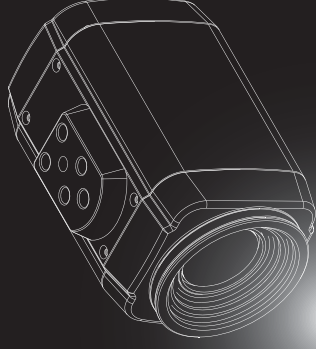
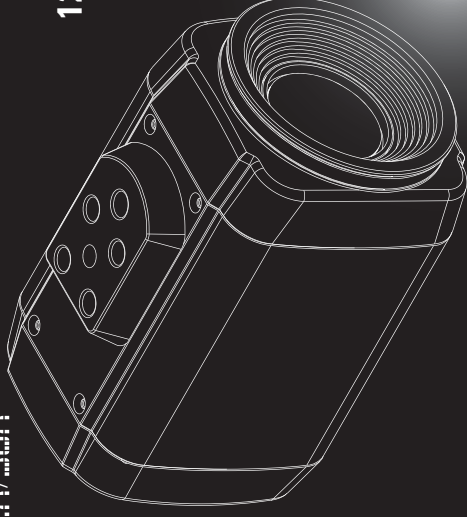




# AUTO FOCUS ZOOM CAMERA

## High Resolution 700TVL 12x, 22x, 36x Zoom Camera



### INSTRUCTION MANUAL

Before installing, operating or adjusting this product, please read this instruction booklet carefully and completely.

P/N : 388033220  
PRINTED IN KOREA

*Distributed by*



**CAUTION**  
RISK OF ELECTRIC SHOCK  
DO NOT OPEN



**CAUTION** : TO REDUCE THE RISK OF ELECTRIC SHOCK  
DO NOT REMOVE COVER (OR BACK)  
NO USER SERVICEABLE PARTS INSIDE  
REFER SERVICING TO QUALIFIED  
SERVICE PERSONNEL  
REFER SERVICING TO QUALIFIED SERVICE PERSONNEL.



The lightning flash with an 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.

**FCC WARNING** - This equipment may generate or use radio frequency energy. Changes or modifications to this equipment may cause harmful interference unless the modifications are expressly approved in the instruction

manual. The user could lose the authority to operate this equipment if an unauthorized change or modification is made.

#### REGULATORY INFORMATION : FCC Part 15

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.

- A suitable conduit entries, knock-outs or glands shall be provided in the cable entries of this product in the end use

- Holes in metal, through which insulated wires pass, shall have smooth well rounded surfaces or shall be provided with brushings.

**WARNING** - Do not install this equipment in a confined space such as a bookcase or similar unit.

**WARNING** - Wiring methods shall be in accordance with the National Electric Code, ANSI/NFPA 70.

**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.

**WARNING** - To reduce a risk of fire or electric shock, do not expose this product to rain or moisture.

**CAUTION** - This installation should be made by a qualified service person and should conform to all local codes.

**CAUTION** - To avoid electrocution, do not open the cabinet. Refer servicing to qualified personnel only.

**CAUTION** - To apparatus should not be exposed to water (dripping or splashing) and no objects filled with liquids, such as vases, should be placed on the apparatus.



#### Disposal of your old appliance

1. When this crossed-out wheeled bin symbol is attached to a product it means the product is covered by the European Directive 2002/96/EC
2. All electrical and electronic products should be disposed of separately from the municipal waste stream via designated collection facilities appointed by the government or the local authorities
3. The correct disposal of your old appliance will help prevent potential negative consequences for the environment and human health
4. For more detailed information about disposal of your old appliance, please contact your city office, waste disposal service or the shop where you purchased the product.

To disconnect power from the mains, pull out the mains cord plug. When install the product, ensure that the plug is easily accessible.

## IMPORTANT SAFETY INSTRUCTIONS

- 1. Read these instructions** - All these safety and operating instructions should be read before the product is operated.
- 2. Keep these instructions** - The safety, operating and user instructions should be retained for future reference.
- 3. Heed all warnings** - All warnings on the product and in the operating instructions should be adhered to.
- 4. Follow all instructions** - All operating and user instructions should be followed.
- 5. Do not use this apparatus near water** - For example : near a bath tub, wash bowl, kitchen sink, laundry tub, in a wet basement; near a swimming pool; etc.
- 6. Clean only with dry cloth** - Unplug this product from the wall outlet before cleaning. Do not use liquid cleaners.

