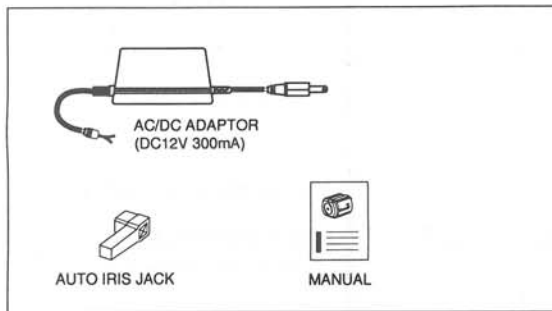


1. FEATURES

- 1) High quality picture and natural color :
Having high quality image sensor, 1/3" color CCD with 410,000(ND)/470,000 (PD)pixels, it realized the high quality picture of more than 450 TV lines, And a noise proof circuit which improves S/N ratio and a line enhanced circuit which enhances definition of the image are embedded in a Micro-processor which is indicated only to use, and a Digital Signal Processing IC (DSP) and Micro-Processor are used to realize the most defined screen of Natural Color.
- 2) Automatic function :
Having DSP IC, the camera can be set-up automatically according to the user environment.
- 3) Auto-iris lens function :
It is available to use video operation auto-iris lens.
- 4) High quality video output :
It is available to have a high density and high quality video output by S-VHS

2. PARTS AND ACCESSORIES



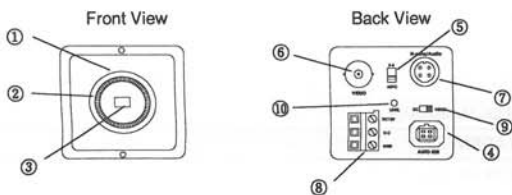
1

3. SPECIFICATIONS

MODEL	KCC-330ND (NTSC)	KCC-330PD (PAL)
Power	DC 12V ± 1V	DC 12V ± 1V
Consumption	Less than 190mA	Less than 190mA
Image Sensor	1/3 inch 410,000 pixel	1/3 inch 470,000 pixel
Effective Lines	768(H) × 494(V)	752(H) × 582(V)
Resolution	Horizontal:450TV Line	
Scanning System	525Line 2 : 1 Interlace	625Line 2 : 1 Interlace
Min. Illumination	H-sens ON-0.2Lux (F1.2 Lens)	
Gamma	γ = 0.45	
Standard Illumination	1000Lux F 4.0 (3200° K)	
S/N Ratio	More than 46dB	
Video Output	VBS1.0V p-p/75 Ω (Video signal : 0.714Vp-p, Syn. Signal : 0.286Vp-p)	
AGC	Automatic Gain Control (0-18dB)	
White Balance	Automatic White Balance	
Auto Iris	Electrical Auto Iris (1/50, 1/60 - 1/100,000)	
Iris	Video DRV / DC DRV auto iris lens (Shutter Off) Selector S/W CCD-IRIS (Shutter Auto)	
Operating Temperature	0° C ~ +45° C (Humi. 15% ~ 90%)	
Size	(W)50 X (H)125 X (D)50	
Weight	230g	

2

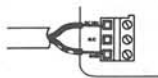
4. NAME OF EACH PARTS



- ① Lens holder fixing screw : Fix the C/CS mount lens holder and prevent loosing focus.
- ② Lens holder : Can change the holders between C-mount and CS-mount according to the lens.
- ③ Image part : Image is relayed to this part through lens. Having CCD and optical low-pass-filter(L.P.F), any dirt or finger prints which may deteriorate picture quality must be avoided in this part.
- ④ Auto iris lens connector : Connection for auto iris lens operation cable.(Video Drv.)
- ⑤ Switch for auto iris lens operation : Auto iris lens operation method can be selected by this switch according to the iris type.
(upside : Electronic shutter, Downside : Auto Iris lens)
- ⑥ Video output connector : Cable connection for video output(BNC).
- ⑦ H-sens/Audio : H-sens(Slow-scan function for bright and clear image at darkness place) / Off - Short, Audio (Audio output)



- ⑧ Power input : DC +12V, 300mA



- ⑨ Switch for auto iris lens operation : Auto iris lens operation method can be selected by this switch according to the lens type.
(Left : DC operation, Right : Video operation type)
- ⑩ Level adjustment volume: Lens operation range can be adjusted by this in DC operation type lens using.

3

5. HOW TO HOLD LENS

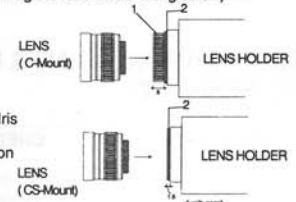
- 5-1. Cautions before holding lens
 - 1) With the protection lid taken off, be careful not to expose the lens to the direct sunlight or other strong lights.
 - 2) Assemble the camera and lens immediately after taking the protection lid off. Do not leave the lens without the protection lid for long, or CCD and optical L.P.F (Low Pass Filter) could be contaminated with dusts and then it could deteriorate the function.
 - 3) As it is assembled with C-Mount holder at the factory, please replace the C-Mount holder with the CS-Mount holder (included in the package) when you need to use a CS-Mount lens.

