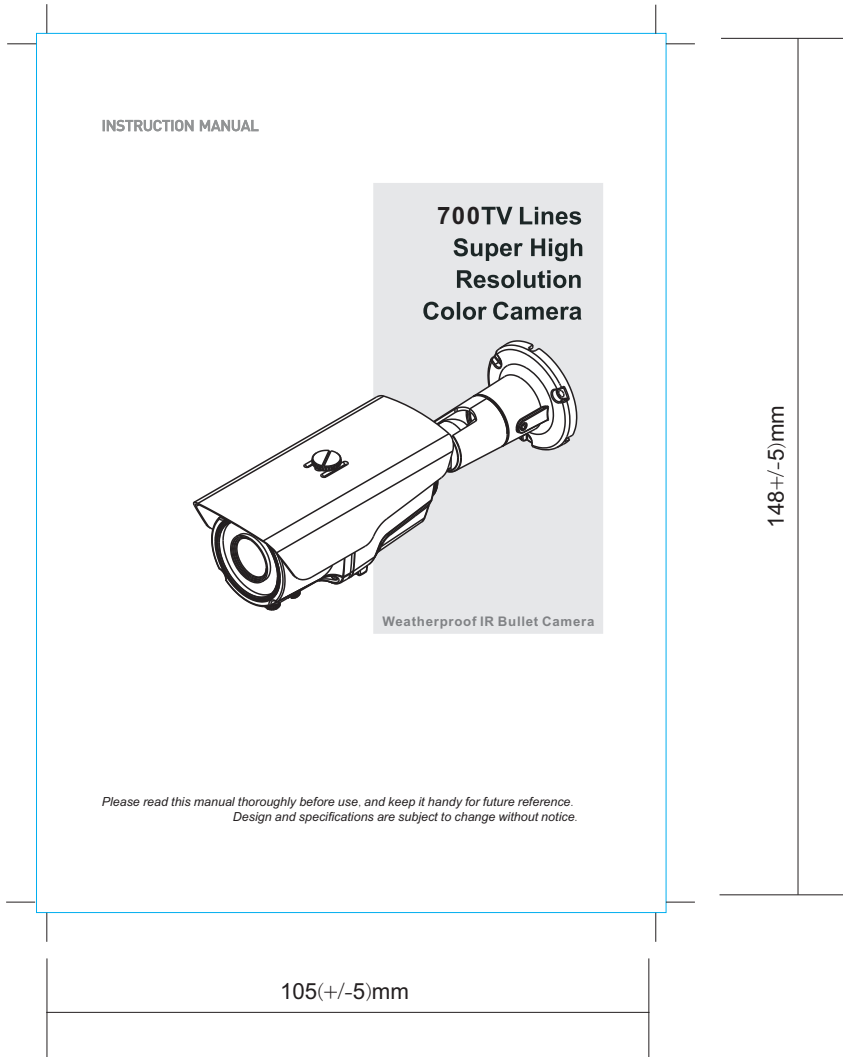


PRODUCTION RELEASE & REVISION						
REV	DESCRIPT'N/BUYER	DWG No	PARTS No.	BY	CHK	DATE
A	INITIAL	-----	50303663	J.Y.LIU	M.J.KWON	14-01-20
B	15p Heater 추가	-----	50303663	J.Y.LIU	M.J.KWON	15-01-22
C	6-22mm lens 추가	-----	50303663	J.Y.LIU	M.J.KWON	15-04-01

rev.B-Heater추가 . 재고소진후 루트구분적용
rev.C-6-22mm Lens추가(N2090공용)



