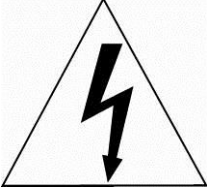# INSTRUCTION MANUAL

2MP
HD ANALOG CAMERA

CB236HD, CT236HD, CB2212HD
CT2212HD, CV2212HD

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

WARNING

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

CAUTION

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.

EXPLANATION OF GRAPHICAL SYMBOLS
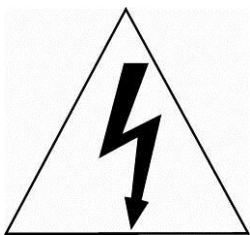
The lightning flash with arrowhead symbol, within an equilateral triangle, is intended to alert the user to the presence of uninsulated "dangerous voltage" within the product's enclosure that may be of sufficient magnitude to constitute a risk of electric shock to persons.

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 appliance.

FCC COMPLIANCE STATEMENT

This device complies with Part 15 of the FCC Rules. Operation is subject to the following two conditions: (1) this device may not cause harmful interference, and (2) this device must accept any interference received, including interference that may cause undesired operation.

FCC INFORMATION: 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 SAFETY INSTRUCTIONS

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 is 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 spilled or objects have fallen into the apparatus, the apparatus has been exposed to rain or 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 ARE QUALIFIED TO DO SO.*

16. *Use satisfy clause 2.5 of IEC60950-1/UL60950-1 or Certified/Listed Class 2 power source only.*

Table of Contents

1 Introduction

1.1 Features

- 1/2.9" SONY Exmor CMOS image sensor

- 3.6mm fixed or 2.8-12mm varifocal lens

- True D/N (Auto, Day, Night)

- IR LEDs

- AHD, HD-TVI, HD-CVI, CVBS selectable

- Auto exposure control (1/50,000 ~ x30 second)

- White balance control (AWB, ATW, AWC, Indoor, Outdoor, Manual)

- BLC (Back Light Compensation)

- HSBLC (High Suppress Back Light Compensation)

- Digital WDR (Wide Dynamic Range)

- DNR (Digital Nosie Reduction)

- 4 Motion detection areas

- 4 Privacy areas

- Defect Detections (Live DPC, White DPC, Black DPC)

- Defog

- 12VDC for Camera

- Use satisfy clause 2.5 of IEC60950-1/UL60950-1 or Certified/Listed Class 2 power source only.

2 Installation and Configuration

2.1 Package Contents

The package contains the following.

- **Camera** 1
- **Instruction Manual (This Document)** 1
- **Template Sheet** 1
- **Accessory Kit** 1

2.2 Installing the Camera

Carefully remove the contents from the box.

CB236HD - Fixed Bullet Camera

To mount the bullet camera, fix the base of the camera with the three screws provided in the accessory kit.

Mounting Screw

Plastic Anchor
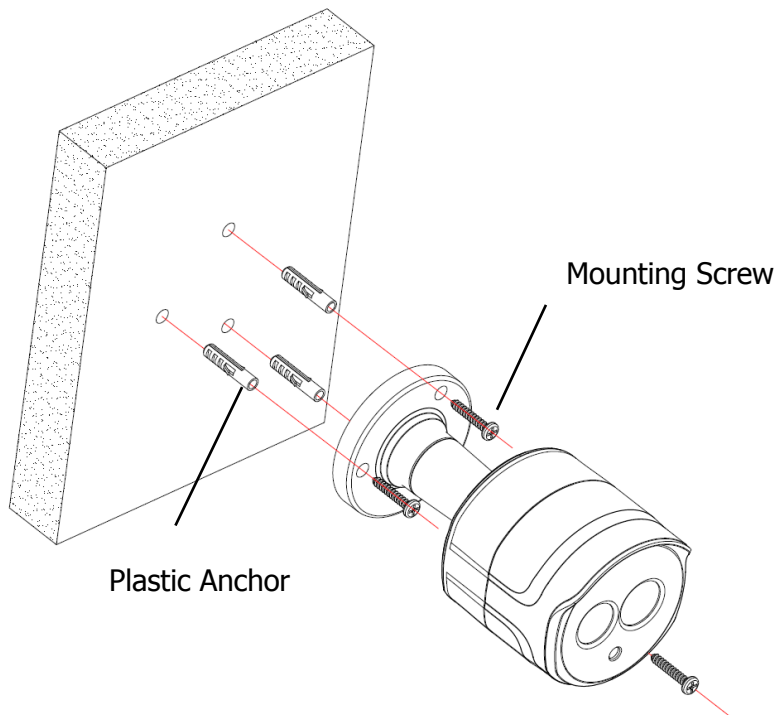
CB2212HD - VF Bullet Camera

1) To mounting the bullet camera, fix the base of the camera with the three screws provided in the accessory kit.

2) Adjust the camera angle and tighten the mount using the L-wrench.

Plastic Anchor

Mounting

360°

180°

90°

L-wrench
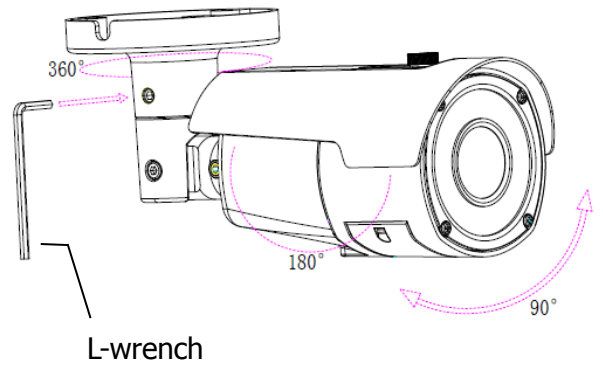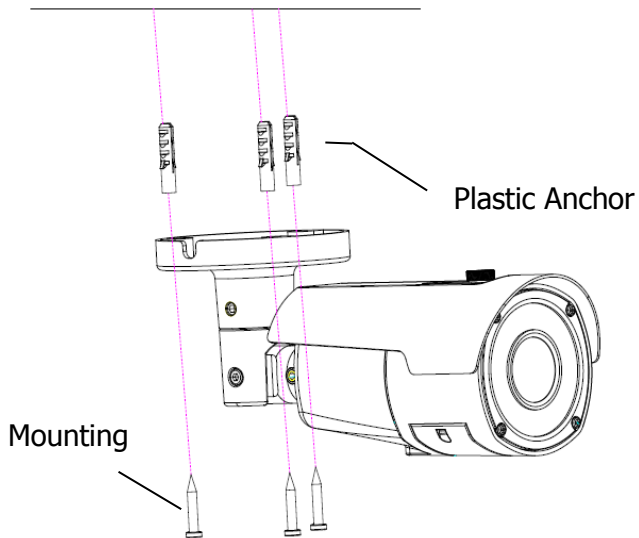
3) Open the lens cover and adjust zoom & focus.
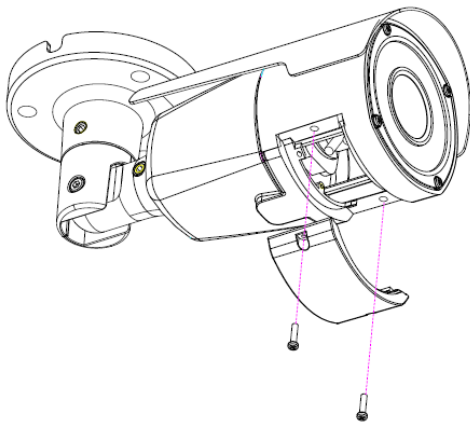
4) Adjust sun-shield position.
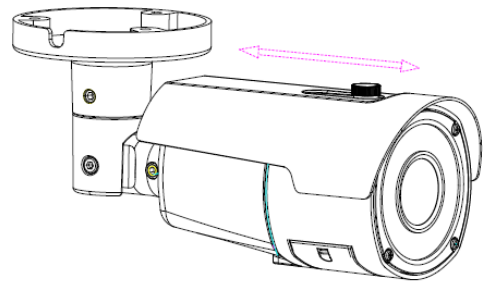
CT236HD - Fixed Turret Camera

