600TV Lines
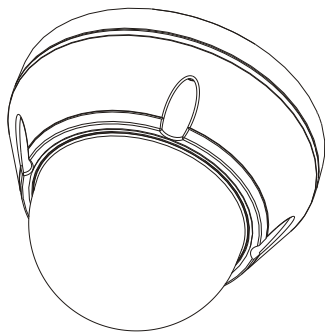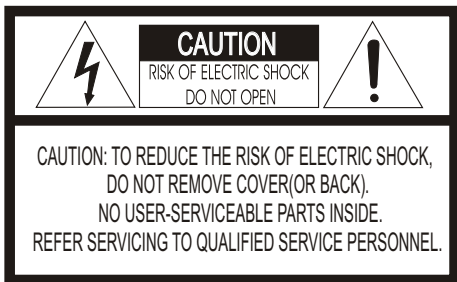# Ultra High Resolution Color Camera

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

WARNINGS 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 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 product.

PRECAUTIONS

Safety -----------------------------------

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

Unplug the unit from the wall oulet 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 surfaces (rugs, blankets, etc.) or near materials(curtains, draperies) that may block the ventilation holes.

Height and vertical linearity controls located at 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.

ii

FCC COMPLIANCE STATEMENT

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 SAFEGUARDS

1. READ AND RETAIN INSTRUCTIONS
Read the instruction manual before operating the equipment. Retain the manual for future reference.

2. CLEANING
Turn the unit off and unplug from the power outlet before cleaning. Use a damp cloth for cleaning. Do not use harsh cleansers or aerosol cleaners.

3. ATTACHMENTS
Do not use attachments unless recommended by manufactured as they may affect the functionality of the unit and result in the risk of fire, electric shock or injury.

4. MOISTURE
Do not use equipment near water or other liquids.

5. ACCESSORIES
Equipment should be installed in a safe, stable location. Any wall or shelf mounting accessory equipment should be installed using the manufacture's Instructions. Care should be used when moving heavy equipment. Quick stops, excessive force, and uneven surfaces may cause the equipment to fall causing serious injury to persons and objects.

6. VENTILATION
Openings in the equipment, if any, are provided for ventilation to ensure reliable operation of the unit and to protect it from overheating. These openings must not be blocked or covered

7. POWER SOURCES
The equipment should be operated only from the type of power source indicated on the marking label. If you are not sure of the type of power supplied at the installation location, contact your dealer. For equipment designed to operate from battery power, refer to the operating instructions.

8. GROUNDING OR POLARIZATION
Equipment that is powered through a polarized plug (a plug with one blade wider than the other) will fit into the power outlet only one way. This is a safety feature. If you are unable to insert the plug fully into the outlet, try reversing the plug. Do not defeat the safety purpose of the polarized plug.

Alternate Warning: If the equipment is powered through a three-way grounding-type plug, a plug having a third (grounding) pin, the plug will only fit into a grounding-type power outlet. This is a safety feature. Do not defeat the safety purpose of the grounding-type plug. If your outlet does not have the grounding plug receptacle, contact your local electrician.

9. CORD AND CABLE PROTECTION
Route power cords and cables in a manner to protect them from damage by being walked on or pinched by items places upon or against them.

10. LIGHTNING
For protection of the equipment during a lightning storm or when it is left unattended and unused for long periods of time, unplug the unit from the wall outlet. Disconnect any antennas or cable systems that may be connected to the equipment. This will prevent damage to the equipment due to Lightning or power-line surges.

11. OVERLOADING
Do not overload wall outlets and extension cords as this can result in a risk of fire or electric shock.

12. SERVICING
Do not attempt to service the video monitor or equipment yourself as opening or removing covers may expose you to dangerous voltage or other hazards. Refer all servicing to qualified service personnel.