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## IMPORTANT SAFETY INSTRUCTIONS

- 9. Protect the power cord from being walked on or pinched particularly at plugs, convenience receptacles, and the point where they exit from the apparatus.**
- 10. Only use attachments/accessories specified by the manufacturer.**



- 11. Unplug this apparatus during lightning storms or when unused for long periods of time.**

- 7. Do not block any ventilation openings. Install in accordance with the manufacturer's instructions.** - Slots and openings in the cabinet are provided for ventilation, to ensure reliable operation of the product, and to protect it from overheating. The openings should never be blocked by placing the product on a bed, sofa, rug or other similar surface. This product should not be placed in a built-in installation such as a bookcase or rack unless proper ventilation is provided and the manufacturer's instructions have been adhered to.

- 8. Do not install near any heat sources such as radiators, heat registers, stoves, or other apparatus (including amplifiers) that produce heat.**

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## CONTENTS

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## FEATURES

### Features

- 1/4" Sony Super HAD II CCD (Double scan) 520K(NTSC)/610K(PAL) pixels
- 36x Optical Zoom / 22x Optical Zoom / 12x Optical Zoom
- High Resolution 700 TV lines : This camera has realized high resolution of more 700 TV lines. (HR 7 mode)
- Day & Night (ICR)

The ICR will automatically engage depending on the ambient light, allowing the camera to be effective in day&night environment.

- Wide Dynamic Range(X512)
- 512 times WDR, more effectively than previous models, by applying an optimum fusion ratio when combining the high speed shutter used in bright areas and the low speed shutter used in dark areas.
- Digital Noise Reduction(2D+3D)

The DNR technology eliminates noise thus generating a distinct and clear image. This camera DNR function utilizes both an adaptive 2D filter reducing noise in the brightness of the image and an adaptive 3D filter reducing noise caused by movement.

- Privacy mask Function

The privacy zone function makes it possible to make specific areas of the scene from view.

- On Screen Display

This camera supports the OSD function which is used with multi language. And so, the camera can be controlled by selecting text displayed on the monitor screen.

- Intelligent motion detection

You can transmit an alert signal when it detects motion of an object on the screen. This feature is useful when you have to monitor several screens simultaneously.

- Intelligent Object detection

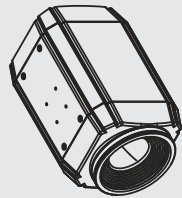
You can transmit an alert signal when it detects absent of an object on the screen (or detect appearance of an object on the screen).

- Protocol : This camera supports the multi-protocol (MSCA, Pelco-D, Pelco-P)

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# CONTENTS

[Contents 36x, 22x]



CAMERA



SCREW  
M2.6\*4 CH/BK 4EA

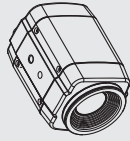


BRACKET HOLDER



USER MANUAL

[Contents 12x]

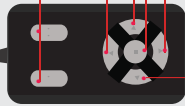


CAMERA



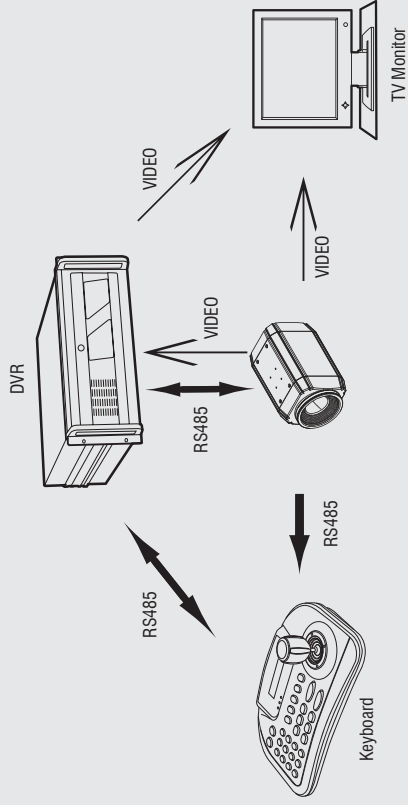
USER MANUAL

[Optional Remote Controller]



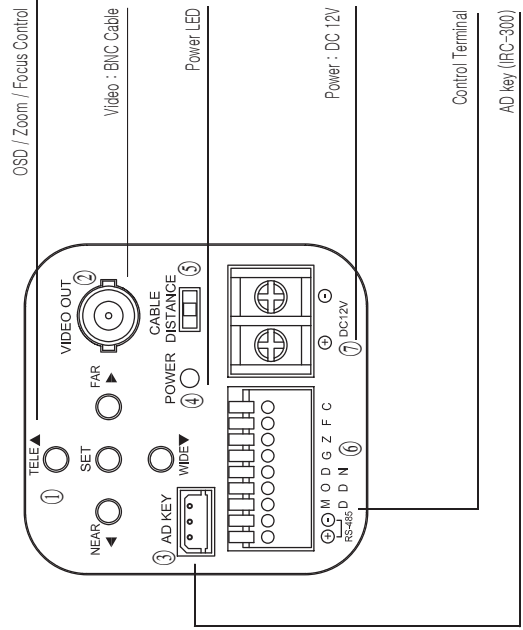
Not used  
Tele/Up  
Far/Right  
Menu/Set  
Wide/Down  
Near/Left