1) Paste the template sheet in place at the proper position.
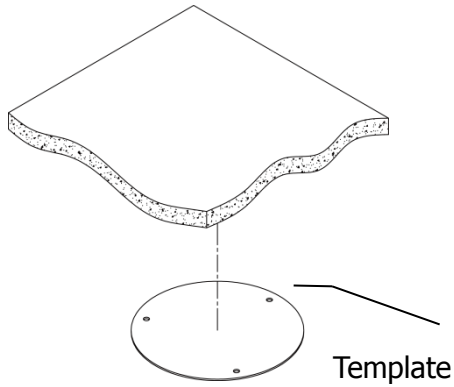
2) Remove the collar off the camera by rotating it down.

Template

Collar

3) Fix the base of the camera with the three screws provided in the accessory kit.

4) Mount the collar back by rotating it up.

Plastic Anchor
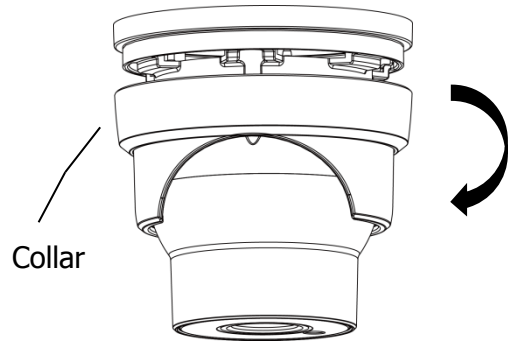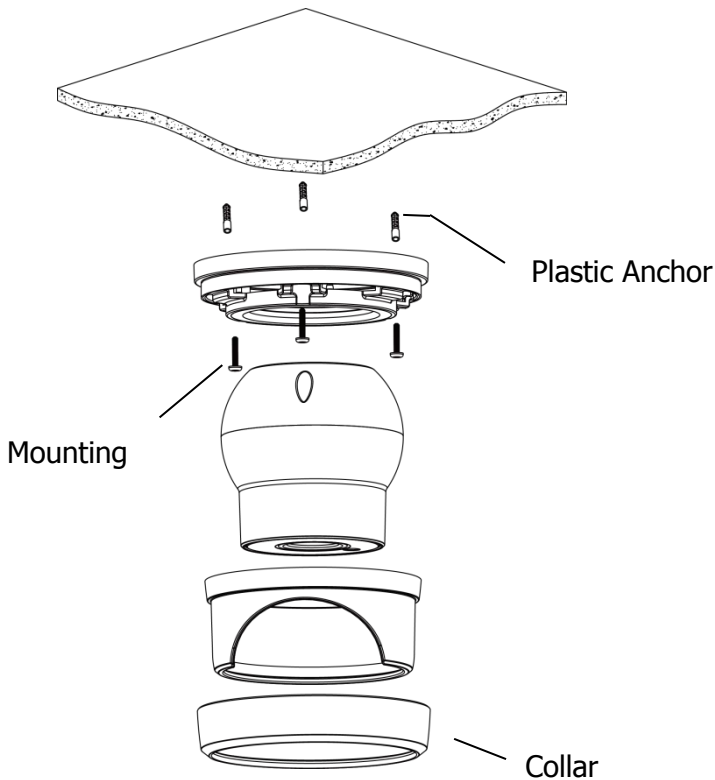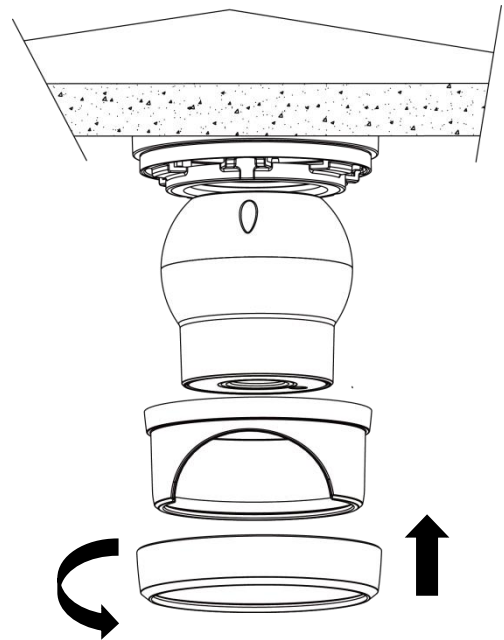
Mounting

Collar

CT2212HD - VF Turret Camera

1) Paste the template sheet in place at the proper position.
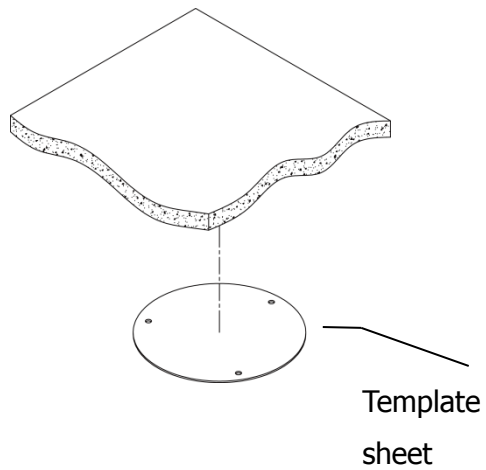
2) Remove the collar off the camera by rotating it down.

