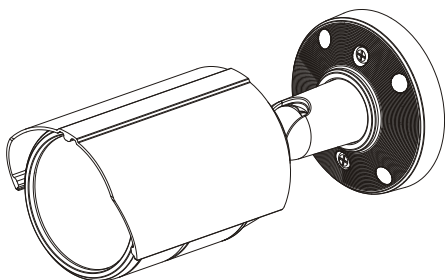


# 600TV Lines Super High Resolution Color Camera

Weatherproof IR Bullet Camera

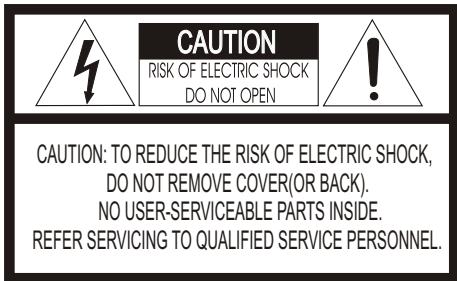


*Please read this manual thoroughly before use, and keep it handy for future reference.  
Design and specifications are subject to change without notice.*

## 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

### Installation -----

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

### 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.

## 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

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

# INTRODUCTION

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

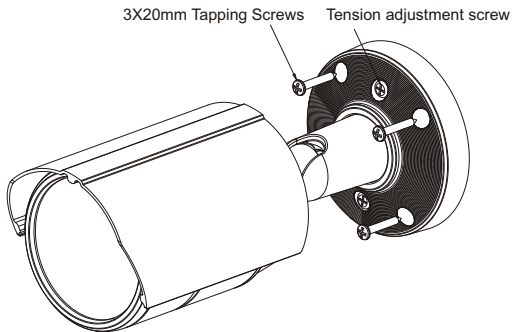
## Features:

- High resolution and high performance 1/3" Sony® Super HAD™ II Technology
- Excellent picture quality
- 600 lines(Color) of resolution
- 0.1 lux(Color), 0.04 lux(B/W) @ F1.2 50IRE Sensitivity
- Auto electronic shutter [1/60(1/50) ~ 1/100,000]
- 2D-DNR(Digital Noise Reduction)
- Auto white balance modes
- AGC (Auto Gain Control)
- VIDEO OUT BNC
- 2.8~12mm D&N Auto Iris Lens
- Operates in 12V DC ~ Max 15V DC
- Use Certified / Listed Class 2 power source only
- Camera Mount : Camera mount directly to the wall or ceiling

## BASE INSTALLATION

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\* Before mounting camera see lens adjustment instructions page 5



Position camera for best field of view then tighten camera/mount tension adjustment screws (x2)

**Caution**

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

# CAMERA CONNECTIONS

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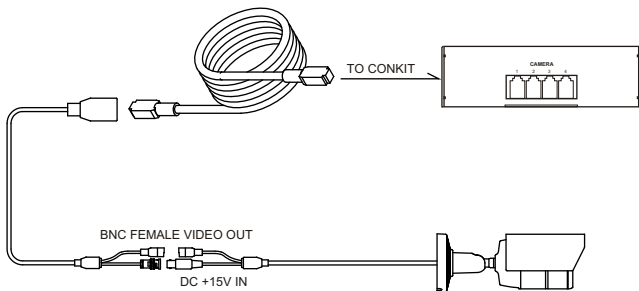
The **A-CBVT2812J1** camera can be used in video systems with either BNC or Modular connections.

The cable attached to the camera has a BNC connection for video output and a power connector for a 15V DC power source(not included).

For use in applications with modular connections, the BNC-to-RJ11 Adaptor cable included with the camera provides a connection between the BNC and Power connection from the camera to a RJ11 cable.

