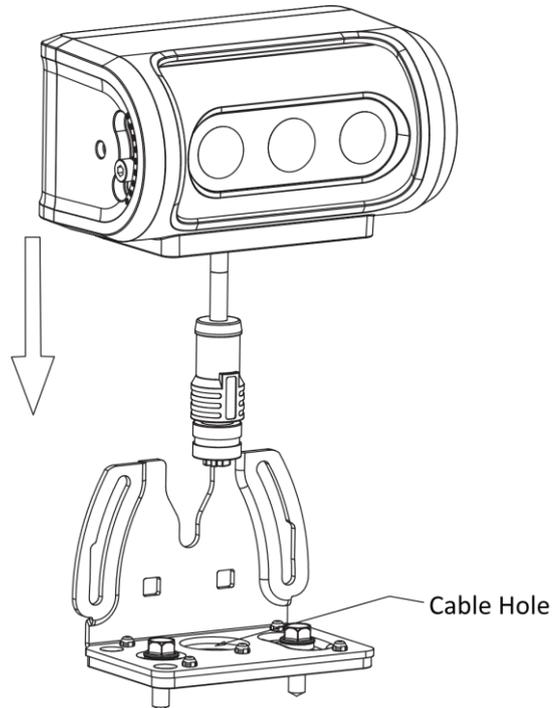
Figure 3-18 Install the Camera to the Fixed Support

Step 5 Tighten the two screw on the back of the camera.

Screws at the Back of the Camera
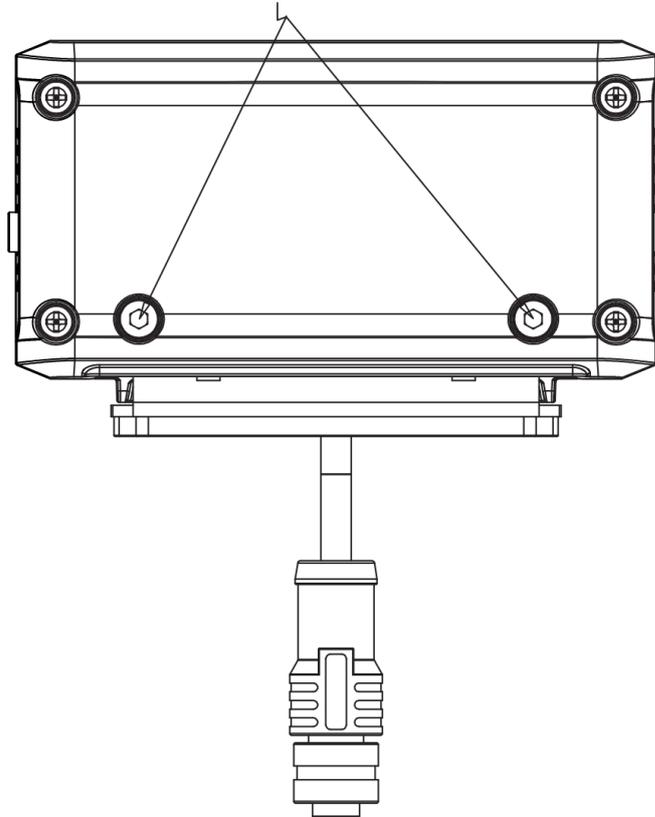
Figure 3-19 Tighten the Screws

Step 6 Loose the screw on the two sides of the camera, adjust the angle of the camera for the best vision, and tighten the two fixation screw to avoid wobble.
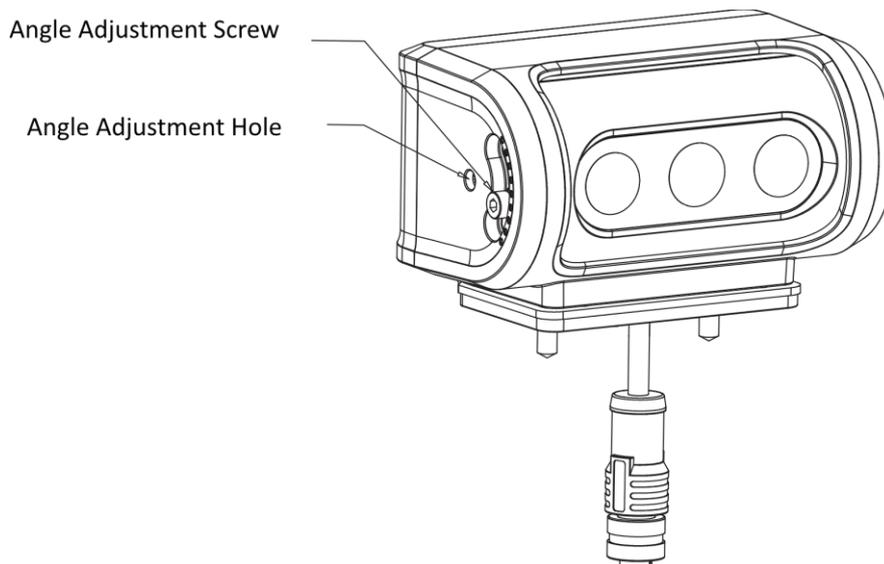