Template sheet
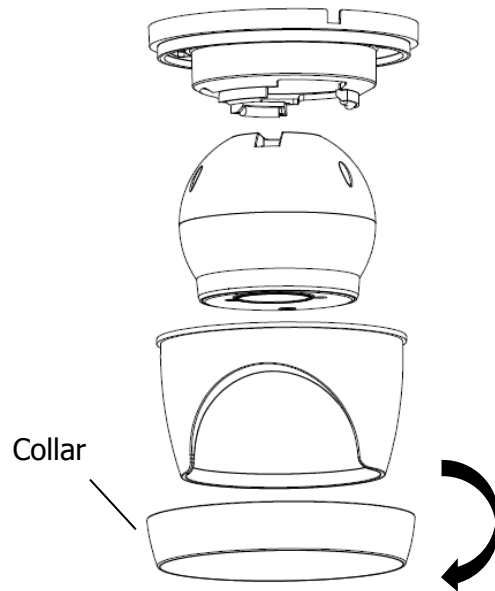
Collar

3) Fix the base of the camera with the three screws provided in the accessory kit.
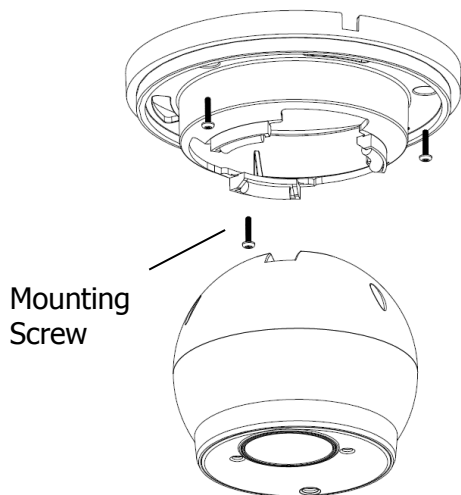
4) Mount the collar back by rotating it up. Adjust zoom and focus using screwdriver.

Mounting Screw
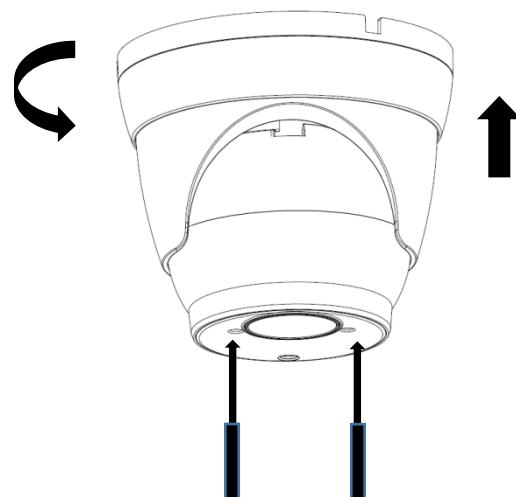
CV2212HD – VF Vandal Proof Dome Camera

1) Paste the template sheet in place at the proper position.
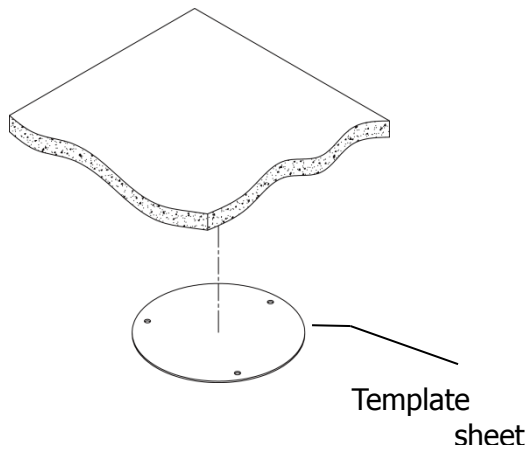
2) Remove the front cover by loosening the three locking screws with a screwdriver.

Template sheet
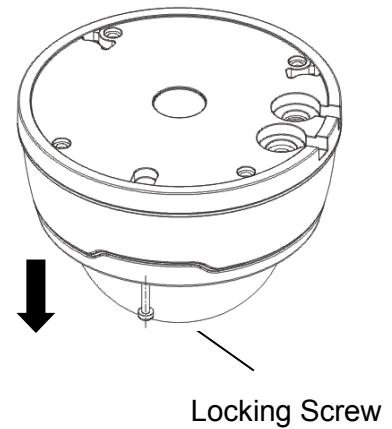
Locking Screw

3) Fix the pedestal by drilling locking holes around the sticker and inserting four expansion bolts into the holes and fastening it with four locking screws. Adjust it to an appropriate angle.
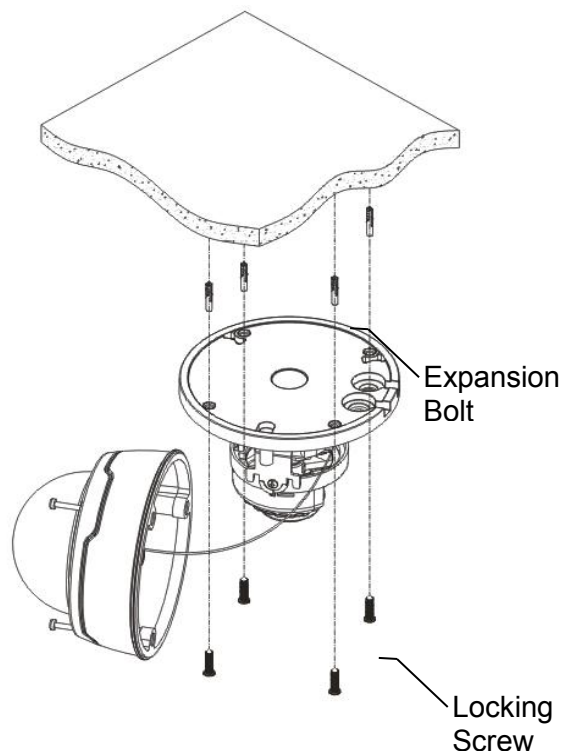
4) Fix the front component on the pedestal by tightening the three locking screws.

Expansion Bolt

Locking Screw

Locking Screw
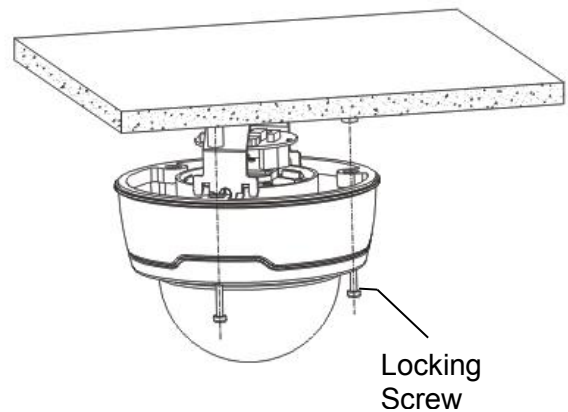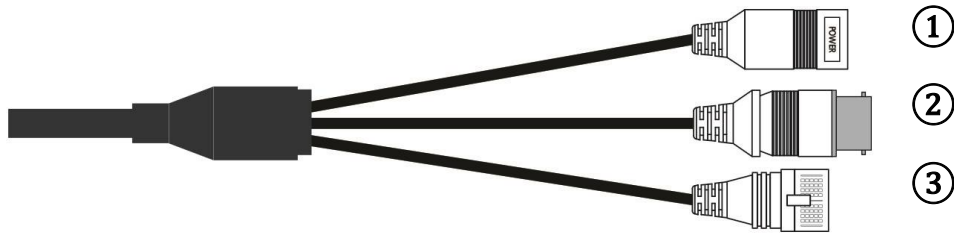
2.3 Connections

No.	Connector	Description
1	DC jack	Camera Power
2	BNC jack	Video Out
3	Dip switch	Select Video Type

The camera must be installed by qualified service personnel in accordance with all local and federal electrical and building codes.

