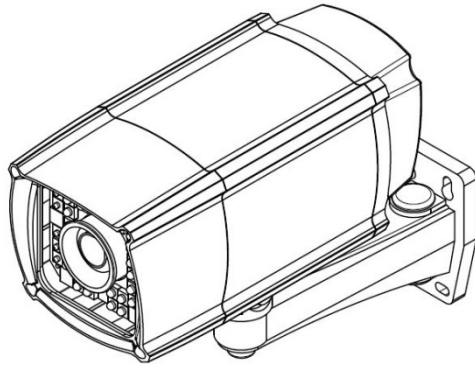


HD2B36-8AVF650

HD SDI 1080P ICR OSD 36 IR Bullet Camera



USER MANUAL

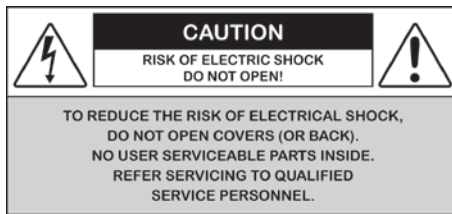
FEATURES

- SDI 1080P - **1920 x 1080**
- SDI / CVBS Output
- 1/2.8" Sony CMOS 2.0 Megapixel
- 6.0~50.0mm Varifocal Megapixel Lens
- 36 IR LED; Distance up to 250ft / 80m
- 120mA max @ 12V DC / 950mA max @ 24V AC
- 12V DC / 24V AC
- IP67 Rating



Please read the Manual before attempting to use this product.

Specifications and appearance are subject to change without notice.



Disposal of Old Electrical & Electronic Equipment (Applicable in the European Union and other European countries with separate collection systems.)

This symbol on the product or on its packaging indicates that this product shall not be treated as household waste. Instead it shall be handed over to the applicable collection point for the recycling of electrical and electronic equipment. By ensuring this product is disposed of correctly, you will help prevent potential negative consequences for the environment and human health, which could otherwise be caused by inappropriate waste handling of this product. The recycling of materials will help to conserve natural resources. For more detailed information about recycling of this product, please contact your local city office, your household waste disposal service or the shop where you purchased the product.

CAUTION

1. Never point the camera toward the sun

Do not expose the lens directly to the sun or to strong light as this may damage the pick-up device.

2. Handle this camera with care

Avoid any shock or bumping of the camera. Improper handling could damage the camera.

3. Requires a proper operating environment

This camera is designed for indoor or outdoor use. The allowable temperature range for operation of this camera is between 14°F ~ 122°F / -10°C ~ 50°C.

4. Clean the front face or lens

It is recommended that the surface be cleaned every 3–6 months. Cleaning should be done by using a chamois, a very fine soft cloth, lens tissue, or cotton tipped applicator and ethanol to carefully remove any fingerprint or dust.

5. Check the power source voltage

The power source voltage should be within the specified range. (Camera must meet the specifications). Camera must be connected to a surge protector at all times.

6. Objects and liquid entry

Never push objects of any kind into this camera as this may touch dangerous voltage points of short out parts that could result in a fire or electric shock. Never spill any kind of liquid on the video product.

7. Servicing

Do not attempt to service this video product by yourself as opening or removing covers may expose you to dangerous voltage or other hazards. Refer all service to qualified servicing personnel.

8. Damage requiring service

Unplug this video product from the wall outlet and refer service to qualified servicing personnel under the following conditions:

- When the power supply cord or plug is damaged.
- If liquid has been spilled, or objects have fallen into the video product.
- If the video product has been exposed to rain or water.
- If the video product has been dropped or the cabinet has been damaged.
- When the video product exhibits a distinct change in performance.

LIMITED WARRANTY

OKINA USA products are covered under warranty for one (1) year from the date of purchase. The warranty will automatically be voided if any of the following occurs:

1. Camera sticker is removed

If the camera sticker is removed, we will not be able to confirm any information regarding when and where the product was purchased. We have no other way to verify the purchase record without the serial number on the camera sticker; therefore, it should not be removed.

2. Camera is modified in any way

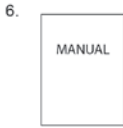
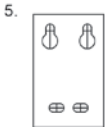
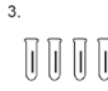
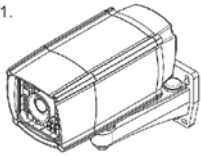
If the camera is scratched, damaged, or modified in a manner not described in this manual, the warranty will be voided immediately. It is the customer's responsibility to keep the camera in good condition.