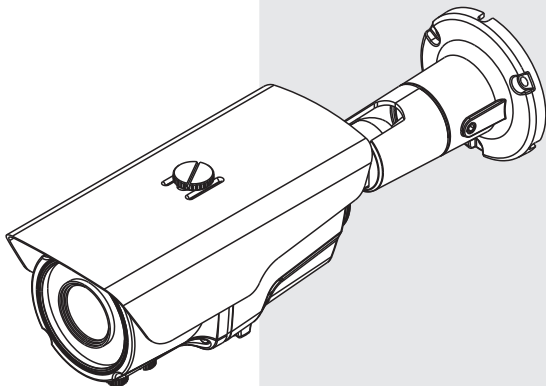
NOTES

- 1.MODEL: HCUI-N4(9)1(5)NN(P)VxU5(H) / NoBrand(φ 75)
- 2.MATERIAL: 모조지100g/m² WHITE
- 3.COLOR: BLACK
- 4.SIZE:105(+/-5)mm x 148(+/-5)mm
- 5.LABEL: -----

의견	전자
	장경석
	15-04-01

50303663		ITEM	DESCRIPTION/MATERIAL	QTY
PARTS LIST				
UNLESS OTHERWISE SPECIFIED ALL DIMENSIONS ARE IN MM. - TOLERANCE LABEL +/- 3 MANUAL +/- 5 GUIDE +/- 5		APPROVALS	DATE	Manual Instruction
		CHKED K.H.Jung	15-04-01	
MATERIAL	2	CHKED D.W.Hwang	15-04-01	TITLE
COLOR	3	DRAWN J.Y.LIU	15-04-01	SIZE A4 REV. C
SCALE DO NOT SCALE				

**700TV Lines
Super High
Resolution
Color Camera**



Weatherproof IR Bullet Camera

*Please read this manual thoroughly before use, and keep it handy for future reference.
Design and specifications are subject to change without notice.*

FCC COMPLIANCE STATEMENT

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, and (2) this device must accept any interference received, including interference that may cause undesired operation.


FCC INFORMATION : 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.

CAUTION : Changes or modifications not expressly approved by the party responsible for compliance could void the user's authority to operate the equipment.

CE COMPLIANCE STATEMENT

WARNING : This is a Class A product. In a domestic environment this product may cause radio interference in which case the user may be required to take adequate measures.

IMPORTANT SAFETY INSTRUCTIONS

1. Read these instructions.
 2. Keep these instructions.
 3. Heed all warnings.
 4. Follow all instructions.
 5. Do not block any ventilation openings. Install in accordance with the manufacturer's instructions.
 6. Do not install near any heat sources such as radiators, heat registers, stoves, or other apparatus (including amplifiers) that produce heat.
 7. Only use attachments/accessories specified by the manufacturer.
 8. Use only with the cart, stand, tripod, bracket, or table specified by the manufacturer, or sold with the apparatus. When a cart is used, use caution when moving the cart/ apparatus combination to avoid injury from tip-over.
- 
- 9. CAUTION - THESE SERVICING INSTRUCTIONS ARE FOR USE BY QUALIFIED SERVICE PERSONNEL ONLY. TO REDUCE THE RISK OF ELECTRIC SHOCK DO NOT PERFORM ANY SERVICING OTHER THAN THAT CONTAINED IN THE OPERATING INSTRUCTIONS UNLESS YOU ARE QUALIFIED TO DO SO.**
- 10. Use satisfy clause 2.5 of IEC60950-1/UL 60950-1 or Certified/Listed Class 2 power source only.**
11. Indoor use only.

EXPLANATION OF GRAPHICAL SYMBOLS



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.



The 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 product.

INTRODUCTION

The camera provides high-quality images using CCD technology especially designed for closed-circuit television (CCTV) and security surveillance applications.

