

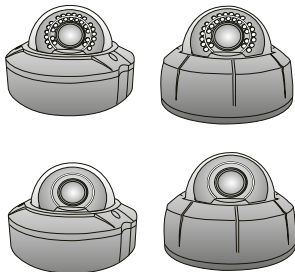
## Effio-v™

### 700TVL

REAL WDR/3DNR/DEFOG/IR OPTIMIZE/ SCENE SELECTION

### DOME CAMERA

### USER'S MANUAL



- Sony 960H Double Scan CCD II
- Horizontal Resolution of over 700 TV Lines
- IR LED : 30 units (IR Type)
- Night View Distance : Indoor 35 / Outdoor 25m(IR Type)
- Real Wide Dynamic Range
- True Day & Night(ICR)
- Day & Night(w/o ICR)
- 2D&3D Noise Reduction
- IR-Optimizer
- Digital Image Stabilizer
- Defog(Auto. Detection)
- Motion Detection (Frame rate link)
- Multi-languages OSD
- Polygon Privacy mask
- Intelligent scene recognition
- Lens shading compensation
- Coaxial communication
- 3-Axis Gimbal & Vandalproof Dome Housing(Vandalproof Type)
- 3-Axis Gimbal & Plastic Dome Housing
- Weatherproof (IP66)(Vandalproof Type)



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 appliance.

**INFORMATION -** This equipment has been tested and found to comply with 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.









**WARNING -** Changes or modifications not expressly approved by the manufacturer could void the user's authority to operate the equipment.

**CAUTION :** To prevent electric shock and risk of fire hazards:

- Do NOT use power sources other than that specified.
- Do NOT expose this appliance to rain or moisture.

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

## Precaution

|   |   |
|---|---|
|    | Do not Keep the camera face to strong light directly                          |
|    | Do not install the camera in extreme temperature conditions.                  |
|    | Do not disassemble the camera even if troubles happened                       |
|    | To avoid malfunctions, never use the camera close to a gas or oil leak        |
|    | Do not drop the camera or subject them to physical shocks.                    |
|    | Do not expose the camera to rain or spill beverage on it.                     |
|   | Do not install the camera under unstable lighting conditions                  |
|  | Do not install or use the camera in an environment where the humidity is high |

## 1. Features

### ■ DEFOG

This camera supports DEFOG function which does a process of clearing blurred image caused by fog and snow by analyzing the brightness of input image and compensating the color of the image.

### ■ Horizontal Resolution

Over 700TVL with 960H CCD

### ■ DNR(Digital Noise Reduction)

- Improved "blur" of moving objects
- Fine color reproduction in low luminance

### ■ Low Light Performance

High sensitivity : Rich color information in even low luminance  
Clear image under IR LED : Not saturated image by "IR optimizer"

### ■ IR Optimizer

Intelligent control for clear image under IR LED light

- PWM control for IR LED light
- Prevention of saturated image by AE
- Compensation of shading for IR LED hot spot

### ■ Real W DR (Wide Dynamic Range)

- Improvement of visibility under high contrast scene by double shutter and intelligent image processing
- Easy tuning for high contrast scene

### ■ Auto Scene Recognition

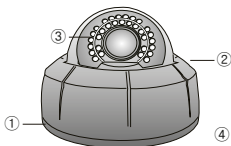
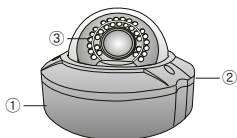
Provide the best image automatically for every situation  
by intelligent scene analysis

### ■ Scene Selection

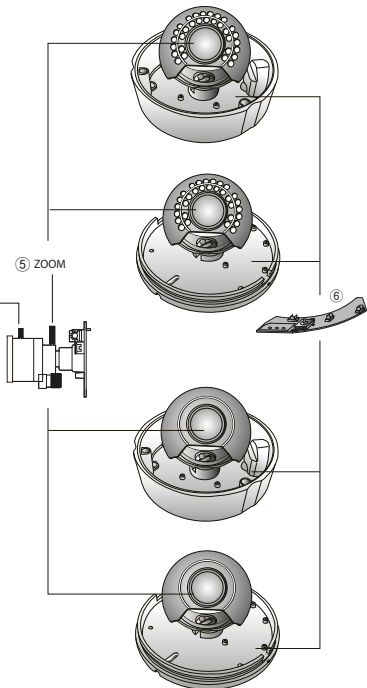
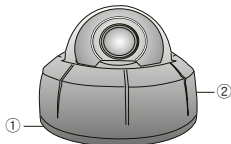
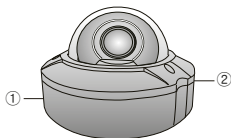
Provide the best image by automatic tuning for selected scene manually