Figure 3-20 Adjust the Angle of the Camera

Chapter 4 Angle Adjustment

4.1 Adjust With Wrench

The angle of the camera can be adjusted in 2 ways: adjust with the wrench and adjust the angle that it is installed on the surface of the vehicle. If the installation surface is vertical to the ground, then no need for adjusting the body of the camera.

Step 1 Loose the screw on the two sides of the camera with the hexagon wrench.

Fixation Screw

Angle Adjustment Hole
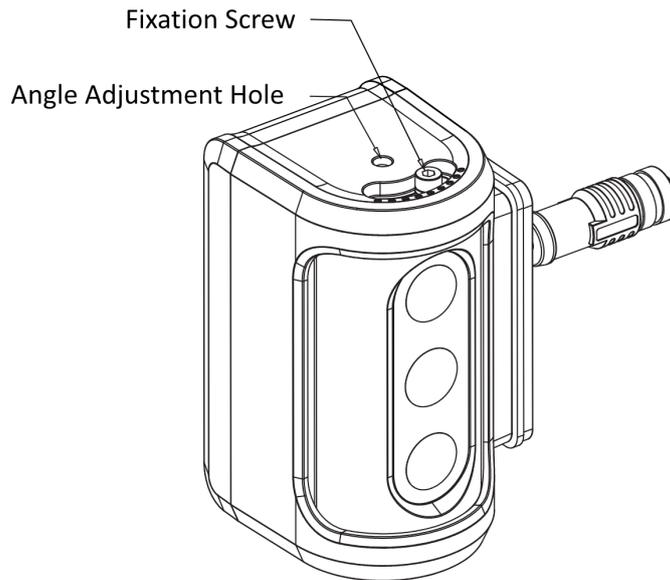
Figure 4-1 Adjust the Angle With the Wrench

Step 2 Adjust the angle of the camera for the best vision. The range is 80° and the scales differ by 10°. After the adjustment, tighten the two fixation screw to avoid wobble.

80°

Difference by 10° between Points
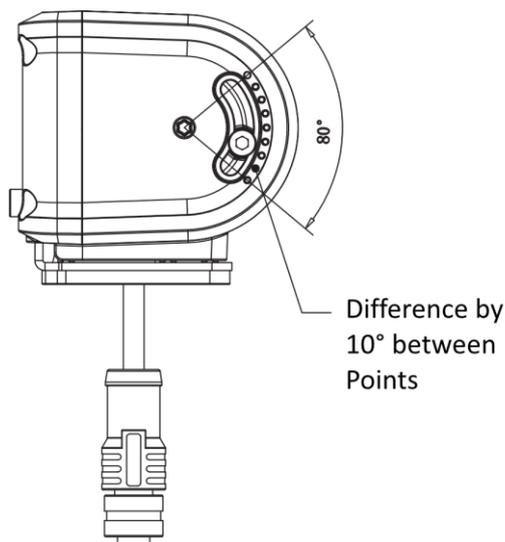
Figure 4-2 Range And Scale

4.2 Adjust the Body of the Camera

When installed on a tilted surface, loosen the two screws at the back of the camera and adjust the body of the camera before adjusting the camera itself.
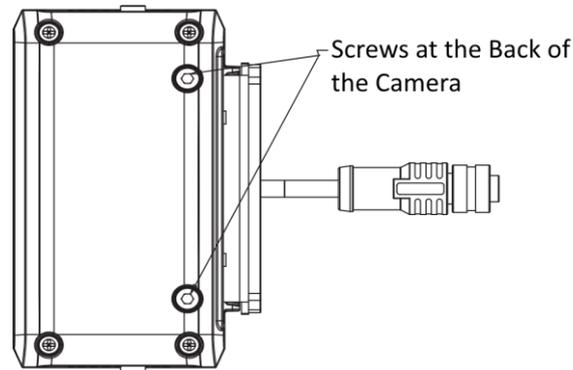

