

## USER MANUAL

- 1080P 4 in 1 Ultra-AHD Series



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## 1 CAUTIONS

1. To reduce the risk of electric shock, do not open the machine and maintain by yourself, please consult a professional service person.
2. To prevent fire or shock hazard, use the power after safety certification, the input voltage, current, voltage polarity and operating temperature must meet the requirements of this camera.
3. Please note the operating temperature and environmental requirements of the camera, avoid too low or too high temperature. General operating temperature range of  $-10^{\circ}\text{C} \sim +50^{\circ}\text{C}$  (Fahrenheit temperature is  $14^{\circ}\text{F} \sim 122^{\circ}\text{F}$ ). Avoid flooding and rain, minimize dust and moisture erosion, otherwise camera would be damaged.
4. Cameras in use should avoid direct sunlight, glare, otherwise the sensor will be damaged.
5. Do not touch the sensor surface, if any foreign objects exists, a cotton swab or lens paper can be used to wipe, if it is difficult to remove, a neutral detergent diluted with water would be useful. Do not use corrosive solution.

6. In order to make the camera work smoothly and obtain satisfactory image, the power cord and video connection can not be too long, otherwise the increase of line loss will lead to the inadequate magnitude of the operating voltage of the camera or video signal Inadequate.

7. In order to prevent the camera from falling, please do not place the camera on an unstable bracket, base or other unstable objects. Otherwise it will lead to injury, at the same time, the camera will be damaged.

8. The camera cannot be placed near the radiator or heating resistor.

## 2 Product Introduction

### 2.1 Camera Introduction

PROVISION-ISR's new series of cameras have adopted a high performance CMOS image sensor which provides HD resolution and supports high resolution video output. The cameras support video transmission distance of around 400M base on Rg59 standard coaxial cable. This series can support AHD/TVI/CVI/CVBS 960H analog output.

## 2.2 Product Features

- Dual Coaxial cable with BNC connectors
- AHD/TVI/CVI/CVBS Output
- True WDR@30fps(Not Available for Analog Output)
- Motorized 2.8-12mm Vari-Focal Auto Focus Lens
- Auto Day/Night (ICR)
- Defog, HBLC, BLC
- 2D/3D Noise Reduction
- Motion Detection, Privacy Mask

## 3 OSD Controller

### 3.1 OSD Control:

Center: Enter OSD/ Enter  
Up: Navigate OSD up  
Down: Navigate OSD Down  
Left: adjust OSD Menu values  
Right: adjust OSD Menu values

### 3.2 Lens Control:

Zoom-In: Press UP continuously  
Zoom-Out: Press Down continuously  
Focus-: Press Left continuously  
Focus+: Press Right continuously

## 3.3 Output adjustment:


AHD: press center for 3 Second and then Right  
TVI: press center for 3 Second and then Left  
CVI: press center for 3 Second and then Up

## 4 Control Over Coaxial(CoC)

### 4.1 AHD/TVI:

Click on "Iris+" button from the DVR's PTZ interface to call the OSD Menu. Use the PTZ interface to scroll through the menu and "Iris+" to confirm.

### 4.2 CVI:

Click "▶" button from the DVR's PTZ interface, then click "" and press "Enter" to call the OSD Menu.

## 5 Product Installation

### 5.1 General Notes

1. Make sure the unit is powered off before installation.
2. Check power supply voltage consistent with the electric voltage to prevent voltage unworthy, resulting in damage to the device.

3. Do not use in the environment beyond the boundaries of the temperature, and maintain good ventilation to prevent the rain in order to reduce the risk of fire or electric shock.

4. The installation and maintenance of this product should be professional, please do not in any way to remove or modify the equipment; can only use the required accessories of manufacturers. Problems caused by unauthorized repair are at your own risk.

### 5.2 Installation Tools and Information

Prepare the required engineering data and instructions. Before installation please prepare the following tools and instrumentation: A straight or a Phillips-head screwdriver, multi-meter, scissors, needle nose pliers, tape measure, pencil and so on.

### 5.3 Installation Method

1. Check the equipment whether it is damaged.
2. Mounting bracket or base.
  - ① If the cement wall, install the expansion screws (expansion screw holes need stand or base hole), and then mount bracket or base.
  - ② If the wooden wall, use self-tapping screws to mount.

### 3. Mounting the camera

#### a. Dome Camera

Adjust the lens position and make it aim at the monitoring points and present a clear picture, manually fix lens location and adjust the hemisphere cover. Re-examine the screen whether the character meets the requirement. Tighten the hemisphere cover.

#### b. Bullet Camera

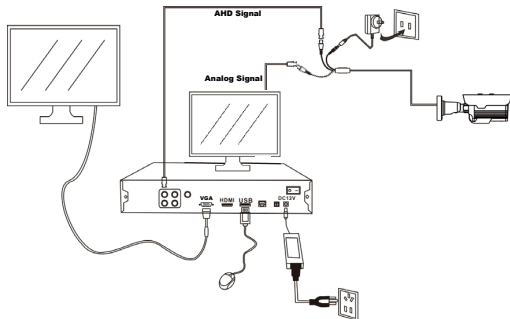
Adjust the body so that the lens aims at the monitoring points and presents a clear picture. Tighten the screws, to ensure that it does not move.

### **Note:**

**The wall needs to bear at least 3X weight of bracket (base) and camera.**

## 5.4 Connections

Connection as shown in the figure below:



## 5.5 Lens Control

Use the DVR PTZ interface Zoom+/- to control the motorized lens.