- **Connecting Video Output connector**

  Connect the video output (BNC) connector to the video input.

- **Connecting the Power**

  Connect power of 12VDC for the camera.

  When using a 12VDC adapter, connect the positive (+) pole to the '+' position and the negative (-) pole to the '-' position.

  Use satisfy clause 2.5 of IEC60950-1/UL60950-1 or Certified/Listed Class 2 power source only.

- **Select Video type**

  Select Video type using dip switch-TVI, AHD, CVBS or CVI.
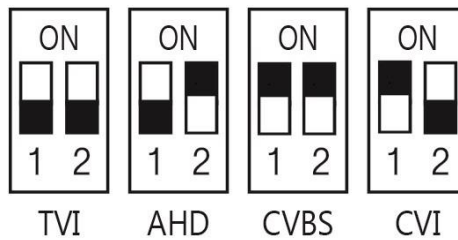
3 OSD Menu

3.1 OSD Menu Structure

```
   MAIN MENU

 LENS
 EXPOSURE
 BACKLIGHT
 WHITE BAL
 DAY&NIGHT
 NR
 SPECIAL
 ADJUST
 EXIT
```

```
     LENS

 MANUAL
```

```
   EXPOSURE

 SHUTTER
 AGC
 SENS-UP
 BRIGHTNESS
 D-WDR
 DEFOG
 RETURN
```

```
   BACKLIGHT

 OFF
 BLC↵
 HSBLC↵
```

```
   WHITE BAL

 AWB
 ATW
 AWC→SET↵
 INDOOR
 OUTDOOR
 MANAUL↵
```

```
   DAY&NIGHT

 EXT↵
 AUTO↵
 COLOR
 B&W↵
```

```
     NR

 2DNR
 3DNR
 RETURN
```

```
    SPECIAL

 CAM TITLE
 D-EFFECT
 MOTION
 PRIVACY
 LANGUAGE
 DEFECT
 RS485
 RETURN
```

```
    ADJUST

 SHARPNESS
 MONITOR
 LSC
 VIDEO.OUT
 RETURN
```

```
     EXIT

 SAVE&END↵
 RESET↵
 NOT SAVE↵
```

Note. OSD menu can be controlled by coaxial communication(UTC).

CVBS mode does not support OSD menu control.

3.2 Lens

MANUAL: Opens up Shutter in Exposure menu.

3.3 Exposure

```
        MAIN MENU
                                          EXPOSURE                          SENS-UP
   LENS          MANUAL
 ▸ EXPOSURE      ↵             SHUTTER        AUTO            SENS-UP        x4
   BACKLIGHT     OFF           AGC            •••••• 12       RETURN         RET↵
   WHITE BAL     ATW           SENS-UP        OFF
   DAY&NIGHT     EXT↵          BRIGHTNESS     •••••• 35                       D-WDR
   NR            ↵             D-WDR          AUTO
   SPECIAL       ↵             DEFOG          OFF             LEVEL          •••••• 5
   ADJUST        ↵             RETURN         RET↵            RETURN         RET↵
   EXIT          SAVE&END↵

                                                                            DEFOG

                                                             POS/SIZE       ↵
                                                             GRADATION      •••••• 0
                                                             DEFAULT        ↵
                                                             RETURN         RET↵
```
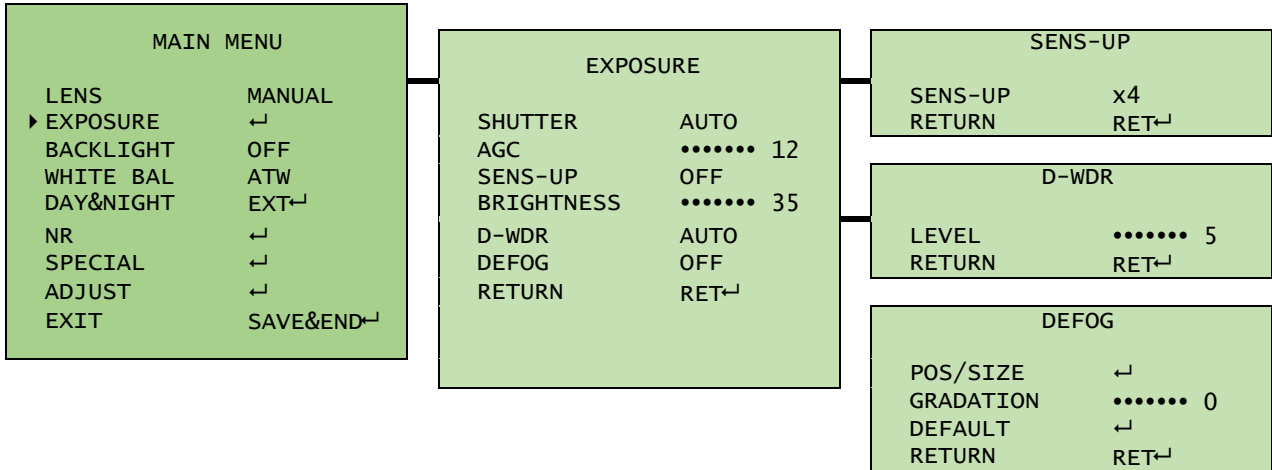
SHUTTER:Select the Shutter speed level.

   Auto, 1/25(30), 1/50(60), FLK, 1/200(240), 1/400(480), 1/1000, 1/2000, 1/5000, 1/10000,
   1/50000, x2, x4, x6, x10, x15, x20, x25, x30

AGC: 1 to 15

SENS-UP: Select the Digital Slow Shutter level.

         Off, **Auto↵**   Sens-up: x2, x4, x6, x10, x15, x20, x25, x30

BRIGHTNESS: Adjust the Brightness. 1 to 100

D-WDR: Select the Digital WDR. Auto, Off, **On↵**   Level: 0 to 8

DEFOG: Select the Defog mode. Off, **Auto↵**
         Pos/Size: Use up, down, right, left buttons to adjust both position and size of area.
          Gradation: 0 to 2
          Default: Default Defog settings.