# SYSTEM CONFIGURATION



# PART DETAIL

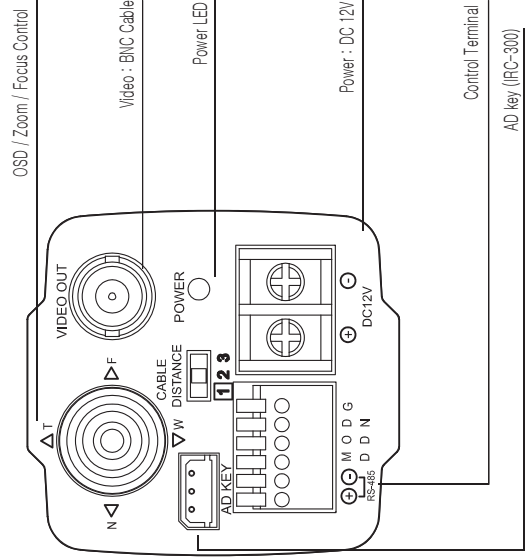
(For 36x, 22x)



- ① OSD / Zoom / Focus control
- ② Video : BNC Cable
- ③ AD key
- 1: GND
- 2: AD-key
- 3: GND
- ④ Power LED
- ⑤ Cable Distance
- When the distance is far from camera to monitor, set 2 or 3.
- ⑥ Control Terminal
- 1: RS-485 (+)
- 2: RS-485 (-)
- 3: Motion Detection Out
- 4: Object Detection Out
- 5: Day&Night Input (Low : Night, High : Day)
- 6: Ground
- 7: Zoom (+ : Tele, - : Wide)
- 8: Focus (+ : Near, - : Far)
- 9: Common
- ⑦ Power : DC12V

# PART DETAIL

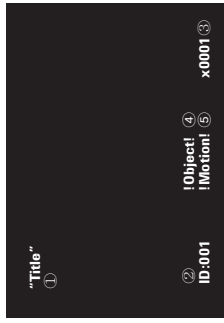
(For 12x)



- ① OSD / Zoom / Focus control
- ② Video : BNC Cable
- ③ AD key
- 1: GND
- 2: AD-key
- 3: GND
- ④ Power LED
- ⑤ Cable Distance
- When the distance is far from camera to monitor, set 2 or 3.
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- 2: RS-485 (-)
- 3: Motion Detection Out
- 4: Object Detection Out
- 5: Day&Night Input (Low : Night, High : Day)
- 6: Ground
- ⑦ Power : DC12V

## MENU OPERATION

### Main Screen OSD

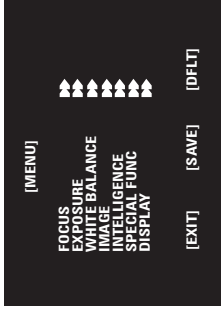


- ① Camera title.
- ② Camera ID.
- ③ Status of the zoom position.
- ④ Alarm message of the Object Detection function
- ⑤ Alarm message of the Motion Detection function

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## MENU OPERATION

### MAIN MENU



Functions can be setup using 5 buttons on the camera's rear panel.

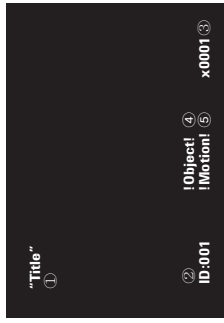
**MENU Key :** Shows Menu / Select item  
**TELE(UP)/WIDE(DOWN) :** Moves up and down items  
**NEAR(LEFT)/FAR(RIGHT) :** Set data for the selected item

The Menu consists of the "Main Menu" and "Sub Menu".  
 The main menu is displayed where 7 camera functions can be selected.  
 To the right of each main menu selection, the sub-menu is displayed  
 If you want to save the menu, select [SAVE].  
 If you don't want to save the menu, select [EXIT] (After select , Power off -> on)  
 If you want to default the menu, select [DFLT]

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## MENU OPERATION

### Main Screen OSD

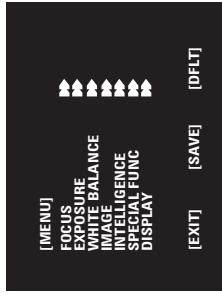


- ① Camera title.
- ② Camera ID.
- ③ Status of the zoom position.
- ④ Alarm message of the Object Detection function
- ⑤ Alarm message of the Motion Detection function

