HIGH RESOLUTION 22x AF Zoom WDR Day & Night Camera

Please read this manual thoroughly before use, and keep it handy for future reference.

WARNING AND CAUTIONS

TO REDUCE THE RISK OF FIRE OR ELECTRIC SHOCK, DO NOT EXPOSE THIS PRODUCT TO RAIN OR MOISTURE.
DO NOT INSERT ANY METALLIC OBJECT THROUGH VENTILATION GRILLS.

CAUTION

CAUTION

RISK OF ELECTRIC SHOCK
DO NOT OPEN

WARNING : TO REDUCE THE RISK OF ELECTRIC SHOCK,
DO NOT REMOVE COVER(OR BACK).
NO USER-SERVICABLE PARTS INSIDE.
REFFER SERVICING TO QUALIFIED SERVICE PERSONNEL.

EXPLANATION OF GRAPHICAL SYMBOLS

The lightning flash with 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.

PRECAUTIONS

Safety
Should any liquid or solid object fall into the cabinet, unplug the unit and have it checked by qualified personnel before operating it any further.

Unplug the unit from the wall outlet if it is not going to be used for several days or more.
To disconnect the cord, pull it out by the plug. Never pull the cord itself.

Allow adequate air circulation to prevent internal heat build-up. Do not place the unit on soft surfaces (rugs, carpets, sofas, etc.) or near materials (curtains, draperies) that may block the ventilation holes.

Height and vertical linearity controls located on the rear panel are for special adjustments by qualified personnel only.

Installation
Do not install the unit in an extremely hot or humid place or in a place subject to excessive dust, mechanical vibration.

The unit is not designed to be waterproof.
Exposure to rain or water may damage the unit.

Cleaning
Clean the unit with a slightly damp soft cloth.
Use a mild household detergent. Never use strong solvents such as thinner or benzine as they might damage the finish of the unit.

Retain the original carton and packing materials for safe transport of this unit in the future.

FCC COMPLIANCE STATEMENT

INFORMATION TO THE USER: 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.

CAUTION: CHANGES OR MODIFICATIONS NOT EXPRESSLY APPROVED BY THE PARTY RESPONSIBLE FOR COMPLIANCE COULD VOID THE USER'S AUTHORITY TO OPERATE THE EQUIPMENT.

THIS CLASS A DIGITAL APPARATUS COMPLIES WITH CANADIAN ICES-003.

CET APPAREIL NUMÉRIQUE DE LA CLASSE A EST CONFORME À LA NORME NMB-003 DU CANADA.

CE COMPLIANCE STATEMENT

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.

IMPORTANT SAFEGUARDS

1. Read these instructions.
2. Keep these instructions.
3. Heed all warnings.
4. Follow all instructions.
5. Do not use this apparatus near water.
6. Clean only with dry cloth.
7. Do not block any ventilation openings. Install in accordance with the manufacturer's instructions.
8. Do not install near any heat sources such as radiators, heat registers, stoves, or other apparatus (including amplifiers) that produce heat.
9. Do not defeat the safety purpose of the polarized or grounding-type plug.
   A polarized plug has two blades with one wider than the other.
   A grounding type plug has two blades and a third grounding prong.
   The wide blade or the third prong are provided for your safety. If the provided plug does not fit into your outlet, consult an electrician for replacement of the obsolete outlet.
10. Protect the power cord from being walked on or pinched particularly at plugs, convenience receptacles, and the point where they exit from the apparatus.
11. Only use attachments/accessories specified by the manufacturer.
12. Use only with the cart, stand, tripod, bracket, or table specified by the manufacturer, or sold with the apparatus. When a cart is used, use caution when moving the cart/apparatus combination to avoid injury from tip-over.
13. Unplug this apparatus during lightning storms or when unused for long periods of time.
14. Refer all servicing to qualified service personnel. Servicing is required when the apparatus has been damaged in any way, such as power-supply cord or plug is damaged, liquid has been moisture, does not operate normally, or has been dropped.
15. *CAUTION THESE SERVICING INSTRUCTIONS ARE FOR USE BY QUALIFIED SERVICE PERSONNEL ONLY. TO REDUCE THE RISK OF ELECTRIC SHOCK DO NOT PERFORM ANY SERVICING OTHER THAN THAT CONTAINED IN THE OPERATING INSTRUCTIONS UNLESS YOU QRE QUALIFIED TO DO SO.*
16. *Use Certified/Listed Class 2 power source only.*

TABLE OF CONTENTS

1. INTRODUCTION

The 22x Auto Focus Zoom WDR Day & Night Camera provides especially for closed circuit television (CCTV) and security surveillance application.

1.1 THE CAMERA FEATURES

- SONY 1/4" 960H Super HAD CCD II (700 TV Lines)
- 352x zooming capability (Optical : 22x / Digital : 16x)
- 0.1 lux (Color), 0.01 lux (B/W), 0.00 lux(IR LED On)
- Excellent picture quality
- Various picture effects
- Support camera control available RS-485
- Built-in Fan & Heater
- Rugged, Compact Specially Designed for installable anywhere
  (Indoor / Outdoor, IP66)
- Dual power operation AC 24V / DC 12V
  CAUTION : Use Certified/Listed Class 2 power source only.