13. DAMAGE REQUIRING SERVICE
Unplug the equipment from the wall outlet and refer servicing to qualified service personnel under the Following conditions:

A. When the power supply cord or the plug has been damaged.
B. If liquid has spilled or objects have fallen into the Unit.
C. If the equipment has been exposed to water or other liquids.
D. If the equipment does not operate normally by following the operating instructions, adjust only those controls that are covered by the operating instructions. Improper adjustment of other controls may result in damage to the unit.
E. If the equipment has been dropped or the casing Damaged.
F. When the equipment exhibits a distinct change in performance.

14. REPLACEMENT PARTS
When replacement parts are required, be sure the service technician uses replacement parts specified by the manufacturer or that have the same characteristics as the original part. Unauthorized substitutions may result in fire, electric shock, or other hazards.

15. SAFETY CHECK
Upon completion of any service or repairs to the equipment, ask the service technician to perform safety checks to verify that the equipment is in proper operating condition.

16. FIELD INSTALLATION
The installation of equipment should be made by a qualified service person and should conform to all local codes.

17. *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.*

17-1 *Class 2 power source only.*

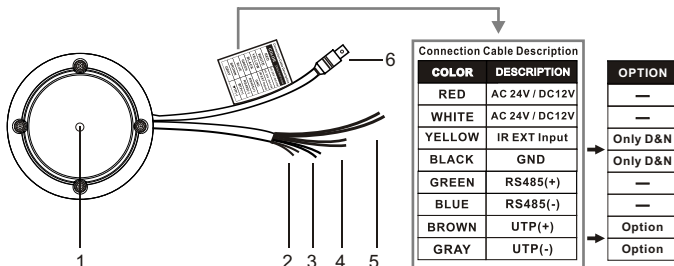**17-2** *Do NOT use power source other than that specified.*

INTRODUCTION

The camera provides high-quality images using SONY CCD technology especially designed for closed-circuit television (CCTV) and security surveillance applications.

Features:

- High resolution and high performance 1/3" SONY Super HAD CCD Technology
- Excellent picture quality
- 600 lines(Color) of resolution
- 0.1 lux(Color), 0.04 lux(B/W) @ F1.2 50IRE Sensitivity
  (Sense up x 256 - 0.0004 lux(Color), 0.0001 lux(B/W))
- Auto electronic shutter [1/60(1/50) ~ 1/120,000] and manual electronic shutter modes
- OSD (On Screen Display)
- 3D DNR Function
- Eclipse
- DRC (Dynamic Range Control)
- Auto and manual white balance modes
- BLC (Back Light Compensation)
- Day&Night (Auto / DAY / NIGHT / EXT) ➞ (EXT : D&N with ICR model option)
- Private Mask (24 Poisition, BW, Color, Mosaic)
- AGC (Auto Gain Control)
- Sense-up (x2 ~ x256)
- MIRROR (NORMAL /MIRROR/VERTICAL /ROTATE)
- VIDEO OUT(BNC, UTP(Option))
- Motion Detection
- Internal / AC line lock
- RS485 CONTROL
- 2.8~12mm A/I Varifocal Lens F1.4~3.4(D&N Lens option)
- Operates in 12 VDC or 24 VAC
- Use Certified / Listed Class 2 power supply only.
- Camera Mount : camera mount directily to the wall or ceiling
- Test Monitor Output

CAMERA CONNECTIONS

Connection Cable Description		OPTION
COLOR	**DESCRIPTION**	
RED	AC 24V / DC12V	—
WHITE	AC 24V / DC12V	—
YELLOW	IR EXT Input	Only D&N
BLACK	GND	Only D&N
GREEN	RS485(+)	—
BLUE	RS485(-)	—
BROWN	UTP(+)	Option
GRAY	UTP(-)	Option

1. Lens : 2.8~12mm A/I Vari-focal lens for wide area monitoring.(D&N with ICR model option)

2. Power : 24V AC input / 12V DC input
power source from a DC 12V or AC 24V ac +/-10% 60/50Hz +/-1Hz
Use Certified/Listed Class 2 power supply transformer only.

*If using DC 12V power adaptor,
use a power supply capable of supplying 6 Watts.

