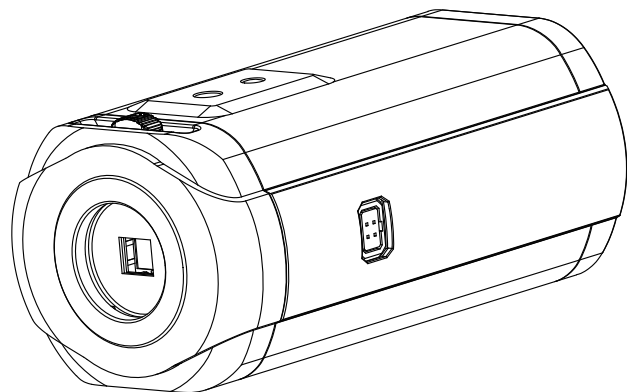




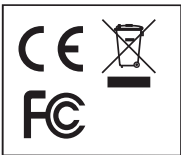
High Resolution Box Camera

Instruction Manual



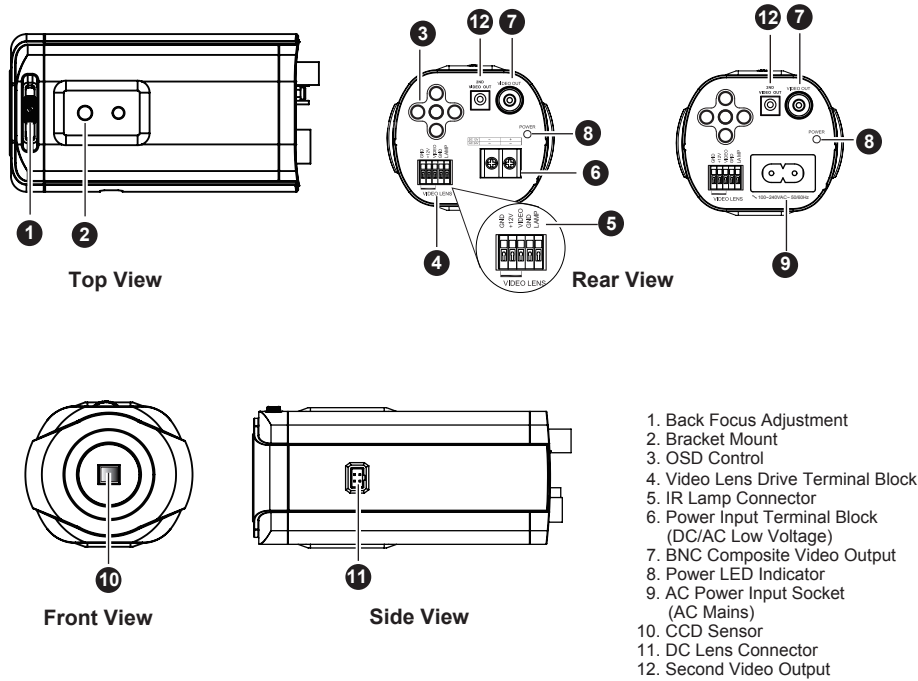
Emissions: - CE:
--EN55022
--EN55011
- FCC:
--47 CFR Part15 Subpart B
--ANSI C63.4
--ICES-003

Immunity: - CE:
--EN55024
--EN50130-4



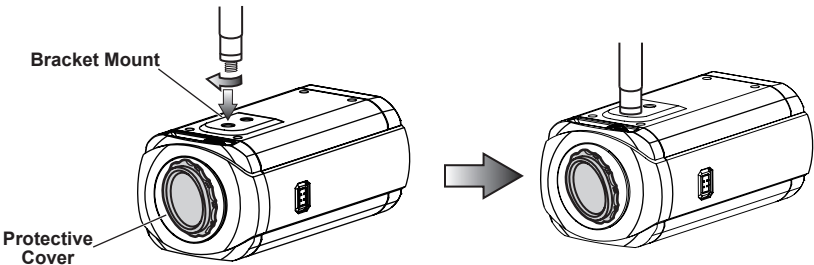
V531-CR035-202
Ver:12/2016

Parts Descriptions



Camera Installation

The camera can be mounted by using either the bracket mount on the top or bottom (see part description 2). The bracket mounts accept standard photographic mounting bolts (1/4" BSW or 20 UNC).



