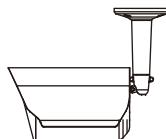# ■ CAMERA INSTALLATION
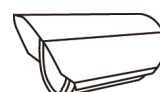
To check the complete user manual and free PC CMS software (CMS Lite), please scan the QR code or go to www.surveillance-download.com/user/m650.swf

■ TYPE1
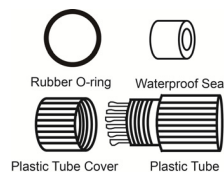
▼ Standard package

Camera	Instructions	Bracket	CD manual
Installation Guide			

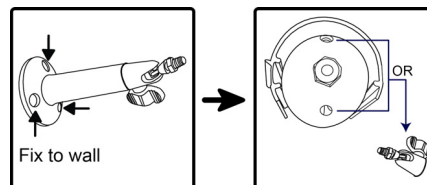| 3-pin terminal block	Screws & wall plugs	Waterproof kit
		Rubber O-ring Waterproof Seal Plastic Tube Cover Plastic Tube

Step1: Fix the bracket to where you want to install the camera with the supplied screws.

Note: *A file for its installation sticker could be downloaded from www.surveillance-download.com/user/a_installation_sticker.pdf.*

Step2: Remove the Joint Lock from the bracket. Then, connect the Joint Lock to the backside of the camera.

Fix to wall   OR

Step3: Connect the camera with the Joint Lock connected to the bracket, and secure the Joint Lock to fix.

Step4: (Optional) To install a microSD card if supported, open the camera front cover, and refer to the section of "INSERT A MICRO SD CARD" for details.

Step5: (Optional) To adjust the focus and focal length if supported, open the front cover of the camera, and refer to the section of "ADJUST FOCAL LENGTH & FOCUS" for details.
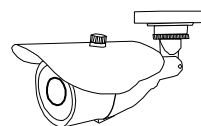
Step6: Power on the camera and adjust the viewing angle of the camera.

Note: *Please adjust the angle up and down within 30 degree respectively, left and right within 15 degree respectively.*
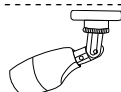
Step7: Fasten the sun shield to the camera with the supplied screw.

Note: *Secure the Joint Lock tightly to avoid the camera dropping down.*
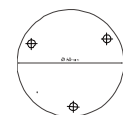
■ TYPE2

▼ Standard package

Camera	Sun Shield	Instructions	Screws & wall plugs
		Installation Guide	

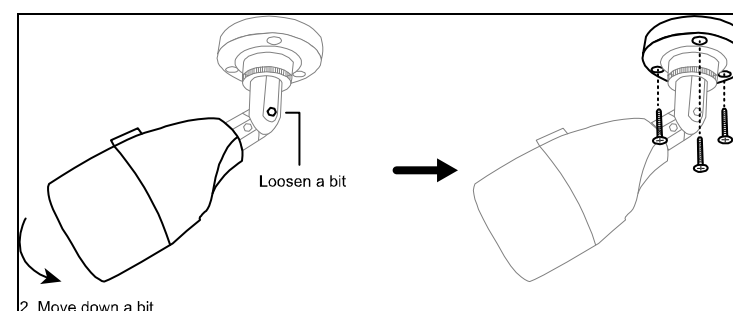| Screw for Sun Shield	Installation Sticker	CD manual	Wrench

Step1: Find the supplied installation sticker, and paste it to where you want to install.

Then, screw holes as marked on the sticker for installation later.

Step2: Loosen the screw as indicated below to move down the camera lens.

Loosen a bit
2. Move down a bit

Step3: Adjust the viewing angle of the camera as indicated below.

Vertical   Rotate   Horizontal

Step4: Slide the sun shield to the camera, and fasten it with the supplied screw.

Slide

Step5: Power on the camera and fine-tune the viewing angle.