Figure 4-3 Loosen the Screws

The metal sheet can be opened up to 30° and both sides are supported.
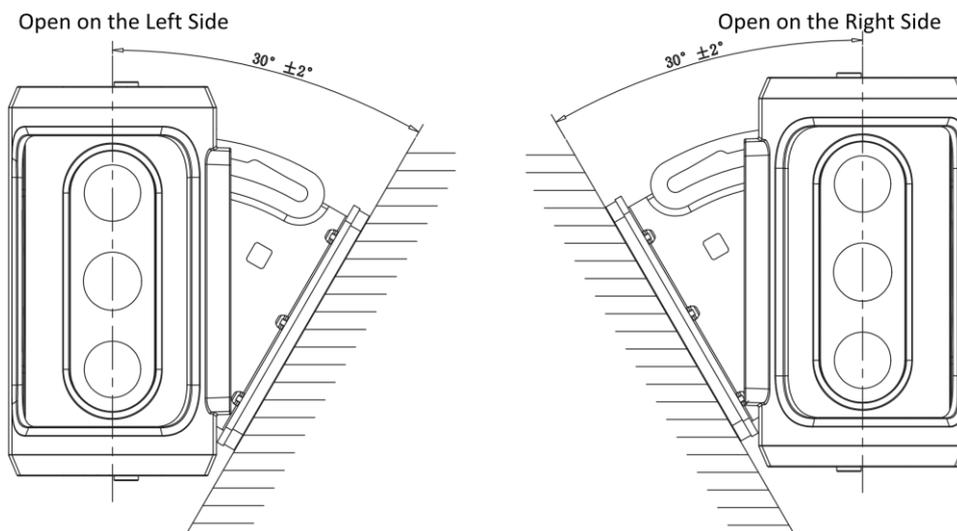

Figure 4-4 Range of the Inclination Angle

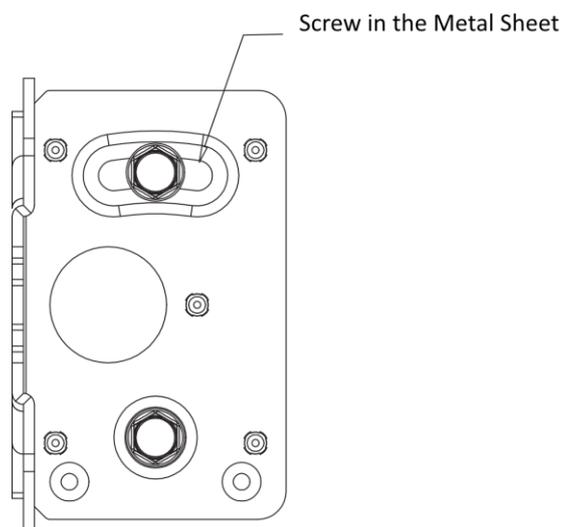Adjust the vertical vision by the moving the camera around the screw in the metal sheet.

Screw in the Metal Sheet

Figure 4-5 Adjust the Vertical Vision

Chapter 5 Waterproof of Plugs

5.1 RJ45 Cable Waterproof

The RJ45 cable of the type I camera needs to be connected to the waterproof suit. Please follow the following steps to install it.

Step 1 Put the seal ring on the RJ45 cable and the rest of the waterproof suit on the Ethernet cable. Then connect the Ethernet cable of the vehicle to the RJ45 cable.
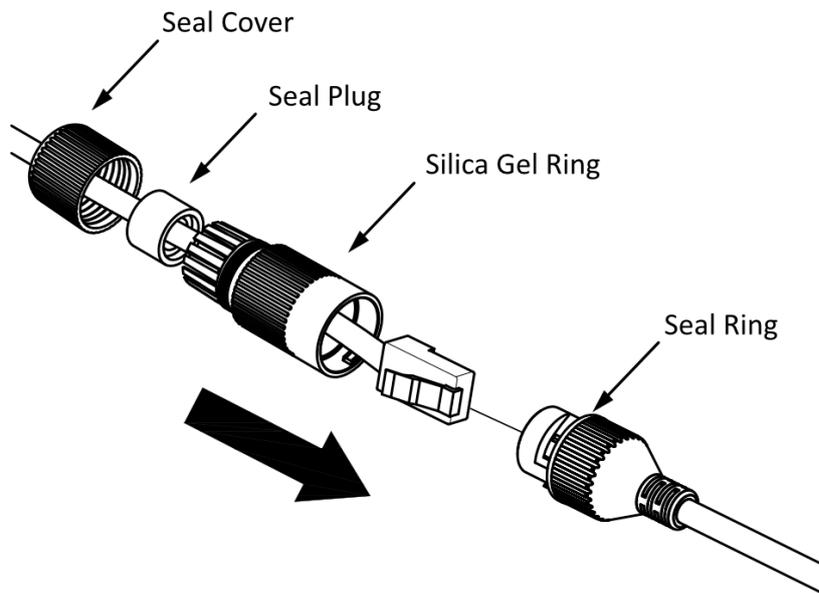
Figure 5-1 Connect Ethernet Cable and RJ45 Cable