- Function :
  - D/N (Day / Night)
  - DSS (Digital Slow Shutter)
  - DIS(Digital Image stabilizer)
  - WDR (Wide Dynamic Range)
  - DNR (Digital Noise Reduction)
  - 70 Power IR LEDs
  - M/D (Motion Detection)
  - AWB (Auto White Balance)
  - AE (Auto Exposure)
  - AGC (Auto Gain Control)
  - BLC (Back Light Compensation)
  - OSD (On Screen Display)
  - ZOOM PRESET & TOUR
  - P/M(Privacy Mask)
  - ALARM(Alarm out)

IMPORTANT : The user of this camera is responsible for checking and complying with local, state, and federal laws and statutes concerning the recording and monitoring of audio signals.
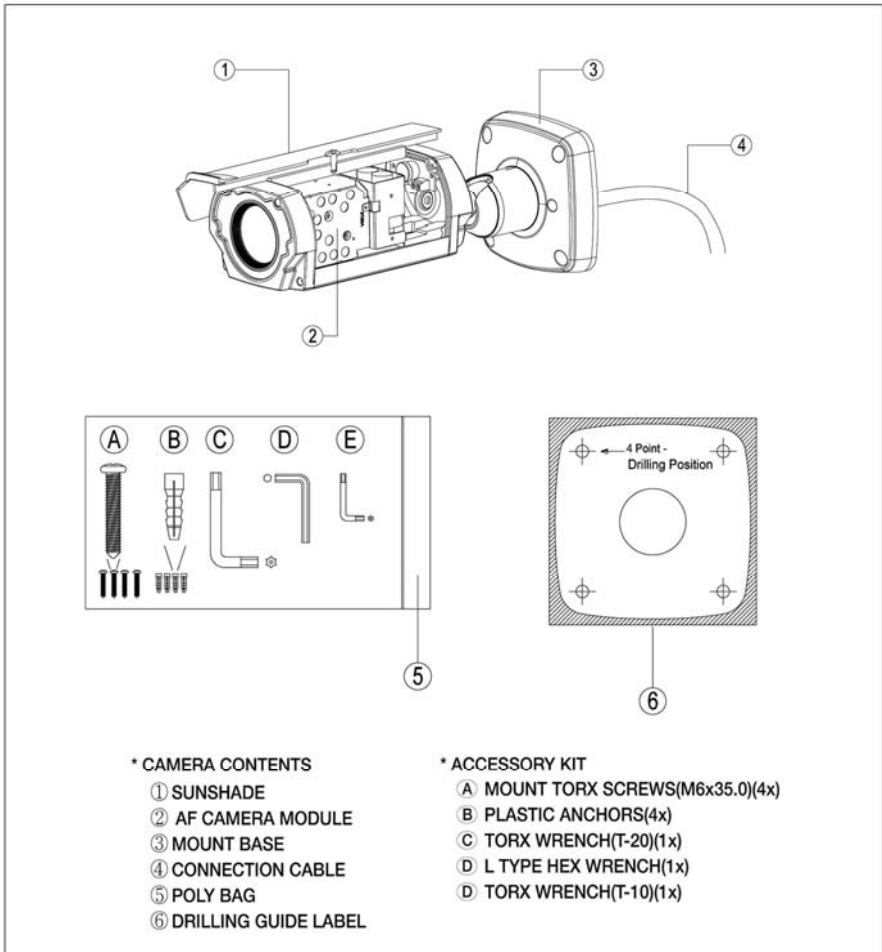
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2. SYSTEM INSTALLATION

Installation of the camera must be performed by qualified service personnel in accordance with all local national electrical and mechanical codes must perform installation of the camera.
Perform the following steps to install the camera.

2.1 PACKAGE CONTENTS

- Camera - 1EA
- Instruction Manual (This document) - 1EA
- Accessory kit – 1EA

* CAMERA CONTENTS
① SUNSHADE
② AF CAMERA MODULE
③ MOUNT BASE
④ CONNECTION CABLE
⑤ POLY BAG
⑥ DRILLING GUIDE LABEL

* ACCESSORY KIT
Ⓐ MOUNT TORX SCREWS(M6x35.0)(4x)
Ⓑ PLASTIC ANCHORS(4x)
Ⓒ TORX WRENCH(T-20)(1x)
Ⓓ L TYPE HEX WRENCH(1x)
Ⓓ TORX WRENCH(T-10)(1x)

2.2 OPERATION REQUIREMENTS

MULTIPLEXER

RS-485

J-BOX

CAMERA.1   CAMERA.2   CAMERA.3.....

