

Day & Night IR Armor Dome camera

1/3" Sony Super HAD / EX-view HAD

OPTION



Surface mount
2-axis



Flush mount
2-axis



Round
3-axis

* Housing type ☐ Surface ☐ Flush ☐ Round

* Resolution ☐ 400TVL
☐ 400TVL Ex-view
☐ 500TVL
☐ 500TVL Ex-view
☐ 560TVL
☐ 560TVL Ex-view

* Sync. system ☐ Internal ☐ Line Lock

* Lens -Board lens
☐ 2.9mm ☐ 3.6mm ☐ 4.3mm
☐ 6.0mm ☐ 8.0mm ☐ 12mm
☐ 16mm
 -Varifocal lens
 · Manual IRIS lens
☐ 2.6~6.0mm ☐ 4.0~9.0mm
☐ 9.0~22.0mm
 · DC IRIS lens
☐ 2.6~6.0mm ☐ 4.0~9.0mm
☐ 9.0~22.0mm

* Cable ☐ 1.2m BNC-Cable
☐ 1.2m RCA-Cable
☐ Other

Specification

Version		STD-Res		High-Res	
Image sensor		1/3" Sony Super HAD CCD	1/3" Sony Ex-view HAD CCD	1/3" Sony Super HAD CCD	1/3" Sony Ex-view HAD CCD
Effective Pixels		NTSC : 512(H)X492(V) PAL : 500(H)X582(V)		NTSC : 768(H)X494(V) PAL : 752(H)X582(V)	
H.Resolution		Med : 400TVL, High : 500 TVL, HQ : 560TVL			
Sync. system	12VDC	Internal			
	24VAC	Internal / Line Lock (L)			
Min. Illumination (IR off)		0.2 Lux	0.1 Lux	0.2 Lux	0.1 Lux
Visible distance at "0" lux dark (IR on)		28M	38M	28M	38M
LED Spectrum		850nm visible IR LED x 21EA			
Scanning system		NTSC 525 Lines PAL 625 Lines 2:1 Interlaced			
Video output		1.0Vp-p Composite. 75 Ohms			
S/N ratio		More than 50 dB (AGC Off)			
Shutter speed		NTSC : 1/60 ~ 1/100,000 sec PAL : 1/50 ~ 1/100,000 sec			
Gamma correction		γ=0.45			
White balance		2100°K ~ 9100°K Auto			
Gain Control		4dB~32dB Auto			
Smear effect		0.005%			
Power source	12VDC version	12VDC (Regulated) / 90mA (560TVL ver : 140mA)			
	24VAC version	24VAC / 60mA, Non-polarity (560TVL ver : 200mA)			
Operation current	12DCV version	LED Off : 120mA / LED On : 300mA (560TVL ver : LED Off : 200mA / LED On : 320mA)			
	24VAC version	LED Off : 60mA / LED On : 150mA (560TVL ver : LED Off : 90mA / LED On : 160mA)			
Lens	Monofocal	Standard	f=3.6mm (92°)		
		Exchangeable	2.9mm(120°), 4.3mm(78°), 6.0mm(54°), 8.0mm(39°), 12mm(26°), 16mm(19°)		
	Varifocal	4-9mm	Electronic IRIS : 4mm ~ 9mm Varifocal (D 92.6° ~ 39.4° H 71° ~ 31.6°) Auto DC IRIS : 4mm ~ 9mm Varifocal (D 92.6° ~ 39.4° H 71° ~ 31.6°)		
		2-2.6/9-22mm	Electronic IRIS : 2.6mm ~ 6mm / 9mm ~ 22mm Auto DC IRIS : 2.6mm ~ 6mm / 9mm ~ 22mm		
Operating Temperature		14°F ~ 122°F (-10°C ~ +50°C)			
Humidity		Within 90% RH			
Output Terminal		4 Feet DIY cable with BNC-Female for Video, DC-Ma for power			
Measurement (mm)		Refer to dimensions			
Weight (Approx.g)		950/1100 (Flush/Surface) / 900 (Round)			
Optional Functions		True Day/Night			
		Dual Filter mechanism (Varifocal lens)			
		External Audio			

Made in Korea

The latest technology achieved a perfect Infra-red combined Day&Night color camera. Several unique technologies are newly adopted to make the unit the worlds' best in performance and reliability. Conventional IR cameras have been troubled by some inevitable technical limitations such as overheating, short-term IR life, defocusing at night view, moisture condensation, lack of getting clear image under IR beam, short distance of IR illumination by using small number of LEDs etc. The unit now provides highly increased performance with all points greatly improved. Best of all, the camera guarantees a perfect solution of reliable long time night vision with no horrible damages in IR performance. Even under extreme conditions such as fire and terrorist attacks, our IR camera will capture clear image to assist the rescue team to act responsibly and store important evidences for future review.