3.4 Backlight

```
        MAIN MENU

  LENS            MANUAL
  EXPOSURE        ↵
▸ BACKLIGHT       OFF
  WHITE BAL       ATW
  DAY&NIGHT       EXT↵
  NR              ↵
  SPECIAL         ↵
  ADJUST          ↵
  EXIT            SAVE&END↵
```

```
            BLC

  LEVEL          MIDDLE
  AREA           ↵
  DEFAULT        ↵
  RETURN         RET↵
```

```
           HLBLC

  SELECT         AREA1
  DISPLAY        ON↵
  BLACK MASK     ON
  LEVEL          •••••••  20
  MODE           NIGHT
  DEFAULT        ↵
  RETURN         RET↵
```

```
         NIGHT MODE

  AGC LEVEL     •••••••  150
  RETURN        RET↵
```
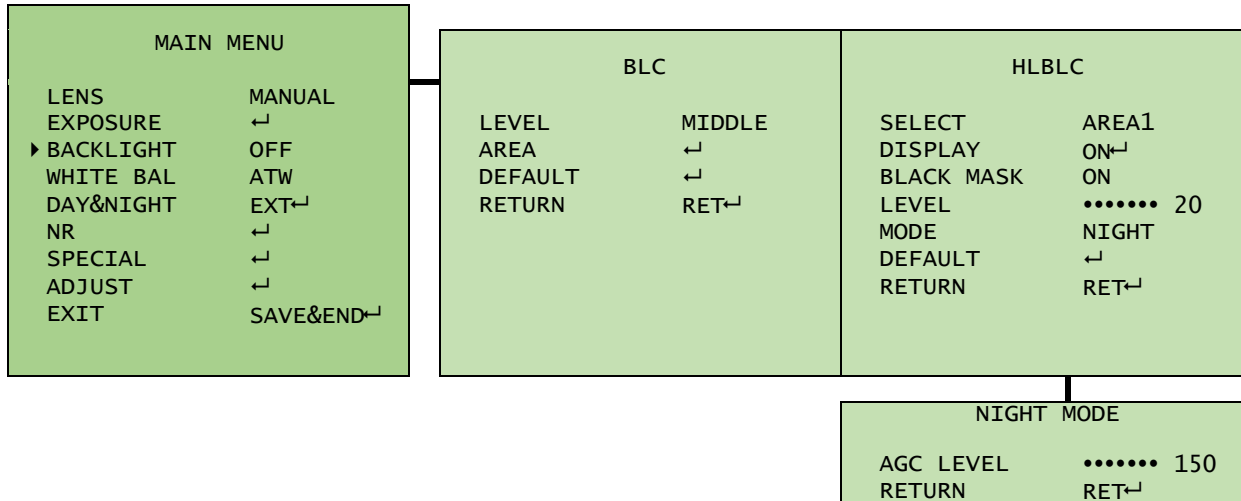
OFF, BLC, HSBLC

BLC: Prevents such a back light effect to secure a clear image under all illumination environments.
Level: Low, Middle, High
Area: Use up, down, right, left buttons to adjust both position and size of area.
Default: Default BLC settings.

HSBLC: Mask the high light zone with specific color and level.
Select: Area1, Area2, Area3, Area4
Display: Off, **On↵**   Use up, down, right, left buttons to adjust both position and size of area.
Black Mask: Off, On
Level: 0 to 100
Mode: All day, **Night↵**   AGC Level: 0 to 255
Default: Default HSBLC settings.

3.5 White Balance

The screen color can be adjusted by using the White Balance function. It compensates for deviations in the white color caused by changes in the color temperature of the light source so that the colors are reproduced correctly.

```
        MAIN MENU

  LENS            MANUAL
  EXPOSURE        ↵
  BACKLIGHT       OFF
▸ WHITE BAL       ATW
  DAY&NIGHT       EXT↵
  NR              ↵
  SPECIAL         ↵
  ADJUST          ↵
  EXIT            SAVE&END↵
```

```
          MANUAL

  BLUE          •••••••  50
  RED           •••••••  50
  RETURN        RET↵
```

AWB, ATW, AWC→SET, INDOOR, OUTDOOR, MANUAL

AWC→SET↵   Push enter button to set the color balance.

MANUAL↵   Blue: 0 to 100
              Red: 0 to 100

3.6 Day & Night

```
      MAIN MENU                         D&N  EXT

  LENS        MANUAL            D→N (DELAY)  ••••••• 3
  EXPOSURE      ↵               N→D (DELAY)  ••••••• 3
  BACKLIGHT     OFF             RETURN         RET↵
  WHITE BAL     ATW
▸ DAY&NIGHT     EXT↵                           D&N  AUTO
  NR            ↵
  SPECIAL       ↵               D→N (CDS)    ••••••• 205
                                D→N (DELAY)  ••••••• 3
  ADJUST        ↵               N→D (CDS)    ••••••• 165
  EXIT        SAVE&END↵         N→D (DELAY)  ••••••• 3
                                RETURN         RET↵


             B/W                           IR  SMART

  BURST         OFF             LEVEL        ••••••• 8
  IR SMART      ON↵             AREA           ↵
  RETURN        RET↵            RETURN         RET↵
```
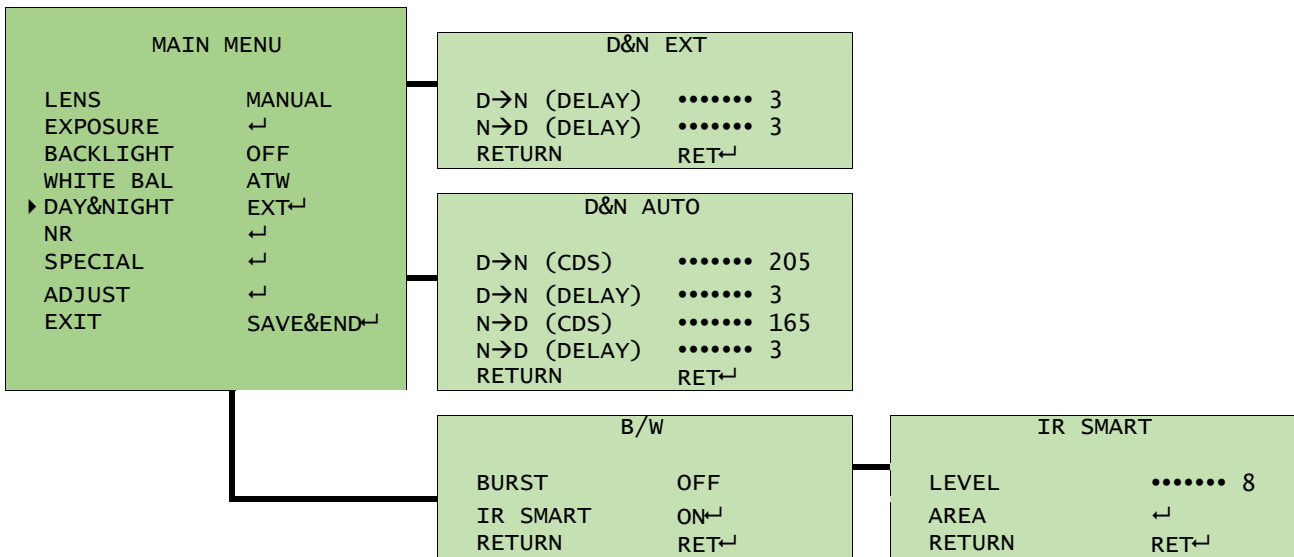
EXT, AUTO, COLOR, B/W

>   **EXT:** Day/ night mode is changed by external sensor on the IR board.
>> D→N (Delay): 0 to 60
>> N→D (Delay): 0 to 60

>   **AUTO:** Day/night mode is changed by AGC level of the video.
>> D→N (AGC): 0 to 255
>> D→N (Delay): 0 to 60
>> N→D (AGC): 0 to 255
>> N→D (Delay): 0 to 60

>   **COLOR**: Permanent color mode

>   **B/W↵** Burst: Off, On
>> IR Smart: Off, **On↵** Level: 0 to 15
>>> Area: Use up, down, right, left buttons to adjust both position and size of area.