Step 2 Rotate the silica gel ring to seal the connection point.
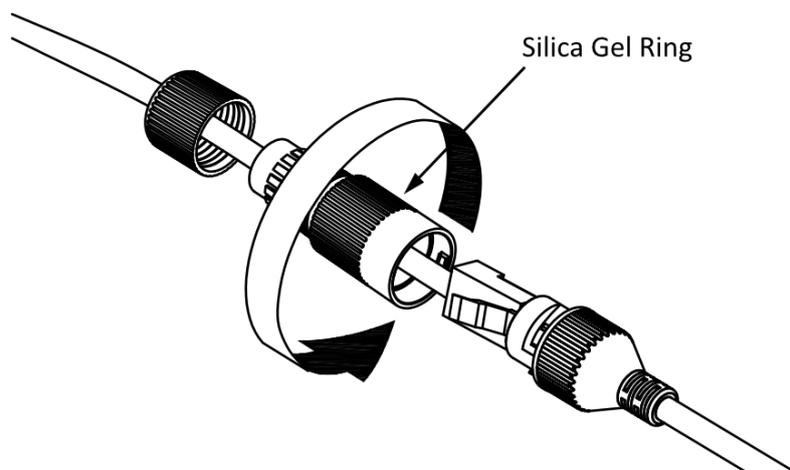
Figure 5-2 Seal the Connection Point

Step 3 Put in the seal plug and rotate the seal cover to complete the waterproof.
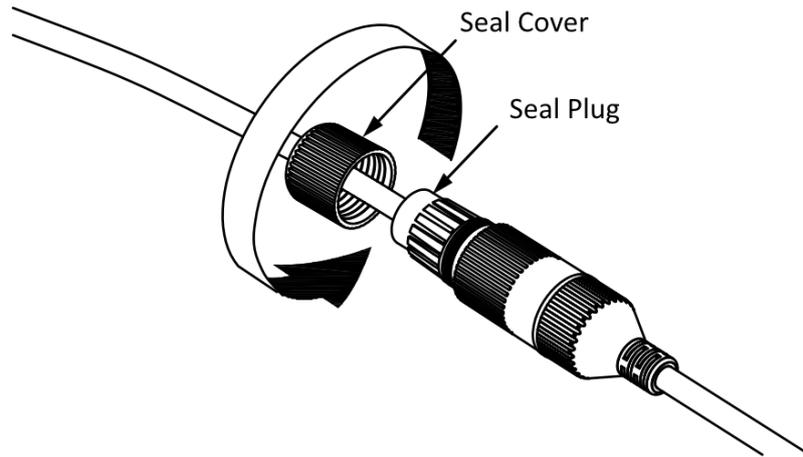
Figure 5-3 Seal the Waterproof Ring

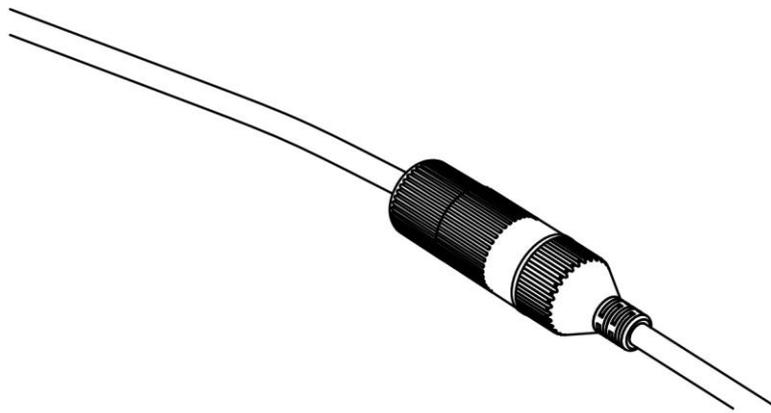Step 4 The finished installation of waterproof suit will look as follows.