■ TYPE3

▼ Standard package

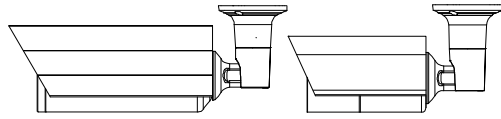| | | Installation Guide | |
| Camera | or | Instructions | Wrench |

Rubber O-ring   Waterproof Seal

Plastic Tube Cover   Plastic Tube

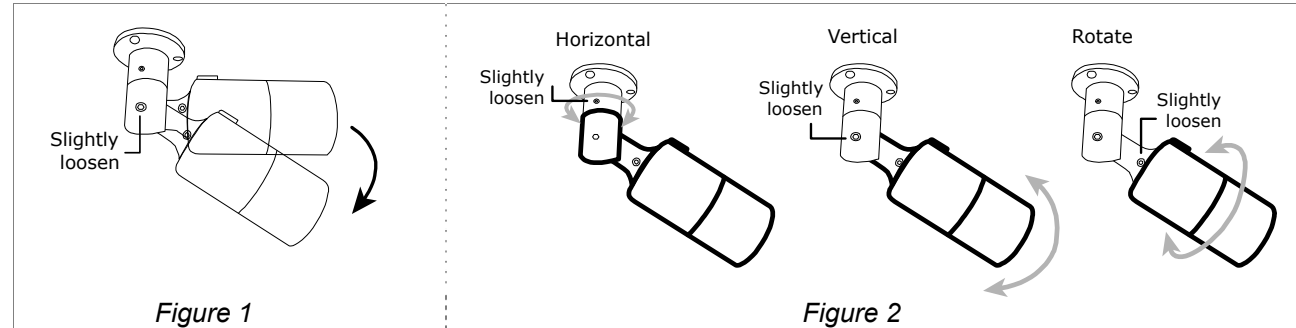| CD manual | 3-pin terminal block | Screws & wall plugs | Waterproof kit |

Step1: Remove the sun shield from the camera.

Step2: Locate where you want to install this camera, and fasten the camera to the ceiling or wall (*Figure 1*).

Note: *A file for its installation sticker could be downloaded from www.surveillance-download.com/user/c_installation_sticker.pdf.*

Note: *It's recommended to slightly loosen the screw on the bracket as indicated below to move the camera down a little bit. It's easier for bracket installation.*

Step3: Adjust the viewing angle of the camera, as indicated in *Figure 2*.

Horizontal   Vertical   Rotate

Slightly loosen

Figure 1   *Figure 2*

Step4: (Optional) To install a microSD card if supported, open the camera front cover, and refer to the section of "INSERT A MICRO SD CARD" for details.
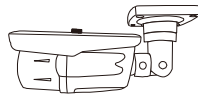
Step5: (Optional) To adjust the focus and focal length if supported, open the front cover of the camera, and refer to the section of "ADJUST FOCAL LENGTH & FOCUS" for details.

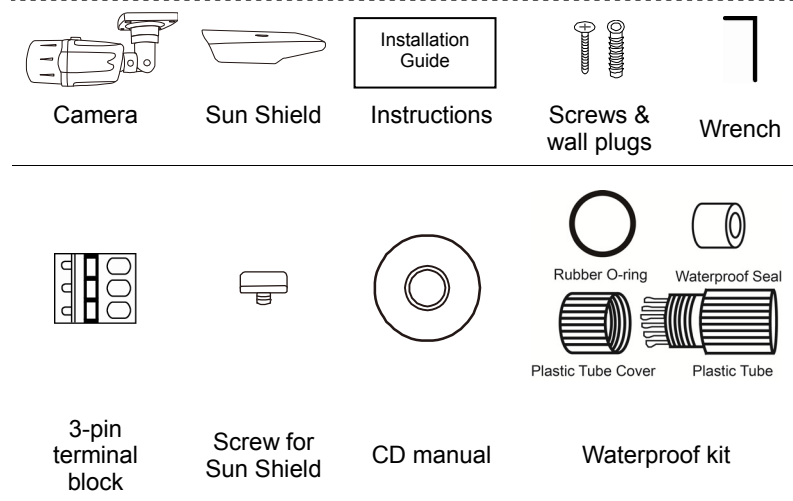Step6: Fasten the sun shield to the camera with the supplied screw.

