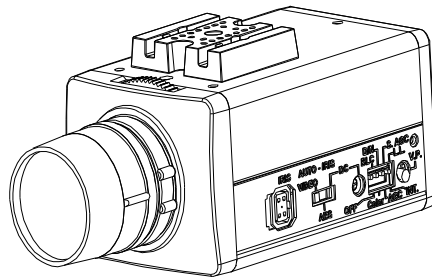




1/3" COLOR CCD CAMERA

Smartec STC-3002



USER'S MANUAL

FEATURES

1. Lead (Pb) Free RoHS Compliance
2. Performance: 540 TV lines of resolution.
3. Digital Signal Processor: SONY HQ1
4. Long life and high reliability are achieved by the use of a CCD image device. This makes the camera 100 percent solid state. No longer is an image tube needed.
5. The Minimum illumination 0.08Lux @ F=1.0
6. Ease of use in any application is achieved through the small size. The lightweight also improves performance where shock and vibration would affect larger tube type cameras.
7. Lower power consumption.
8. Built-in automatic electronic Iris. This camera can be used for most indoor application without using the auto iris lens

CAUTION

1. **Never point the camera toward the sun**
Do not expose the lens directly to the sun or to strong light as this may damage the pick-up device.
2. **Handle this camera with care**
Avoid any shock or bumping of the camera. Improper handling could damage the camera.
3. **Requires a proper operating environment**
This camera is designed for indoor use. The allowable temperature range for operation of this camera is between -10°C~50°C and the allowable humidity is 85% maximum. If the camera is to be placed outdoors, a special weatherproof housing, which also has heaters

and cooling device included, should be used.

4. Clean the front face to the pick-up device

It is recommended that the pick-up device surface be cleaned before lens installation or whenever the lens is changed. Cleaning should be done using a chamois, a very fine soft cloth, lens tissue or cotton tipped applicator and ethanol to carefully remove any fingerprints or dust.

5. Check the power source voltage

The power source voltage should be within the specified range. (Camera must meet the specification)

6. Object and Liquid Entry

Never push objects of any kind into this as this may touch dangerous voltage points or short-out parts that could result in a fire or electric shock. Never spill liquid of any kind on the video product.

7. Servicing

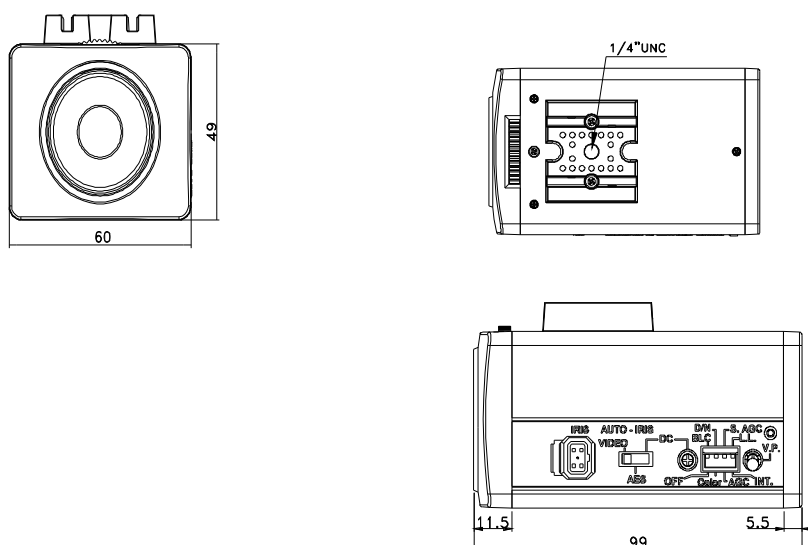
Do not attempt to service this video product yourself as opening or removing covers may expose you to dangerous voltage or other hazards. Refer all service to qualified servicing personnel.

8. Damage Requiring Service

Unplug this video product from the wall outlet and refer servicing to qualified service personnel under the following conditions:

- a. When the power-supply cord or plug is damaged.
- b. If liquid has been spilled, or objects have fallen into the video product
- c. If the video product has been exposed to rain or water.
- d. If the video product has been dropped or the cabinet has been damaged.
- e. When the video product exhibits a distinct change in performance- this indicates a need for service.