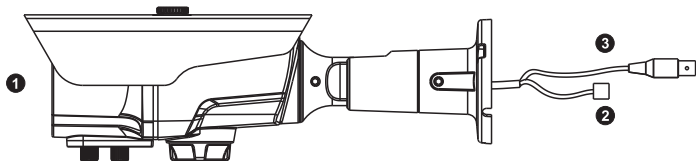
Features:

- High resolution and high performance 1/3" CCD Technology
- Excellent picture quality
- 700 lines(Color) of resolution
- 0.1 lux(Color), 0 lux(B/W) @ F1.2 50 IRE Sensitivity
- Auto electronic shutter [1/60(1/50) ~ 1/100,000]
- 2D-DNR(Digital Noise Reduction)
- Auto white balance modes
- AGC (Auto Gain Control)
- VIDEO OUT BNC
- 2.8 ~ 12 mm Vari-focal lens
- 6.0 ~ 22 mm Vari-focal lens
- 6.0 ~ 50 mm Vari-focal lens
- Use Certified / Listed Class 2 power source only
- Camera Mount : Camera mount directly to the wall or ceiling
- Smart IR
- 42EA, 850nm IR LED



IMPORTANT : The user of this camera is responsible for checking and complying with local, state, and federal laws and statues concerning the recording and monitoring of audio signals.

CAMERA CONNECTIONS



1. **Lens** : 2.8 ~ 12mm or 6 ~ 22mm or 6 ~ 50mm Vari-focal lens for wide area monitoring.

3. **Video** : BNC connector used to connect to a monitor, switcher, etc.

2. **Power** :

Dual Type => 24V AC input / 12V DC input power source from a DC 12V or AC 24V \pm 10% 60/50Hz \pm 1Hz Use Certified/Listed Class 2 power source only.

DC 12V Type => DC 12V \pm 10%

*if using DC 12V power adaptor, use power supply capable of supplying 5 Watts. (IR Model 7 Watts)

3. **Video** : BNC connector used to connect to a monitor, switcher, etc.

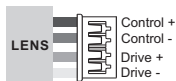
LENS ADJUSTMENT

Field of view: Adjust setting from Tele (T) to Wide (W) field of View

Focus: Adjust lens focus from near (N) to infinity (∞)

DC AUTO IRIS LENS

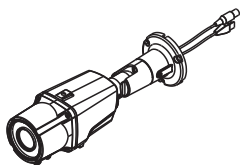
Image Size	1/3" CCD	1/3" CCD	1/3" CCD
Focal Length	2.8 - 12.0mm	6.0 - 22.0mm	6.0 - 50.0mm
Aperture Ratio	1 : 1.4	1 : 1.6	1 : 1.6
Angular Field of View	DIAGONAL 2.8mm : 116° 12mm : 36°	DIAGONAL 6mm : 54.3° 22mm : 20.6°	DIAGONAL 6mm : 54.3° 50mm : 7.1°



CONTENTS of PACKAGE

The package contains the following.

Camera in Housing	1
Instruction Manual (This Document)	1
Accessory Kit for Installing	1
Sunshield bolt	1
Sunshield	1