VIDEO

RS-485

MONITOR   CONTROLLER   DVR / VCR

RS-485 ⟶
VIDEO ⟶

<Typical System Confilguration>

2.3 BASE INSTALLATION

Mount Base
Wall
Template Sheet
Plastic Anchors(4x)
Torx Screws (T-20) M6.0x35.0 (4x)

Template Sheet

Ⓐ SOCKET SET SCREW M5.0, L=5.0mm

HEXAGON WRENCH

Ⓑ TORX LOCK SCREW (T-20)

A Conduit knock out punched for the cable entry

Junction Box
Torx Screws (T-20) UNC 8-32 x 0.75" (4x) (not provided)
SOCKET SET SCREW M5.0, L=5.0mm
HEXAGON WRENCH

9

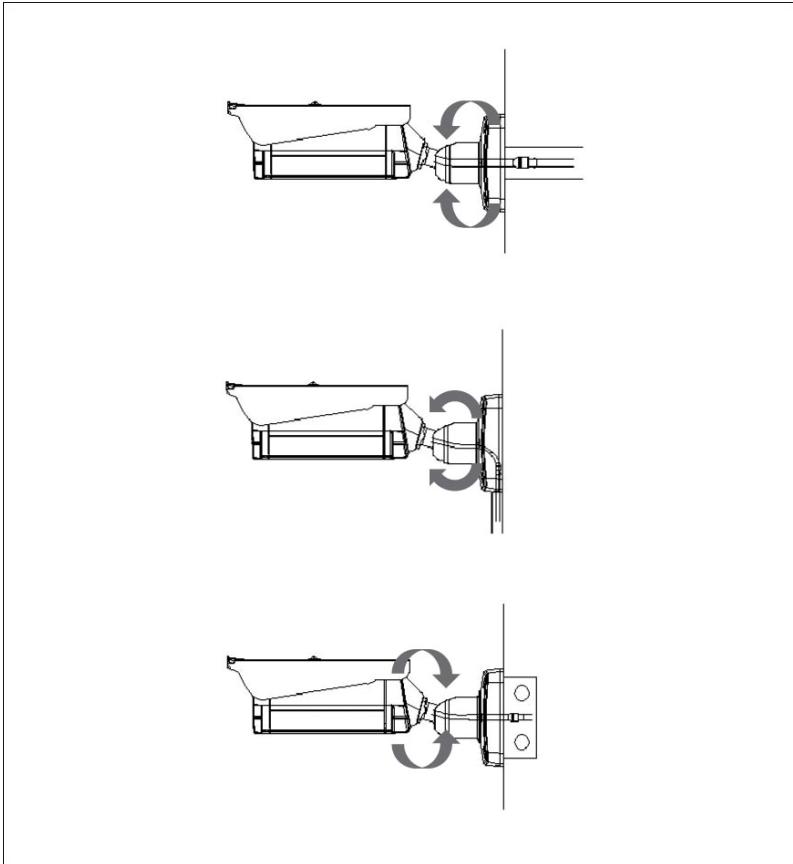## 2.4 Adjusting the 3-Axis Bracket

Loosen the corresponding screws before attempting to make Pan, Tilt and Rotation adjustments.

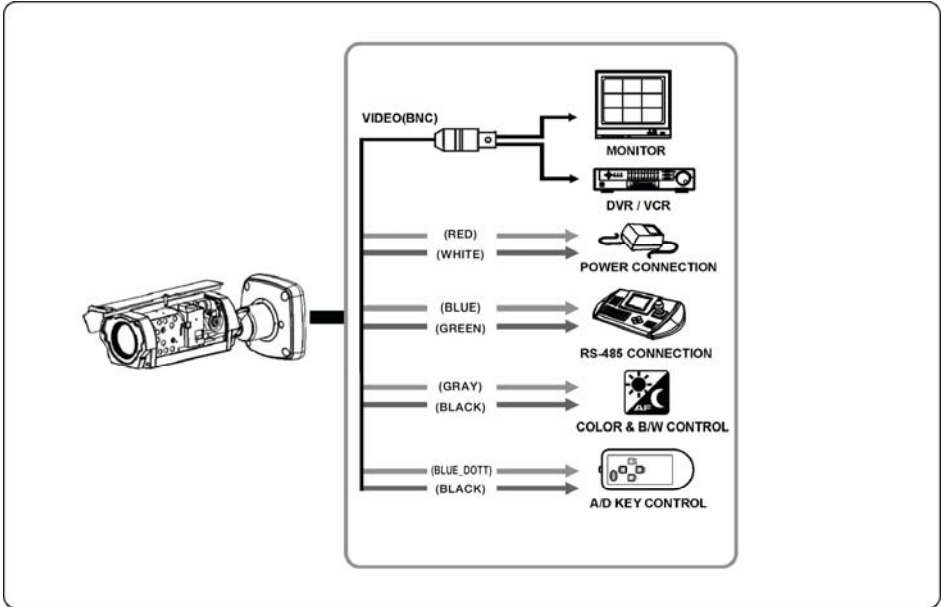## 2.5 HEATER (Operating temperature)

- HEATER (Operating temperature)

Power Supply	24VAC
Power Consumption	20W
Heater ON	at 25°C (±5°C)
Heater OFF	at 35°C (±5°C)

3. CONNECTION

CAUTION : Do not connect the power cable until all other connections have been completed. If you complete the whole connection of cameras, then you have to cut the extra cable.