⚠ Ensure the bracket, screws (inc. wall plugs, if used) and mounting surface can support the load of the camera and bracket.

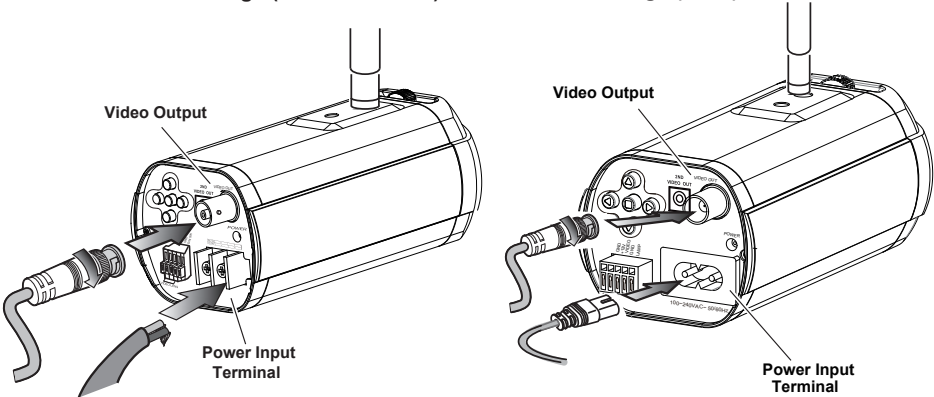
Connecting to the Power Source and Video Output

For AC/DC Dual Power Model: The camera operates at either 24 VAC or 12 VDC.
For AC Mains Power Model: The camera operates in 220 VAC.

Connections are indicated in the rear panel of the camera.
The power supply must be stable power source and should only be installed by qualified personnel.
Connect the 75 Ohm coaxial cable to video output .

■ AC/DC Low Voltage (24VAC / 12VDC)

■ AC Voltage (220V)



Precautions

This product must be installed and maintained in accordance with good installation practices by qualified personnel only.

To prevent damage to your camera or injury to yourself or to others, read and comply with the safety precautions as follows:

- Never attempt to disassemble or modify the camera. Any modification could lead to damages that are not covered by the guarantee.
- Make sure the power source is switched off and disconnected before installation. Refer servicing to qualified personnel only.
- To prevent fire or electrical shock, use only regulated power supply and the wiring should be used for the appropriate input terminal.
- Do not expose or operate the camera in wet areas. Moisture may damage the camera and also increase the danger of electrical shock.
- Do not attempt to aim the camera at the sun or other extremely bright objects. This may cause damage to the CCD and the void of warranty.
- Do not touch the lens or the CCD by hands while installing or adjusting the camera. This may cause damage to the camera.

Specifications

General Specifications		AC/DC Dual Power Model	AC Mains Power Model
TV System		NTSC / PAL	
Image Sensor		Sony 1/3" Super HAD-II	
Effective Picture Element	NTSC	976(H) x 494(V)	
	PAL	976(H) x 582(V)	
Scanning Frequency	NTSC	60Hz	
	PAL	50Hz	
Resolution		700 TVL	
Minimum Illumination		0.3Lux(F1.2,50IRE, AGC ON)	
S/N Ratio		50dB (100 IRE, F1.2)	
Video Output		Composite (75 Ω BNC unbalanced connector)	
2nd Video Output		Yes (supports installation check)	
Power Source		12 VDC \pm 10% / 24 VAC \pm 20%	220 VAC (50/60 Hz)
Power Consumption		2.2W	2.5W
Operating Temperature		-10°C ~ +50°C	
Storage Temperature		-20°C ~ +60°C	
Dimensions		63mm (W) x 57mm (H) x 120.2mm(L)	