Camera



Sunshield



Sunshield bolt

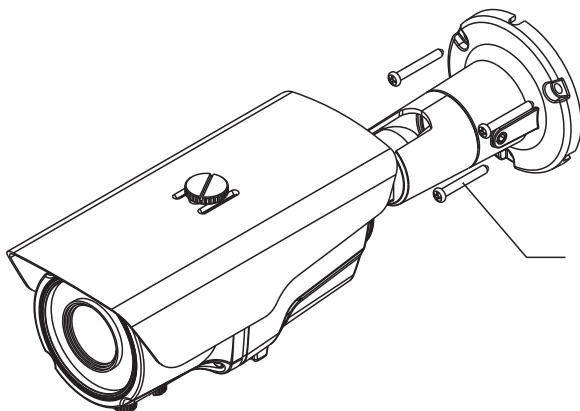


Manual



Accessory

BASE INSTALLATION

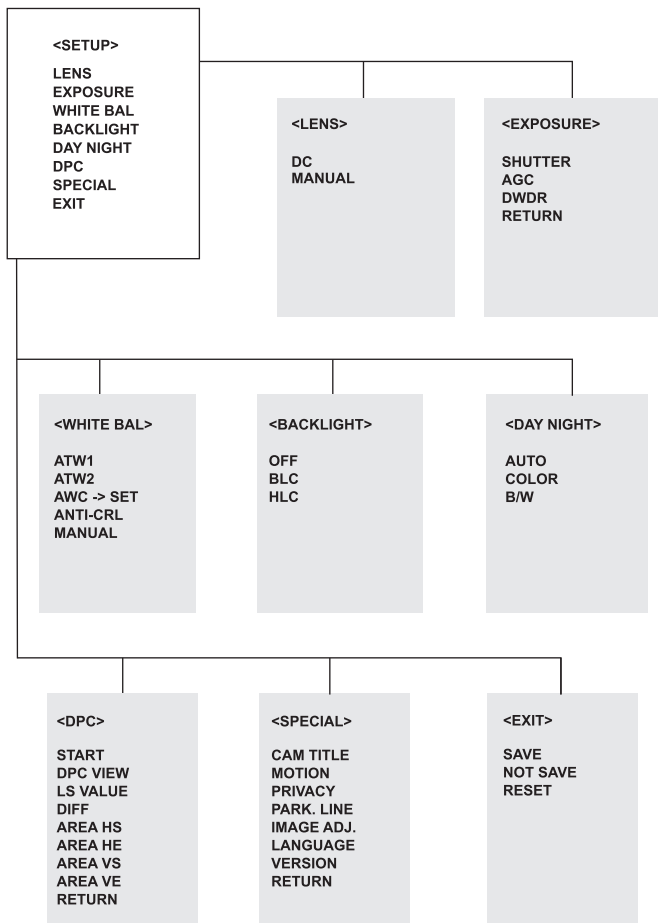


Screw x 3ea

Caution

“Adjusting the position of the camera after installation could potentially damage the cable”

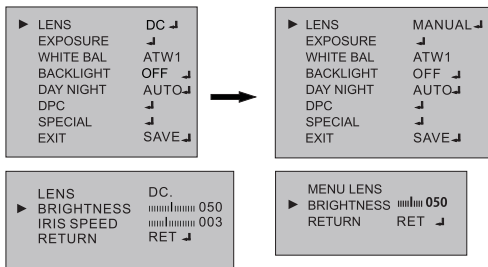
STRUCTURE OF THE SETUP MENU



LENS (Selection)

This function is used to adjust the brightness of the screen.

1. When the SETUP menu is displayed on the screen, please position the arrow to point to 'LENS' by using the UP and DOWN buttons.
2. Please select the type of the lens you wish to use by pressing the LEFT or RIGHT button.

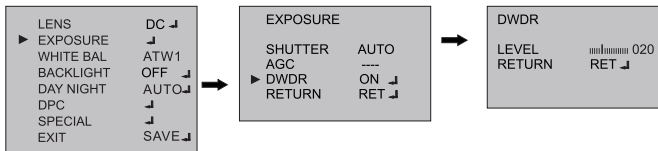


Note The brightness of the screen can be adjusted in DC mode.

EXPOSURE

The EXPOSURE menu is used to set the automatic light control method for this camera.

- 1) **SHUTTER** Select the shutter mode.(Auto, 1/60(50), FLK~ 1/100,000 sec)
Can be changed while in shutter mode.
- 2) **AGC** Auto gain control (OFF / LOW / MIDDLE / HIGH)
- 3) **DWDR** Digital Wide dynamic range(Xtended Dynamic Range) OFF / ON

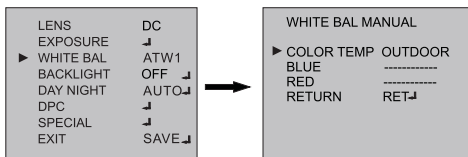


WHITE BAL

The screen color can be adjusted by using the WHITE BALANCE function.