3.1 COLOR LEAD WIRE & COLOR DISPLAY LABEL

Connection Cable Description

COLOR	DESCRIPTION
RED	DC12V(+), AC24V
WHITE	DC12V(-), AC24V
ORANGE_DOTT	RS232 TXD
ORANGE	RS232 RXD
BLACK_DOTT	EXT-OUT
GRAY	EXT-IN
BLACK	GND
BLUE	RS485(-)
GREEN	RS485(+)
BLUE_DOTT	ADKEY
VIOLET	MD-OUT
PINK	HEATER(AC24V)
BROWN	HEATER(AC24V)
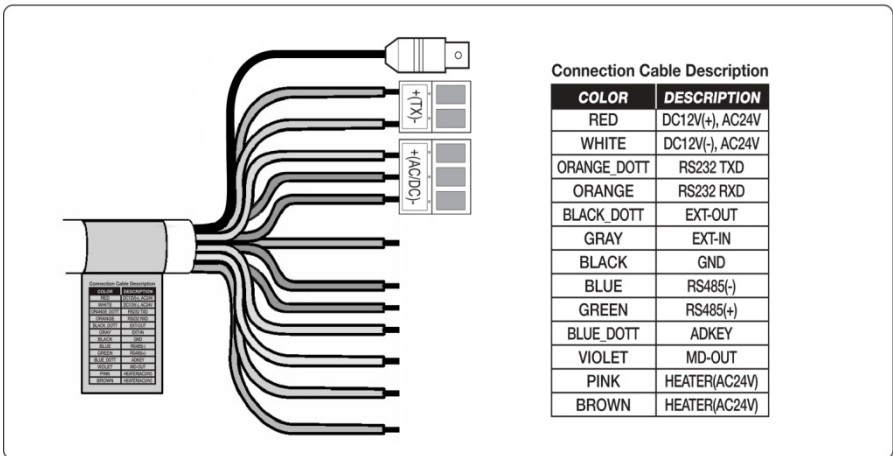
3.2 EXTERNAL INPUT

It connects to an external sensor.
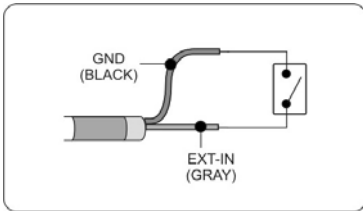
ALARM/MD -> EXT
- EXT-IN - OPEN : COLOR / ALARM OFF
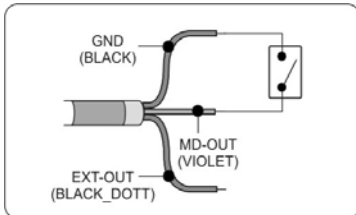   - CLOSED : B/W / ALARM ON

3.3 EXTERNAL OUTPUT

The EXT-OUT lead and MD-OUT lead output voltage is different according to D/N and MD settings. Please refer to below in detail.

1. EXT-OUT output voltage
   The EXT-OUT lead output voltage for COLOR and B/W is as following.
- EXT-OUT - COLOR : 0V
        - B/W : 5V

2. MD-OUT output voltage
   The MD-OUT lead output voltage is as following in case MD event occurs when 'ALARM/MD MENU' -> 'MODE' is set to MD, MD+EXT
- MD-OUT - MD OFF : 0V
        - MD ON : 3.3V

3.4 RS-485 CONNECTION
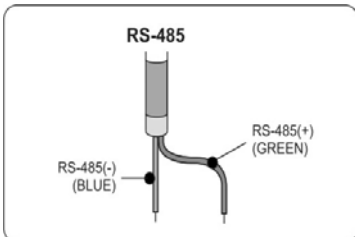
Connecting to the RS-485 : The Camera can be controlled remotely by an external device or control system, such as a control keyboard, using RS-485 half-duplex. Connect Market Rx+, Rx- to Tx+ and Tx- of the RS-485 control system.

3.5 EXTERNAL A/D KEY CONTROL
External Controller Circuit Schematic

A/D KEY Control Circuit

Remote Controller

A / D KEY

Remote Controller

4. CAMERA ADJUSTMENT

4.1 OSD MAIN SCREEN

1. Camera title
2. Status of the focus mode
3. Status of the zoom position
4. Camera ID

```
1 ───── AF 22X

2 ───── MF



3 ───── 001X                    CAM 001 ──── 4
```

