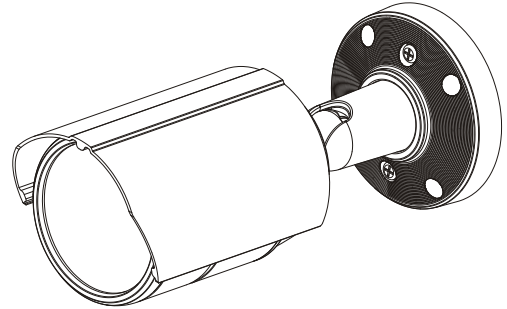


# 540TV Lines Super High Resolution Color Camera

Weatherproof IR Bullet Camera



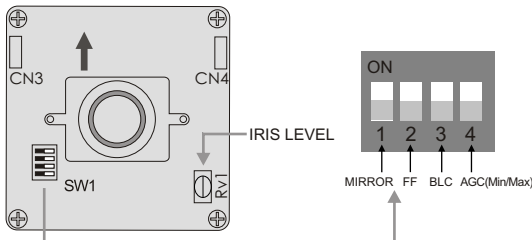
## 540TV Lines Super High Resolution Color Camera

PRINTED IN KOREA

50302455B

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

### FUNCTION SWITCH

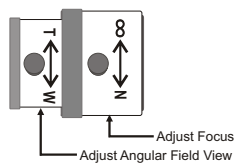


- 1. Mirror (on/off)**  
Horizontal image inversion. (Normal : off / Mirror : on)
- 2. Flickerless (on/off)**  
This function is used for removing flicker, when camera signal format does not coincide with power source frequency being used.
- 3. BLC (on/off)**  
This on/off switch controls backlight compensation. When set to ON, the camera will automatically try to maintain proper exposure in the specific area even if the lighting level changes.
- 4. AGC (Min/Max)**  
AGC Normal : AGC Middle Gain  
AGC High : AGC Max Gain

### LENS ADJUSTMENT (OPTIONAL VARIFOCAL LENS)

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

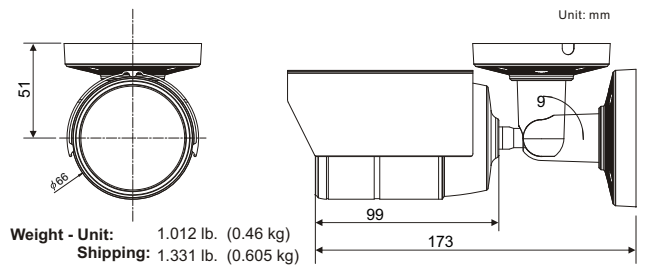
**Focus:** Adjust lens focus from near (N) to infinity ( $\infty$ ).



### DC AUTO IRIS LENS

Image Size	1/3" CCD
Focal Length	2.8 - 12.0mm
Aperture Ratio	1 : 1.4
Angular	DIAGONAL
Field of View	2.8mm : 127.5° 12mm : 28.8°

### EXTERNAL DIMENSION



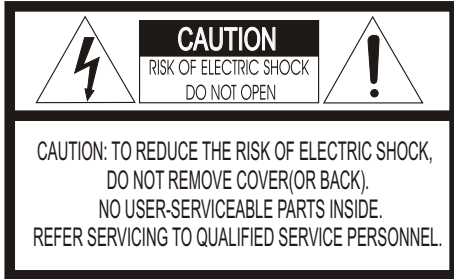
### SPECIFICATIONS

MODEL		540TVL (NTSC)	540TVL (PAL)
Power	Power source	DC 12V ± 10%	
	Power consumption	4.5 Watts (IR LED ON)	
General	Image sensor	1/3" SONY Super HAD CCD	
	Number of pixels	768(H) x 494(V)	752(H) x 582(V)
	Scanning system	2:1 interface	
	Scanning frequency	15.734KHz(H) x 59.94Hz(V)	15.625KHz(H) x 50Hz(V)
	Sync. system	Internal	
	Electronic shutter	1/60 ~ 1/100,000 sec.	1/50 ~ 1/100,000 sec.
	Resolution	540 TV lines	
	Min. illumination	1.0 lux(COLOR), 0 lux(BW at IR ON) @ F1.2, 50 IRE	
	IR LED / SENSOR	IR LED 24EA(850nm / 30 degree) , Sensor 1EA	
	LED Lighting Distance	20M	
Connector & etc.	Video output	1.0 Vp-p (75 ohm, composite)	
	S/N ratio	More than 50dB (AGC off)	
	MIRROR	ON/OFF	
	Flickerless	ON/OFF	
	BLC	ON/OFF	
	AGC	MIN/MAX	
	Day / Night	Auto(ICR)	
	White Balance	ATW	
	Power input	DC JACK	
	Video output	BNC Connector	
	Lens	Vari-Focal 2.8 ~ 12mm	
Operating Temperature	-10°C ~ +50°C [14°F ~ 122°F]		
Operating humidity	0 ~ 96% (non-condensing)		

## 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:



## 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 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 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 benzene 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.

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## 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 product 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. Unplug this apparatus during lightning storms or when unused for long periods of time.
13. 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.
14. 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.
15. Use Certified/Listed Class 2 power source only.

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## 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.

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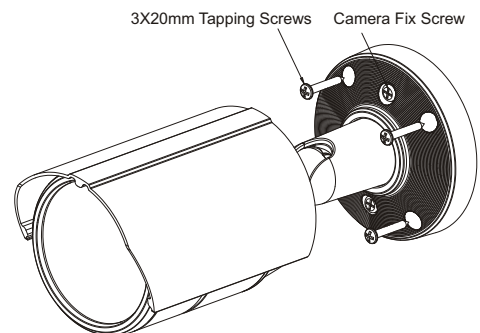
## INTRODUCTION

The Camera provides high-quality 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
- 540 lines(Color) of resolution
- 1.0 lux(Color), 0 lux(BW at IR ON) @ F.1.2 Sensitivity
- Auto electronic shutter [1/60(1/50) ~ 1/100,000]
- Auto trace white balance mode
- BLC (Black Light Compensation)
- AGC (Auto Gain Control)
- Video Out (BNC)
- 2.8 ~ 12mm D&N Auto Iris Lens
- Operates in 12VDC
- Use Certified / Listed Class 2 power supply only
- Camera Mount : camera mount directly to the wall or ceiling

## BASE INSTALLATION



Camera Fix screws(2X) and align the bullet camera with it like above picture.

### Caution

**"Adjusting the position of the camera after installation could potentially damage the cable"**

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