Figure 5-4 Finished Installation

5.2 The Waterproof of the Other Cables

Aside from the RJ45 cable which comes with its own waterproof suit, the other cables need tapes for waterproof.
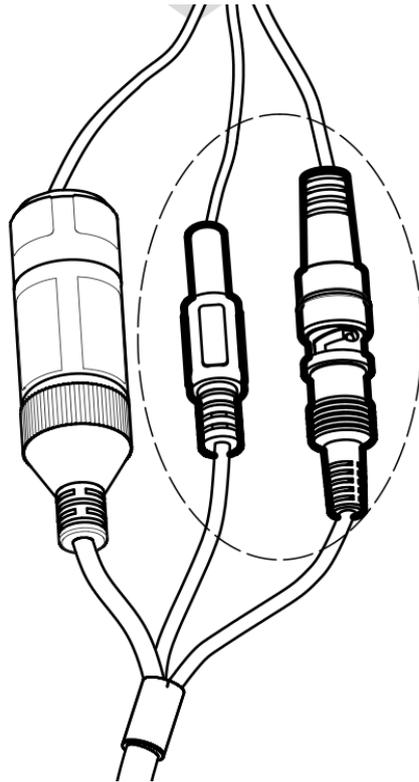
Figure 5-5 Cables to be Waterproofed

Please follow the following steps to apply the tape.
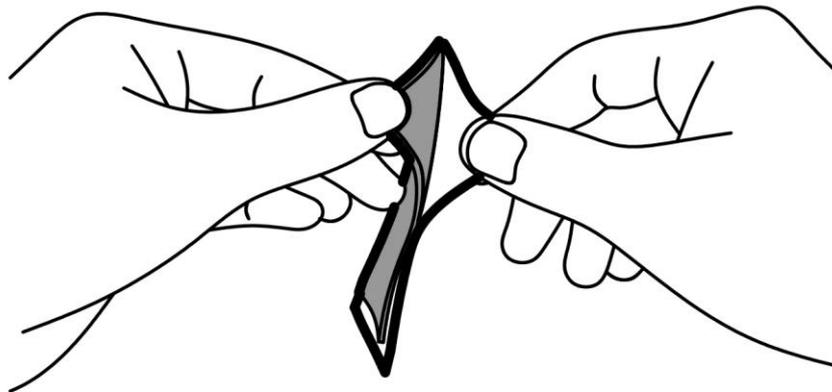
Step 1 Tear the tape from its release paper.

Figure 5-6 Tear the tape

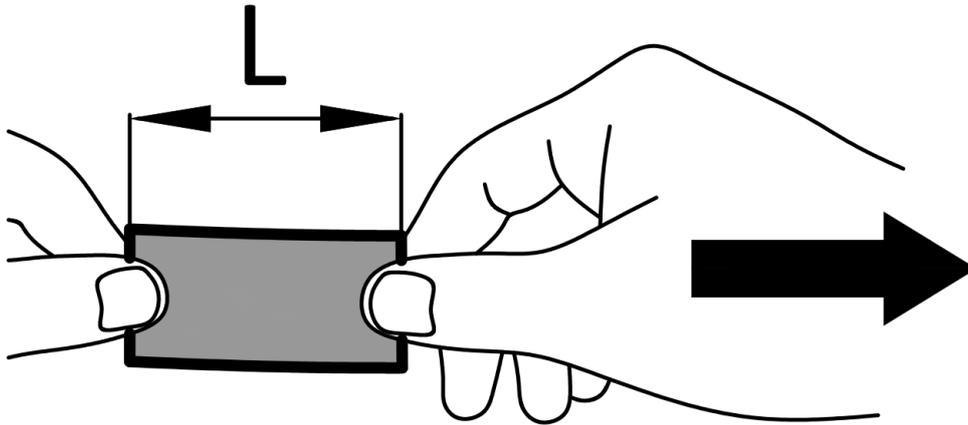Step 2 Record the natural length (L) of the tape.