3. IR EXT : Only D&N with ICR model. (Dry contact) ➞ (D&N with ICR model option)

4. RS485 CONTROL

5. UTP : Video out (option)

6. Video : BNC connector used to connect the camera to a monitor, switcher, etc.

NOTE :
When D&N EXT mode is used, be careful not to confuse the IR EXT wires with the UTP wires.
An incorrect connection will cause malfunction.

REMINDER:

Never aim the camera directly into the sun.

CONTENTS of PACKAGE

The package contains the following.

INSTALLATION

1. Loosen the four torx screws located midway up the front of the housing leave the screws intact in the front portion. **(Fig. 1)**

2. Drill the mounting location using the supplied drill guide label. **(Fig. 3)**

3. Attach the housing to the ceiling using suitable fasteners, M6x35 tapping screws are supplied only use if they are suitable. **(Fig. 3)**

4. Closing the housing using the loosen torx screws. **(Fig. 2)**

**Torx screws
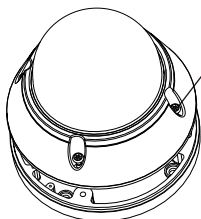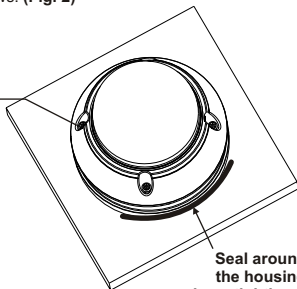M5x10 (4x)**

Figure 1

**Seal around
the housing
base tightly using
the silicon rubber**

Figure 2
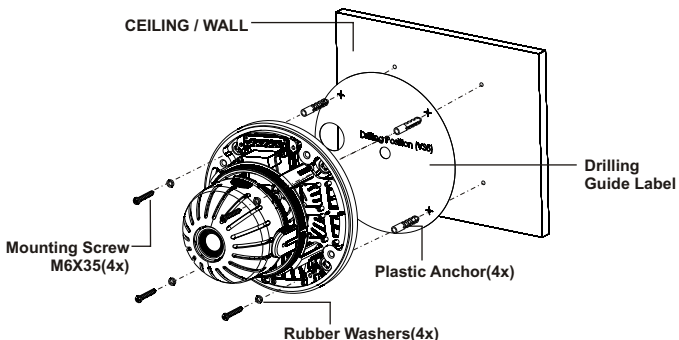
CEILING / WALL

**Drilling
Guide Label**

**Mounting Screw
M6X35(4x)**

Plastic Anchor(4x)

Rubber Washers(4x)

Figure 3

- **MOUNTING HOUSING TO AN ELECTRICAL BACK BOX**

  The housing can also be mounted on a 4s or 2s electrical box.

Electrical box

Rubber Washers(4x)

Torx screws

- Video out check-

VIDEO OUT

LEFT ENTER DOWN

RIGH   UP

Tact switch board

Test Monitor

5 INCH COLOR TFT LCD

VIDEO OUT

UP DOWN ENTER LEFT RIGHT

UTP & Tact switch board

VIDEO IN   DC IN 12V 1.0A
(−)−◉−(+)

VIDEO IN
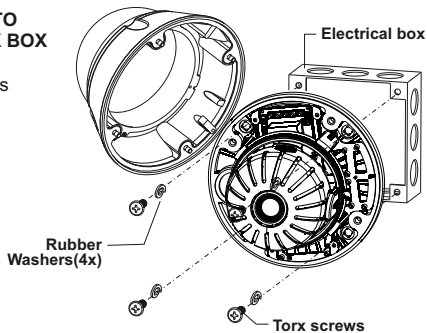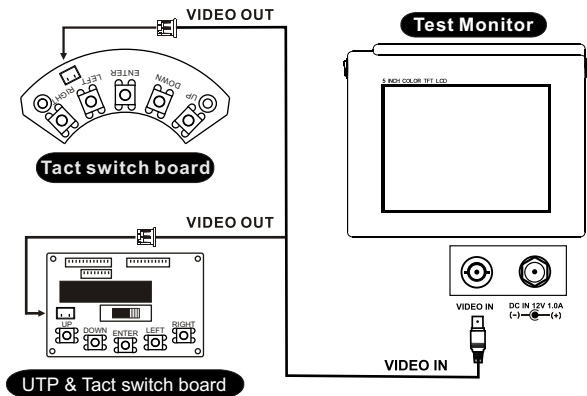
CAMERA ADJUSTMENT