5-2. Lens holding and focus adjustment

- 1) After taking the protection lid off, assemble C-Mount lens directly to the camera. (For the use of CS-Mount, however, firstly, remove the C-mount holder, and then assemble the CS-Mount lens.)
- 2) For the connection between the monitor and camera, use a coaxial cable, and set the power of the camera with the right polarity. (Wrong polarity may cause problem)
- 3) Take an object which is more than 2 meters away, and check if the distance meter is set to the infinity, and then by using the iris and the holder adjust the screen to be properly bright and the image to be best. (After adjustment, fix lens holder by fixing the lens holder fixing screw)

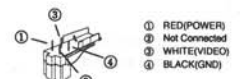
5-3. Using lens and its holder

- 1) C-MOUNT Lens: Use both of holder 1 & 2 with lens
- 2) CS-MOUNT Lens: Use only holder 2 with lens
- 3) How to use Auto Iris Lens:
This camera can be used with Auto Iris Lens (Video operation type) or Elec.-shutter by easy switch operation without any change of addition or deletion in the circuit.
 - Recommended Auto Iris Lens
 - Select the switch position according to iris type (refer to article 4-5, page 3).



How to install;

- The wire of Auto Iris Lens should be connected with Auto Iris terminal like the diagram in right side (Video operation type)
- In case of DC operation type, it can be applied to standard
- Connection terminal should be connected to the Auto Iris terminal attached at the back side of the camera.
- The lens holder should be set up by the same way of lens holding in article 5-2, page 4.



4



DIGITAL COLOR CCD CAMERA
(INSTALLATION/OPERATION MANUAL)
KCC-330ND/PD
(ELECTRONIC SHUTTER, AUTO-IRIS LENS)



INDEX

1. FEATURES
2. PARTS AND ACCESSORIES
3. SPECIFICATIONS
4. NAME OF EACH PART
5. HOW TO HOLD LENS
6. CAUTIONS IN INSTALLATION
7. SELF-CHECK POINTS BEFORE ASKING A/S SERVICE
8. WARRANTY CARD & A/S



6. CAUTIONS IN INSTALLATION

- 1) Assemble the camera and lens quickly in a clear place to avoid dust.
- 2) As this camera is composed with high resolution and very precise components, be careful not to drop it or do the shocking to it during assembly.
- 3) Do not install it facing the sun so that the direct ray of light may not come through the lens.
- 4) Avoid places where shaking happens often.
- 5) Do not pull the cable. It may cause disconnection or shorts of wire.
- 6) Do not touch the inside of camera even if troubles happened. Just contact A/S center nearby.
- 7) Install it safe so that no water goes into it. Contact the agent who sold the unit (A/S center) when water goes into it.
- 8) Temperature of the spot should be within the allowed range specified in the specification.
- 9) If it appears to be defective, put off the power and contact the selling agent nearby (A/S center). Further use may lead to greater troubles.
- 10) Before installation, make sure disconnect the power supply first, check the ground connection, and then install it.

7. SELF-CHECK POINTS BEFORE ASKING A/S SERVICE

CONDITIONS	CHECKING POINTS
If the screen is not on.	<ul style="list-style-type: none"> • Check if the power is connected for sure and correctly. (Check the AC cord and DC adapter to ensure that 110V or 220V is correctly set in accordance with the country standard. • Check if the iris is closed or if it is adjusted correctly. • Check if the cable is connected correctly.
If the screen is not clear or is spread.	<ul style="list-style-type: none"> • If dust is seen through the monitor screen after fixing lens, disassemble the lens and clear off the dust on the surface of CCD with blower or soft cloths. • Check if the lens is focused properly. • Check if the monitor color and brightness is adjusted properly.

WARRANTY

PRODUCT	COLOR CCD CAMERA
MODEL	KCC-330ND/PD
DATE OF PURCHASE	YEAR MONTH DATE
TERMS OF WARRANT	
SALES AGENT	
ADDRESS OF SALES AGENT	

We will guarantee as follows :

1. This product is made through rigid quality control and test process
2. In case that this product is out of order due to the defect in manufacturing even through the product has been normally used, A/S will be afforded at free of charge for one year after purchasing date.
3. In case of the followings, KOCOM will afford A/S with charge of cost even through in warrant period.
 - 1) Out of order by user's mishandle or move
 - 2) Case of wrong repair or damage by modification of inner part
 - 3) Out of order by natural disaster or disorder in power source
 - 4) Case of omission, correction without confirmation, loss of warranty card.
4. Please be careful for keeping this warranty card as it won't be reissued.
5. please surely present the warranty card in A/S request.

FOR AFTER-SALE SERVICE REQUEST

1. Describe the product name
2. Describe the model name
3. Describe the disorder contents for A/S
4. Describe the address or telephone number of consumer

PLEASE CONTACT THE BELOW ADDRESS FOR A/S

Address : 8-3, Wonnim-Dong, Wonnim-Gu, Puchon, Kyonggi-Do, Korea
Tel. : 82-32-688-7949/7653, Fax. : 82-32-685-0118