4.2 MAIN MENU

```
<MAIN MENU>
  FOCUS ──────────── 1
  WB ──────────────── 2
  AE ──────────────── 3
  WDR / BLC ─────────── 4
  ALARM / MD ────────── 5
  PRIVACY ──────────── 6
  SPECIAL ──────────── 7
  EFFECT ───────────── 8
  CAM SET ──────────── 9
  END <EXIT>
```
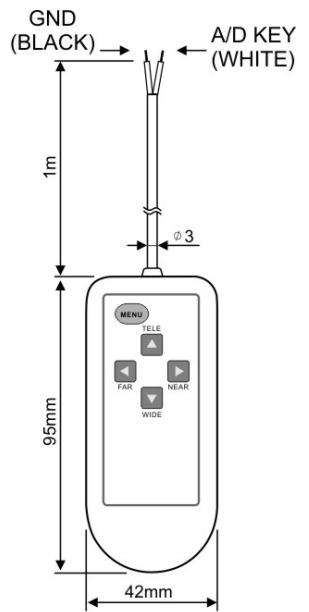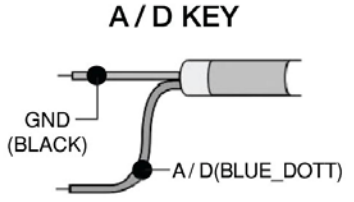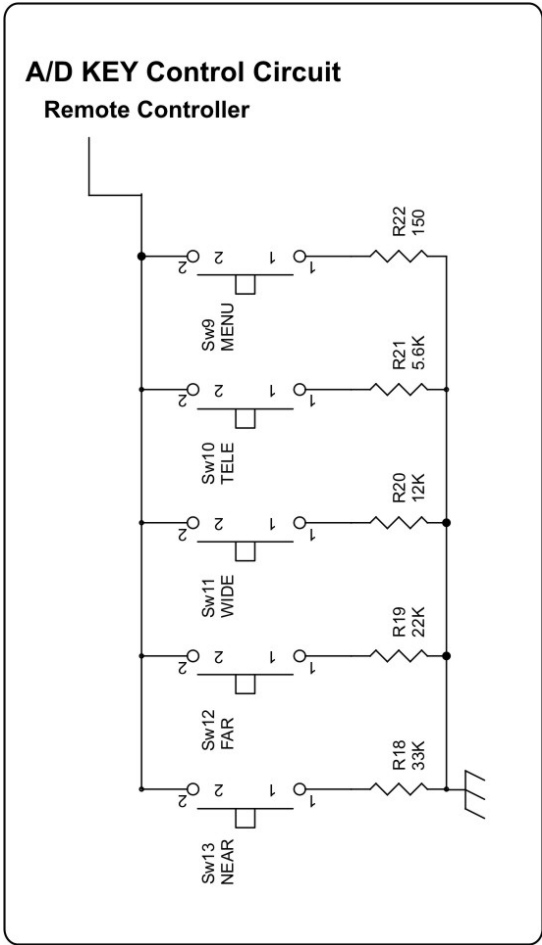
4.2.1 FOCUS

```
<FOCUS MENU>
  MODE
  DISTANCE
  D-ZOOM
  D-ZOOM END
  ZOOM PRESET
  SET PRESET
  TOUR CONFIG
  HOME PRESET
  HOME WAIT
  END
```
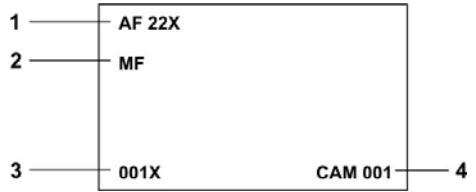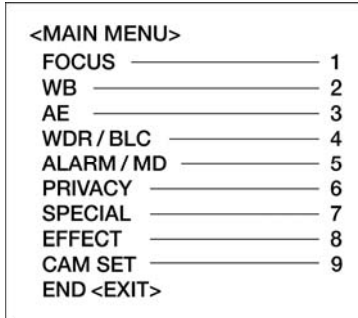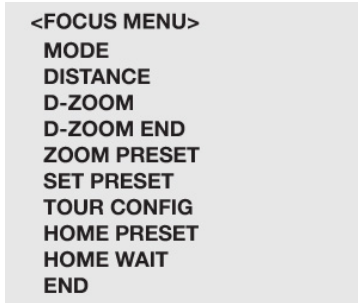
MODE	Select auto, manual, push auto mode.
DISTANCE	Select minimum distance in focus between camera and object. (0.1/1.0/1.5/2.5/6m)
D-ZOOM	Digital Zoom on/off.
D-ZOOM END	Select maximum Digital Zoom magnification. (x2, x3, x4, x6, x8, x12, x16)
ZOOM PRESET	Select zoom preset number, Default is x1. (1~10)
SET PRESET	Set the zoom position of zoom preset.
TOUR CONFIG	Select zoom tour mode. (10 zoom preset to 1 tour mode)
HOME PRESET	To move the zoom position to the selected preset number when idle state(Decisions by HOME WAIT time).
HOME WAIT	Select the duration time to activate the HOME PRESET.

NOTE 1 : When "ZOOM PRESET" is selected, you can adjust the preset zoom location using the "tele" and "wide" buttons.

NOTE 2 : When after the zoom location has been selected press the "menu" button to store the location.