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## FOCUS SETTING

### FOCUS



- **MODE :** Select auto focus mode
  - ▶ AUTO, ONE PUSH, MANUAL
- **DISTANCE :** Select minimum distance in focus between camera and object.
  - ▶ 0.1 / 1.3 / 1.8 / 3.0 / 5.0 m ( 36x )
  - ▶ 0.1 / 1.0 / 1.5 / 2.5 / 6.0 m ( 22x )
  - ▶ 0.1 / 1.0 / 1.3 / 2.0 / 6.0 m ( 12x )
- **LENS REFRESH :** Lens origin calibrated automatically.
  - ▶ OFF / ON ( 1 day ~ 10 days )
- **E.ZOOM :** Select maximum digital zoom magnification.
  - ▶ OFF / ON ( max x2 ~ x19, x21, x23, x25, x28, x32 )
- **HOME POSITION :** Select zoom home position function.  
 The camera returns to the home position if a certain amount of time elapses without any operation being performed.
  - ▶ OFF / ON
  - △ **ZOOM PRESET :** Set zoom position as the home position.
    - ▶ 5/10/15/20/25/30/35/40/45/50/55/60 sec

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## EXPOSURE SETTING

### EXPOSURE



- **MODE :** Select exposure mode
  - ▶ AUTO / SHUT.P / IRIS.P / MANUAL

- **AGC :** Select Auto Gain Control
  - ▶ OFF / ON ( AUTO, SHUT.P or IRIS.P Mode )
  - ▶ 0/2/4/6/8/10/12/14/16/18/20/22/24/26/28/30dB ( MANUAL Mode )
- **SHUT SPEED :** Can be set in SHUT.P or MANUAL mode.
  - ▶ NTSC : x512, x128, x64, x32, x16, x8, x4, x2, 1/60, 1/90, 1/100, 1/180, 1/250, 1/500, 1/1000, 1/1500, 1/2000, 1/5000, 1/10000, 1/20000, 1/50000, 1/100000 sec
  - ▶ PAL : x512, x128, x64, x32, x16, x8, x4, x2, 1/50, 1/80, 1/120, 1/150, 1/250, 1/500, 1/1000, 1/1500, 1/2000, 1/5000, 1/10000, 1/20000, 1/50000, 1/100000 sec
- ※ Slow shutter speed (x2 ~ x512) can be set in MANUAL mode.

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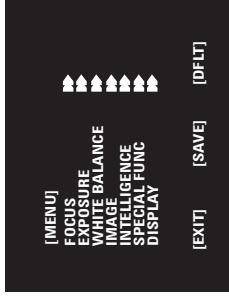
## EXPOSURE SETTING

- IRIS : Iris level can be set in IRIS.P mode.
  - ▶ 1 ~ 18 steps
- DSS : Select Max DSS (Digital Slow Shutter)
  - ▶ OFF / x2, x4, x8, x16, x32, x64, x128, x512
- FLICKERLESS : Select Flickerless mode
  - ▶ OFF / ON (remove screen flicker)
- BRIGHTNESS : Adjust brightness level
  - ▶ 1 (dark) ~ 15 (bright) steps
- WDR/BLC : Select WDR (Wide Dynamic Range) or BLC (Back Light Compensation)
  - OFF / WDR / BLC
- ▶ WDR : Select level
  - ▶ 1 ~ 7 steps
- ▶ BLC : Select area, level, mode
  - ▶ Area(1 ~ 9), Level (low / mid / high) and Auto / manual
- DAY&NIGHT : Select Day&Night
  - ▶ Mode : Select Day&Night mode
    - ▶ DAY / NIGHT / AUTO / EXT
  - ▶ Delay : Adjust the working time of the filter when Day&Night operated.
    - ▶ 5/10/15/20/25/30/35/40/45/50/55/60 sec
- ▶ BURST : When you select BW, you can burst off/on
  - ▶ OFF / ON

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## WHITE BALANCE SETTING

### WHITE BALANCE SETTING



- MODE : Select white balance mode
  - ▶ ATW / ONE-PUSH / INDOOR / OUTDOOR / MANUAL / AUTO
- ▶ ATW : Automatically adjusts color according to the available lighting.
  - ▶ ONE-PUSH : Color will be automatically adjusted while the SET button is pressed in the temporary automatic mode.
  - ▶ INDOOR : Set color temperature to be Indoor light.
  - ▶ OUTDOOR : Set color temperature to be Outdoor light.
  - ▶ MANUAL : Color can be corrected when the user increases or decreases "Red Control" or "Blue Control".
  - ▶ AUTO : Wide color temperature range (more ATW range)
- RED GAIN : Adjust R gain value in Manual Mode (0 ~ 255)
- BLUE GAIN : Adjust B gain value in Manual Mode (0 ~ 255)

