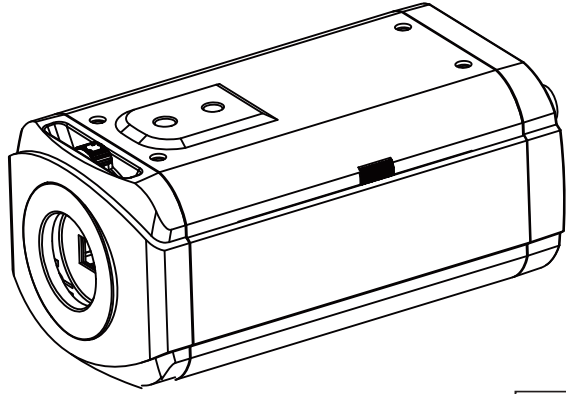


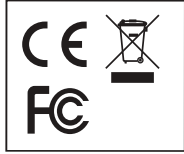


High Resolution Box Camera Instruction Manual



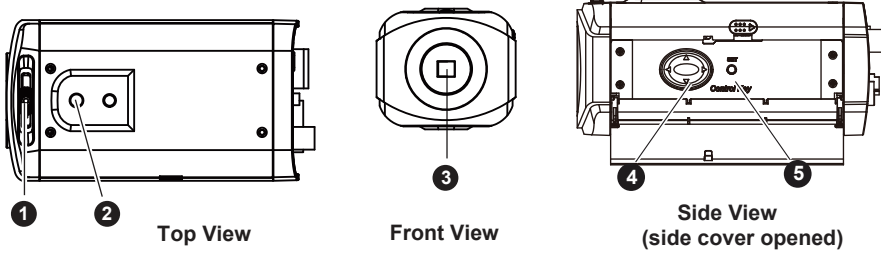
Emissions: - CE:
--EN55022
--EN55011
- FCC:
--47 CFR Part 15 Subpart B
--ANSI C63.4
--ICES-003

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

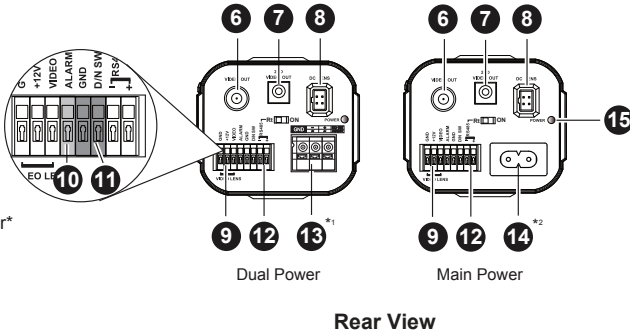


V531-CQ015-201
Ver.05/2016

Parts Descriptions

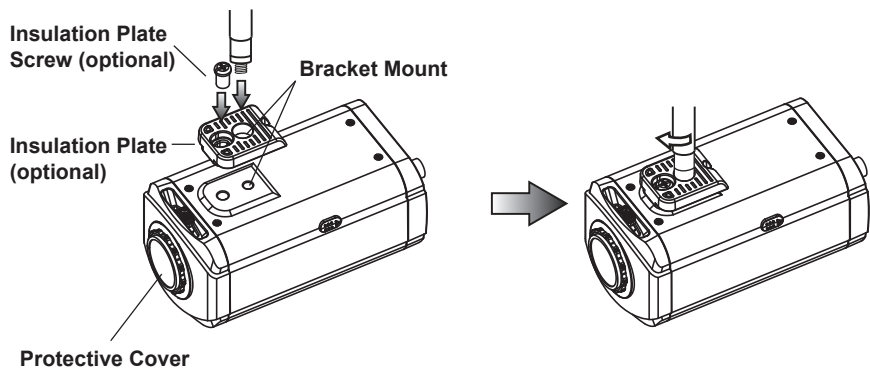


1. Back Focus Adjustment
2. Bracket Mount
3. CCD Sensor
4. OSD Navigation Pad
5. OSD Enter Button
6. BNC Composite Video Output
7. Second Video Output
8. DC Lens Connector
9. Video Lens Connector
10. Motion Detect Alarm Trigger
11. Day/Night Switching Trigger
12. RS-485 Connection Terminal
13. Power Input Terminal*
14. AC Mains Power Input Connector*
15. Power Indicator



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.