## 2. Names and Functions of Parts

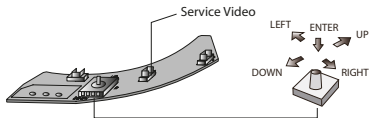
IR LED Type



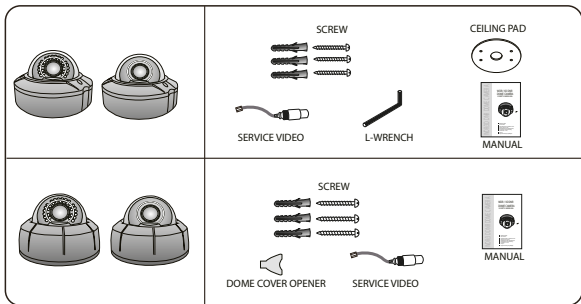
Non IR LED Type



- ① Base
- ② Dome Cover Ring
- ③ IR LEDs
- ④ Focus Handle  
Used to provide for accurate of an object within the lens field of view
- ⑤ Zoom Handle  
Used to adjust zoom magnification by turning
- ⑥ OSD Board



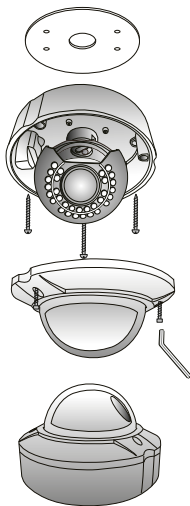
### 3. Components



## 4. Installation & Connection

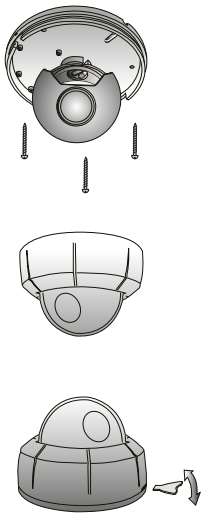
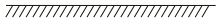
Vandalproof Dome Camera

Wall



Plastic Dome Camera

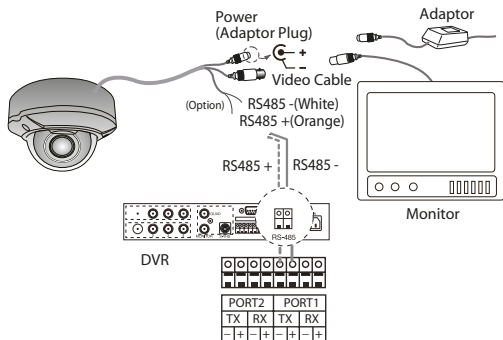
Wall



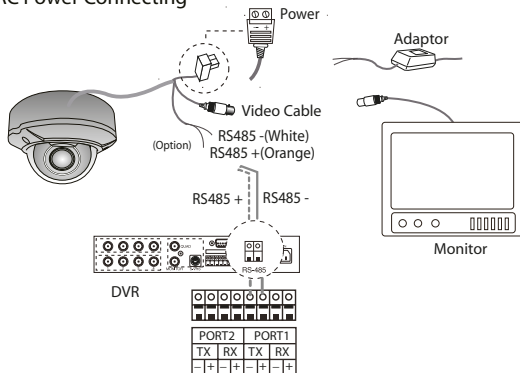
Note :

- \* Ceiling pad(gasket) should be stuck to above base in installation place.
- \* Wall mounting bracket and other instruments should be used with dome camera if the installation condition is not appropriate to cover the whole dome base.