3. Video or power cable is cut

The video cable and the power cable should not be tampered with. Cutting or modifying of the cables will result in termination of the warranty.

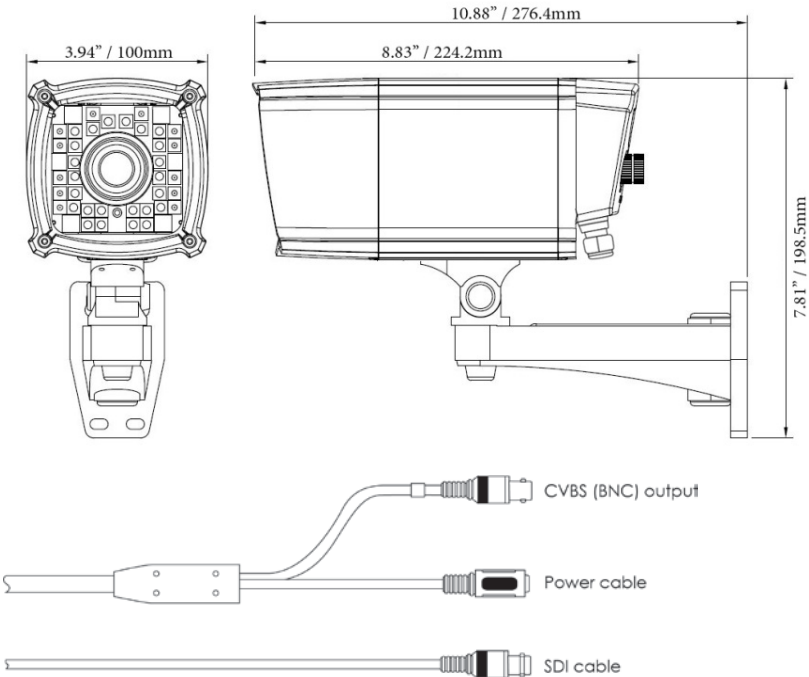
PACKAGE CONTENTS

1. One (1) HD2B36-8AVF650 Bullet Camera
2. Four (4) Wall Mounting Screws
3. Four (4) Wall Anchors
4. One (1) Rubber Washer
5. One (1) Sticker Mounting Template
6. One (1) User Manual

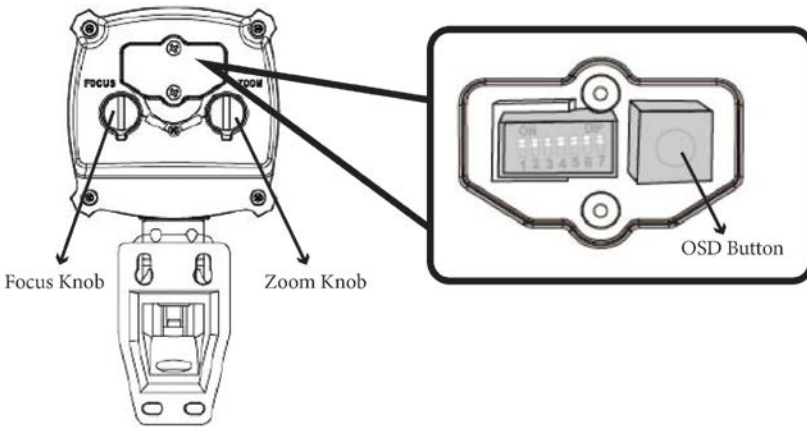


* For any returns, please include all components listed above with original packaging in **Resalable Condition**. **Absolutely No Returns** will be accepted if any component is missing/damaged.

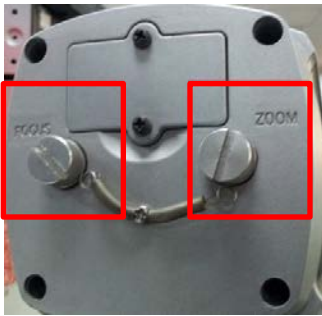
DIMENSIONS (Unit: inches / mm)



LENS & OSD ADJUSTMENTS



Remove the focus/zoom knob cover to access adjustment knobs.