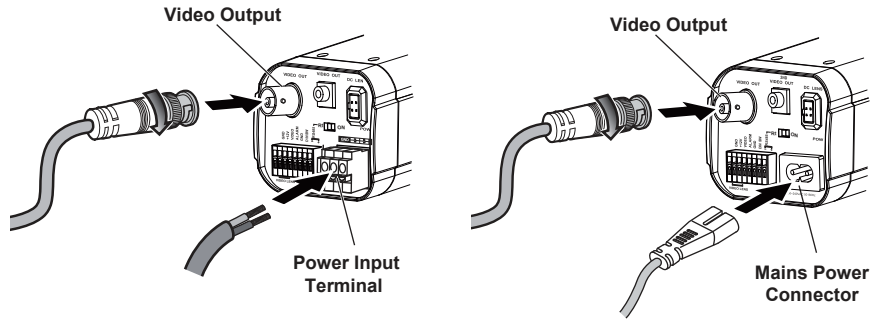
Connecting to the Power Source and Video Output

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 damage that is 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 a regulated power supply and the wiring used should be appropriate for the 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, even when switched off. This may cause damage to the CCD and void the warranty.
- Do not touch the CCD 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 Wide Dynamic	
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 (75Ω BNC unbalanced connector)	
2nd Video Output	Yes (supports installation check)	
Power Source	12 VDC ±10% / 24 VAC ±20%	100 ~ 240 VAC (50/60 Hz)
Power Consumption	Normal: 3.0W , TDN On: 4.9W(Max)	
Operating Temperature	-10°C ~ +50°C	
Storage Temperature	-20°C ~ +60°C	
Dimensions	68mm (W) x 59mm (H) x 123.7mm(L)	

Functional Specifications

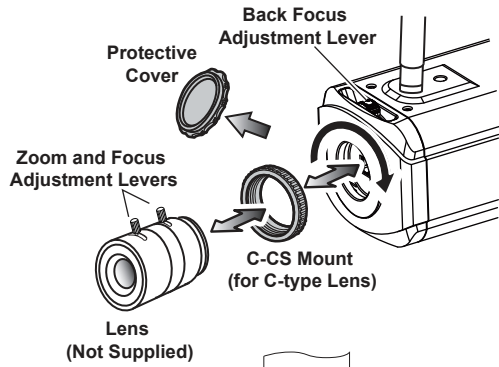
Sense Up	ON / OFF	
Shutter Speed	AES	NTSC: 1/60 ~ 1/100000 PAL: 1/50 ~ 1/100000
	MES	1/50 (1/60), 1/120 (1/100), 1/250, 1/500, 1/1K, 1/2K, 1/4K, 1/10K
AGC Gain Control	44.8 dB	
Wide Dynamic Range (WDR)	OFF/ATR-EX/WDR	
High-Light Compensation (HLC)	ON/OFF	
Backlight Compensation (BLC)	Full Range	
White Balance Control	ATW / Manual / Push / Push Lock / USER1,2	
Auto White Balance Range	Indoor: 1800K-10500K Outdoor: 6500K-10500K	
Day/Night	TDN (AUTO, COLOR, NIGHT)	
Mirror	OFF/V-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

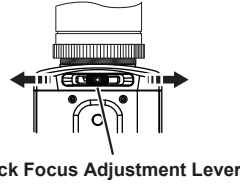
Installing the Lens

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).