Functional Specifications

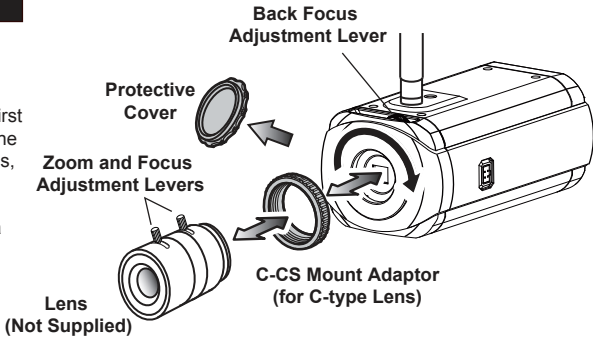
Sense Up		ON / OFF	
Shutter Speed	AES	NTSC: 1/60 ~ 1/100000	PAL: 1/50 ~ 1/100000
	MES	1/50 (1/60), 1/120 (1/100), 1/250, 1/500, 1/1K, 1/2K, 1/4K, 1/10K	
AGC Gain Control		44.8 dB	
Wide Dynamic Range		WDR: OFF/ATR-EX/WDR	Non-WDR: OFF/ATR-EX
High-Light Compensation (HLC)		ON/OFF	
Backlight Compensation (BLC)		Full Range	
White Balance Control		ATW / Manual / Push / Push Lock / USER1,2	
Auto White Balance Range		Indoor: 1800K~10500K Outdoor: 6500K~10500K	
Day/Night		SDN(AUTO ,COLOR ,NIGHT)	
Mirror		OFF/N-FLIP/H-FLIP/HV-FLIP	
Defog		ON/OFF	
Sync System		INT /LL	
Motion Detection		4 Areas	
Privacy Zone		Up to 15 Masks	
Digital Noise Reduction		3D DNR	
Digital Zoom		255X Max	
DIS		ON/OFF	

Connection and Adjustment

Lens Installation

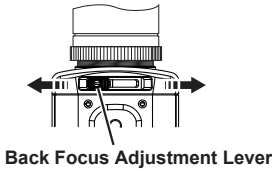
Installing the Lens

Before installing a lens, you must first remove the protective cover from the camera. If mounting a C-Mount lens, attach the C-CS mount adaptor to the camera. Adjust the Back Focus to acquire a sharp image (see Back Focus Adjustment).



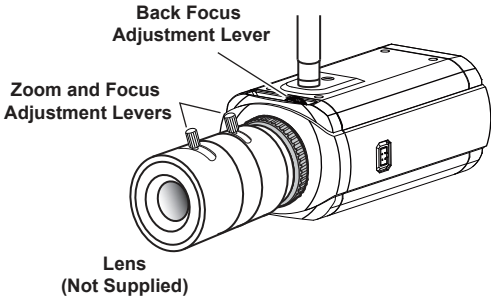
Back Focus Adjustment

There is a mechanism for back focus adjustment. Loosen the back focus locking screw. Move the adjustment lever to obtain optimum focus of the image. Tighten the screw to lock the back focus adjustment lever in place.



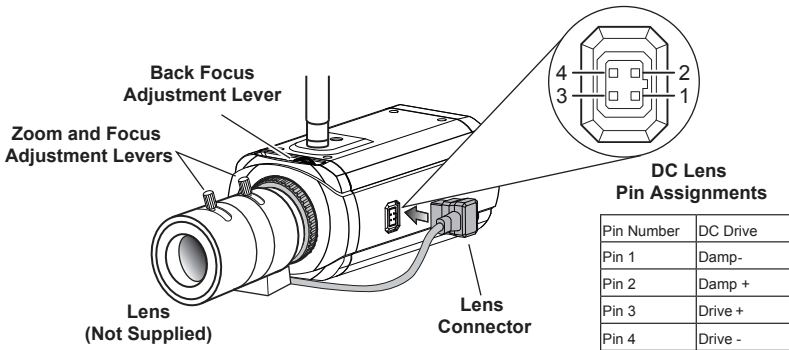
Manual / Fixed Lens Mounting

- 1. If using a C-mount lens, attach the C-CS mount adaptor before installing the lens.
- 2. Move the back focus adjustment lever fully to the left, with the lens facing towards you (see Back Focus Adjustment).
- 3. Install the lens on to the camera.
- 4. Adjust the Back Focus to the correct position then secure the screw.
- 5. Adjust the Zoom and Focus levers of the lens to acquire a clear image and the required field of view.