## DC Power Connecting



## AC Power Connecting





## 5. Setup Menu Flow

| SETUP MENU   |           | ADVANCED MENU   |            |             |
|--------------|-----------|-----------------|------------|-------------|
| SCENE SELECT | CUSTOM    | SHUTTER/<br>AGC | FIX        | SHUTTER     |
|              | FULL AUTO |                 |            | AGC         |
|              | INDOOR    |                 | MANUAL     | SHUTTER     |
|              | OUTDOOR   |                 |            | AGC MAX     |
|              | BACKLIGHT |                 | AUTO       | AE LEVEL    |
|              | ITS       |                 |            | AGC MAX     |
|              |           |                 |            | SENS UP     |
|              |           | WHITE BAL       | ATW        | SPEED       |
|              |           |                 |            | DELAY CNT   |
|              |           |                 |            | ATW FRAME   |
|              |           |                 |            | ENVIRONMENT |
|              |           |                 | PUSH       |             |
|              |           |                 | USER1      | B-GAIN      |
|              |           |                 |            | R-GAIN      |
|              |           |                 | USER2      | B-GAIN      |
|              |           |                 |            | R-GAIN      |
|              |           |                 | ANTI-CR    |             |
|              |           | MANUAL          | LEVEL      |             |
|              |           | PUSH LOCK       |            |             |
|              |           | HLC/BLC         | OFF        |             |
|              |           |                 | HLC        | CLIP LEVEL  |
|              |           |                 | BLC        |             |
|              |           | WDR/ATR-EX      | OFF        |             |
|              |           |                 | ATR-EX     | CONTRAST    |
|              |           |                 |            | CLEAR FACE  |
|              |           |                 | WDR        | CONTRAST    |
|              |           |                 | CLEAR FACE |             |
|              |           | DNR             |            | LEVEL       |
|              |           | DAY/NIGHT       | DAY        |             |
|              |           |                 | NIGHT      | BURST       |
|              |           |                 | AUTO       | BURST       |
|              |           |                 |            | CNTL SIGNAL |
|              |           |                 |            | DELAY CNT   |
|              |           |                 |            | DAY→NIGHT   |
|              |           |                 |            | NIGHT→DAY   |

## ADVANCED MENU

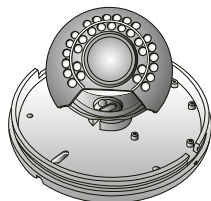
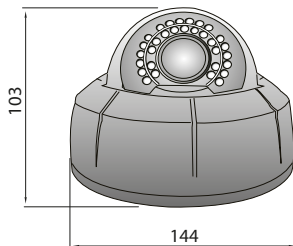
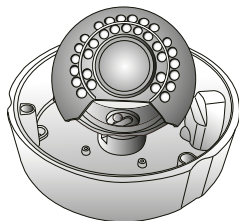
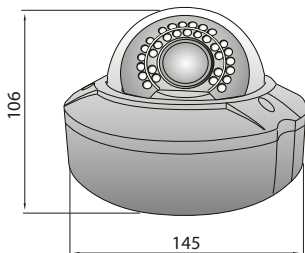
|               |               |         |           |            |                        |
|---------------|---------------|---------|-----------|------------|------------------------|
| IR OPTIMIZER  | OFF           |         |           |            |                        |
|               | ON            | MODE    |           |            |                        |
|               |               | IR AREA | TOP       |            |                        |
|               |               |         | BOTTOM    |            |                        |
|               |               |         | LEFT      |            |                        |
|               |               |         | RIGHT     |            |                        |
|               |               |         | WEIGHT    |            |                        |
|               |               | LEVEL   |           |            |                        |
|               |               | IR LED  | OFF       |            |                        |
|               |               |         | FIX       |            | LEVEL                  |
|               |               |         | DAY/NIGHT |            | LEVEL MIN<br>LEVEL MAX |
|               | COLOR NIGHT   | OFF     |           |            |                        |
|               |               | ON      |           | COLOR GAIN |                        |
|               | IR SHADE COMP | OFF     |           |            |                        |
| ON            |               |         | PATTERN   |            |                        |
|               |               |         | POSH      |            |                        |
| LENS SHD COMP | OFF           |         |           |            |                        |
|               | ON            | PATTERN |           |            |                        |
| POSH          |               |         |           |            |                        |
| POSV          |               |         |           |            |                        |
| DEFOG         | OFF           |         |           |            |                        |
|               | ON            | LEVEL   |           |            |                        |
| FLKLESS       | OFF           |         |           |            |                        |
|               | ON            | MODE    |           |            |                        |