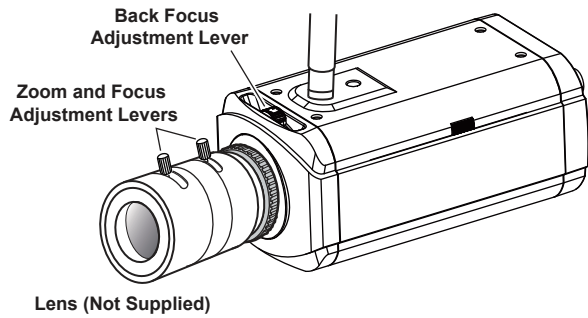
Back Focus Adjustment

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 Connection

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.

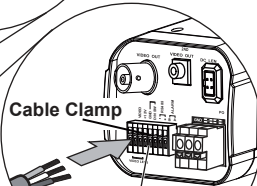
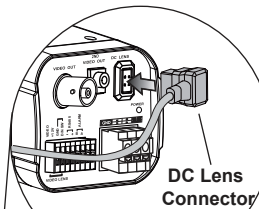
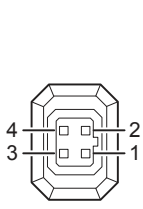


Auto IRIS Lens Connection

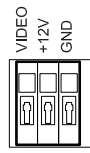
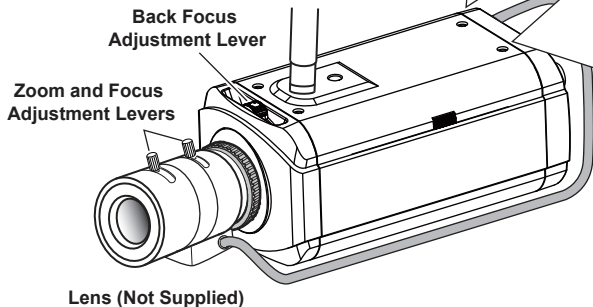
1. If using a C-mount lens, attach the C-CS mount adaptor before installing the lens.
2. Move the back focus adjustment lever fully to the left, with the lens facing towards you (see Back Focus Adjustment).
3. Install the lens on to the camera.
4. For Direct Drive Lens applications, connect the DC Lens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

Pin Number	DC Drive
Pin 1	Damp -
Pin 2	Damp +
Pin 3	Drive +
Pin 4	Drive -

DC Lens Pin Assignments



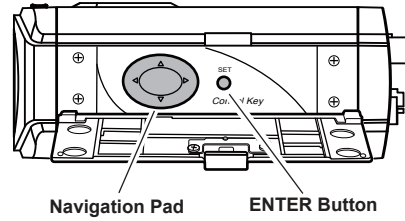
Press to Open the Clamp



Video Lens Pin Assignments

Camera Configuration

1. The control buttons are on the left hand side of the camera.
2. Push the side cover to access the buttons.
3. Press the **ENTER** button, and the OSD Menu will be displayed.
4. Use the **Navigation Pad** to select the desired menu option.
5. Pressing the **ENTER** button will open the sub-menu or confirm the configuration.



6. Use the **Navigation Pad** to move the cursor to **SAVE ALL**; then press the **ENTER** button to write the new settings to memory and complete the configuration.
7. To move to next page of the OSD menu, select **NEXT** and press **ENTER**. Similarly, to move to the previous page of the OSD menu (or to move one hierarchy level up), select **BACK** or **RETURN** and press **ENTER**.
8. To quit or give up the configuration, select **EXIT** and press **ENTER** to close the OSD menu.
9. To reset the camera to the factory setting, select **CAMERA RESET** and press **ENTER** (if **CAMERA RESET** is not visible on the OSD menu, please select **NEXT/BACK** and press **ENTER** until **CAMERA RESET** appears).