Figure 5-7 The Natural Length of L

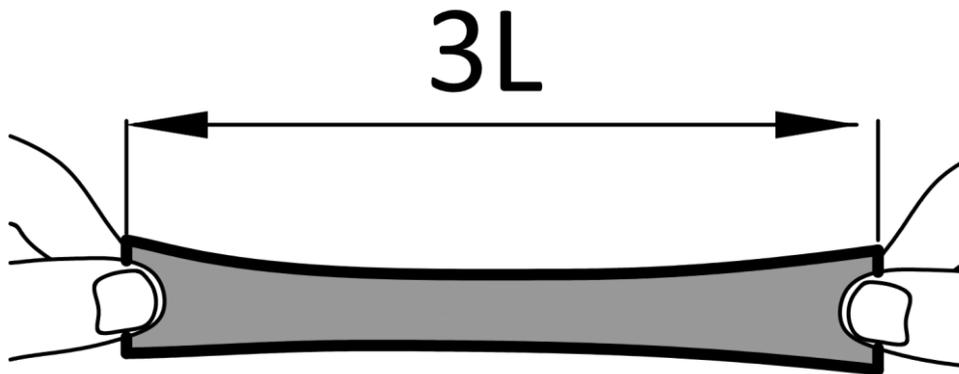Step 3 Further stretch the tape until it reaches 3 times of the original length (3 L).

Figure 5-8 Stretch the Tape

Step 4 Apply the tape on the connection of the cable spirally.
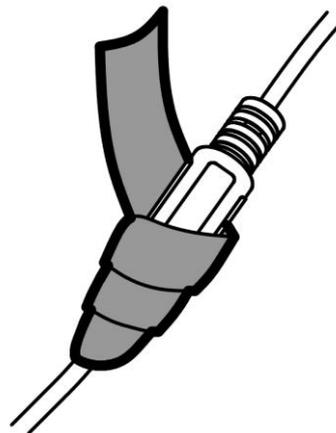

Figure 5-9 Apply the Tape

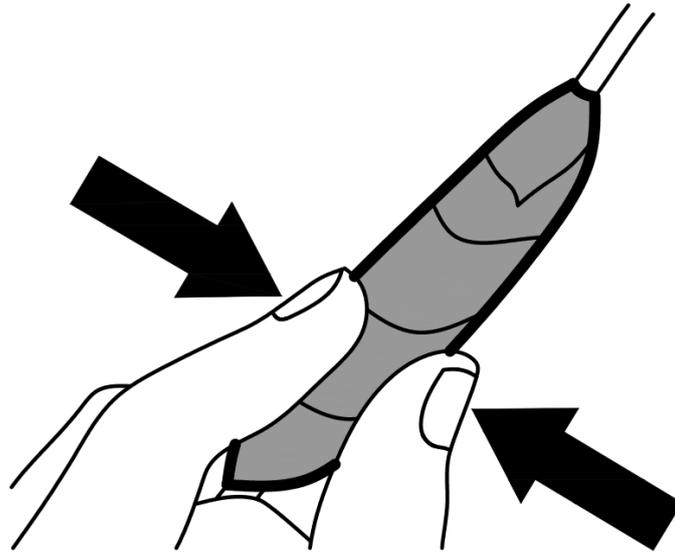Step 5 Press the tape with 2 fingers to make sure that the tape sticks close to the cable.

Figure 5-10 Press the Tape

Step 6 The cables will look as follows after applying tapes to them.
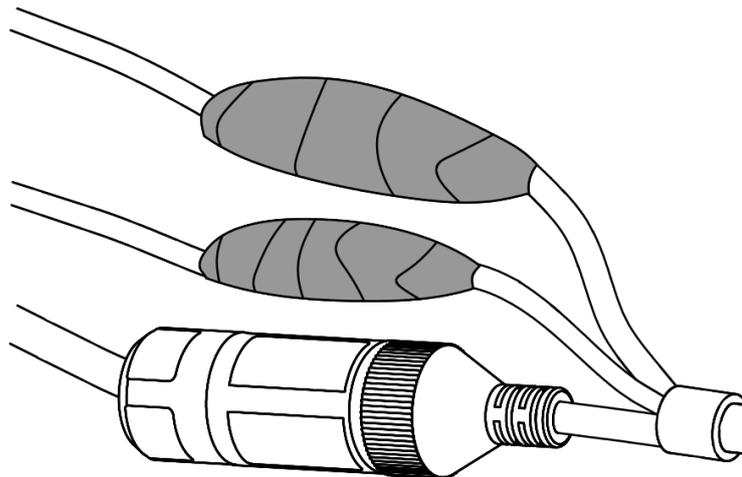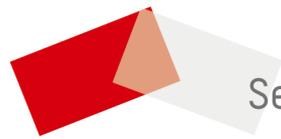

Figure 5-11 Waterproof Completed

Step 7 Repeat the above process to the other cables that needs waterproofing with tape.

See Far, Go Further