3.7 NR

Select Digital Noise Reduction mode.

```
      MAIN MENU
                                           DNR
  LENS        MANUAL
  EXPOSURE      ↵               2DNR          MIDDLE
  BACKLIGHT     OFF             3DNR          MIDDLE
  WHITE BAL     ATW             RETURN        RET↵
  DAY&NIGHT     EXT↵
▸ NR            ↵
  SPECIAL       ↵
  ADJUST        ↵
  EXIT        SAVE&END↵
```
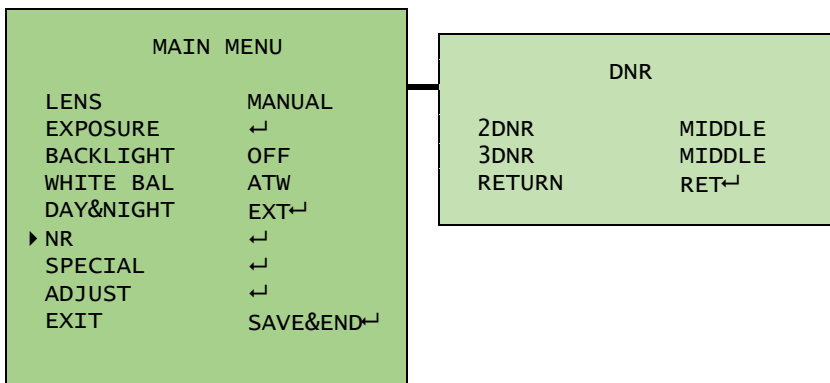
>   **DNR**:   2DNR: Off, Low, Middle, High
>> 3DNR: Off, Low, Middle, High

3.8 Special

```
          SPECIAL
CAM TITLE      OFF
D-EFFECT       ↵
MOTION         OFF
PRIVACY        OFF
LANGUAGE       ENG
DEFECT         ↵
RS485          OFF
RETURN         RET
```

```
        CAMERA TITLE
     0 1 2 3 4 5 6 7 8 9
     A B C D E F G H I J K
     L M N O P Q R S T U V
     W X Y Z ▶ ← → ↑ ↓ ( )
     ‾ − _ ■ / = & : ~ , .

     ←   →   C L R  P O S  E N D
```

```
          D-EFFECT

FREEZE         OFF
MIRROR         OFF
NEG.IMAGE      OFF
RETURN         RET↵
```

```
          MOTION

SELECT         AREA1
DISPLAY        ON↵
SENSITIVITY    •••••• 64
COLOR          GREEN
TRANS.         1.00
ALARM          ↵
DEFAULT        ↵
RETURN         RET↵
```

```
          ALARM

VIEW TYPE      ALL
OSD VIEW       ON
TIME           •••••• 3
RETURN         RET↵
```

```
          PRIVACY

SELECT         AREA1
DISPLAY        COLOR↵
COLOR          WHITE
TRANS.         1.00
DEFAULT        ↵
RETURN         RET↵
```

```
          LIVE DPC

AGC LEVEL      •••••• 16
LEVEL          •••••• 100
RETURN         RET↵
```

```
          DEFECT

LIVE DPC       ON↵
WHITE DPC      ON↵
BLACK DPC      OFF
RETURN         RET↵
```

```
          WHITE DPC

POS/SIZE       ↵
START          ↵
DPC VIEW       OFF
LEVEL          •••••• 16
AGC            •••••• 14
SENS-UP        x8
RETURN         RET↵
```

```
          BLACK DPC

POS/SIZE       ↵
START          ↵
DPC VIEW       OFF
LEVEL          •••••• 100
RETURN         RET↵
```

```
          RS485

CAM ID         •••••• 0
ID DISPLAY     OFF
BAUDRATE       9600
RETURN         RET↵
```

CAM TITLE: 15 alpha-numeric characters

D-EFFECT: Freeze: Off, On
Mirror: Off, Mirror, V-Flip, Rotate
Neg.Image: Off, On

MOTION: Off, **On**↵   Select: Area1, Area2, Area3, Area4

18

Display: Off / **On⏎**   Use up, down, right, left buttons to adjust both
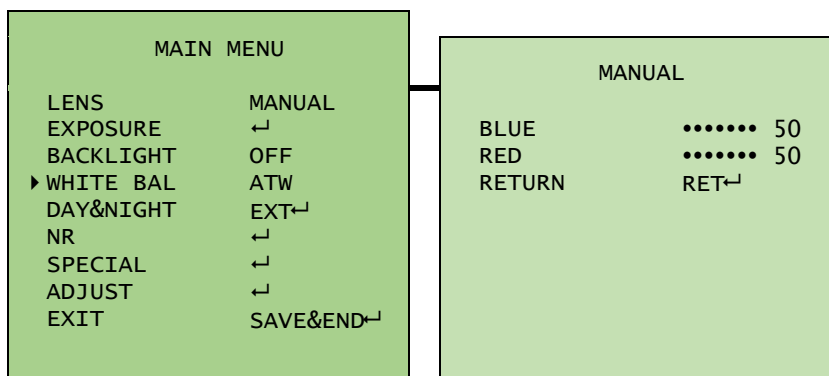position and size of area.
Sensitivity: 0 to 100
Color: Green, Blue, White, Red
Transparency: 0.00, 0.25, 0.75, 1.00
Alarm: View Type: Off, Block, Outline, All
OSD View: Off, On
Time: 0 to 15
Default: Default Motion settings.

PRIVACY: Off, **On⏎**   Select: Area1, Area2, Area3, Area4
Display: Off, **Mosaic**, **Inversion**, **Color**: Use up, down, right, left buttons
to adjust both position and size
of area.
Color: User, White, Black, Red, Blue, Yellow, Green, Cyan
Transparency: 0.25, 0.50, 0.75, 1.00
Default: Default privacy settings.