Greatly improved sensitivity

Added with sensitivity enhance hardware technology plus built-in BW mode change over system(True DN), the unit generates at least two times better low lux performance than conventional cameras.

Long distance ex-clear view at total darkness

High sensitive, long range Infra-red LEDs (850nm IR x 21ea) adapted. It completely uncovers long distance dark area at 0 Lux night within the distance of 3~38M (Ex-view HAD) / 3~28M (Super HAD). Invisible 940nm IR LEDs are available as an option.

True Day & Night image change at 5 Lux (True DN)

The mode of image is instantly changed from Color at daytime to BW at nighttime at 5 lux darkness automatically. Combined with dual filter system built-in, this performance makes the unit reproduce a perfectly true color at day and a noiseproof true BW image at night.

Greatly improved horizontal resolution (10bit data process)

With the built-in 10 bit DSP technology, this camera provides an extremely enhanced resolution by 10% higher at color mode and 20% higher at BW mode than conventional cameras.

Self focus compensation technology under IR illumination

The unit incorporates a self focus adjustment technology that precisely corrects the focus shift when IR illumination is activated at night. Smart capability of focusing at both day and night enables the camera to maintain an extreme resolution.

Intelligent IR Protection technology(IIRP) built-in

The model incorporates an IR LED protection technology that intelligently prevents IR LEDs from burning out after long time use and to maintain the performance of IR LEDs for extremely long time. Generally, conventional LED cameras are intentionally over-powered in order to brighten up the beam strength and this makes the camera heated and seriously hurt the life cycle of LED and CCD sensor. It is regarded as natural having no alternative before. Now this problem is ended with this unit. It uniquely provides a clear solution for a trouble-free and absolutely powerful Day & Night LED camera

Accurate LED on/off (No hunting)

The LED light accurately turns on/off at 5 Lux with precise CDS technology.

Complete waterproof mechanism(IP66)

The unit passed IP66 degree of weatherproof and burning test for 24hrs in order to guarantee a moisture condensation-free in any harsh weather condition

Key Features

<Mechanical>

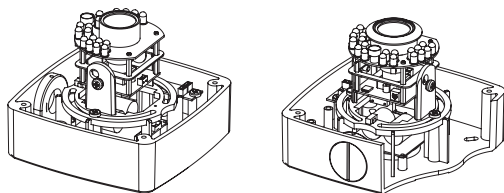
- Robust metal Armor Housing !
- Poly carbonate clear cover !
- Optically correct clear window !
- Reflection free !
- No condensation !
- Weatherproof for Indoor or Outdoor (IP66) !
- Very easy to install !
- Compact and Beautiful Design!
- Easy access to Dip SW for function adjustment !

<Electrical>

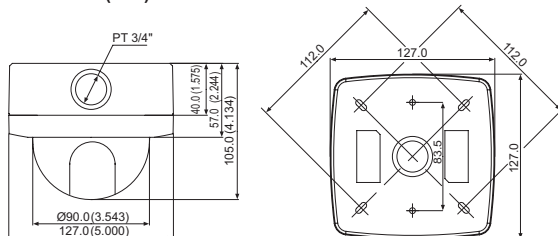
- 1/3" Sony Super HAD or EX-View HAD Color CCD sensor built-in
- Long distance night time surveillance at 0 Lux
- Higher resolution
- Extremely accurate color reproduction (with 10bit A/D process)
- Precise Self focus technology under IR activation (SFOCAS)
- Automatic image conversion from Color to BW (True DN)
- Intelligent IR Protection technology built-in (IIRP)
- IR cut/pass dual filter built-in (Removable filter) - Varifocal lens
- DIP SW functions (ALC/ESC, BLC on/off, AGC nor/max, Push/ATW)
- Reverse polarity power input protection built-in
- Surge power input protection built-in
- Accurate LED on/off (No hunting)
- 20,000 hours of IR MTBF
- 12VDC or 24VAC Linelock (No color rolling)