- 1) **ATW1** Set the color temperature 2500°K 10000°K
- 2) **ATW2** Set the color temperature 2000°K 13000°K
- 3) **AWC -> SET** Please press the ENTER button white the camera is directed at a piece of white paper to obtain the optimum state under current illumination. if the environment including the light source is changed, you have to adjust the white balance again.
- 4) **ANTI. CRL** Anti Color Rolling Mode.
- 5) **MANUAL** Manual mode. User can change R and B Gain manually.
 - INDOOR Set the color temperature to 3200°K
 - OUTDOOR Set the color temperature to 6300°K

<WHITE BAL MANUAL MODE>

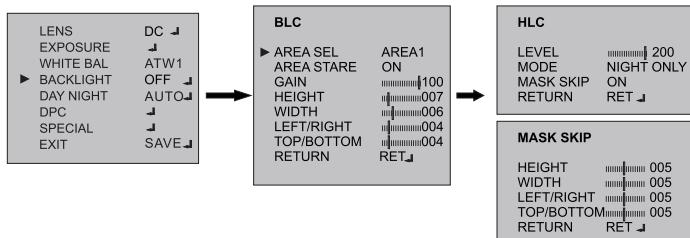


* It is recommended to use outdoor ATW2 Mode.

BACK LIGHT

- 1) **BLC** Prevents such a back light effect to secure a clear image under all illumination environments
- 2) **HLC** The function improves the identification capability of subjects facing a brightly lit situation by filtering out the strength of the light

<BACK LIGHT MODE>

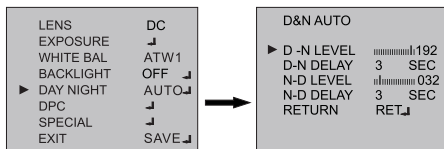


DAY NIGHT

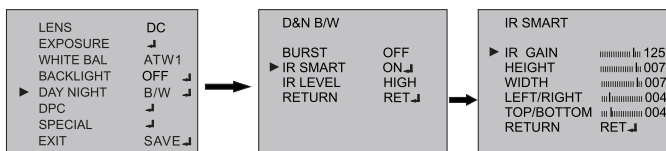
The DAY/NIGHT menu is used to configure the day and night related setting for this camera. This camera can turn the IR(infrared)filter on or off.

Mode : AUTO / COLOR / B/W

<DAY NIGHT AUTO MODE>



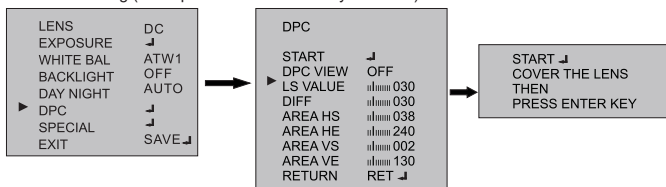
<DAY NIGHT B/W MODE>



*The IR LEVEL is not operating is DAY NIGHT B/W mode.

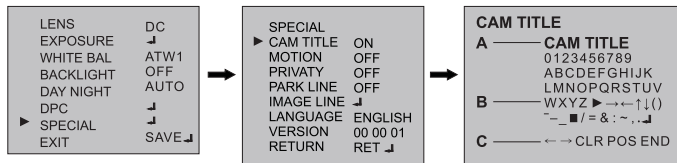
DPC

DPC Auto setting (Dead pixels are automatically removed)



SPECIAL

1) CAM TITLE



A. CAM TITLE

B. Character Table

C. Command Line

← : Move to left

→ : Move to right

CLR : Erase all characters

POS : Move the position of title

END : Save and End

Caution

The menu of Camera Title part is not available when Chinese(CMPLX) is selected.

2) MOTION

AREA SELECT Select MD area number. (AREA1 ~AREA4)

AREA STATE Select MD ON/OFF

HEIGHT Adjust height of MD area

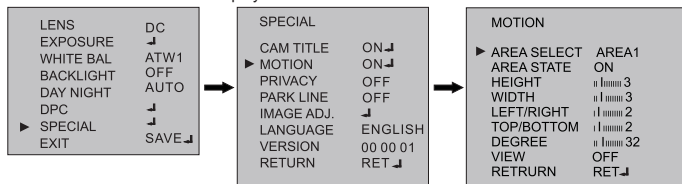
WIDTH Adjust width of MD area

LEFT/RIGHT Adjust the location of the MD area with boundary LEFT and RIGHT.