| PAGE ADJUST             |              |               |        |       |
|-------------------------|--------------|---------------|--------|-------|
| SETUP MENU              |              | ADVANCED MENU |        |       |
| EZOOM                   | BRIGHTNESS   |               |        |       |
|                         | CONTRAST     |               |        |       |
|                         | SHARPNESS    |               |        |       |
|                         | HUE          |               |        |       |
|                         | COLOR GAIN   |               |        |       |
| DIS                     | MAG          |               |        |       |
|                         | PAN          |               |        |       |
|                         | TILT         |               |        |       |
| <del>PRIVACY MASK</del> |              |               |        |       |
| MOTION DET              | AREA SEL     |               |        |       |
|                         | DISPLAY      |               |        |       |
|                         | POSITION     |               |        |       |
|                         | COLOR        |               |        |       |
|                         | TRANSP       |               |        |       |
|                         | MOSAIC       |               |        |       |
|                         | DETECT SENSE |               |        |       |
|                         | INTERVAL     |               |        |       |
|                         | BLOCK DISP   |               |        |       |
|                         | MASK AREA    |               |        |       |
| SYS SETTING             | MOTION AREA  | AREA SEL      |        |       |
|                         |              | AREA MODE     |        |       |
|                         |              | TOP           |        |       |
|                         |              | BOTTOM        |        |       |
|                         |              | LEFT          |        |       |
|                         | RIGHT        |               |        |       |
|                         | INT          |               |        |       |
|                         | SYNC MODE    | LL            |        | PHASE |
|                         |              | VSL           |        | PHASE |
|                         | LENS         | MANUAL        |        |       |
| AUTO                    |              |               | TYPE   |       |
|                         |              |               | MODE   |       |
|                         |              |               | ADJUST |       |
|                         |              | SPEED         |        |       |

| SETUP MENU  |               | ADVANCED MENU |              |  |
|-------------|---------------|---------------|--------------|--|
| SYS SETTING | FLIP          |               |              |  |
|             | LCD/CRT       |               |              |  |
|             | COMMUNICATION | PROTOCOL      |              |  |
|             |               | ADDRESS       |              |  |
|             |               | BAUD RATE     |              |  |
|             |               | DATABIT       |              |  |
|             |               | PARITY        |              |  |
| STOP BIT    |               |               |              |  |
| CAMERA ID   | OFF           |               |              |  |
|             | ON            |               | POS          |  |
| LANGUAGE    |               |               |              |  |
| VERSION     |               |               |              |  |
| MAINTENANCE | W.PIX MASK    | MANUAL        | REGISTRATION |  |
|             |               |               | REG. POINT   |  |
|             |               | AUTO          | CURSOR COLOR |  |
|             |               |               | BLINK        |  |
|             | DATA CLEAR    | REG.NUMBER    |              |  |
|             |               | RUN           |              |  |
|             |               | BACK          |              |  |
|             | CAMERA RESET  |               |              |  |
| EXIT        | SAVE          |               |              |  |
|             | NOT SAVE      |               |              |  |
|             | CANCEL        |               |              |  |
|             | BACK          |               |              |  |