Surface mount

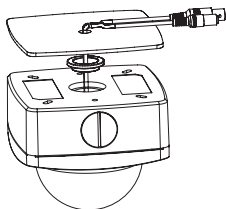
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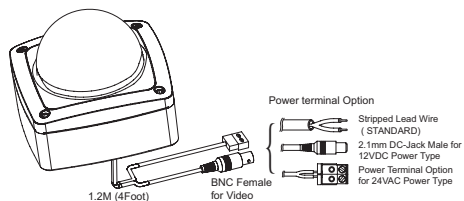
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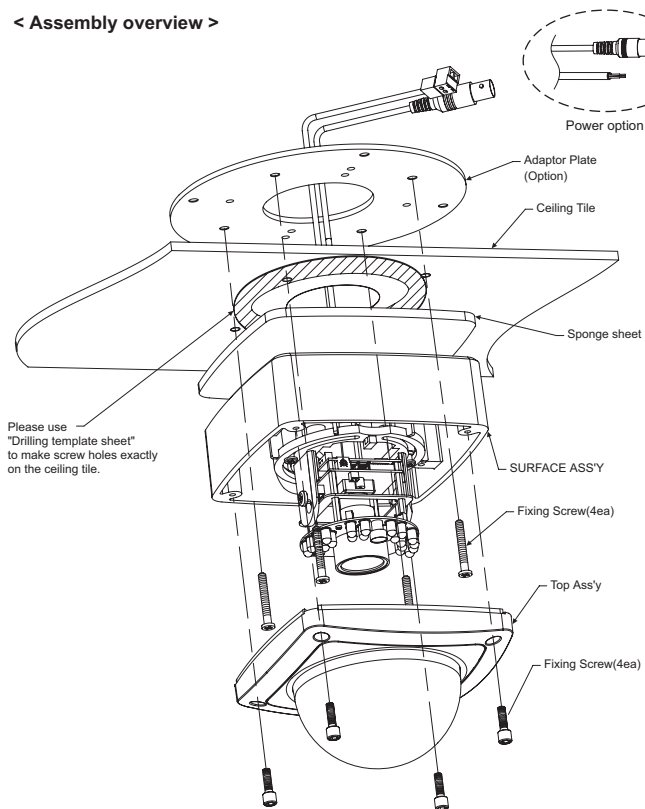
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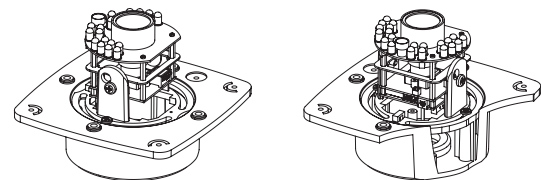


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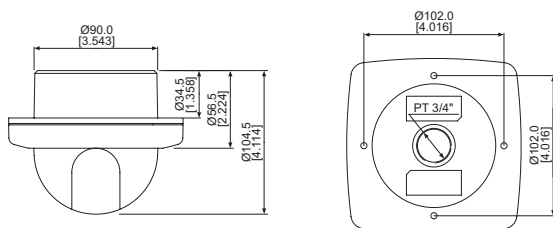


Surface mount

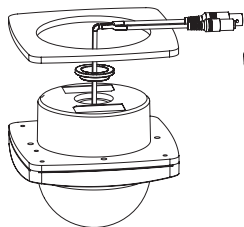
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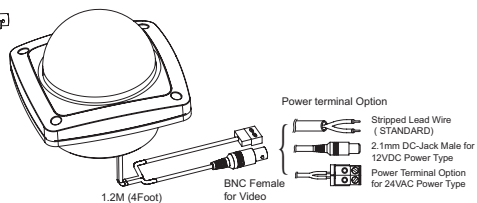
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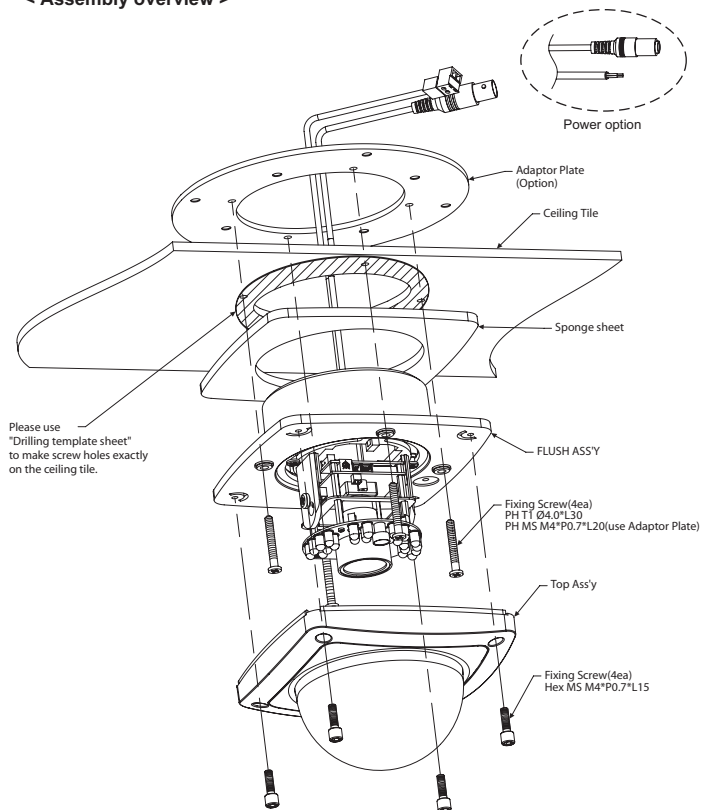
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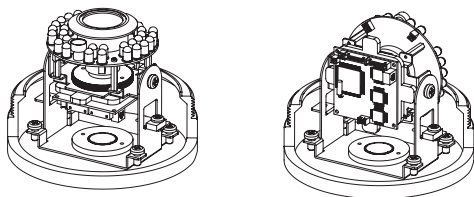