4.2.2 WB (White Balance)

<WB MENU>
MODE
R GAIN
B GAIN
FEAME ADJ
END

MODE	Select white balance mode.
	(AWB/WAWB/INDOOR/OUTDOOR/MANUAL/CRS)
- AWB	Auto white balance mode. (2500~9500'K)
- WAWB	Wide range auto white balance mode. (1800~10500'K)
-INDOOR	Indoor white balance mode.
-OUTDOOR	Outdoor white balance mode.
-MANUAL	Manual mode. You can change R and B Gain manually.
-CRS	Color rolling suppression mode.
R GAIN	Adjust R gain value. (0~255)
B GAIN	Adjust B gain value. (0~255)
FRAME ADJ	Since the color rolling path differs depending on the fluorescent lamp used, adjust the color rolling frame for each fluorescent lamp. So press Menu key to adjust frame and after about 10 seconds, the adjust mode will be finished automatically and 'ENT' turns to 'END'.

4.2.3 AE (Auto Exposure)

<AE MENU>
MODE
SHUTTER
GAIN
DSS
MAX DSS
FLICKERLESS
BRIGHTNESS
IRIS SPEED
END

MODE	Select Exposure mode. (AUTO1/AUTO2/SHUT PRI/MANUAL)
-AUTO1	Auto exposure mode 1. (Use to normal surroundings : indoor)

-AUTO2	Auto exposure mode 2. (Use to high brightness surroundings : outdoor)	
-SHUT PRI	Shutter priority exposure mode.	
-MANUAL	Manual exposure mode.	
SHUTTER	Select shutter speed. (1/60(50)~1/100K) Can be changed while in SHUT PRI and Manual mode.	
GAIN	Gain control. (0~30DB)	
DSS	Digital slow shutter on/off	
MAX DSS	Select maximum slow shutter value. (x2~x512)	
FLICKERLESS	Flickerless on/off	
BRIGHTNESS	Adjust brightness level. (0~50)	
IRIS SPEED	Sets the convergence speed of the mechanical iris (0~20)	

4.2.4 BLC/WDR

```
<WDR / BLC MENU>
   WDR      MODE
            LEVEL
   BLC      MODE
            AREA
            LEVEL
   END
```

WDR	**MODE**	Wide dynamic range on/off.
	LEVEL	Adjust WDR level. (LOW/MIDLOW/MID/MIDHIGH/HIGH)
BLC	**MODE**	Select backlight compensation mode. (OFF/HLC/BLC/BLC-M)
	AREA	Select BLC-M area position. (1~9)
	LEVEL	Select BLC level. (LOW/MID/HIGH)

4.2.5 ALARM/MD

```
<ALARM / MD / MENU>
 MODE
 AREA SEL

          - - -
 DEFAULT
 ADJ TOP / LEFT
 ADJ BOT / RIGHT
 SENSITIVITY
 DWELL TIME
 ALARM MODE
 PRESET SEL
 END
```

MODE	Select alarm and MD/EXT mode.
	(OFF/MD/EXT/ MD+EXT)
AREA SEL	Select MD area number. (1~4)
	Select MD enable/disable.
DEFAULT	Set MD area as default.
ADJ TOP/LEFT	Adjust the location of the MD area with boundary top and left.
ADJ BOT/RIGHT	Adjust the location of the MD area with boundary bottom and right.
SENSITIVITY	Adjust sensitivity of MD area. (MD:1~10)
DWELL TIME	Dwell time setup of zoom preset. (10,20,....,180sec)
ALARM MODE	One of two options can be selected for EXT mode. BW/PRESET.
PRESET SEL	Select zoom preset number. (0FF,1~10)
	(When the MD and/or Alarm is/are occurred.)

4.2.6 PRIVACY

```
<PRIVACY MENU>
MASK SEL
            - - -
DEFAULT
ADJ TOP/LEFT
ADJ BOT/RIGHT
COLOR
MOSAIC
MOSAIC TYPE
END
```

MASK SEL	Select mask area number. (1~16)
	Select mask enable/disable.
DEFAULT	Set mask area as default.
ADJ TOP/LEFT	Adjust the location of the mask area with boundary top and left.
ADJ BOT/RIGHT	Adjust the location of the mask area with boundary bottom and right.
COLOR	Select mask color. (1~8)
MOSAIC	Mosaic display on/off.
MOSAIC TYPE	Mosaic roughness setting. (1 ~ 4)