OSD MAIN SCREEN

```
MENU
▶ EXPOSURE      +···
  WHITE BAL     +···
  DAY/NIGHT     +···
  MOTION        +···
  PRIVACY       +···
  OPTION        +···
  DISPLAY       +···
  SYNC          AUTO
  INITIAL       DEFAULT
  EXIT
```

- **[ENTER]**   ON or OFF of OSD MENU
- **[UP] / [DOWM]**   UP or DOWN of Cursor
- **[LEFT] / [RIGHT]**   SUB MENU ON or Decision

1) EXPOSURE, WHITE BAL, DAY/NIGHT, MOTION, PRIVACY, OPTION and
   DISPLAY has a SUB MENU. [UP]/[DOWN] of Cursor.
   And SUB MENUS is displayed by [LEFT] / [RIGHT].

2) SYNC : AUTO or INT can be selected.

3) When making INITIAL from USER to DEFAULT, all data is initialized.

4) To EXIT the menu use the [LEFT] / [RIGHT] buttons when EXIT is highlighted.

```
MENU
▶ EXPOSURE
  WHITE BAL
  DAY/NIGHT
  MOTION
  PRIVACY
  OPTION
  DISPLAY
  SYNC
  INITIAL
  EXIT
```

```
EXPOSURE

▶ LENS
  BRIGHTNESS
  BACKLIGHT
  SHUTTER
  AGC
  SENSE UP
  ECLIPSE
  3D-DNR
  DRC
  RETURN
```

```
WHITE BAL

▶ WB MODE
  RED CONT
  BLUE CONT
  PUSH AUTO




  RETURN
```

```
DAY/NIGHT

▶ D/N MODE
  AUTO LEVEL
  FILTER DLY
*** SENSOR IN
  BURST


  RETURN
```

```
MOTION

▶ DETECT MODE
  DETECT AREA
  SENSITIVITY
  ALARM TIME




  RETURN
```

```
PRIVACY

▶ AREA
  MASK
  MODE
  LEVEL
  TOP
  DOWN
  LEFT
  RIGHT
  RETURN
```

```
OPTION

▶ TITLE
  NEGA/POSI
  SHARPNESS
  MIRROR
  ZOOM
  PAN/TILT
  PHASE

  RETURN
```

```
DISPLAY

▶ TITLE
  MOTION DET
  CAMERA ID
  PROTOCOL
  BAUDRATE
  SAVE


  RETURN
```

*** SENSOR IN : Only D&N with ICR model (option)

6

\<EXPOSURE\>

Press the [LEFT] or [RIGHT] button to access the "EXPOSURE" mode.

1) LENS   DC, ELC can be selected.

2) BRIGHTNESS 0 to 60 can be selected.
       * Level setting is available in DC, ELC mode.

3) BACKLIGHT ON or OFF can be selected. (BLC level, location)
       * Prevents such a back light effect to secure a clear image under
        all illumination environments.

4) SHUTTER   1/60 (1/50), FLC, 1/250, 1/500, 1/1000, 1/2000, 1/4000,1/10000
       1/30000, 1/60000, 1/120000 sec.
       * When LENS is DC, it is possible to select it.
        Another becomes NOT USE.

5) AGC   AGC OFF, LOW, MID, HIGH can be selected.
       * As the level of gain increases, the screen gets brighter and the level
        Of noise also increases.

6) SENSE UP OFF, x2, x4, x8, x16, x32, x64, x128, x256 can be selected.
       * SENSE UP helps maintain a bright, clear screen image
        by automatically detecting change in the level of light

7) ECLIPSE   ON or OFF can be selected.
       * The function improves the identification capability of subjects facing
        a brightly lit situation by filtering out the strength of the light.