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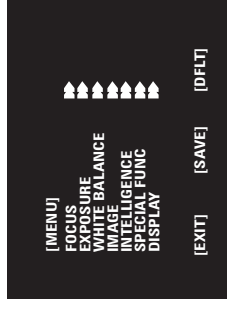
## IMAGE



- DNR : On screen digital noise reduction
  - ▶ OFF / 1 ~ 10 (Select noise reduction level) / Auto (DNR level is adjusted automatically)
- HR : Select High resolution
  - ▶ OFF / ON(1 ~ 7)
- MIRROR : Select a flip mode
  - ▶ OFF  
/ V (You can flip the picture vertically on the screen)  
/ H (You can flip the picture horizontally on the screen)  
/ H&V (You can flip the picture Horizontally & vertically on the screen)
- SHARPNESS : Adjust sharpness level
  - ▶ 1 ~ 16 steps
- EFFECT : Select the negative or B/W effect
  - ▶ OFF / NEGATIVE / B/W
- FREEZE : Select real or still mode
  - ▶ OFF / ON

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## INTELLIGENCE

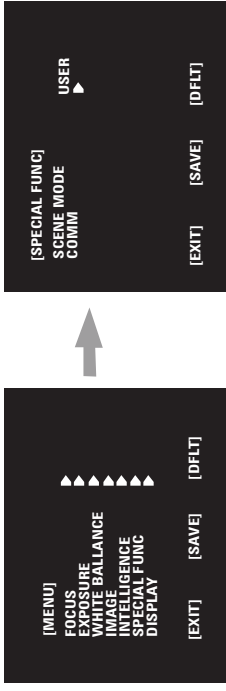


- PRIVACY : Hide an area you want to hide on the screen
  - ▶ MASK# : Select mask area number(1 ~ 16)
  - ▶ MODE : Mask enable or disable (OFF / ON)
  - ▶ MOSAIC TYPE : Mosaic roughness setting(1 ~ 8)
  - ▶ MOSAIC : Mosaic display (OFF/ ON)
  - ▶ COLOR : Select mask color (1 ~ 14)
  - ▶ TRANSPARENCY : Select mask transparency level (0 ~ 3)
  - ▶ POSITION : Adjust the mask position
  - ▶ SIZE : Adjust the mask size
- MOTION DET : When there is movement of the subject in the screen, there will be an motion detection.
  - ▶ MODE : MD function enable or disable (OFF / ON)
  - ▶ AREA# : Select MD area number(1 ~ 3)

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- ▶ **ACTIVATE** : Activate or deactivate the each MD Area (OFF / ON)
  - ▶ **SENSITIVITY** : Adjust sensitivity of MD (1 ~ 20)
  - ▶ **INTERVAL TIME** : Select the alarm interval time (1 ~ 256sec)
  - ▶ **DEWELL TIME** : Select the duration time about changing MD mode (1 ~ 256sec)
  - ▶ **POSITION** : Adjust the MD position
  - ▶ **SIZE** : Adjust the MD size
  - ▶ **ZOOM PRESET** : Select zoom position to move when alarm is occurred
- **OBJECT DET** : Detect object appeared or removed the screen
  - ▶ **MODE** : Object detection enable or disable (OFF / ON)
  - ▶ **AREA#** : Select OD Area number (1 ~ 9)
  - ▶ **SENSITIVITY** : Adjust sensitivity (1 ~ 5)
  - ▶ **DEWELL TIME** : Select the duration time about changing OD mode (1 ~ 256sec)
  - ▶ **ZOOM PRESET** : Select zoom position to move when alarm is occurred

## SPECIAL FUNCTION

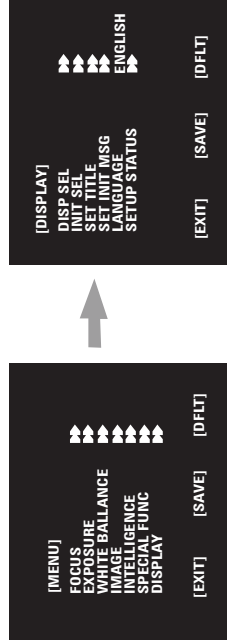


- **SCENE MODE** : Select scene preset.
- ▶ **USER / NORMAL / TRAFFIC / BACK LIGHT / DAY/NIGHT / CASINO**

Function	Normal	Traffic	Back Light	Day/Night	Casino
Mode	Auto	Auto	Auto	Auto	Auto
WDR	OFF	OFF	ON	OFF	OFF
DSS	Max 4x	Max 2x	Max 4x	Max 4x	Max 4x
Mode	Auto	Auto	Day	Auto	Day
Burst	OFF	ON	OFF	OFF	OFF
Mode(Day)	ATW	Auto	Auto	Auto	Auto
Mode(Night)	ATW	ATW	Auto	ATW	Auto