LANGUAGE: ENG (English), CHN1 (Chinese 1), CHN2 (Chinese 2), GER (German),
FRA (French), ITA (Italian), SPA (Spanish), POL (Polish), RUS (Russian),
POR (Portuguese), NED (Dutch), TUR (Turkish)

DEFECT: Live DPC: Off, **On⏎**   AGC Level: 0 to 255
Level: 0 to 100

White DPC: Off, **On⏎**   Pos/Size: Use up, down, right, left buttons to adjust
both position and size of area.
Start: Close the iris then press enter button.
DPC View: Off, On
Level: 0 to 60
AGC: 0 to 14
Sens-up: x2, x4, x6, x8, x10, x15, 20, x25, x30

Black DPC: Off / **On⏎**   Pos/Size: Use up, down, right, left buttons to adjust
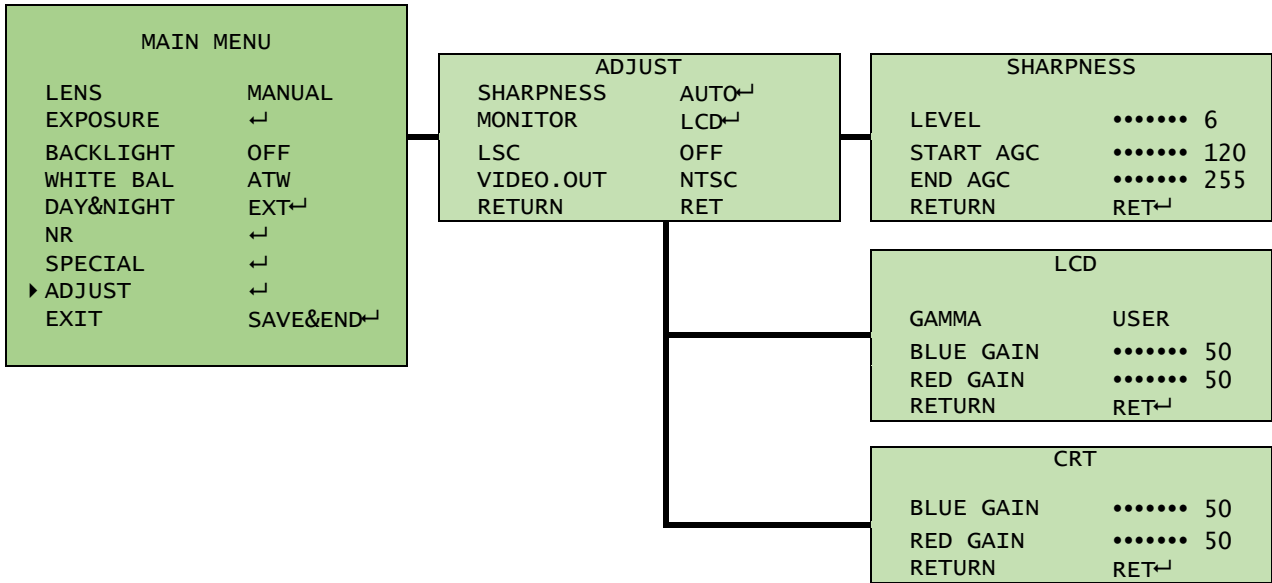both position and size of area.
Start: Press enter button.
DPC View: Off / On
Level: 0 to 100

RS485: Set ID and baudrate to control OSD through RS485(RS485 port supported model only).

3.9 Adjust

```
        MAIN MENU

  LENS           MANUAL
  EXPOSURE       ↵
  BACKLIGHT      OFF
  WHITE BAL      ATW
  DAY&NIGHT      EXT↵
  NR             ↵
  SPECIAL        ↵
▸ ADJUST         ↵
  EXIT           SAVE&END↵
```

```
          ADJUST
  SHARPNESS      AUTO↵
  MONITOR        LCD↵
  LSC            OFF
  VIDEO.OUT      NTSC
  RETURN         RET
```

```
         SHARPNESS

  LEVEL        ••••••• 6
  START AGC    ••••••• 120
  END AGC      ••••••• 255
  RETURN       RET↵
```

```
            LCD

  GAMMA          USER
  BLUE GAIN    ••••••• 50
  RED GAIN     ••••••• 50
  RETURN       RET↵
```

```
            CRT

  BLUE GAIN    ••••••• 50
  RED GAIN     ••••••• 50
  RETURN       RET↵
```

SHARPNESS: Off, **Auto↵**   Level: 0 to 10
                            Start AGC: 0 to 255
                            End AGC: 0 to 255

MONITOR: LCD↵   Black Level: 0 to 60
                       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 to 100
                       Red Gain: 0 to 100

               CRT↵   Blue Gain: 0 to 100
                       Red Gain: 0 to 100

LSC: Select the Lens Shading Compensation. Off, On

VIDEO OUT: PAL, NTSC

3.10 Exit

SAVE&END: Save and exit OSD menu.

RESET: Full factory reset

NOT SAVE: Exit the OSD without saving settings.

4 Appendix

4.1 Specification

Bullet Camera

Model		CB236HD-Fixed Bullet	CB2212HD-Varifocal Bullet
IMAGE			
Lens		Fixed 3.6mm F2.0	Varifocal 2.8~12mm F1.6
Image Sensor		1/2.9" Sony Exmor CMOS	1/2.9" Sony Exmor CMOS
Effective Pixels		1,985(H) x 1,105(V)	1,985(H) x 1,105(V)
Min. Illumination		Color: 1.0Lux@F2.0, 50IRE BW: 0Lux@IR LED On	Color: 1.0Lux@F1.6, 50IRE BW: 0Lux@IR LED On
Scanning Mode		Progressive Scan	Progressive Scan
Sync. System		Internal	Internal
Day and Night Mode		True D/N(Auto, Color, B&W)	True D/N(Auto, Color, B&W)
Wide Dynamic Range		Digital	Digital
Back Light Compensation		BLC, HSBLC	BLC, HSBLC
Noise Reduction		2DNR, 3DNR	2DNR, 3DNR
White Balance Control		AWB, ATW, AWC, Indoor, Outdoor, Manual	AWB, ATW, AWC, Indoor, Outdoor, Manual
Image Effect		Freeze, Mirror, Negative Image, LSC(Shading), Defog	Freeze, Mirror, Negative Image, LSC(Shading), Defog
Shutter Speed		Auto, 1/60, FLK ~ 1/50,000sec	Auto, 1/60, FLK ~ 1/50,000sec
Sens-up		Off, Auto(x2, x4, x6, x8, x10, x15, x20, x25, x30)	Off, Auto(x2, x4, x6, x8, x10, x15, x20, x25, x30)
IR Illuminator	Quantity	1 Array IR LED	30 SMD IR LEDs
	Distance	20-25m	25-30m
S/N Ratio		More than 50dB(AGC off)	More than 50dB(AGC off)
VIDEO			
Resolution		1920x1080p	1920x1080p
Frame Rate(PAL/NTSC)		25/30fps	25/30fps
Video Output		TVI, AHD, CVI, CVBS Selectable	TVI, AHD, CVI, CVBS Selectable
Video Mode		NTSC, PAL Selectable	NTSC, PAL Selectable
FUNCTION			
Motion Detection		4 Zones	4 Zones
Privacy Masking		4 Zones	4 Zones
Defect Detection		Live DPC, White DPC, Black DPC	
Monitor		CRT, LCD	CRT, LCD
Language		ENG, CHN1, CHN2, GER, FRA, ITA, SPA, POL, RUS, POR, NED, TUR	
OSD Setup		Coaxial Control(UTC)	Coaxial Control(UTC)
EXTERNAL IN/OUT			
Power Input		DC Jack	DC Jack
Video Output		BNC Connector	BNC Connector
Video Selection		Dip Switch Cable	Dip Switch Cable
ETC			
Operating Humidity		0 ~ 96%RH(Non-condensing)	0 ~ 96%RH(Non-condensing)
Operating Temperature		-20℃ ~ +50℃	-20℃ ~ +50℃
Power Supply		DC12V ± 10%	DC12V ± 10%
Power Consumption		210mA(2.52W)	440mA(5.28W)
Dimensions		75.8(W)x76.6(H)x150.4(D)mm	81(W) x 82(H) x 239(D)mm
Net Weight		Approx 440g	Approx 600g
Ingress Protection		IP66	IP66