Note: *In order to make the best performance, please adjust the angle of IR shift up and down within 30 degree respectively, left and right within 15 degree respectively.*

Note: *If the temperature of the installation environment is under 0˚C, 50 minutes or more will be needed for the camera to warm up.*

■ TYPE4

▼ Standard package

| Camera | Sun Shield | Installation Guide / Instructions | Screws & wall plugs | Wrench |

Rubber O-ring   Waterproof Seal

Plastic Tube Cover   Plastic Tube

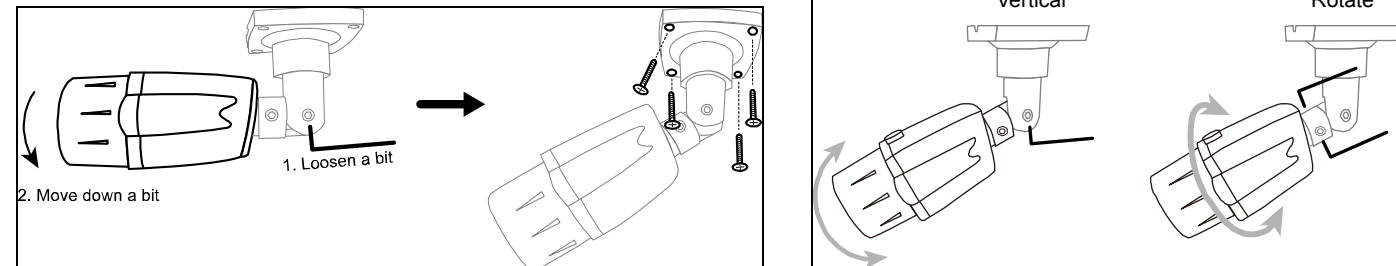| 3-pin terminal block | Screw for Sun Shield | CD manual | Waterproof kit |

Step1: Loosen the screw as indicated below to move down the camera lens.
Then, locate where to install this camera, and fasten the camera to the ceiling or wall.

Note: *An installation sticker is supplied within the sales package to help you drill screw holes on the ceiling or wall to secure the camera.*

Step2: Adjust the viewing angle of the camera as indicated below.

1. Loosen a bit
2. Move down a bit

Vertical   Rotate

Step3: Slide the sun shield to the camera, and fasten it with the supplied screw.
Step4: Power on the camera.
(For vari-focal model) adjust the focal length and focus by turning the screws as indicated on the right.

Focus

Focal length

■ ADJUST FOCAL LENGTH & FOCUS
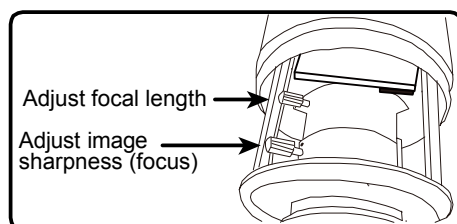
FOR TYPE 1 AND 3 SELECTED MODELS ONLY

Manually: For the vari-focal camera that its front cover could be removed.

Note: *The appropriate temperature for focus adjustment is 0˚C ~ 40˚C, and prevent adjusting in moisture environment.*

Step1: Make sure the camera power is on. Then, remove the front cover.

Step2: Find two handles on the camera as shown below. Move the handle near to the main board first to find the best surveillance area, and move the hand near to the lens to adjust the sharpness of the image.

Step3: Place the front cover back and fasten it tightly.

Adjust focal length →
Adjust image sharpness (focus) →

Remotely: For the vari-focal camera that its front cover could NOT be removed.

To remotely adjust focal length and focus of the camera, access the camera from Internet Explorer.

Note: *The default camera IP address is 192.168.1.10, the port number is 88, and the user name and password are both admin.*
To search the IP address and port number, you could download our IP scan tool from www.surveillance-download.com/user/m650.swf.
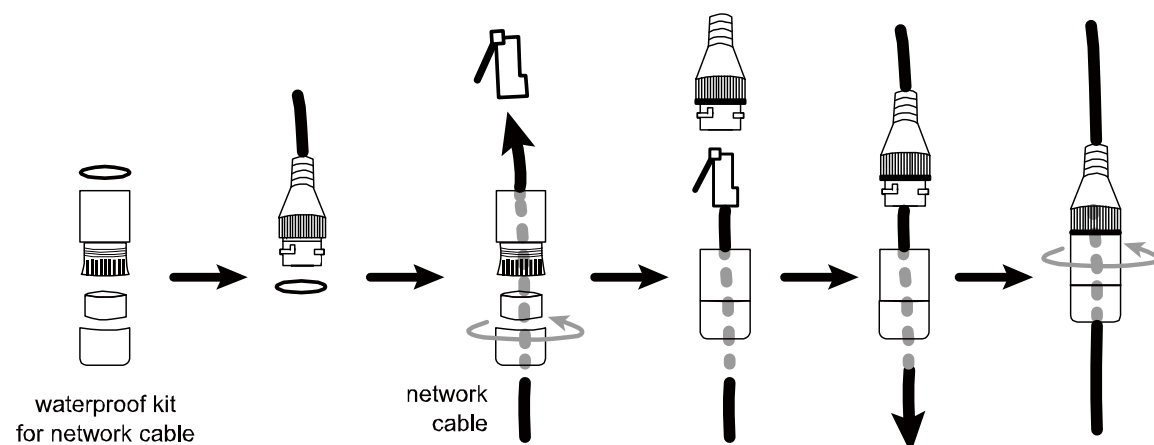
In the tab of "Live View", you'll see the icons in the control panel area as below:

🔍 / 🔍	Zoom Tele / Zoom Wide	Click to zoom in on the image to the largest / zoom out on the image to its original size.
➕ / ➖	Max Zoom Tilt / Max Zoom Wide	Click to zoom in / out the image.
⊞ / ⊟	Focus Far / Near	Click to adjust the focus of the image.

Note: *You can also adjust the focal length and the focus by accessing to the NVR with PTZ controlling. For more detail, please refer to the NVR manual.*

■ WATERPROOF KIT

FOR SELECTED MODELS ONLY

waterproof kit for network cable

network cable

■ DEFAULT VALUES

IP address	192.168.1.10
Port number	88
User name	admin
Password	admin

It's strongly recommended to change the default user name and password before using the camera to keep your account safe.

To change the default account, log into the camera, and go to **Config. → General → Account**. Create a new account, and remove the default one.

■ CABLE

Cable	Description
Power cable	DC12V power supply.
RJ45 network cable*	Connect it to a RJ45 cable.
GND	Used with external alarm device connection or hardware reset.
Alarm-in**	Used for external alarm device connection.
Alarm-out**	
RESET	Reserved for hardware reset. Remove the insulating coating of the wire, and twist it with the GND wire together to reset the camera to ifs factory values.
Line-in**	Colored as blue, used to connect to a microphone for audio input.
Line-out**	Colored as green, used to connect to a speaker for audio output.

* For PoE (IEEE802.3af) installation, make sure your network cable has the maximum cable resistance of 20Ω, such as CAT.5e or CAT.6 cables, to conform to the standard of IEEE802.3af.
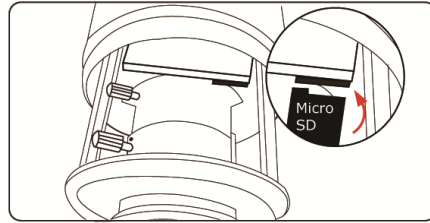** Optional

■ INSERT A MICRO SD CARD

The data originally saved in the micro SD card (if any) will be removed after inserting it to the camera.

The camera doesn't support hot-swapping. Please insert or remove the microSD card with power disconnected.

■ FOR TYPE 1 AND 3 SELECTED MODELS ONLY

Step1: With the front cover removed, find the microSD card slot in the camera.

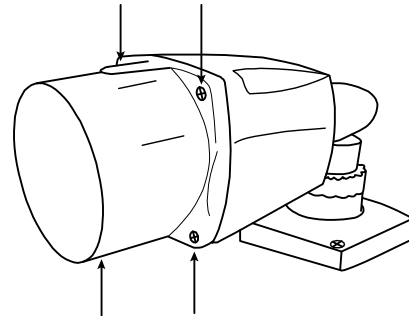Step2: Follow the direction in the figure below to insert the MicroSD card properly:

Note: *It's recommended to use a pair of tweezers for inserting / removing MicroSD card.*
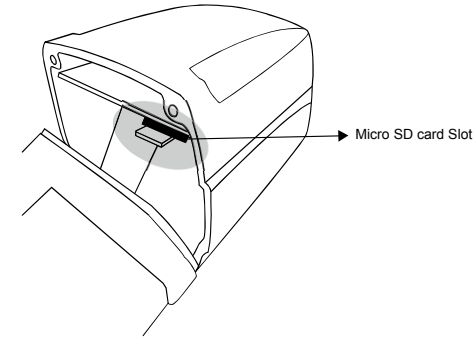
Step 3: Screw back the front cover.

