HD CCTV Total Solution

IR Dome Camera User Manual

The product image shown above may differ from the actual product.
Please use this camera with a DVR which supports HD video recording.
Please read the instructions thoroughly before using the product.

⚡	**CAUTION**	⚠
	RISK OF ELECTRIC SHOCK	

CAUTION:

To reduce the risk of electric shock, do not expose this apparatus to rain or moisture.

Only operate this apparatus from the type of power source indicated on the label.

The company shall not be liable for any damages arising out of any improper use, even if we have been advised of the possibility of such damages.

⚡ The lightning flash with arrowhead symbol, within an equilateral triangle, is intended to alert the user to the presence of uninsulated "dangerous voltage" within the product's enclosure that may be of sufficient magnitude to constitute a risk of electric shock to persons.

⚠ This exclamation point within an equilateral triangle is intended to alert the user to the presence of important operating and maintenance (servicing) instructions in the literature accompanying the appliance.

RoHS conform ROHS Announcement
All lead-free products offered by the company comply with the requirements of the European law on the Restriction of Hazardous Substances (RoHS) directive, which means our manufacture processes and products are strictly "lead-free" and without the hazardous substances cited in the directive.

The crossed-out wheeled bin mark symbolizes that within the European Union the product must be collected separately at the product end-of-life. This applies to your product and any peripherals marked with this symbol. Do not dispose of these products as unsorted municipal waste.

CE CE Mark
This apparatus is manufactured to comply with the radio interference.

The company does not warrant that this manual will be uninterrupted or error-free. We reserve the right to revise or remove any content in this manual at any time.

FEATURES

1. 1/2.8" CMOS Sensor with 1080P video output
2. External alarm I/O device connection
3. WDR to increase image recognizability in overexposure and dark areas
4. 3-axis mechanism for flexible ceiling and wall-mount installation
5. IR effective distance up to 15 meters for 24-hour surveillance
6. Camera parameters adjustable when used with HD CCTV DVR

PACKAGE CONTENT

➢ IR dome camera   ➢ User manual   ➢ Accessories

DIMENSIONS*

Ø130mm   R45   93.6mm   Lens Rotate 145°   Vertical Tilt 26.5°   Horizontal Pan 358°
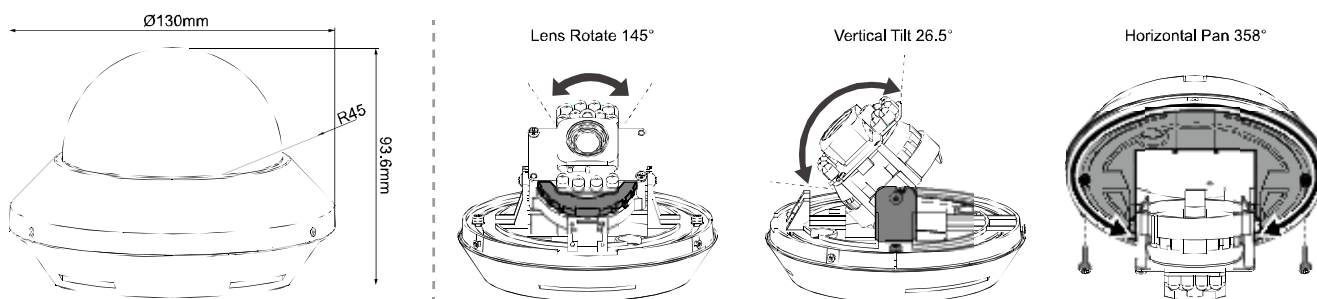
*Dimensional Tolerance: ± 5mm

SPECIFICATIONS*

Pick-up Element	1/2.8" SONY CMOS image sensor
Number of Pixels	1936(H) × 1096(V)
Video Frame Rate	1080P@30fps / 1080P@25fps
Min. Illumination	0.1 Lux / F1.8, 0 Lux (IR LED ON)
S/N Ratio	More than 48dB (AGC OFF)
Shutter Speed	1/10,000 ~ 1/7.5 (Slow shutter)
Lens	f3.6mm / F1.8
Lens Angle	87° (Horizontal) / 46° (Vertical) / 104° (Diagonal)
IR LED	12 units
IR Effective Distance	Up to 15 meters
IR Shift	YES
IRIS Mode	AES
White Balance	ATW
AGC	Auto
WDR	YES (120dB)
External alarm I/O	YES (1 input / 1 output)
Operating Temperature	0℃ ~ 40℃
Operating Humidity	90% or less relative humidity
Power Source (±10%)	DC12V / 1A
Current consumption (±10%)	385mA (IR ON); 280mA (IR OFF)
Optional Peripherals	Wall-mount bracket (PAVM542-BKT(B))

* The specifications are subject to change without notice.