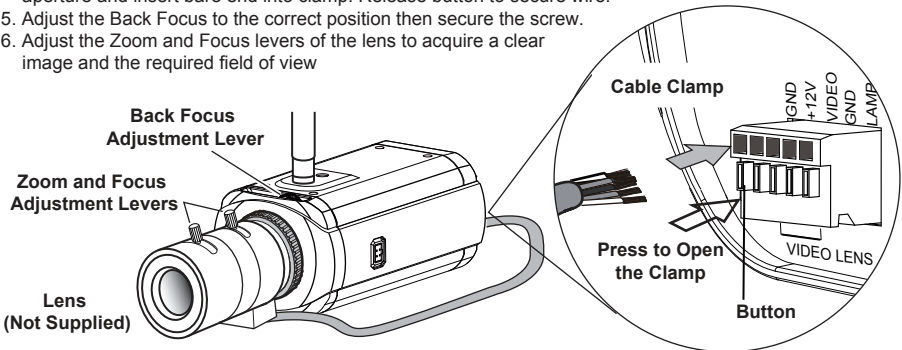
Direct Drive (D.C.) Lens Mounting

- 1. If using a C-mount lens, attach the C-CS mount adaptor before installing the lens.
- 2. Move the back focus adjustment lever fully to the left, with the lens facing towards you (see Back Focus Adjustment).
- 3. Install the lens on to the camera.
- 4. For Direct Drive Lens application, connect the DC Lens Connector to the side of the camera. Fit the lens to the camera according to the following connection assignments.
- 5. Adjust the Back Focus to the correct position then secure the screw.
- 6. Adjust the Zoom and Focus levers of the lens to acquire a clear image and the required field of view.



Video Drive Lens Mounting

- 1. If using a C-mount lens, attach the C-CS mount adaptor before installing the lens.
- 2. Move the back focus adjustment lever fully to the left with the lens facing towards you (see Back Focus Adjustment).
- 3. Install the lens on to the camera.
- 4. For Video Drive Lens application, connect the wires to the rear panel of the camera. Fit the lens to the camera according to the following connection assignments. Strip 6mm of insulation from lens wires. Depress button to open cable clamp aperture and insert bare end into clamp. Release button to secure wire.
- 5. Adjust the Back Focus to the correct position then secure the screw.
- 6. Adjust the Zoom and Focus levers of the lens to acquire a clear image and the required field of view



Camera Setup

Camera OSD Menu

PAGE1

SCENE SELECT

FULL AUTO
INDOOR
OUTDOOR
BACKLIGHT
ITS
CUSTOM

SHUTTER / AGC

AUTO
MANUAL
FIX

AE LEVEL
AGC MAX
SENS UP
SHUTTER
AGC MAX
SHUTTER
AGC MAX
SPEED
DELAY CNT
ATW FRAME
ENVIRONMENT

001 ~ 250
6.0DB ~ 44.8DB
AUTO / OFF
256FLD ~ 1/10000
6.0DB ~ 44.8DB
256FLD ~ 1/10000
000 ~ 255
001 ~ 255
001 ~ 255
INDOOR / SUNNY / SHADE / AUTO

WHITE BAL

ATW(*1)
PUSH
USER1
USER2
MANUAL

RGAIN
BGAIN
RGAIN
BGAIN
LEVEL

000 ~ 255
000 ~ 255
000 ~ 255
000 ~ 255
00 ~ 63

HLC/BLC

OFF
HLC
BLC(*2)