TOP/BOTTOM Adjust the location of the MD area with boundary boundary TOP and BOTTOM

DEGREE Adjust sensitivity of MD area.(0~255)

VIEW The screen displays with pink dots. When a motion is detected in the selected area, the pink dots are displayed on the screen.



3) PRIVACY

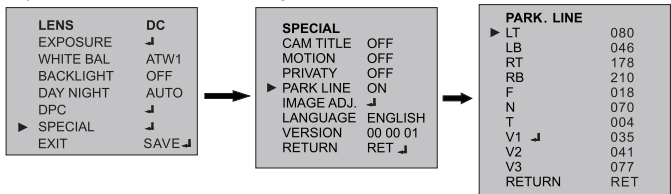
- AREA SELECT** Select MASK area number.(Area 1 ~ Area 8)
AREA STATE Select MASK ON/OFF
HEIGHT Adjust height of MASK area
WIDTH Adjust width of MASK area
LEFT/RIGHT Adjust the location of the MASK area with boundary LEFT and RIGHT
TOP/BOTTOM Adjust the location of the MASK area with boundary TOP and BOTTOM.
COLOR Select MASK color. (0~15)
RETURN

<PRIVACY MODE>



4) PARK.LINE

Select Parking area



5) LANGUAGE

Changed ENGLISH or CHINESE and 7 Language.

6) VISION

Program Upgrade Date

7) RETURN

RET or SAVE&END

IMAGE ADJUST

1) LENS SHAD

Adjust Lens shading level (0~255)

2) 2DNR

Select 2DNR ON/OFF

3) MIRROR

Select MIRROR ON/OFF

4) FRONT COLOR

Select FRONT COLOR level (0~15)

Select IDR TITLE level (0~15)

5) CONTRAST

Adjust CONTRAST level (0~255)

6) SHARPNESS

Adjust SHARPNESS level (0~31)

7) DISPLAY

Select DISPLAY mode (CRT/LCD/USER)

8) NEG. IMAGE

Select Negative image mode ON/OFF

<IMAGE ADJUST MODE>

IMAGE ADJUST	
▶ LENS SHAD	ON ↓
2DNR	ON ↓
MIRROR	OFF
FONT COLOR	↓
CONTRAST	132
SHARPNESS	016
DISPLAY	CRT ↓
NEG.IMAGE	OFF
RETURN	RET ↓



LENS SHAD	
▶ LEVEL	006
H-CENTER	074
V-CENTER	053
RETURN	RET ↓

2DNR	
▶ LEVEL	003
RETURN	RET ↓

IMAGE ADJUST	
LENS SHAD	ON ↓
2DNR	ON ↓
MIRROR	OFF
▶ FONT COLOR	↓
CONTRAST	132
SHARPNESS	16
DISPLAY CRT	↓
NEG.IMAGE	OFF
RETURN	RET ↓



FONT COLOR	
▶ FONT	003
ID&TITLE	003
RETURN	RET ↓

IMAGE ADJUST	
LENS SHAD	ON ↓
2DNR	ON ↓
MIRROR	OFF
FONT COLOR	↓
CONTRAST	132
SHARPNESS	16
▶ DISPLAY CRT	↓
NEG.IMAGE	OFF
RETURN	RET ↓



CRT ADJUST	
▶ PED LEVEL	022
COLOR GAIN	192
RETURN	RET ↓

LCD ADJUST	
▶ GAMMA	0.55
PED LEVEL	028
COLOR GAIN	176
RETURN	RET ↓

USER ADJUST	
▶ GAMMA	0.45
PED LEVEL	028
COLOR GAIN	176
RETURN	RET ↓

EXIT

- 1) **SAVE**
- 2) **NOT SAVE**
- 3) **RESET**

Saves all setting and exits.