8) 3D-DNR   OFF, LOW, MID, HIGH can be selected.
       * Reduces the noise on the screen under low light condition

9) DRC   ON or OFF can be selected.
       * The function to visibly brighten a subject in a dark area

10) RETURN   Return to MAIN MENU.

\<WHITE BALANCE\>

Press the [LEFT] or [RIGHT] button to access the "WHITE BALANCE" mode.

1) WB MODE

 - ATW   This mode can be used within the color temperature range
        1.800°K ~ 10.500°K

 - AWC   Please press the [LEFT] or [RIGHT] button in the PUSH AUTO mode
        while the camera is directed at a piece of while paper to obtain the
        optimum state under current illumination.
        If the environment including the light source is
        changed, you have to adjust the White balance again.

 - MANUAL   Manual mode. User can change R and B Gain manually.

 - INDOOR   Set the color temperature to 3200°K

 - OUTDOOR   Set the color temperature to 6300°K

2) RED CONT Adjust Red Gain Value (0 ~ 127)
       Can be adjust while in manual mode.

3) BLUE CONT Adjust BLUE Gain Value (0 ~ 127)
       Can be adjust while in manual mode.

4) PUSH AUTO When it is AWC, OFF to PUSH can be selected.

5) RETURN   Return to MAIN MENU.

<DAY/NIGHT>

Press the [LEFT] or [RIGHT] button to access the "DAY/NIGHT" mode.

1) D/N MODE   AUTO, DAY, NIGHT, EXT can be selected.

- AUTO   This camera has a function which automatically changes to the appropriate mode for day-time or night-time.

- DAY   In this mode, the camera outputs the video image only in color.

- NIGHT   In this mode, the camera outputs the video image only in black and white.

- EXT   In this mode, an external signal changes the camera output from the COLOR mode to BW mode and back.
                  *EXT : Only D&N with ICR Model (Option)

2) AUTO LEVEL   When set to AUTO, the 0 to 3 values can be selected.
                  * AGC LOW : 0 AGC MID : 0 ~1 AGC HIGH : 0 ~3

3) FILTER DLY   When set to AUTO, 4 to 10 can be selected.
                When AGC is OFF, NOT USED.
                * Adjust the delay time of filter movement when changing from on to off or off to on.

4) SENSOR IN   When it is EXT, No or NC Can be selected.
                *SENSOR IN : Only D&n with ICR Model.(Option)

5) BURST   When it is DAY, Not Use.
             Another mode be comes ON or OFF can be selected.

6) RETURN   Return to MAIN MENU.

<MOTION>

Press the [LEFT] or [RIGHT] button to access th "MOTION"mode.

1) DETECT MODE   ON or OFF can be selected.
                * Turning on becomes invalid while displaying OSD.
                However, it becomes effective only at MOTION AREA.

2) DETECT AREA   MOTION AREA is displayed.

3) SENSITIVITY   0 to 8 can be selected.

4) ALARM TIME   1 to 60 sec can be selected.

5) RETURN   Return to MAIN MENU.

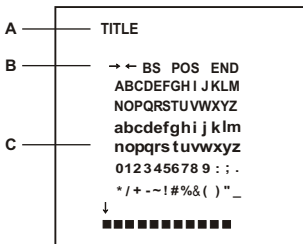## <PRIVACY>

Press the [LEFT] or [RIGHT] button to access the "PRIVACY" mode.

1) AREA   1 to 24 can be selected.

2) MASK   ON or OFF can be selected.

3) MODE   When MASK is ON, BW, MOSAIC, COLOR can be selected.

4) LEVEL   - BW : 0 to 15 can be selected.

          - MOSAIC : SMALL or MIDDLE or LARGE can be selected.

          - COLOR : RED, BLUE, GREEN, YELLOW, CYAN, MAGENTA can be selected.

5) TOP   When MASK is ON, 3 to 124(NTSC) or 6 to 150(PAL) can be selected.

6) DOWN   When MASK is ON, 5 to 126(NTSC) or 8 to 152(PAL) can be selected.