NOTE1 : The mosaic when the color is transparent, is possible

4.2.7 SPECIAL

```
<SPECIAL MENU>
 SYNC
 PHASE
 D/N MODE
 D/N DELAY
 HI-RES
 2DNR
 3DNR
 WHITE      DET
            LEVEL
 NIGHTLIGHT
 END
```
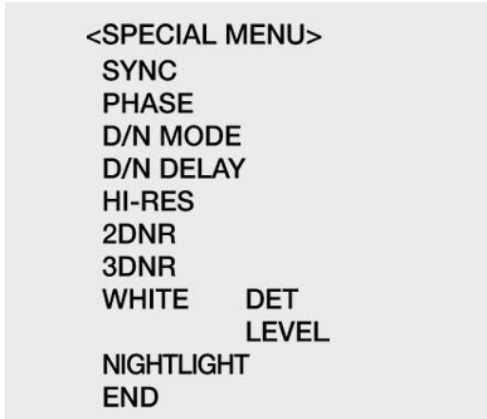
SYNC	Select internal or line lock mode. (DC power is internal sync only)
PHASE	Adjust sync phase in line lock mode.
D/N MODE	Select D/N, Color, BW.
D/N DELAY	Adjust the working time of the filter when D/N operated. (5,10,20 sec)
HI-RES	Select high resolution mode. (LOW/MID/HIGH)
2DNR	Select 2D noise reduction level. (OFF/01~07)
3DNR	Select 3D noise reduction level. (AUTO/01~28) AUTO : If the motion is detected, DNR level becomes lower automatically so "ghost" is decreased, on the other hand, noise will be increased. On the opposit, if there is no motion, DNR level is raised and noise will be decreased
WHITE DET	Press the Menu key to execute the White Pixel Detection function and then the Iris will be closed automatically. When detection is completed, the operation automatically returns to the normal state.
LEVEL	Adjust the threshold level from 1 to 15. (Default is 4)
NIGHTLIGHT	Select IR options. IR/NEAR, IR/ALL.

4.2.8 EFFECT

```
<EFFECT MENU>
 SHARPNESS
 NEGATIVE
 D-FLIP
 FREEZE
 DIS
 END
```
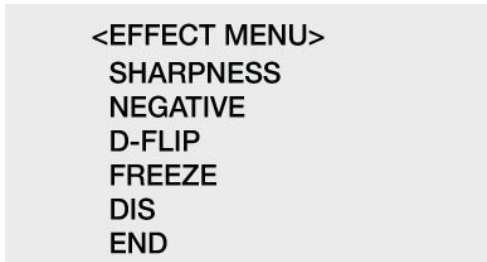
SHARPNESS	Adjust sharpness of outline. (0~15)

NEGATIVE	Select the negative or positive mode.
D-FLIP	Select rotate or flip mode. (OFF/H FLIP/V FLIP/ROTATE)
FREEZE	Select the real or still mode.
DIS	Select On or Off the DIS mode. (Digital Image Stabilizer)

4.2.9 CAM SET

```
<CAM SET MENU>
CAM ID
BAUD RATE
PROTOCOL
DISP MODE
DISP ITEM
TITLE
ALARM TEXT
SAVE
END
```

CAM ID	Select the camera ID. (1~255)
BAUD RATE	Select serial communication speed. (2400/4800/9600/19200bps)
PROTOCOL	Select operating protocol.
	(FASTRAX/PELCO-P/PELCO-D/COMMAND)
DISP MODE	Select display mode. (ON /PUSH ON/OFF)
DISP ITEM	Select display item. (1~2)
1	Camera Title and ID display.
2	Camera Title and ID, Zoom lens position display.
TITLE	Select camera title menu. (A~Z, 0~9)

```
ABCDEFGHIJ
KLMNOPQRST
UVWXYZ0123
456789    ( ) :
;.-       !< >,'
PN  < > S E
```

ALARM TEXT	If the alarm is occurred, the ALARM TEXT established at this menu will be displayed.
SAVE	Save preset parameters of CAM SET MENU.

NOTE 1 : You can choose BPS menu appropriate for keyboard protocol.

NOTE 2 : Although you change BAUD RATE or PROTOCOL menu,
the terms of change is not applied unless you select SAVE menu.
NOTE 3 : Do not power source down while saving

5. TROUBLESHOOTING AND MAINTENANCE

5.1 TROUBLESHOOTING

If problems occur, verify the installation of the camera with the instruction in this manual and with other operating equipment.

Isolate the problem to the specific piece of equipment in the system and refer to the equipment manual for further information.

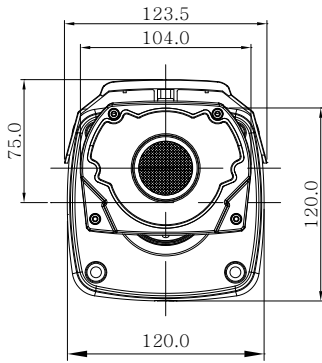| PROBLEM	POSSIBLE SOLUTION
Nothing appears on the screen	Are the power cord and line connection between the camera and monitor made properly?
The image on the screen is dim.	Is the lens dirty? If so, clean the lens with a soft, clean cloth.
The camera is not working properly and the surface of the camera case is hot.	Is the camera connected to the proper power?
The contrast on the screen is too weak.	Adjust the contrast feature of the monitor. Is the camera exposed to strong light? If so, change the camera position.

5.2 MAINTENANCE

Preventive maintenance allows detection and correction of minor faults before they become serious and cause equipment failure.
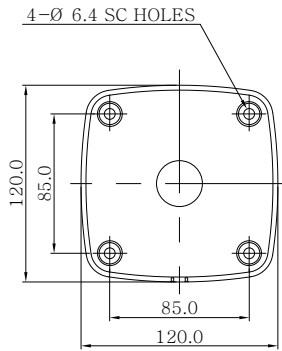
Every three-month, perform the following maintenance.