Camera Setup

Camera OSD Menu

PAGE1

```

SCENE SELECT  FULL AUTO  SHUTTER / AGC  AUTO  AE LEVEL  001 ~ 250
                INDOOR    AGC MAX  6.0DB ~ 44.8DB
                OUTDOOR   SENS UP  AUTO / OFF
                BACKLIGHT  MANUAL  SHUTTER  256FLD ~ 1/10000
                ITS        FIX  AGC MAX  6.0DB ~ 44.8DB
                CUSTOM    AGC MAX  6.0DB ~ 44.8DB
                WHITE BAL  ATW(*1)  SPEED  000 ~ 255
                PUSH      DELAY CNT  001 ~ 255
                USER1     RGAIN  000 ~ 255
                USER2     RGAIN  000 ~ 255
                MANUAL    LEVEL  00 ~ 63
                PUSH LOCK HLC/BLC  OFF
                HLC/BLC  HLC  CLIP LEVEL  000 ~ 255
                BLC(*2)  OFF
                WDR/ATR-EX(*3)  ATR-EX  CONTRAST  LOW / MID / HIGH(*4)
                WDR      CONTRAST  LOW / MID / HIGH / OFF
                CLEAR FACE  OFF/LOW/MID/HIGH
                DNR      LEVEL  0 ~ 6
                DAY/NIGHT DAY  BURST  ON/OFF
                NIGHT    BURST  ON/OFF
                AUTO     CNTL SIGNAL  INT/EXT1/EXT2
                DAY->NIGHT  DELAY CNT
                NIGHT->DAY

IR OPTIMIZER  OFF
                ON  MODE  AUTO
                IR AREA  CENTER
                TOP  0~6
                BOTTOM  0~6
                LEFT  0~8
                RIGHT  0~8
                WEIGHT  00~15
                IR LED  0-12
                OFF
                FIX  LEVEL  000 ~ 255
                DAY/NIGHT  LEVEL MIN  001 ~ 255
                LEVEL MAX  001 ~ 255
                COLOR NIGHT  OFF
                ON  COLOR GAIN  LOW / MID / HIGH
                IR SHADE COMP  OFF
                ON  PATTERN  SET1 / SET2 / SET3
                POSH  000 ~ 959
                POSV  000 ~ 490
                LEVEL  OFF / LOW / MID / HIGH

LENS SHD COMP  OFF
                ON  PATTERN  SET1 / SET2 / SET3
                POSH  000 ~ 959
                POSV  000 ~ 490

DEFOG(*5)  OFF
                ON  LEVEL  LOW / MID / HIGH

FLK LESS  OFF
                AUTO  MODE  GAIN CNTL
                ON  SHUTTER FIX
                MODE  GAIN CNTL
                SHUTTER FIX

ANTI CR  AUTO/OFF/ON

PICT ADJUST  BRIGHTNESS
                CONTRAST
                SHARPNESS
                HUE
                COLOR GAIN
                ON/OFF
                EZOOM  OFF
                ON  MAG/PAN/TILT
                PRIVACY MASK  AREA SEL  1~15
                DISPLAY  OFF / ON
                POSITION
                COLOR  WHITE / BLACK / RED / GREEN / BLUE /
                YELLOW / CYAN / MAGENTA
                TRANSP  0.00 / 0.50 / 0.75 / 1.00
                MOSAIC  OFF / ON
                MOTION DET  OFF
                ON  DETECT SENSE
                INTERVAL
                BLOCK DISP
                MASK AREA
                MOTION AREA  AREA SEL  1~4
                MODE
                TOP
                BOTTOM
                LEFT
                RIGHT

SYS SETTING  SYNC MODE  INT/LL(*6)
                LENS  MANUAL
                AUTO  TYPE
                MODE
                ADJUST
                SPEED
                FLIP  OFF/H/VH
                LCD/CRT
                COMMUNICATION  PROTOCOL
                ADDRESS
                BAUDRATE
                DATABIT
                PARITY
                STOPBIT
                CAMERA ID  OFF
                ON  POS
    
```

PAGE2

```

LANGUAGE  ENGLISH/中文/ESPAÑOL/PORTUGUES/PYCKNN/FRANCAIS/DEUTSCH/日本語
VERSION
MAINTENANCE  W.PIX MASK  MANUAL  REGISTRATION
                CAMERA RESET  REG.POINT
                CURSOR COLOR
                BLINK
                REG.NUMBER
                EXIT  SAVE
                NOT SAVE
                CANCEL
                BACK
                AUTO  RUN
                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.
 *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