## 6. Dimension

unit :mm



## 7. SPECIFICATIONS

|                       |  |                  |
|-----------------------|--|------------------|
| TV System             | NTSC   | PAL              |
| Sensor                | Sony 960H Double Scan CCD II                             |                  |
| Total Pixels          | (H)1020 x (V)508   | (H)1020 x (V)596 |
| Effective Pixels      | (H)976 x (V)494  | (H)976 x (V)582  |
| Synchronization       | H/V 15.734/59.94Hz                                       | H/V 15.625/50Hz  |
| Scanning System       | 2:1 Interlace  |                  |
| Horizontal Resolution | 700 TV Lines in color                                    |                  |
| Min. Illumination     | Color : 0.3 Lux  |                  |
|                       | B/W : 0.1 Lux  |                  |
| Video Output          | VBS 1.0Vp-p (75ohm Terminated)                           |                  |
| S/N                   | More than 50dB   |                  |
| Function              |  |                  |
| Scene Select          | Custom / Auto Scene / Indoor / Outdoor / Backlight / ITS |                  |
| Auto Gain Control     | OFF / ON   |                  |
| Shutter Speed         | 1/60~1/120,000   | 1/50~1/120,000   |
| Digital Slow Shutter  | OFF / AUTO (5X)  |                  |
| Flickerless           | OFF / ON / AUTO  |                  |
| Wide Dynamic Range    | OFF / MANUAL / AUTO                                      |                  |
| Defog                 | OFF / ON   |                  |
| BLC/HLC               | OFF / ON   |                  |
| Day & Night           | DAY / NIGHT / AUTO / EXT 1 / EXT 2 (IR-Optimizer)        |                  |
| White Balance         | ATW / PUSH / MANUAL / USER 1 / USER 2 / PUSH LOCK        |                  |

|                           |  |
|---------------------------|--|
| Digital Noise Reduction   | 2D, 3D (OFF / 1~6)   |
| Flip(Mirror)              | OFF / H / V / HV   |
| Effect                    | POSITIVE / NEGATIVE  |
| Lens Shading Compensation | 1 ~ 20 Steps   |
| Polygon Privacy Mask      | OFF / On (15 masks)  |
| Motion Detection          | OFF / ON (24 x 16 Block)   |
| Blemish Compensation      | MANUAL / AUTO (64 point)   |
| Communication             | COAX : PELCO-C / RS-485 : PELCO-D                                      |
| Language                  | English / Español / Russian / Potugal / DEUTSCH /<br>France / Japanese |

#### Electrical

|                                | IR LED Type   | Non IR LED Type |
|--------------------------------|---|-----------------|
| IR LED                         | 30 units  |                 |
| Night View Distance            | Outdoor 25m   |                 |
| Day & Night System             | ICR(Option w/o ICR)   |                 |
| Lens                           | 2.8~12mm DC Auto Iris Varifocal Lens  |                 |
| Lens(Optional)                 | 2.8~12mm Varifocal Lens   |                 |
| Operating Temperature/Humidity | -20°C ~50°C / 30% ~80%  |                 |
| Storage Temperature/Humidity   | -30°C ~60°C / 20% ~90%  |                 |
| Power(Max.)                    | DC 12V 450mA  | DC 12V 120mA    |
|                                | [Recommended-Voltage : +/- 20%, Current:<br>Adapter with rated power of 2 times(than real using current)] |                 |
| Dimension(mm)                  | Vandalproof type :145(Ø) x 106(H)mm / Plastic Type :144(Ø) x 103(H)mm                                     |                 |

Design and specifications are subject to change without notice

## PRODUCT WARRANTY CARD

|  |
|--|
| 1) ITEM # :  |
| 2) S/N # :   |
| 3) INSTALLATION CONDITION<br>- Indoor <input type="checkbox"/> / Outdoor <input type="checkbox"/><br>- Power supply SPECIFICATION :<br>DC12V <input type="checkbox"/> / AC24V <input type="checkbox"/><br>CURRENT _____ mA   |
| 4) TROUBLESHOOTING<br>- No picture <input type="checkbox"/><br>- Bad image <input type="checkbox"/><br>- No power <input type="checkbox"/><br>- Water damage <input type="checkbox"/><br>- LED ON <input type="checkbox"/> / OFF <input type="checkbox"/><br>- ETC. : <input type="checkbox"/> |
| * Please keep this warranty card with the manual.<br>* Please fill out this warranty card and send us this warranty card with the faulty units together.   |

- Following cases can be charged even within the warranty period.
- When defects are caused by user's carelessness.
  - When improper or unauthorized repairs are done or when the inside is modified or damaged.
  - Defects caused by natural disaster or power problem.
  - When the warranty card is not filled out or corrected unconfirmed.