

D/K Reid
3/84

OPERATING INSTRUCTION

CV-500

CCD VIDEO CAMERA

David Kleinfeld
10-463
64 Labels

1. COMPOSITION

- (1) Video Camera Head
- (2) Control Unit
- (3) Multi-core Camera Cable
- (4) Hexagon Wrench
- (5) Lens Plug TCP-8040-01

2. FEATURES

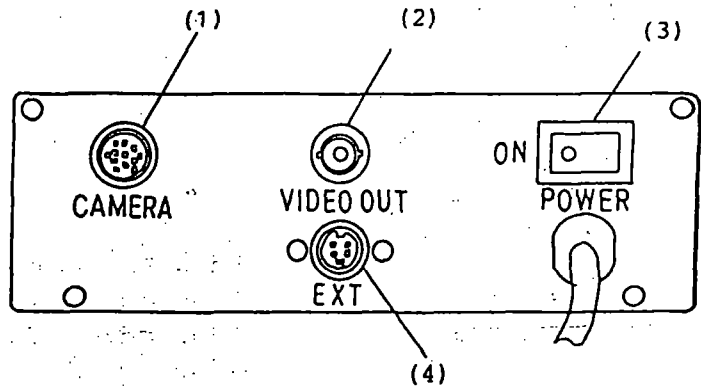
- (1) With adoption of CCD image sensor, the operation for a long period is assured.
- (2) No persistence lag, no image burn-in
- (3) No geographic distortion
- (4) AGC (Automatic Gain Control) function built-in.
- (5) Gamma correction circuit is built-in.
- (6) Easy mechanical backfocus adjustment.
- (7) Separate miniature camera head assures versatile applications in security, industrial and medical fields.

3. PRECAUTIONS

- (1) Do not expose the camera device to rain or moisture. This device is for indoor use only.
- (2) Do not aim the camera device toward the sun or extremely bright object.
When installing the camera device, give careful consideration to the sunbeam direction through the day.
- (3) Do not touch the CCD image sensor surface which is very sensitive and not user-serviceable.
- (4) Do not attempt to disassemble the camera device unnecessarily.
There are no user-serviceable components inside.

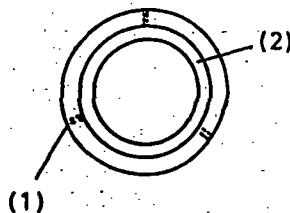
4. CONNECTORS & PROVISIONS

CONTROL UNIT



- (1) Socket for multi-core camera cable
Use the supplied cable only.
- (2) BNC socket
1.0Vp-p Video signal output
- (3) Power switch
- (4) External sync signal input socket
To drive the camera device by the external HD&VD signals. For pin allocation, refer to SECTION 5.

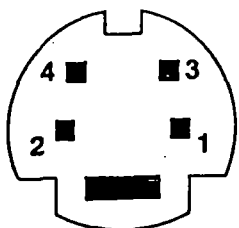
CAMERA HEAD



- (1) Lens mount fixing screws
When making mechanical backfocus adjustment, loosen these screws.
For details, refer to SECTION 8.
- (2) Lens mount
Install the C-Mount type lens.

5. PIN CONNECTIONS

The supplied TCP-8040-01 plug has the pin allocation as given below.



Pin #1 : No connection
 Pin #2 : VD signal input
 Pin #3 : Ground
 Pin #4 : HD signal input.

6. ELECTRIC SHUTTER

This CV-500 Camera device is equipped with variable shutter function.

The provision is to change the camera device from normal operation mode to shutter mode.

Change-over JUMPERCIRCUITS are located on PULSE BOARD in the Control Unit.

Since the shutter mode is set off before delivery, proceed to set shutter mode referring to the tables given below.

	SHORT	OPEN
J6	Shutter OFF	Shutter ON

	1/1000	1/2000	1/4000	1/10000
J 8	OPEN	OPEN	OPEN	OPEN
J 9	SHORT	SHORT	OPEN	OPEN
J 10	SHORT	OPEN	SHORT	OPEN

7. AGC & GAMMA

AGC and GAMMA functions can be set off.

JUMPER CIRCUITS for setting are located on VIDEO BOARD in the Control Unit.

JUMPER identified by J1 is for AGC setting
JUMPER identified by J2 is for GAMMA setting.

Before delivery, AGC has been preset OFF, and GAMMA has been preset to 0.45.

	SHORT	OPEN
J1	AGC OFF	AGC ON
J2	$\gamma = 1$	$\gamma = 0.45$

8. OPERATION & ADJUSTMENT

- (1) Connect the Camera Head and Control Unit with the supplied multi-core camera cable.
Handle this cable with the maximum care.
- (2) Install the C-Mount type lens to the Camera Head.
- (3) Connect the Video Monitor to the Control Unit by coaxial cable.
- (4) Supply the Mains power to the equipment.
- (5) Make the focus of the lens and set the lens iris to get the best picture on the monitor.
- (6) In case of unfocus, make the backfocus adjustment.

This camera device has been factory adjusted for proper back focal length for standard 16mm lens. However, it may be necessary to readjust the back focus when you mount your lens.

In such case, proceed the mechanical backfocus adjustment.

BACK FOCUS ADJUSTMENT

- (1) Mount your lens to the camera.
- (2) Open the lens iris completely and set the focus ring to infinity position.
- (3) Shoot an object more than 10m away.
- (4) Loosen the set screws and rotate the camera C-mount until the camera makes the sharpest image.
- (5) Tighten the set screws.