7) LEFT   When MASK is ON, 0 to 187(NTSC) or 0 to 185(PAL) can be selected.

8) RIGHT   When MASK is ON, 2 to 189(NTSC) or 2 to 187(PAL) can be selected.

9) RETURN   Return to MAIN MENU.

\<OPTION\>

Press the [LEFT] or [RIGHT] button to access the "OPTION" mode.

1) TITLE

```
A ──────  TITLE

B ──────  → ← BS POS END
          ABCDEFGHIJKLM
          NOPQRSTUVWXYZ
          abcdefghijklm
C ──────  nopqrstuvwxyz
          0123456789 : ; .
          * / + - ~ ! # %&( ) " _
          ↓
          ■■■■■■■■■■■
```

A. TITLE
B. Command Line
  ← : Move to left
  → : Move to right
  BS : Erase a left character
  POS : Change the position of the title
  END : End

C. Charactor Table
  ■ : brank
  − : space

2) NEGA/POSI   NEGA or POSI can be selected.

3) SHARPNESS   0 to 15 can be selected.

4) MIRROR   NORMAL, MIRROR, VERTICAL, ROTATE can be selected.
  - MIRROR   Horizontal image inversion
  - VERTICAL   Vertical image inversion
  - ROTATE   Horizontal image and Vertical image inversion

5) ZOOM   0FF(x1) and ON1 to ON8(x4) can be selected.
    When PAN/TILT is ON, it is NOT USE.

6) PAN/TILT   OFF or ON(x2) can be selected.

    * When OSD MENU is OFF and PAN/TILT is ON,
     operate by [UP],[DOWN],[LEFT],[RIGHT].

7) PHASE   Sync phase is adjustable in line lock mode (Auto mode)
    0 ~ 524 (NTSC) or 0 ~ 624 (PAL).

8) RETURN   Return to MAIN MENU

\<DISPLAY\>

Press the [LEFT] or [RIGHT] button to access the "DISPLAY" mode.

1) TITLE   ON or OFF can be selected.

2) MOTION DET   ON or OFF can be selected.

3) CAMERA ID   Select the camera ID. (001 ~ 254)

4) PROTOCOL   Select operating protocol
    FASTRAX : Fastrax protocol.
    PELCO-D : PELCO-D protocol.
    PELCO-P : PELCO-P protocol.

5) BAUDRATE   Select serial communication speed. (2400 / 4800 / 9600 /19200)

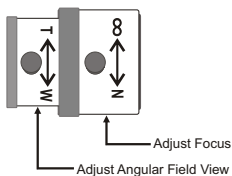**6) SAVE**   Save the changed parameters of CAMERA ID, PROTOCOL, BAUDRATE.

7) RETURN   Return to MAIN MENU.
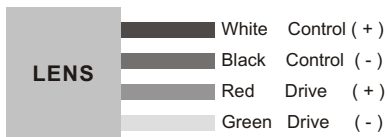
LENS ADJUSTMENT (OPTIONAL VARIFOCAL LENS)

Field of view: Adjust setting from Tele (T) to Wide (W) field of View.

Focus: Adjust lens focus from near (N) to infinity (∞).

Adjust Focus

Adjust Angular Field View

DC AUTO IRIS LENS

	2.8-12mm
Image Size	1/3" CCD
Focal Length	2.8-12mm ± 5%
Aperture Ratio	1 : 1.4 ± 5%
Angular **Field of View**	DIAGONAL 2.8mm : 119.9° 12mm : 28.80°

LENS

White   Control (+)

Black   Control (-)

Red   Drive   (+)

Green   Drive   (-)