Turret Camera

Model		CT236HD-Fixed Turret	CT2212HD-Varifocal Turret
IMAGE			
Lens		Fixed 3.6mm F2.0	Varifocal 2.8~12mm F1.6
Image Sensor		1/2.9" Sony Exmor CMOS	1/2.9" Sony Exmor CMOS
Effective Pixels		1,985(H) x 1,105(V)	1,985(H) x 1,105(V)
Min. Illumination		Color: 1.0Lux@F1.6, 50IRE BW: 0Lux@IR LED On	Color: 1.0Lux@F1.6, 50IRE BW: 0Lux@IR LED On
Scanning Mode		Progressive Scan	Progressive Scan
Sync. System		Internal	Internal
Day and Night Mode		True D/N(Auto, Color, B&W)	True D/N(Auto, Color, B&W)
Wide Dynamic Range		Digital	Digital
Back Light Compensation		BLC, HSBLC	BLC, HSBLC
Noise Reduction		2DNR, 3DNR	2DNR, 3DNR
White Balance Control		AWB, ATW, AWC, Indoor, Outdoor, Manual	AWB, ATW, AWC, Indoor, Outdoor, Manual
Image Effect		Freeze, Mirror, Negative Image, LSC(Shading), Defog	Freeze, Mirror, Negative Image, LSC(Shading), Defog
Shutter Speed		Auto, 1/60, FLK ~ 1/50,000sec	Auto, 1/60, FLK ~ 1/50,000sec
Sens-up		Off, Auto(x2, x4, x6, x8, x10, x15, x20, x25, x30)	Off, Auto(x2, x4, x6, x8, x10, x15, x20, x25, x30)
IR Illuminator	Quantity	18 SMD IR LEDs	40 SMD IR LEDs
	Distance	20-25m	25-30m
S/N Ratio		More than 50dB(AGC off)	More than 50dB(AGC off)
VIDEO			
Resolution		1920x1080p	1920x1080p
Frame Rate(PAL/NTSC)		25/30fps	25/30fps
Video Output		TVI, AHD, CVI, CVBS Selectable	TVI, AHD, CVI, CVBS Selectable
Video Mode		NTSC, PAL Selectable	NTSC, PAL Selectable
FUNCTION			
Motion Detection		4 Zones	4 Zones
Privacy Masking		4 Zones	4 Zones
Defect Detection		Live DPC, White DPC, Black DPC	Live DPC, White DPC, Black DPC
Monitor		CRT, LCD	CRT, LCD
Language		ENG, CHN1, CHN2, GER, FRA, ITA, SPA, POL, RUS, POR, NED, TUR	
OSD Setup		Coaxial Contro.88I(UTC)	Coaxial Control(UTC)
EXTERNAL IN/OUT			
Power Input		DC Jack	DC Jack
Video Output		BNC Connector	BNC Connector
Video Selection		Dip Switch Cable	Dip Switch Cable
ETC			
Operating Humidity		0 ~ 96%RH(Non-condensing)	0 ~ 96%RH(Non-condensing)
Operating Temperature		-20℃ ~ +50℃	-20℃ ~ +50℃
Power Supply		DC12V ± 10%	DC12V ± 10%
Power Consumption		240mA(2.88W)	390mA(4.68W)
Dimensions		90Ø x 85(H)mm	135.4Ø x 127.7(H)mm
Net Weight		Approx 360g	Approx 800g
Ingress Protection		IP66	IP66

Vandal Proof Dome Camera

Model	CV2212HD-Varifocal Vandal Proof Dome
IMAGE	
Lens	Varifocal 2.8~12mm F1.6
Image Sensor	1/2.9" Sony Exmor CMOS
Effective Pixels	1,985(H) x 1,105(V)
Min. Illumination	Color: 1.0Lux@F1.6, 50IRE BW: 0Lux@IR LED On
Scanning Mode	Progressive Scan
Sync. System	Internal
Day and Night Mode	True D/N(Auto, Color, B&W)
Wide Dynamic Range	Digital
Back Light Compensation	BLC, HSBLC
Noise Reduction	2DNR, 3DNR
White Balance Control	AWB, ATW, AWC, Indoor, Outdoor, Manual
Image Effect	Freeze, Mirror, Negative Image, LSC(Shading), Defog
Shutter Speed	Auto, 1/60, FLK ~ 1/50,000sec
Sens-up	Off, Auto(x2, x4, x6, x8, x10, x15, x20, x25, x30)
IR Illuminator — Quantity	24 SMD IR LEDs
IR Illuminator — Distance	25-30m
S/N Ratio	More than 50dB(AGC off)
VIDEO	
Resolution	1920x1080p
Frame Rate(PAL/NTSC)	25/30fps
Video Output	TVI, AHD, CVI, CVBS Selectable
Video Mode	NTSC, PAL Selectable
FUNCTION	
Motion Detection	4 Zones
Privacy Masking	4 Zones
Defect Detection	Live DPC, White DPC, Black DPC
Monitor	CRT, LCD
Language	ENG, CHN1, CHN2, GER, FRA, ITA, SPA, POL, RUS, POR, NED, TUR
OSD Setup	Coaxial Control(UTC)
EXTERNAL IN/OUT	
Power Input	DC Jack
Video Output	BNC Connector
Video Selection	Dip Switch Cable
ETC	
Operating Humidity	0 ~ 96%RH(Non-condensing)
Operating Temperature	-20℃ ~ +50℃
Power Supply	DC12V ± 10%
Power Consumption	390mA(4.68W)
Dimensions	147Ø x 117.3(H)mm
Net Weight	Approx 875g
Ingress Protection	IP66

※ Specifications are subject to change without notice.

2MP HD ANALOG CAMERA