OSD

MAIN MENU

SETUP	
1. LENS	DC
2. EXPOSURE	↓
3. WHITE BAL	ATW
4. DAY&NIGHT	AUTO↓
5. NR	↓
6. SPECIAL	↓
7. ADJUST	↓
8. RESET	↓
9. EXIT	↓

1. LENS

LENS	DC	Default
	VIDEO	N/A
	MANUAL	N/A

Vari-Focal lens can be installed on this camera.

Manual – Iris is adjusted manually

DC – Iris is adjusted automatically by the camera according to light conditions.

2. EXPOSURE

EXPOSURE		
SHUTTER		1/60
AGC		LOW
SENS-UP		OFF
BRIGHTNESS		045
ACCE		OFF
DEFOG		OFF
BACKLIGHT		OFF
RETURN		RET

EXPOSURE				
SHUTTER	1/60,FLK,1/250,1/500,1/1000,1/2000,1/5000,1/10000,1/50000,X2,X4,X6,X8,X10,X15,X20,X25,X30,AUTO			
AGC	MIDDLE, HIGH, LOW			
SENS-UP	AUTO	SENS-UP	X2,X4,X6,X8,X10,X15,X20,X25,X30	
		RETURN	RET / END	
	OFF			
BRIGHTNESS	0-100			
ACCE	OFF,LOW,MIDDLE.HIGH			
DEFOG	OFF,LOW,MIDDLE.HIGH			
BACKLIGHT	OFF			
	BLC	GAIN	MIDDLE,HIGH,LOW	
		AREA	POSITION	SIZE,RET,AGAIN
		DEFAULT		
		RETURN	RET	
	HBLC	SELECT	AREA1,AREA2,AREA3,AREA4	
		DISPLAY	ON,OFF	
		LEVEL	0-100	
		MODE	ALL DAY, NIGHT	
		BLACK MASK	ON,OFF	
		DEFAULT		
RETURN		RET / END		
RETURN	RET / END			

SHUTTER

AES (auto electronic shutter) - the camera automatically sets the optimum shutter speed.
 FL - flicker less mode avoids interference from light sources (recommended for video-iris or DC-iris lenses only).
 FIXED - forces a fixed shutter speed.

AGC

Regulate the gain or amplification of the video signal, mainly used in low-light conditions with the iris fully open.
 Can be used only when DAY&NIGHT is not set to AUTO.

SENSE UP

Allow user selectable digital show shutter speed in order to allow extra light into a camera thereby providing higher sensitivity in low light conditions.

ACCE (DWDR)

Stand for Adaptive Contrast and Color Enhancement which is equivalent to dynamic range reduction technique.
 The contrast ratio of the image can be effectively expressed and the edge information can be improved in order to enhance the overall visibility of the image.

DEFOG

Improves the clarity of images taken in poor conditions such as fog, smoke, rain or snow. Applied to live or recorded color video, it provides real time results and displays visual details that would normally have been difficult to distinguish.

3. **WHITE BAL**

WHITE BAL		
ATW		
AWC --> SET		
INDOOR		
OUTDOOR		
MANUAL	BLUE	0~100
	RED	0~100
	RETURN	RET / END

4. **DAY&NIGHT**

DAY&NIGHT		
AUTO	DELAY	0~60
	N-D(AGC)	0~100
	N-D(AGC)	0~100
	RETURN	RET / END
COLOR		
B/W	BURST	ON,OFF
	IR SMART	ON,OFF
	IR LED	ON,OFF
	IR PWM	0~100
	RETURN	RET / END
EXT		

5. **NR**

NR			
2DNR	OFF,ON		
3DNR	ON	S-LEVEL	0~100
		E-LEVEL	0~100
		RETURN	RET / END
LEVEL	0~100		
SMART NR	ON,OFF		
RETURN	RET / END		

SMART NR.

Avoid over exposure problem when the camera is focus on area with wall.