CLIP LEVEL

000 ~ 255

WDR/
ATR-EX(*3)

OFF
ATR-EX
WDR

CONTRAST
CLEAR FACE
CONTRAST
CLEAR FACE

LOW / MID / HIGH(*4)
LOW / MID / HIGH / OFF
LOW / MID / HIGH
OFF/LOW/MID/HIGH

DNR
DAY/NIGHT

LEVEL
DAY
NIGHT
AUTO

0 ~ 6
ON/OFF
ON/OFF
CNTL SIGNAL
DELAY CNT
DAY->NIGHT
NIGHT->DAY

IR OPTIMIZER

OFF
ON

MODE
IR AREA

AUTO
CENTER
TOP
BOTTOM
LEFT
RIGHT
WEIGHT

0-12
0-6
0-6
0-8
0-8
00~ 15

IR LED

OFF
FIX
DAY/NIGHT

LEVEL
LEVEL MIN
LEVEL MAX

000 ~ 255
001 ~ 255
001 ~ 255

COLOR NIGHT

OFF
ON

COLOR GAIN

LOW / MID / HIGH

IR SHADE COMP

OFF
ON

PATTERN
POSH
POSV
LEVEL

SET1 / SET2 / SET3
000 ~ 959
000 ~ 490
OFF / LOW / MID / HIGH

LENS SHD COMP

OFF
ON

PATTERN
POSH
POSV

SET1 / SET2 / SET3
000 ~ 959
000 ~ 490

DEFOG(*5)

OFF
ON

LEVEL

LOW / MID / HIGH

FLK LESS

OFF
AUTO
ON

MODE
MODE
MODE

GAIN CNTL
SHUTTER FIX
GAIN CNTL
SHUTTER FIX

ANTI CR

AUTO/OFF/ON

PICT ADJUST

BRIGHTNESS
CONTRAST
SHARPNESS
HUE
COLOR GAIN

DIS
EZOOM

ON/OFF
OFF
ON

MAG/PAN/TILT

PRIVACY MASK

AREA SEL
DISPLAY
POSITION
COLOR
TRANSP
MOSAIC

1~15
OFF / ON
WHITE / BLACK / RED / GREEN / BLUE /
YELLOW / CYAN / MAGENTA
0.00 / 0.50 / 0.75 / 1.00
OFF / ON

MOTION DET

OFF
ON

DETECT SENSE
INTERVAL
BLOCK DISP
MASK AREA
MOTION AREA

AREA SEL
MODE
TOP
BOTTOM
LEFT
RIGHT

1~4

SYS SETTING

SYNC MODE
LENS

INT/LL(*6)
MANUAL
AUTO

TYPE
MODE
ADJUST
SPEED

OFF/V/H/VH
LCD/CRT
COMMUNICATION

PROTOCOL
ADDRESS
BAUDRATE
DATABIT
PARITY
STOPBIT

CAMERA ID

OFF
ON

POS

EXIT

PAGE2

LANGUAGE

ENGLISH/中文/ESPAÑOL/PORTUGUES/PYCKNN/FRANCAIS/DEUTSCH/日本語

VERSION

MAINTENANCE

W.PIX MASK
CAMERA RESET

MANUAL
REGISTRATION
REG.POINT
CURSOR COLOR
BLINK
REG.NUMBER

EXIT

SAVE
NOT SAVE
CANCEL
BACK

AUTO
RUN
BACK
DATA CLEAR

Note

*1 This can not be changed from ATW except CUSTOM mode.
*2 BLC can be selected on CUSTOM mode.
*3 This can not be changed except CUSTOM mode.
Non-WDR models do not have WDR functions.
*4 This is MID on FULL AUTO, OUTDOOR and ITS mode,
LOW on INDOOR mode, HIGH on BACKLIGHT mode.
*5 This can not be changed except CUSTOM mode.
*6 The default SYNC Mode is set as INT.
The SYNC Mode can be selected as LL on OSD menu but the
actual mode is INT when the power is DC12V .
► This item has subsequent adjustment screens