

VITEK

INDUSTRIAL VIDEO PRODUCTS INC.

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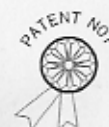
Http://www.vitekcctv.com

OPERATION MANUAL

COLOR INFRARED CAMERA

VT-IR1C/12

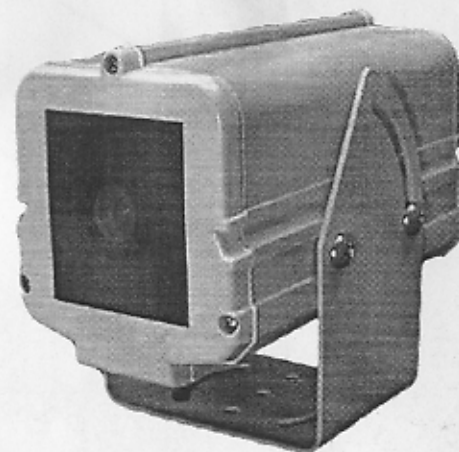
Picture:	250K
CCD Lens:	6mm
IR Range:	15M



CHINA...ZL97 2 31205.6

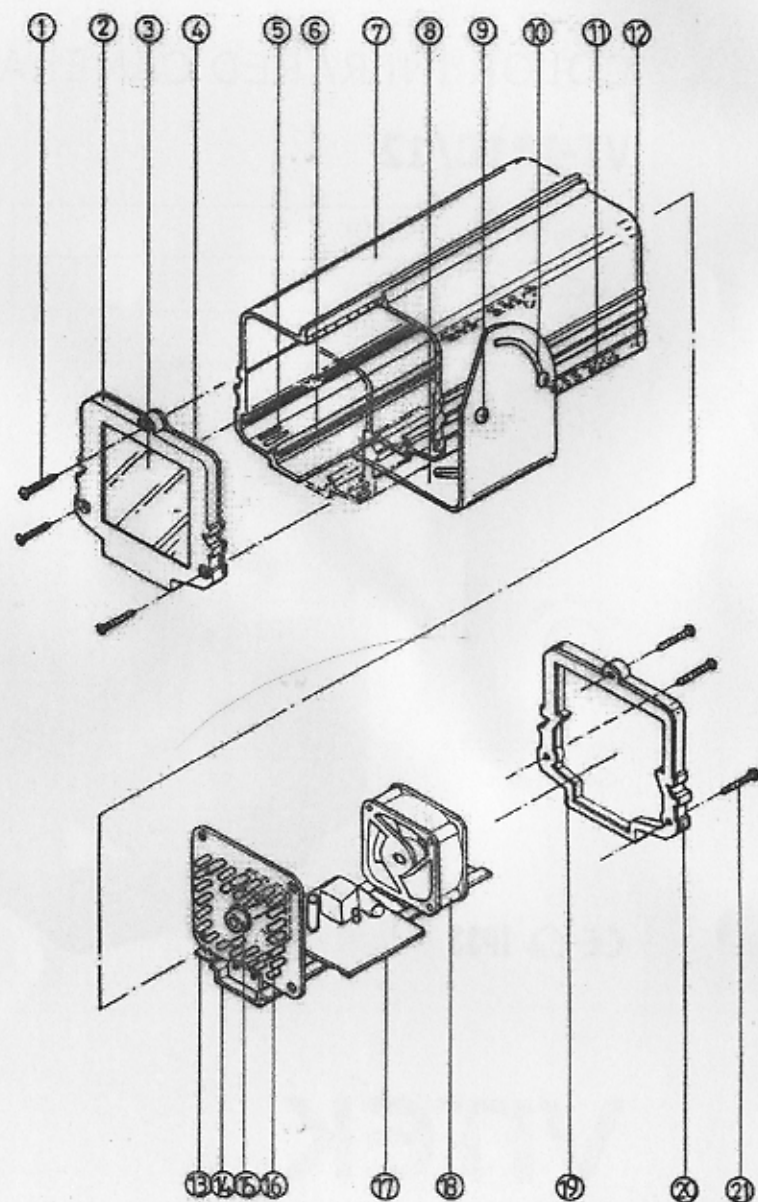
TAIWAN ...142870

CE  IP33



VITEK

Operating components and connections



Thank you very much for purchasing this product. With these operating instructions you will be able to know the functions of this unit. Please read this manual first before using the product so that possible damage to the unit and possible injury to others due to improper use will be prevented.

1. Safety Approval

This appliance complies with the provisions of electromagnetic compatibility 89/336/EEC and the low voltage directive 73/23/EEC.

2. Safety Declaration

This unit uses potentially dangerous voltage. In order to prevent shock hazard, please do not open the cabinet. Refer all servicing to qualified service personnel. Any guarantee claim expires if the unit has been opened.