The **A-CBVT2812J1** camera comes with the following cables and accessories:

- 60ft(18M) cable with RJ11 connections on each end
- BNC-to-RJ11 Adapter cable
- Instruction Manual
- Four 3 x 20mm Tapping screws
- Sun shield

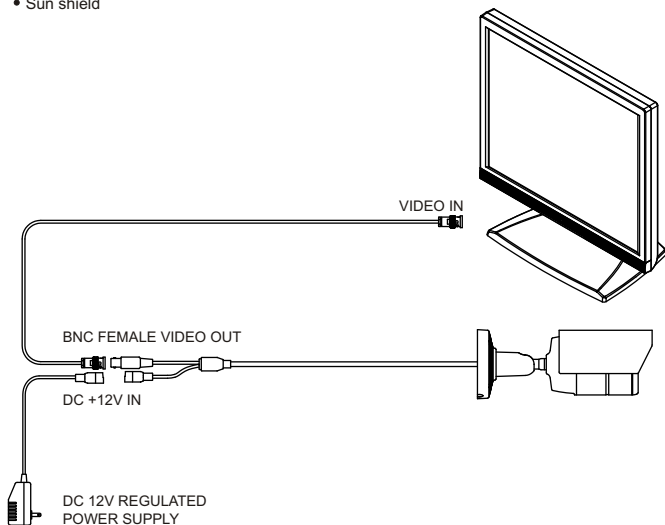


\* Diagram of typical modular wiring system connections

The **A-CBVT2812PI** camera can be used in video systems with BNC. The cable on the camera has a BNC connection for video output and a power connector for a 12V DC power source.

The **A-CBVT2812PI** Camera comes with the following accessories:

- 12VDC Adapter
- Instruction Manual
- Four 3 x 20mm Tapping screws
- Sun shield



\* Diagram of typical wiring connections



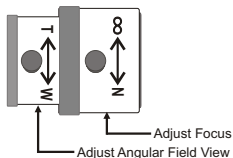
## LENS ADJUSTMENT

To adjust the lens field of view and focus first remove the lens cover by unscrewing the front of the housing.

After the adjustments are made replace the lens cover making sure it is fully seated. For outdoor installations it is desirable to use the sun shield.

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

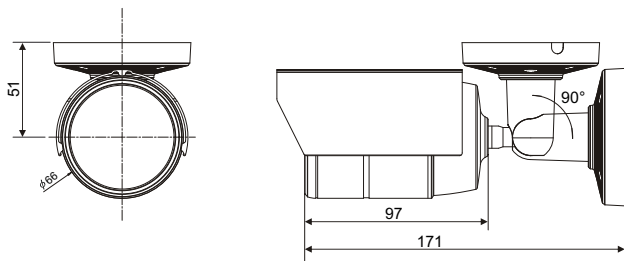
**Focus:** Adjust lens focus from near (N) to infinity ( $\infty$ ).



## DC AUTO IRIS LENS

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

## EXTERNAL DIMENSION



**Weight - Unit:** 1.056 lb. (0.48 kg)

Unit: mm

# SPECIFICATIONS

	MODEL	(NTSC)	(PAL)
Power	Power source	DC 12V +/- 10%	
	Power consumption	375mA(4.5 Watts) - IR LED ON	
General	Image sensor	1/3" Sony Super HAD II CCD	
	Total pixels	811(H) x 507(V)	795(H) x 595(V)
	Scanning system	2:1 interlace	
	Scanning frequency	15.734KHz(H) x 59.94Hz(V)	15.625KHz(H) x 50Hz(V)
	Electronic shutter	1/60 ~ 1/100,000 sec.	1/50 ~ 1/100,000 sec.
	Sync. system	Internal	
	Resolution	600 TV lines (Color)	
	Min. illumination	0.1 lux(COLOR), 0.04 lux(BW at IR ON) @ F1.2, 50 IRE	
	IR LED / SENSOR	IR LED 30EA(850nm / 40 degree) , CDS 1EA	
	LED Lighting Distance	25M	
	Video output	1.0 Vp-p (75 ohm, composite)	
S/N ratio	More than 50dB (AGC off)		
Function	Auto Exposure	ON	
	White Balance	AUTO (ATW)	
	Day / Night	AUTO	
	2D-DNR	ON	
	Smart IR	ON	
	AGC	AUTO	
	Gamma	0.45	
Connector & etc.	Power input	2-pin Terminal Block	
	Video output	BNC Connector	
	Lens mount	Fixed mount	
	Lens	Vari-Focal 2.8 ~ 12mm(True ICR)	
	Operating Temperature	-10°C ~ +50°C [14°F ~ 122°F]	
	Operating humidity	0 ~ 96% (non-condensing)	
	Ingress Protection	IP67	

**600TV Lines**  
**Super High Resolution Color Camera**

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