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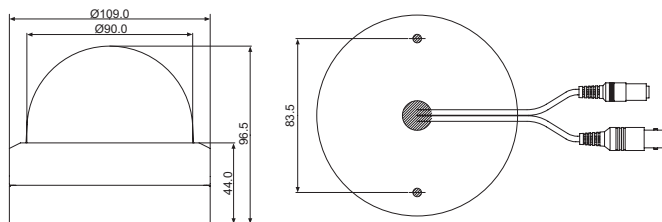


Round

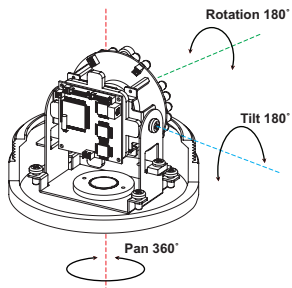
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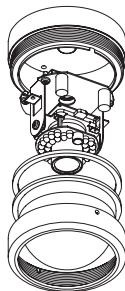
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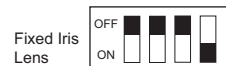
< 3-axis >



< Assembly overview >

**DIP S/W Functions**

* 12VDC / 24VAC Power Type (4 Pin Dip S/W Function)

- TOP

☐ = ON (down) ☐ = OFF (up)

* EX-factory set-up

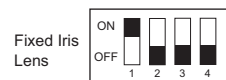


☐ = ON (down) ☐ = OFF (up)

* EX-factory set-up

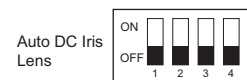
4 pin Dip S/W Function Adjustment

Switch No.	Function	ON	OFF
1	White Balance	ATW	PUSH
2	AGC	Normal	Max
3	BLC	BLC ON	BLC OFF
4	Iris control	Electronic Iris (ESC)	Auto Iris (ALC)

- BOTTOM

☐ = ON (up) ☐ = OFF (down)

* EX-factory set-up



☐ = ON (up) ☐ = OFF (down)

* EX-factory set-up

4 pin Dip S/W Function Adjustment

Switch No.	Function	ON	OFF
1	Iris control	Electronic Iris (ESC)	Auto Iris (ALC)
2	BLC	BLC ON	BLC OFF
3	AGC	Normal	Max
4	White Balance	ATW	PUSH

Trouble Shooting

If the unit continues to be fault after the following adjustments, please consult you dealer.

When the IR LED does not work.

- * Please check if the power unit is regulated or not. Please use 12VDC regulated power unit only.

When the picture is not displayed on the monitor

- * Please check if the AC-DC power unit is plugged into the AC power outlet firmly.
- * Please check if there are any misconnections in the cabling.

When the picture is blurred

- * Please check if the lens is contaminated. Please clean the lens (on both sides) and the front glass surface gently with soft cloth or tissue.
- * Please check if the lens is focused properly.
- * Please check if the Dip switch is set properly.
- * Please check if the monitor is set to brightly. Adjust the brightness or contrast level on the monitor correctly.

When the color displayed on the monitor is not correct

- * Please check if the monitor's color adjustment is set correctly.
- * Please check if the camera is changed to BW mode under 5 lux.

When the picture is too dark

- * Please check if the monitor's contrast is set to too dark.
- * Please check if the camera is positioned toward a door or window.
If so, please change the BLC switch among the Dip switch configuration to on mode.

Trouble Shooting

When the picture is too bright

- * Please check if the monitor's brightness control is too high.
- * Please check if the camera is set to BLC on under normal lighting conditions. (i.e. when the camera is not pointed toward a brightly lit area).
Please move the BLC select switch to the BLC off position.

When there is noise on the picture in dark illumination conditions

- * The camera picture becomes noisy under AGC Max mode in order to increase the video gain in poor lighting conditions. Please move the AGC switch to off position if it is not required.

When the picture is not clear on the monitor

- * Please check if the monitor is set to correctly.
- * Please check if the camera is pointed towards an area where too much light comes in.
Adjust the direction of the camera in this case.

When the picture is flickering

- * Please check if the camera is pointed at the fluorescent lighting or bright sunlight. Adjust the direction of the camera in this case.
- * Please check if the Iris mode is set to correctly.

When the picture is distorted

- * Please check if the lens is defective.
- * Please check if the camera is PAL/CCIR(50Hz) in an NTSC/EIA(60Hz) area or vice versa.