Note: *Please do put the rubber gasket back on the right position in case of water penetration.*

■ FOR TYPE 4 SELECTED MODELS ONLY

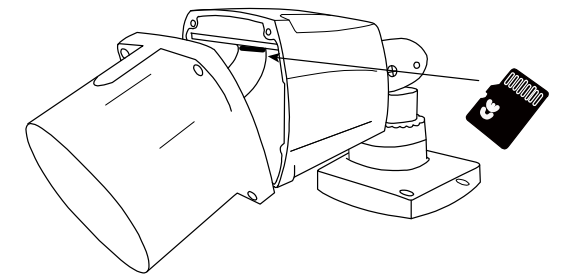Step1: Remove the four screws and open the front cover.

Step 2: Gently open the front cover and locate the Micro SD card slot.

Micro SD card Slot

Step 3: With the front cover removed, find the Micro SD card slot in the camera. Insert the Micro SD card as shown in the picture below

Step 4: Screw back the front cover.

Note: *Please do put the rubber gasket back on the right position in case of water penetration.*

■ SYSTEM CONNECTION

1. Connect IP cameras and a monitor to the NVR, and power on the NVR, as illustrated below.
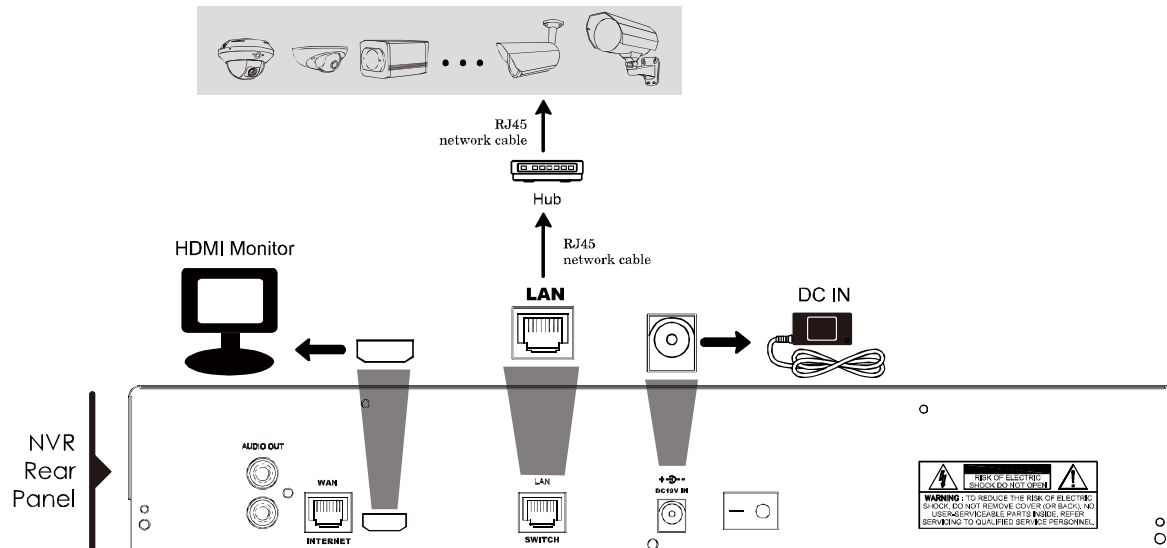
Note: *Local connection only allows monitoring locally. To monitor from anywhere other than the NVR is installed, please connect your NVR to Internet.*

2. Wait till each camera is configured automatically and you will see camera images on the monitor soon.

Note: *Local connection only allows monitoring locally. To monitor from anywhere other than the NVR is installed, please connect your NVR to Internet.*

Type1

Connect IP cameras (as many as the NVR supports):

RJ45 network cable

Hub

RJ45 network cable

HDMI Monitor

LAN

DC IN

NVR Rear Panel

AUDIO OUT

WAN

INTERNET

LAN

SWITCH

DC10V IN

WARNING: TO REDUCE THE RISK OF ELECTRIC SHOCK, DO NOT REMOVE COVER (OR BACK). NO USER-SERVICEABLE PARTS INSIDE. REFER SERVICING TO QUALIFIED SERVICE PERSONNEL.

Type2

HDMI Monitor

Connect IP cameras (as many as the NVR supports):

DC IN

RJ45 network cable

NVR Rear Panel

SATA

HDMI

WAN

INTERNET

WARNING RISK OF ELECTRIC SHOCK DO NOT OPEN

WARNING: TO REDUCE THE RISK OF ELECTRIC SHOCK, DO NOT REMOVE COVER (OR BACK). NO USER-SERVICEABLE PARTS INSIDE. REFER SERVICING TO QUALIFIED SERVICE PERSONNEL.

DC48V IN