- **COMM** : Set up the camera ID, baud rate, protocol
- ▶ **ID** : Select the camera ID
  - ▶ 1 ~ 255
- ▶ **BAUD RATE** : Select serial communication speed
  - ▶ 2400 / 4800 / 9600 / 19200 / 38400 bps
- ▶ **PROTOCOL** : Select operating protocol
  - ▶ VISCA / Pelco-D / Pelco-P

## DISPLAY



- **DISP SEL** : Select display item
  - ▶ ID : OFF / ON
  - ▶ TITLE : OFF / ON
  - ▶ ZOOM RATIO : OFF / ON

- **INIT SEL** : Select items to display on the screen while power on initializing time.
  - ▶ ID : OFF / ON
  - ▶ BAUD RATE : OFF / ON
  - ▶ PROTOCOL : OFF / ON
  - ▶ VERSION : OFF / ON
  - ▶ INIT MSG : OFF / ON

- **SET TITLE** : Select camera title menu. (Text edit)
- **SET INIT MSG** : Select camera initial message menu. (Text edit)
- **LANGUAGE** : Select language
  - ▶ ENGLISH / CHINESE (or ENGLISH / KOREAN)
- **SETUP STATUS** : Shows the current OSD Menu setup status and compare the each values with the ones in Factory default.

## SPECIFICATION

MODEL	36x	22x	12x
Image Sensor	1/4" SONY Super HAD II(Double Scan) CCD		
Total Pixels	NTSC : 1028(H) × 508(V) / PAL : 1028(H) × 596(V)		
Scanning system	2:1 Interlace		
Scanning Frequency	NTSC: 15.734KHz(H), 59.94Hz(V) / PAL : 15.625KHz(H), 50Hz(V)		
Sync. System	Internal		
Resolution	Max 700 TV lines in color @ HR 7 mode (750TV lines in B/W @ HR 7 mode)		
Min. illumination	Color : 0.5 lux , BW : 0.2 lux		
Video Output	Color DSS : 0.001 lux , BW DSS : 0.0004 lux 1.0 Vp-p (75 ohm, composite)		
S/N Ratio	More than 50dB (AGC off)		
<b>LENS</b>			
Lens type	x36 Day & Night Zoom Lens	x22 Day & Night Zoom Lens	12x Day & Night Zoom Lens
Zoom Ratio	Optical x36, Digital x32 Zoom	Optical x22, Digital x32 Zoom	Optical x12, Digital x32 Zoom
Focal Length	f = 3.4 mm ~ 122.4 mm	f = 3.9 mm ~ 85.8 mm	f = 3.8 mm ~ 45.6 mm
Aperture Ratio	F1.6 (wide) ~ F4.5 (tele)	F1.6 (wide) ~ F3.7 (tele)	F1.6 (wide) ~ F2.7 (tele)

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## SPECIFICATION

MODEL	36x	22x	12x
Focus	Auto / One Push / Manual		
Focus Distance	0.1 / 1.3 / 1.8 / 3.0 / 5.0 m	0.1 / 1.0 / 1.5 / 2.5 / 6.0 m	0.1 / 1.0 / 1.3 / 2.0 / 6.0 m
E. Zoom	Off / Max x2 ~ x32		
Exposure	Auto / Shutter PRI / Iris PRI / Manual		
Gain Control	Off / On (Auto Max 30dB)		
Shutter Speed	NTSC : 1/60 ~ 1/100,000 sec / PAL : 1/50 ~ 1/100,000 sec		
Iris	1 ~ 18		
Digital Slow Shutter	Off / Max x2 ~ x512		
Flickerless	Off / On		
Brightness	1 ~ 15 steps		
WDR / BLC	Off / WDR / BLC		
Day&Night	Day / Night / Auto / Ext		
White Balance	ATW / One-Push / Indoor / Outdoor / Manual / Auto		
Image	DNR / HR / Mirror / Sharpness / Effect / Freeze		
DNR	Off / Manual / Auto		
HR	Off / 1 ~ 7 steps		
Mirror	Off / H / V / HRV		
Sharpness	1 ~ 16 steps		
Effect	Off / Negative / B&W		

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## SPECIFICATION

MODEL	36x	22x	12x
Freeze	Off / On		
Intelligent	Privacy / MD / OD		
Privacy Mask	Off / 16 positions		
Motion Detection	Off / 3 positions		
Object Detection	Off / On		
Special	Scene Mode / Comm		
Sync Mode	User / Normal / Traffic / Back Light / Day/Night / Casino		
Comm	Baud Rate : 2400 / 4800 / 9600 / 19200 / 38400 Protocol : WSCA / Pelco-D / Pelco-P		
Display	Disp Sel / Init Sel / Set Title / Set Init Msg / Language / Setup Status		
Disp Sel(Off / On)	ID / Title / Zoom Ratio		
Init Sel(Off / On)	ID / Baud Rate / Protocol / Version / Init Msg		
SET Title	Text Edit		
SET Init Msg	Text Edit		
Language	ENGLISH / CHINESE (or ENGLISH / KOREAN)		
Setup Status	Setup Status List		
OSD Text	0 ~ 9 , A ~ Z , a ~ z		