DIMENSIONS (Unit : mm)



SPECIFICATION

TV System	PAL	NTSC
Digital Signal Processor	SONY HQ1	
Image Sensor	1/3" SONY High Super HAD CCD	
Number of Total Pixels	795(H)×596(V)	811(H)×508(V)
Synchronizing System	Internal / Line Lock (AC Version Only)	
Resolution	540TVL	
Minimum Illumination	0.08Lux @ F1.0 Color mode automatically switches to B/W mode under 2 Lux (D/N & S. AGC should be ON)	
Signal to Noise Ratio	50dB (AGC OFF)	
Gamma Correction	0.45	
Auto Iris Output	D4 IRIS Jack	
Auto White Balance	YES	
Back Light Compensation	ON / OFF (Switchable)	
Day/Night	D/N / Color (Switchable)	
Automatic Gain Control	AGC / S.AGC (Switchable)	
Synchronizing System	Internal / Line Lock (AC Version Only)	
Video Output	1.0Vp-p Composite ; 75Ω	
Iris Control	Video / DC	

Electronic Shutter Speed Control	AES ON: 1/50 (60) sec.~1/100,000 sec. AES OFF: 1/50 (60) sec.
Lens Mount	CS mount
Adjustment VR	L.L V-phase; DC Level
Power Supply	12Vdc /24Vac ; 90~260Vac
Power Consumption	12Vdc /24Vac: 3.5W ; 90~260Vac: 4.5W
Lead Free	YES
Operation Temperature	-10~50
Operation Humidity	Maximum: RH85□
Storage Temperature	-20□~60□
Storage Humidity	Maximum: RH90□

NOMENCLATURE AND FUNCTION

① Lens mount

This mount is used to install a CS-mount lens. CS-adaptor ring is required if using a C mount lens.

② Camera mounting screw holes

Screw hole for fixing camera.

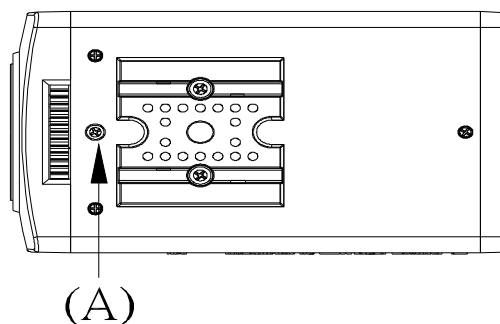
③ Mount

adaptor

This adaptor can be attached to either the top or bottom of the unit.

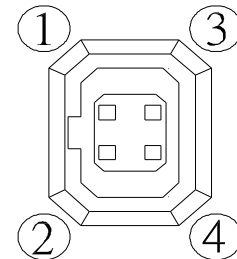
④ Mechanical focus adjustment

If focus needs to be adjusted after the lens had been mounted, Loosen the Flange back lock screw (A) and rotate the Adjustment wheel to adjust.



⑤ Auto iris lens connector (4-pin type)
 The lens connector supplies the auto-iris lens (not supplied) with DC power and a video signal or DC control signal.

PIN NO.	VIDEO	DC
1	DC + 12V	CONTROL -
2	NC	CONTROL +
3	VIDEO SIG	DRIVE +
4	GND	DRIVE -



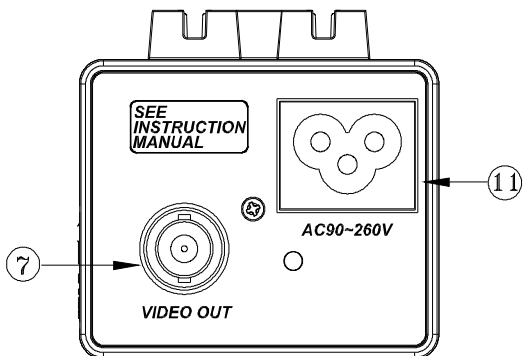
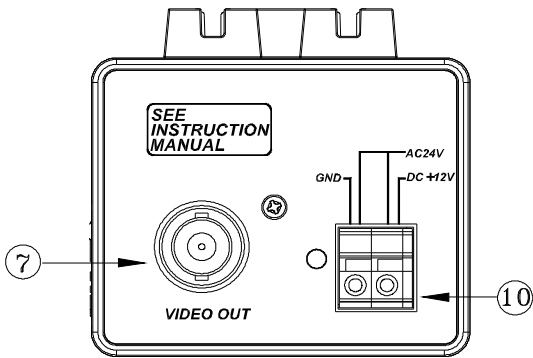
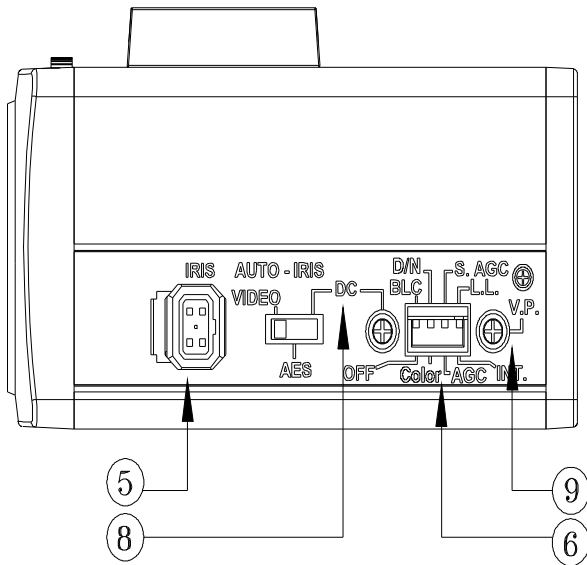
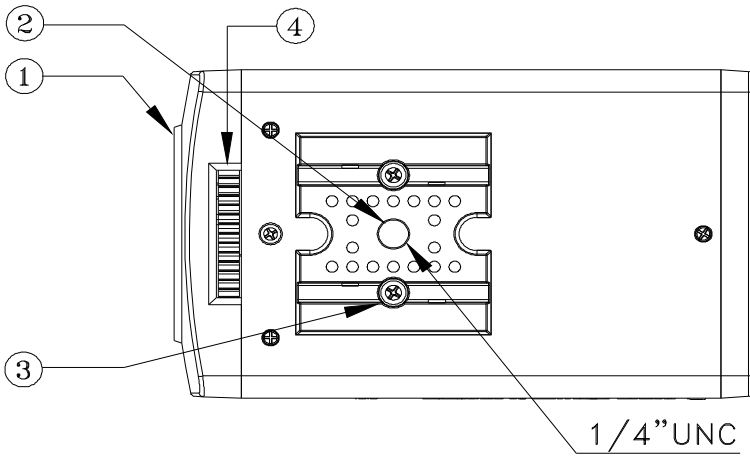
⑥ Control Switch
 SW1. BLC: Backlight compensation OFF / BLC switch
 SW2. Day/Night MODE: D/N / Color switch
 SW3. S.AGC/AGC: Super or Automatic Gain Control switch
 SW4. SYNC MODE: SYNC Mode Selection L.L / INT switch.