INSTALLATION

Step1: Separate the dome cover from the camera.

Step2: Make sure the screw holes on the plate are aligned with the holes on the camera base.
If not, slightly loosen the two screws on the plate and rotate it.
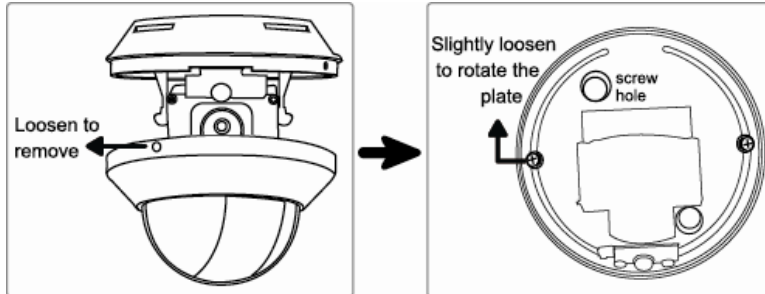
Step3: Mark the locations of two screw holes on the ceiling or wall for installing the camera later.
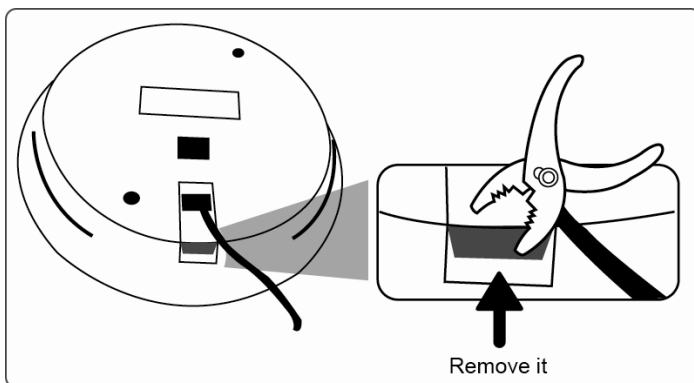
NOTE: An installation sticker could be downloaded from
www.surveillance-download.com/user/503_installation_sticker.pdf.

-- For cabling behind the ceiling or wall, mark the location for one more hole for the camera cable to go through;

-- For cabling along the ceiling or wall, do as indicated below for the cable to go through.

Step4: Fix the camera to the ceiling or wall with the supplied screws.

Step5: Connect your camera to power.

Step 6: Pan, tilt and rotate the lens itself to adjust the position and viewing angle of the camera, and fasten the two screws on the plate to fix.

| Lens Rotate 145° | Vertical Tilt 26.5° | Horizontal Pan 358° |
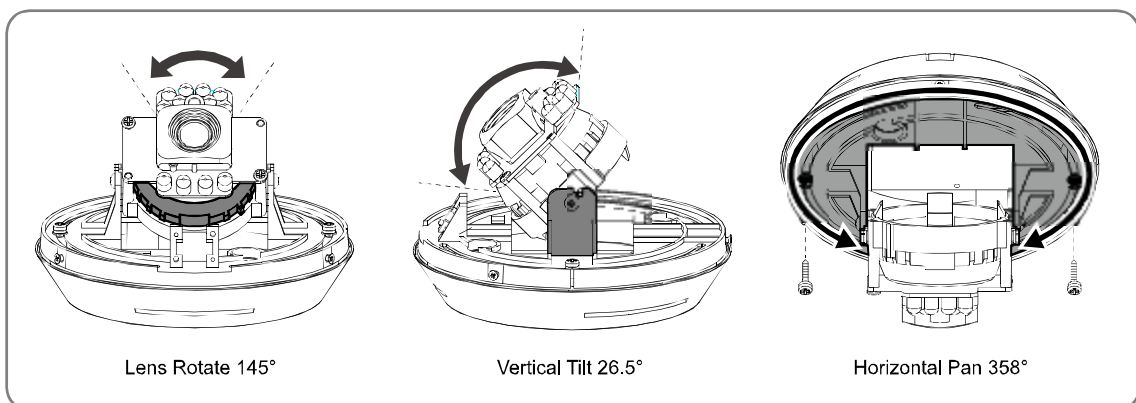
Step 7: Replace the dome cover back to the camera.

NOTE: Please wipe the inner part of the dome cover against the lens for clear images.

CONNECTION

1. DC12V Input Terminal

   Connect the power terminal of the camera to a DC 12V regulated power supply.

Note: Please use the correct power adaptor, DC12V (regulated), to operate this unit. The power tolerance of this unit is DC12V ± 10%. Over maximum DC 12V power input will damage this unit.

2. Video Output Connector (VIDEO OUT)

   Connect the camera video output to the video input of a DVR with 75Ω coaxial cable.