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## SPECIFICATION

MODEL	36x	22x	12x
<b>ELECTRICAL</b>			
Power Source	DC12V ± 10%	DC12V ± 10%	DC12V ± 10%
Power Consumption	Max 500mA	Max 350mA	Max 300mA
<b>GENERAL</b>			
Power Input	2 pin Terminal		
Video Output	BNC		
Operating Temperature	-10°C ~ +50°C		
Operating Humidity	0 ~ 96% (Non-condensing)		
Storage Temperature	-20°C ~ +60°C		
External Dimension	64(W) x 66(H) x 119.30(D)	64(W) x 68(H) x 119.30(D)	56.73(W) x 60.20(H) x 96.20(D)
Weight	378g	346g	266g

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PROTOCOL

- Communication parameter (RS-485)
- ▶ Protocol : VISCA, Pelco-D, Pelco-P
- ▶ ID : 1 ~ 7 (VISCA), 1 ~ 255 (Pelco-D, Pelco-P)
- ▶ Baud rate : 2400, 4800, 9600, 19200, 38400 bps
- ▶ Data bit : 8
- ▶ Start bit : 1
- ▶ Stop bit : 1
- ▶ Non parity bit

Pelco-D Protocol Command List

Function	Message format (Hex)						
	Byte1	Byte2	Byte3	Byte4	Byte5	Byte6	Byte7
Zoom Tele	FF	ID	00	20	00	00	CS
Zoom Wide	FF	ID	00	40	00	00	CS
Focus Near	FF	ID	01	00	00	00	CS
Focus Far	FF	ID	00	80	00	00	CS
Stop	FF	ID	00	00	Don't care	CS	
Menu	FF	ID	00	03	00	5F	CS
Esc	FF	ID	00	03	00	60	CS
Up	FF	ID	00	08	00	XX	CS
Down	FF	ID	00	10	00	XX	CS
Left	FF	ID	00	04	XX	00	CS
Right	FF	ID	00	02	XX	00	CS

- \* FF : Start Byte (FFh)
- \* ID : Camera ID (1 ~ 255)
- \* 10h < XX ≤ 40h
- \* CS (Check Sum) : An 8bit sum of byte 2 ~ 6 in the message.

Pelco-P Protocol Command List

Function	Message format (Hex)							
	Byte1	Byte2	Byte3	Byte4	Byte5	Byte6	Byte7	Byte8
Zoom Tele	A0	ID	00	20	00	00	AF	CS
Zoom Wide	A0	ID	00	40	00	00	AF	CS
Focus Near	A0	ID	02	00	00	00	AF	CS
Focus Far	A0	ID	01	00	00	00	AF	CS
Stop	A0	ID	00	00	Don't care	AF	CS	
Menu	A0	ID	00	03	00	5F	AF	CS
Esc	A0	ID	00	03	00	60	AF	CS
Up	A0	ID	00	08	00	XX	AF	CS
Down	A0	ID	00	10	00	XX	AF	CS
Left	A0	ID	00	04	XX	00	AF	CS
Right	A0	ID	00	02	XX	00	AF	CS

- \* A0 : Start Byte (A0h)
- \* ID : Camera ID (1 ~ 255)
- \* 10h < XX ≤ 40h
- \* AF : End Byte (AFh)
- \* CS (Check Sum) : An XOR sum of byte 1 ~ 7 in the message.

Visca Protocol Command List

Function	Message format (Hex)					
	Byte1	Byte2	Byte3	Byte4	Byte5	Byte6
Zoom Tele	8x	01	04	07	02	FF
Zoom Wide	8x	01	04	07	03	FF
Zoom Stop	8x	01	04	07	00	FF
Focus Near	8x	01	04	08	02	FF
Focus Far	8x	01	04	08	03	FF
Focus Stop	8x	01	04	08	00	FF
Menu	8x	01	04	16	10	FF
Esc	8x	01	04	16	20	FF
Up	8x	01	04	16	01	FF
Down	8x	01	04	16	02	FF
Left	8x	01	04	16	04	FF
Right	8x	01	04	16	08	FF