⑦ VIDEO connector
 This is an output for connection to a video monitor, etc (75Ω).

⑧ Auto Iris mode selection switch
 Used to choose DC or VIDEO mode according to the type of your auto iris lens.

⑨ V.P (Vertical Phase adjuster)
 This is used to adjust the vertical phase of the video output signal and power supply line.

⑩ Power input terminal
 Connect the power supply of 12Vdc or 24Vac.

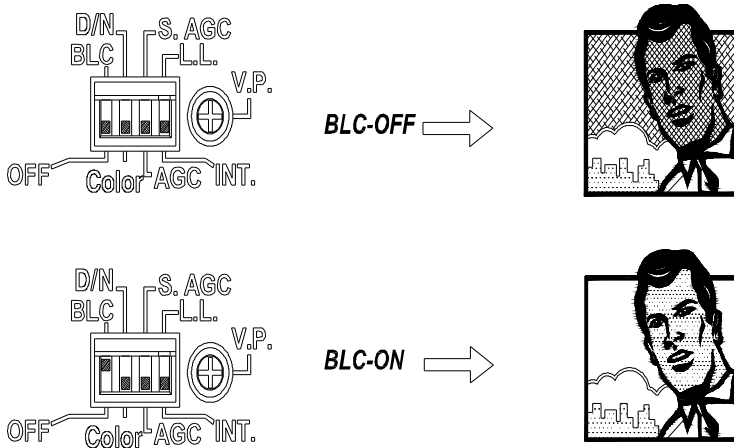


CONTROL SWITCH OPERATION

the power supply of 90~260Vac.

SW1. BLC (Back light compensation) mode switch:

When the object is dark by strong light (sun illumination etc.), turn on BLC switch to make object becomes bright.

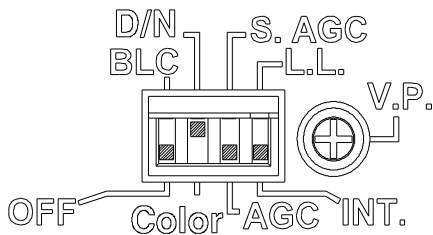


SW2. D/N mode switch:

COLOR / D/N switch.

D/N: Color mode automatically switches to B/W mode under 2 Lux.

COLOR: Normal position (D/N OFF).

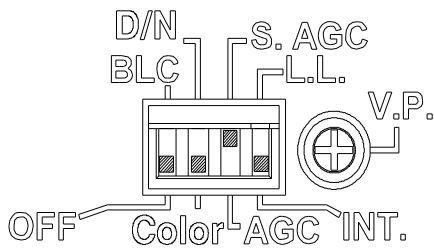


SW3. S.AGC/AGC:

S.AGC: When camera has been installed in the environment with low illumination, the sensitivity of the camera rises (26dB).

AGC: 26dB. (Color mode only.)

□ In order to activate D/N function (Color mode automatically switches to B/W mode under 2 Lux), please switch to S.AGC.



SW4. SYNC MODE:

L.L. MODE: It synchronizes the video signal between cameras by using the frequency of the power supply without external synchronous generator.

INT MODE: The camera maybe operated independently with the internal crystal control.