SPECIFICATIONS

MODEL		NTSC	PAL
Power	Power source	DC 12V / AC 24V ± 10%	
	Power consumption	3.5 Watts	
General	Image sensor	1/3" SONY Super-HAD CCD	
	Total number of pixels	811(H) x 508(V)	795(H) x 596(V)
	Scanning system	2:1 interlace	
	Scanning frequency	15.734KHz(H) x 59.94Hz(V)	15.625KHz(H) x 50Hz(V)
	Sync. system	Internal / Line lock	
	Electronic shutter	1/60 ~ 1/120,000 sec.	1/50 ~ 1/120,000 sec.
	Resolution	600 TV lines (Color)	
	Min. illumination	0.1 lux(Color), 0.04 lux(B/W) @ F1.2 50IRE (Sense up x 256 - 0.0004 lux(Color), 0.0001 lux(B/W))	
	Video output	1.0 Vp-p (75 ohm, composite)	
	S/N ratio	More than 55dB (AGC OFF, Sense up OFF)	
	Camera Control	RS485(Fastrax, Pelco D, Pelco P),Tact switch	
	FUNCTION — Auto Exposure	1/60(1/50) / FLICKERLESS / MANUAL SHUTTER (1/250,1/500,1/1000,1/2000,1/4000,1/10000,1/30000,1/60000,1/120000)	
	Lens	DC / ELC	
	Brightness	0 ~ 60	
	BLC	ON / OFF (Position, Level)	
	AGC	OFF / LOW / MIDDLE / HIGH	
	Sense-up	OFF / x2 ~ x256	
	Eclipse	OFF / ON	
	3D-DNR	OFF / LOW / MIDDLE / HIGH	
	DRC	ON / OFF	
	White Balance	ATW / AWC / MANUAL / INDOOR / OUTDOOR	
	Day & Night	AUTO / DAY / NIGHT / EXT(EXT : D&N with ICR model option)	
	Motion detection	OFF / ON (Sensitivity & Alarm time Selective)	
	Privacy zone	OFF / ON (24position, Mask BW, Color, Mosaic)	
	Display Title	OFF / ON	
	Video Picture	POSI / NEGA	
	Sharpness	0~15	
	Mirror	NORMAL / MIRROR / VERTICAL / ROTATE	
	Sync	INT/AUTO	
	Camera ID	1 ~254	
	Baudrate	2400 / 4800 / 9600 / 19200	
	IR EXT IN	NC / NO (Only D&N with ICR model option)	
	Zoom	OFF / ON(x4) / PAN&TILT(x2)	
	Preset	INITIAL / EXIT(Auto save) / RETURN	
Connector & etc.	Power input	2-Pin wire	
	Video output	BNC connector, UTP(option)	
	Lens mount	Fixed mount	
	Lens	f=2.8~12mm F1.4~3.4 Varifocal DC auto iris	f=2.8~12mm F1.4~3.4 Varifocal DC auto iris ICR
		-Day/Night A/I Varifocal 4~9mm Lens is optional	
	Operating Temperature	-10℃ ~ +50℃ [14℉ ~ 122℉]	
	Operating humidity	0 ~ 96% (non-condencing)	

EXTERNAL DIMENSION

Dimensions

⌀99.0(INNER ⌀93.0)

57.5

113.7

⌀146.3

⌀121.0

4-⌀6.4

45°

45°

PF 3/4" TAP
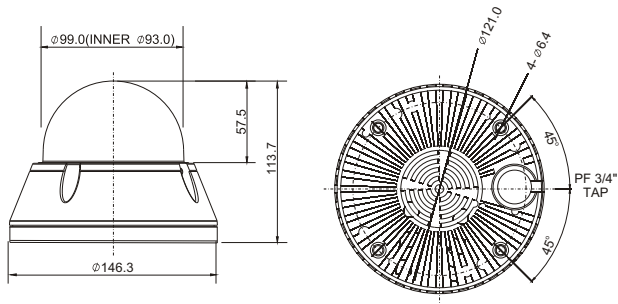
Unit: mm

Window Size	0.1 in. (2.5mm thick), impact-resistant P.C (LEXAN) 3.93 in. (10cm) diameter
Cable Entry	One 1" opening holes
Weight - Unit: **Shipping:**	1.54 lb. (0.7kg) 2.11 lb. (0.96 kg)

600TV Lines Ultra High Resolution
Color Camera