Note: To ensure the camera has sufficient protection against moisture, an extra waterproof measure, such as by using an insulating tape, must be used to cover the power and video connectors after connection.

WIRE INDICATION FOR ALARM CONNECTION

COLOR	FUNCTION
Yellow	ALARM IN
Blue	ALARM OUT
Black	GND

* Please use with a 3V relay.

CAMERA PARAMETERS

On the DVR live view, right click to show the DVR main menu, and select **ADVANCED CONFIG** →
DCCS. Then, select the channel which connects this camera, and click SETUP to enter the menu of
camera parameters.

```
               ADVANCED CONFIG

  CAMERA             CH1   CH2   CH3   CH4
  DETECTION          MENU            SETUP
  ALERT
  NETWORK
  DISPLAY
  RECORD
  DCCS               DEVICE          XXXXX
  NOTIFY             CONNECTION      OK

       EXIT
```

MENU	DESCRIPTION
BRIGHTNESS	Click the current value to manually adjust the brightness of the image. The higher the value, the brighter the image.
CONTRAST	Click the current value to manually adjust the contrast of the image. The higher the value, the higher the contrast ratio.
HUE	Click the current value to manually adjust the hue of the image.
SATURATION	Click the current value to manually adjust the saturation of the image. The higher the value, the more saturated the image.
VIDEO FORMAT	Select the video format: **NTSC** / **PAL**.
WHITE BALANCE	Process the current image to retain color balance over a color temperature range. The options are: **Auto**, **2500K**, **3200K**, **4200K**, **5800K** & **9500K**. 9500K = Partially cloudy; 5800K = Mid summer; 4200K = White fluorescent; 3200K = Halogen light bulb; 2500K = Halogen light bulb.
SHARPNESS	Sharpness enhances the clarity of image detail by adjusting the aperture and sharpening the edges in the pictures. Click the current value to manually adjust the sharpness of the image. The higher the value, the sharper the image.
SLOW SHUTTER	Slow shutter is used to increase the exposure time to get clearer image, for example, at night. It's enabled only in the dark environment. The options are: **AUTO**, **1**/**15** and **1**/**6**.
MIRROR	Select **ON** to turn the images horizontally based on your installation situation when necessary.
FLIP	Select **ON** to flip the image 180° when necessary.

MENU	DESCRIPTION
3D DENOISE	Click and drag the slider to adjust the level from **0 ~ 5** to decrease the noise shown in the dark environment.
	3D denoise analyzes successive pictures to decrease the noise dramatically, but the moving objects might be shown as blurred.
2D DENOISE	Click and drag the slider to adjust the level from **0 ~ 5** to decrease the noise shown in the dark environment.
	2D denoise analyzes only a single picture to decrease the noise. The moving objects can remain smooth edges, but the effect might be limited.
EXPOSURE VALUE	Drag the slider to adjust the exposure level from **0 ~ 4**. The higher the value, the brighter the image.
WIDE DYNAMIC RANGE	Wide Dynamic Range (WDR) is used when users need to increase image recognizability in an environment where very bright and dark areas exist simultaneously.
	The options are: **LOW** / **MIDDLE** / **HIGH** / **OFF**. The more extreme the bright and dark areas exist simultaneously in an environment, the higher the value should choose to get clear images.
FIXED SHUTTER	Shutter Speed is a function that can adjust the duration of the electronic shutter to produce optimum image quality. Select the shutter speed suitable for your environment.
	The options are: **OFF**, **FIX 1/15**, **FIX 1/25**, **FIX 1/30**, **FIX 1/50**, **FIX 1/60**, **FIX 1/100**, **FIX 1/120**, **FIX 1/250**, **FIX 1/500**, **FIX 1/1000**, **FIX 1/2000**, **FIX 1/5000**, **FIX 1/10000**.
DEFOG	Select **ON** to enable the defog function in poor weather conditions such as fog, smog or smoke. The captured image can be improved.
IR CONTROL	Select **AUTO** to automatically enable IR LEDs at night or in the dark environment, or **OFF** to disable this function.
IR TURN ON LEVEL	Select the level for IR light to activate. **0 ~ 20**. The higher the value, the more sensitive the IR light to activate.
IR DELAY TIME	Set the delay time from **1 ~ 60** in second after which the day and night switch is made, or select **0** to disable this function.
	This is used for the environment where the light condition may change suddenly and usually last for a short time, for example, the entrance of a parking lot. It may cause the day & night mode switching constantly and damage the camera.
	With this function, the camera will delay the mode switch at night since the light change is temporary and unnecessary to pay attention.
RESET DEFAULT	Click to reset all camera settings to their default values. The camera will reboot to complete the reset process.
REBOOT THE SYSTEM	Click to reboot the camera if necessary.