6. **SPECIAL**

SPECIAL				
CAM TITLE	OFF			
	ON	0123456789ABCDEFGHIJKLMNPOQRSTUVWXYZ < > CLR POS END		
D-EFFECT	FREEZE	OFF,ON		
	MIRROR	OFF,MIRROR,V-FLIP,ROTATE		
	D-ZOOM	ON	PIP	OFF,ON
			D-ZOOM	X2.0~62.0
			PAN&TILT	D-ZOOM
			DEFAULT	
		RETURN	RET / END	
NEG. IMAGE	OFF,ON			
RETURN	RET / END			
MOTION	OFF			
	ON	SELECT	AREA1,AREA2,AREA3	
		DISPLAY	OFF	
			ON	POSITION
		SENSITIVITY	0~100	
		MOTION VIEW	OFF,ON	
DEFAULT				
RETURN	RET / END			
PRIVACY	OFF			
	ON	SELECT	AREA1~AREA8	
		DISPLAY	ON/POSITION	
		COLOR	1~16	
		DEFAULT		

		RETURN	RET / END
LANGUAGE	ENG		
DEFECT	LIV DPC	ON,OFF	
	LEVEL	0~60	
	STATIC DPC	ON,OFF	
	START		
	LEVEL	0~60	
	SENS-UP	X2,X4,X6,X8,X10,X15,X20	
	RETURN	RET / END	
RS485	CAM ID	0~255	
		OFF	
	ID DISPLAY	ON	CAM 001~CAM 255
	BAUD RATE	2400,4800,9600,19200,38400	
	RETURN	RET / END	
VERSION	110727		
RETURN	RET	RET / END	

7. ADJUST

ADJUST			
SHARPNESS	SHARPNESS	ON,OFF	
	LEVEL	0~100(50)	
	RESOLUTION	ON,OFF	
	RETURN	RET / END	
MONITOR	LCD	GAMMA	USER,0.45,0.50,0.55,0.60,0.65,0.70,0.75,0.80,0.85,0.90,0.95,1.00
		BLUE GAIN	0~100
		RED GAIN	0~100
		RETURN	RET / END
	CRT	BALCK LEVEL	0~30
		BLUE GAIN	0~100
		RED GAIN	0~100
RETURN	RET / END		
OSD	TEXT COLOR	1~8	
	OUTLINE	OFF, ON	
	RETURN	RET / END	
LSC	ON,OFF		
NTSC / PAL	NTSC,PAL		
RETURN	RET / END		

8. RESET

RESET	
FACTORY	
RETURN	RET / END

9. EXIT

DIP SWITCH



1. N/A
2. Day and night mode switch
3. N/A
4. Reflection LED on/off switch
5. Piranha LED high/low power switch
6. Reflection LED high/low power switch
7. LED light
8. OSD control button

SPECIFICATIONS

Model	HD2B36-8AVF650
Image Sensor	1/2.8" SONY CMOS : 2.0 Megapixel
Resolution	1920(H) x 1080(V) @ 25/30 FPS
Video Output	SDI / CVBS
Defog	OFF / Low / Middle / High
Lens Shading Compensation	OFF / ON
Electronic Shutter	Auto 1/60 (1/50) ~ 1/50,000 sec / Flk
Minimum Illumination	0.02Lux (F1.2 , AGC ON)
DWDR / WDR Function	OFF / Low / Middle / High
IR LED	36pcs IR LED (18pcs Piranha / 18pcs Reflection)
IR Distance	Up to 250ft / 80m
AGC	Low / High / OFF
BLC	BLC / HSBLC / OFF
White Balance	AWC-SET / MANUAL / INDOOR / OUTDOOR / ATW
Lens	6.0~50.0mm Varifocal Megapixel Lens / F1.4
Camera Title	ON / OFF
Day & Night	Auto
SMART NR	ON / OFF
2DNR & 3 DNR	ON / OFF
Sens-up	ON / OFF (Selectable range 2X ~ 30X)
Picture Effect	Mirror / V-FLIP / ROTATE
OSD Control	Yes
OSD Language	English, Chinese, Japanese
Mechanical IR Cut	Auto / Day / Night
Power Source	12V DC / 24V AC
Power Consumption	12V DC: 14.4W / 24V AC: 13.5W
Power Current	12V DC: 120mA max. / 24V AC: 950mA max.
IP Rating	IP67
Operating Temperature	14°F ~ 122°F / -10°C ~ 50 °C
Storage Temperature	-4°F ~ 158°F / -20°C ~ 70°C
Dimension (W x H x L)	3.94 x 7.81 x 8.83 inches / 100 x 198.5 x 224.2 mm
Net Weight	4.41 lbs / 2 kg

**Specifications are subject to change without notice.*

PAL Version also available.