## 5.6 OSD Control

The preferred control method is CoC (Control over Coax). If your AHD DVR supports this function\*, Use the DVR's PTZ interface to call Preset 95 or press on "Iris+" to open the OSD menu. Navigate through the OSD menu by the PTZ direction arrows. "Iris+" performs as "Enter".

\*All of Provision-ISR's DVRs support CoC Starting from version 3.4.4

## 5.7 OSD Layout Scheme

Main Menu		Secondary menu		
LENS	ELC	NORMAL, DEBLUR		
	ALC	INDOOR, OUTDOOR, DEBLUR		
EXPOSURE	BRIGHTNESS	0~20		
	SHUTTER	AUTO, MANUAL, FLICKER		
	SENS-UP	OFF, X2, X4, X8, X16, X32		
	AGC	0~20		
WHITE BAL	AUTO			
	AUTOExt			
	PRESET			
	MANUAL	KELVIN	C-TEMP 3000K/5000K/8000K	
	R-GAIN	0~20		
	B-GAIN	0~20		
BACKLIGHT	OFF			
	HLC	MODE	ALL DAY, NIGHT ONLY	
		LEVEL	0~20	
	BLC	H-POS	0~20	
		V-POS	0~20	
		H-SIZE	0~20	
V-SIZE		0~20		
WDR	WEIGHT	NORMAL/ROI		
DNR	OFF, LOW, MIDDLE, HIGH			
DAY&NIGHT	MODE	AUTO, COLOR, B&W, EXTERN		
	DELAY	0~20		
	D->N LEVEL	0~20		
	N->D LEVEL	0~20		
	IR LED	OFF, ON		
	SMART-IR LVL	0~20		
POLARITY	HIGH, LOW			
IMAGE	SHARPNESS	0~10		
	COLOR GAIN	0~20		
	FREEZE	OFF, ON		
	FLIP	OFF, H-INV, V-INV, HV-INV		
	ACE	OFF, LOW, MIDDLE, HIGH		
GAMMA	0.45, 0.5, 0.55, 0.6, 0.65, 0.7, 0.75			
IMAGE	OFF			
	DEFOG	ON	MODE	AUTO, MANUAL
			LEVEL	LOW, MIDDLE, HIGH

SPECIAL	SYSTEM	OUTPUT MODE	1080P		
		COLOR SPACE	HD-CbCr, YUV, SD-CbCr		
		FRAME RATE	25/30, 50/60		
		CVBS	PAL, NTSC		
		BLACK LEVEL	FULL		
			COMP		
			USER	OFFSET	0-32
	VERSION				
	LANGUAGE	ENG. CHN			
	PRIVACY	ON	OFF		
			ZONE NUM	0-15	
			ZONE DISP	OFF/ON	
			H-POS	0-60	
			V-POS	0-34	
			H-SIZE	0-60	
			V-SIZE	0-34	
			Y LEVEL	0-20	
			CR LEVEL	0-20	
			CB LEVEL	0-20	
			TRANS	0-3	
	MOTION	ON	OFF		
			SENSITIVITY	0-10	
			WINDOW TONE	OFF/ON	
			WINDOW USE	0-3	
			WINDOW ZONE	OFF/ON	
			DET H-POS	0-60	
DET V-POS			0-34		
DET H-SIZE			0-60		
DET V-SIZE			0-34		
ALARM			OFF/ON		
SHADING	OFF				
	ON	WEIGHT	0%~100%		
COLOR BAR	OFF/ON				
LENS ADJ	L+L+R+R+C				
RESET ON					
EXIT					

## 6 Comments & Special Features:

1) The Ultra AHD Series supports True WDR, which means that the camera will take two exposures with different settings and then process it into one.

2) While WDR is off, the two exposures will be used for AHD and Analog (One exposures for each), and the output (AHD/TVI/CVI/CVBS) is automatically enabled.

3) While WDR is on, the two exposures are used for HD Output so the Analog output is disabled automatically.

4) While WDR is on the FPS of the camera drops to 30FPS.

5) Any change in the "Special/System" OSD menu might result with losing the camera's image and CoC control. Please do not make any changes without fully understanding the consequences.

6) In any case of losing picture/CoC control while the OSD Menu is still open - disconnect the camera from power and reconnect it to revert the changes.

## 7 Specifications:

### 4 in 1 Ultra-AHD camera (1080P)

DI-391AHDU-MVF+

I4-391AHDU-MVF+

Model	DI-391AHDU-MVF+	I4-391AHDU-MVF+
Image Sensor	1/3" 2MP Sony Sensor	
Effective Pixels	1945(H)×1097(V)	
Scanning System	Progressive	
Resolution	Digital:1920×1080P, Analog:960H*	
Min. Illumination	0.01Lux / (0Lux IR On)	
Day & Night	EXT, Color, B&W, AUTO	
IR LED	3 LED Array (25m)	4 LED Array (40m)
OSD Menu	Available	
CoC Support	Yes	
Backlight Compensation	AHD/TVI/CVI	
S/N Ratio	≥60dB (AGC Off)	
White Balance	AUTO, AUTOext, Manual	
Noise Reduce	3D-DNR (For AHD/TVI/CVI), 2D-DNR (For Analog*)	
Video Output	AHD/TVI/CVI/CVBS Output	
Defog	Off/On	
Privacy Mask	Off/On (15 Areas)	
Motion Detection	Off/On (4 Areas)	
D-Effect	Freeze, Mirror	
Lens	2.8-12mm Motorized with Auto Focus	
Power	DC12V±10%, ~400mA	DC12V±10%, ~480mA
Operation temp.	-10°C~+50°C (14°F~122°F)	
Dimension	129.5*90*119mm	286*77*85.6mm
Net Weight	476g	836g

\*Analog video output is not available while WDR is on