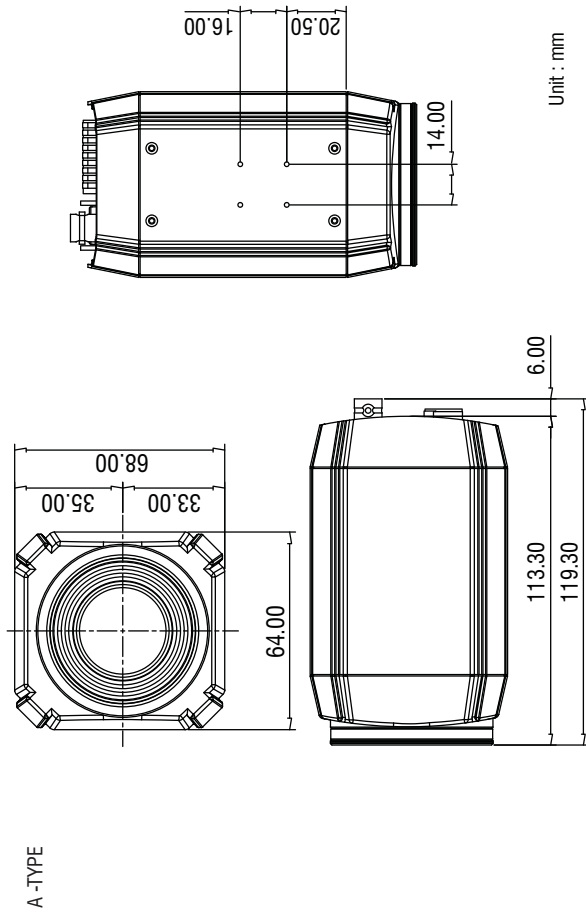
- \* 8x : Start Byte (x : Camera ID 1 ~ 7)
- \* FF : End Byte (FFh)

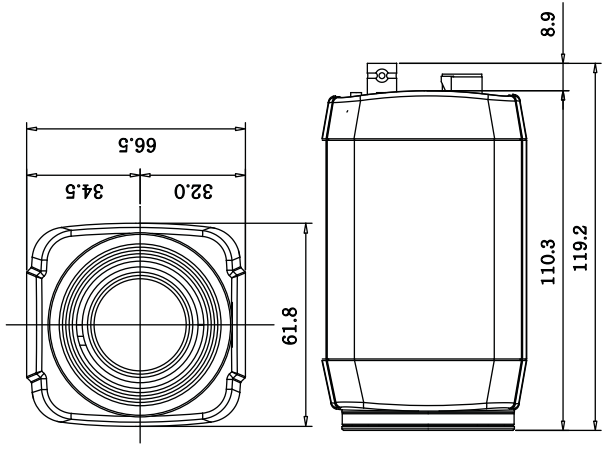
TROUBLESHOOTING

If there are problems in operation, please refer to the items below.  
If the problem persists, please contact the agent you purchased this product from.

Trouble shooting	
• Nothing appears on the screen. -Please check the power connection. -Please check the video signal line connection.	
• The video image is not clear. -Please clean the lens with a clean cloth or brush. -Please adjust that the screen is not exposed directly to a bright light. -Please move the camera if necessary.	
• The screen is dark. -Please adjust the contrast feature of the monitor. -If you have an intermediate device, set the 75 Ω /Hi-Z properly, and check the terminals. -Please adjust the brightness level.	
• The MOTION DETECTION function is not working -Please check if "MOTION DETECTION" mode is turned on. -Please check if the MD Sensitivity is too low. -Please check the setting of the MD AREA.	
• The WDR function is not working -Please check if the WDR Level is too low. -Please check if the AE Mode is set to MANUAL. The WDR doesn't work in MANUAL Exposure mode.	
• Colors are not quite right. -Please check if the camera is facing directly into sunlight or fluorescent light.	
• The Day&Night function doesn't work. -Please check if the AGC of EXPOSURE menu is set to OFF. - The Auto Day&Night doesn't work in AGC OFF status.	

DRAWING

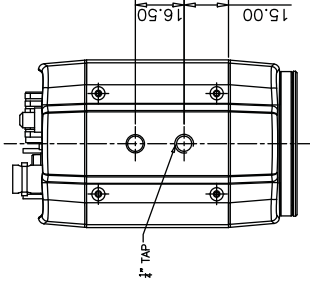
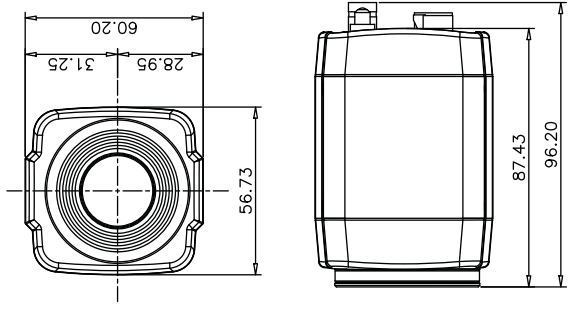




B-TYPE

Unit : mm

( For 12x )



Unit : mm