Exits without Saving.

Returns to the level which was set by the manufacturer for shipment.

SPECIFICATIONS

	MODEL		Dual Type	DC 12V Type	
Power	Power source		AC24V $\pm 10\%$ / DC12V $\pm 10\%$	DC12V $\pm 10\%$	
	Power consumption	Normal Heater	530mA(7.0Watts) 840mA(10.0Watts)	500mA(6.0Watts) 1000mA(12.0Watts)	
General	Image sensor		1/3" 960H CCD		
	Total pixels		NTSC : 1020(H) x 508(V) / PAL : 1020(H) x 596(V)		
	Effective pixels		NTSC : 976(H) x 494(V) / PAL : 976(H) x 582(V)		
	Scanning system		2:1 interlace		
	Scanning frequency		NTSC:15.734KHz(H)x59.94Hz(V) / PAL:15.625KHz(H)x50Hz(V)		
	Sync. system		Internal		
	Electronic shutter		NTSC : 1/60 ~ 1/100,000sec / PAL : 1/50 ~ 1/100,000sec		
	Resolution		700TV Lines(COLOR)		
	Min. illumination		0.1 Lux(Color), 0 Lux(B/W) IR LED ON @ F1.2, 50 IRE		
	IR LED / Sensor		IR LED 42EA (850nm / 40 degree), Sensor 1EA		
	LED Lighting Distance		40M		
S/N Ratio		1.0 Vp-p (75 ohm, Composite)			
Video Output		More than 50dB (AGC off)			
Camera Control		OSD (Joystick Switch)			
Function	Lens		Manual / DC		
	Shutter		Auto, 1/60(1/50), Flickerless, 1/250 ~ 1/100,000sec		
	Brightness		0 ~ 255		
	Backlight		OFF / BLC / HLC(High Light Compensation)		
	AGC		OFF / LOW / MIDDLE / HIGH		
	DWDR		OFF / ON		
	White Balance		ATW1 / ATW2 / MANUAL / AWC->SET / ANTI. CRL		
	Day & Night		Auto / Color / B&W		
	D&N B&W	Burst	OFF / ON		
		Smart IR	OFF / ON		
		IR Level	Low / High		
	S P E C	Camera Title	OFF / ON		
		Motion Detec	OFF / ON		
		Privacy Mask	OFF / ON		
	I A L	Lens Shading	OFF / ON(0 ~ 255)		
		2DNR	OFF / ON		
		Mirror	OFF / ON		
	Font Color		Font 15 Color, ID&Title 15 Color		
	Contrast		0 ~ 255		
	Sharpness		0 ~ 31		
	Display		CRT / LCD / USER		
	Nega Image		OFF / ON		
	Language		English / Traditional Chinese / German / French / Spanish Japanese / Russian / Portuguese / Simplified Chinese		
	DPC		Dead Pixel Cancellation (Auto 247 Points)		
	Reset		Not Save / Return		
	Connector & etc.	Power input		2-Pin wire / Terminal Block / DC Jack	
		Video output		BNC Connector	
Day & Night System		True ICR			
Lens Mount		Fixed Mount			
Lens		f=2.8-12mm F1.4 ~ 360 Varifocal, ICR (D&N) f=6-22mm F1.6 ~ 360 Varifocal, ICR (D&N) f=6-50mm F1.6 ~ 360 Varifocal, ICR (D&N)			
Operating Temp.		Normal Heater	14°F ~ 122°F (-10°C ~ +50°C) -22°F ~ 122°F (-30°C ~ +50°C)		
Operating humidity		0 ~ 96% (non-condensing)			
Ingress Protection		IP 66			
External Dimension		300(D) x 98.4(H) mm x 87(W)			
Weight		1kg			

*Heater Operating Temp. : 59°F(15°C)-ON / 77°F(25°C)-OFF ; tolerance $\pm 5^\circ\text{C}$

EXTERNAL DIMENSION