A. Inspect all connection cables for deterioration or other damage.
B. Clean components with a clean damp cloth.
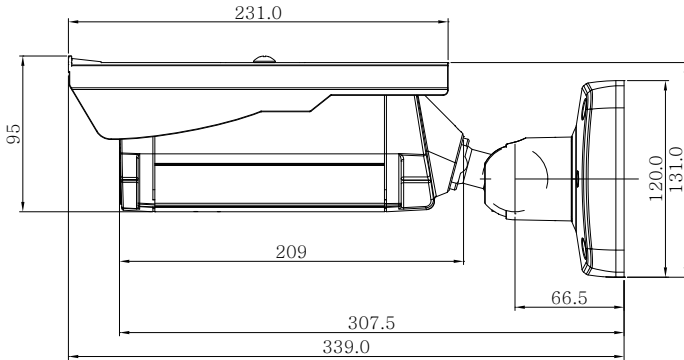C. Verify that all the mounting hardware is secure.

6. DIMENSIONS

123.5
104.0
75.0
120.0
120.0

<FRONT VIEW>

4−Ø 6.4 SC HOLES
120.0
85.0
85.0
120.0

<REAR VIEW>

231.0
95
120.0
131.0
209
66.5
307.5
339.0

<SIDE VIEW>

7. SPECIFICATIONS

MODEL			NTSC	PAL
POWER	Power Source		DC 12V / AC24V ±10%	
	Power Consumption		24W(Fan + Heater ON)	
G E N E R A L	Image Sensor		1/4" 960H Super HAD CCD II	
	Total Pixels		1028(H) * 508(V)	1028(H) * 596(V)
	Scanning System		2:1 interlace	
	Scanning Frequency		15.734KHz(H), 59.94Hz(V)	15.625KHz(H), 50Hz(V)
	Sync. System		Internal / External(Line lock)	
	Resolution		700 TV lines	
	Min. illumination		0. lux (Color), 0.01 lux (B/W), 0.00 lux (IR LED ON)	
	Video Output		1.0 Vp-p (75 ohm, composite)	
	S/N Ratio		50dB (AGC OFF)	
	F U N C T I O N	WDR (Wide Dynamic Range)	Off / On	
		BLC (Back Light Compensation)	Off / HLC / BLC / BLC-M(BLC Manual)	
		Day & Night	Auto / Color / BW	
		IR LED	70EA (850nm)	
		NIGHTLIGHT (IRLED On / Off)	Off / NEAR / ALL	
		IR Distance	80m *Minimum distance between the subject and camera : 50cm	
		ALARM / MD (Motion Detection)	Off / MD / EXT / MD+EXT	
		DIS(Digital Image stabilizer)	On/Off	
		DSS (Digital Slow Shutter)	x2 ~ x512	
		DNR (Digital Noise Reduction)	2D / 3D	
		PM (Privacy Masking)	1 ~ 16 zone	
		AWB (Auto White Balance)	AWB / WAWB / Indoor / Outdoor / Manual / CRS	
		AE (Auto Exposure)	Auto1 / Auto2 / Shutter PRI / Manual	
		Iris Control	Auto	
		AGC (Auto Gain Control)	MIN / LOW / MID / HIGH (30dB max.)	
		Shutter Speed	Normal ~ 1/100,000	
		Title	A ~ Z / 0 ~ 9	
		Display	On / PushOn / Off	
		Brightness	10 ~ 50 steps	
		Sharpness	0 ~ 15 steps	
		Zoom Preset	Preset 1 ~ 10	
		Zoom Tour	Tour 1	
		Camera Control	RS-232 / RS-485(FASTRAX / Pelco P, D / COMMAND) / ADKey	
		BPS	2400 / 4800 / 9600 / 19200	
		Camera ID	001 ~ 255	
		D-FLIP	Off / V- FLIP / H- FLIP / ROTATE	

G E N E R A L		Effect	Sharpness, Nega/Posi, D-FLIP, Freeze, DIS HI-RES, 2-3DNR, NIGHTLIGHT
		Home Preset	Off / Home Preset Select / Dwell Time
	L E N S	Focus Mode	Auto / Manual / Push AF
		Distance	0.1M / 1.0M / 1.5M / 2.5M / 6.0M
		Zoom Ratio	Optical x22, Digital x16 Zoom (Video AF)
		Focus Length	f = 3.9 mm ~ 85.8 mm
		Aperture Ratio	F1.6 (wide) ~ F3.7 (tele)
		Angle of View	Horizontal : 49.5 degree (wide) / 2.4 degree (tele)
C O N N E C T O R & ETC.		Power Input	3-pin terminal block
		Video Output	BNC connector
		Operating Temperature	-30℃ ~ +50℃ (built in Heater & Fan)
		Operating Humidity	0 ~ 96% (non-condensing)
		Storage Temperature	-20°C ~ +60°C
		External Dimension	120(W) x131(H) x 339(D) mm
		Weight	1850 g

HIGH RESOLUTION 22x AF Zoom
WDR Day & Night Camera

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