If this unit is used for purposes other than originally intended or if this unit is operated in the wrong way or not repaired by authorized skilled personnel, there is no liability for possible damage.

The infrared light emitted from the unit itself during operation is invisible to the human eyes and therefore, no visible light can be seen around the proximity. There will be partial red glare visible on the surface of the LED, which is normal.

The following are the operating components and connections diagrammed on the left.

3. Operating Components and Connections

- | | |
|--|---|
| (1) Attachment screws for the front cover (size:3mm x 1.6mm, 3 pcs) | (10) Arc type rail for up and down angle adjustment |
| (2) Front cover (material:ABS) | (11) Ventilation holes on bottom of the housing (for air inlet) |
| (3) Glass (thickness:2mm)
NOTES:Please avoid the glass being touched by sharp or coarse objects as they might damage the glass and affect the working unit. | (12) Main cable (power source based on the input voltage shown on the unit) |
| (4) Rubber seal (prevents water from entering the unit) | (13) Light sensor control |
| (5) Ventilation holes on the bottom of the housing (for air outlet) | (14) Module plate/with item (6) for fixing the PC Board |
| (6) Rail/power supply module | (15) CCD Camera (with lens) |
| (7) Housing (material:Aluminum) | (16) LED PC Board (32pcs LED) |
| (8) Mounting bracket (connectable with other brackets for left and right angle adjustments) | (17) PC Board (light-control device) |
| (9) Adjustment screws (size:1/4" x 3/8", 4 pcs, for adjustment, first loosen the screws and then adjust up and down) | (18) Fan (for heat dissipation) |
| | (19) Rubber seal (prevents water from entering the unit) |
| | (20) Back cover (material:ABS) |
| | (21) Attachment screws for the back cover (size:3mm x 1.6mm, 3 pcs) |

4. Applications

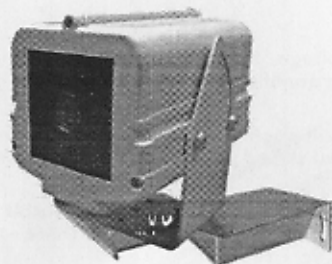
This infrared camera consists of a very sensitive ccd module with lens and LED infrared illuminator, which can perform 24 hours monitoring for day and night. It has an automatic light-source sensor. When the light source is not sufficient (2 Lux \pm 15%), the infrared illuminator will turn on automatically and the color image will switch to b/w.

- The LED lifetime is approximately 10,000 hours, but because of varying conditions, they are not included in the guarantee period.
- This unit is suitable for both Indoor and Outdoor use (IP Rating: IP33)
- If this unit is to be fitted for outdoor use, please ensure that a suitable waterproof method of connection to the supply voltage is used. If in doubt, please consult a qualified person.

5. Suggestions

Since the power consumption of this infrared camera is low, we would suggest you use it indoor or within short distance from the entrance and exit.

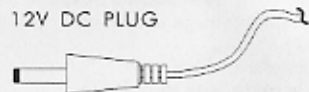
6. Method for installation



- The optional mounting bracket is not included, but can be separately purchased.
- The infrared camera is waterproof and is easily installed.

7. DC Power Input Diagram

12V DC PLUG



1. • +VCC
2. ⊙ GND

*Needed Adaptor: More than 370mA, Regulated

8. Installation process

- Step 1: Measure the projective angle of the camera and then find a proper position for mounting the infrared camera.
- Step 2: Adjust the angle of the infrared camera.
- Step 3: Make sure the power input of your electric outlet is in accordance with the input voltage marking in the unit before plugging in the unit.
- Step 4: Connect the signal output to the monitor.
- Step 5: Arrange the power cord and signal cord in a safe and orderly manner.

- The suggested height for mounting this unit is approximately 3 to 4 m (10 to 12FT) from the floor. If mounted too high, results may be less effective.
- Do not mount this unit upside down as this would enable water to enter the ventilation holes on base of the housing and may cause damage to the unit.
- Maintain the unit between $-5^{\circ}\text{C} \sim 60^{\circ}\text{C}$ ($23^{\circ}\text{F} \sim 140^{\circ}\text{F}$)
- If the unit falls or is damaged in any way, do not use the module. Please first contact a service representative before further use.
- Do not pull excessively on the cord causing damage to the unit.
- This unit must be connected to a grounded AC outlet.

9. Function testing

1. First check to make sure the unit has power.
2. If light source is sufficient, you can cover the light sensor control, item (13) to see if any red glare is on the surface of the LED or you can listen closely to make sure the unit has power.
3. If surrounding area is too dark, you may have to look closer to make sure unit is on.
4. If you are unable to detect the infrared camera to be working by using the above methods, check monitor or VCR for picture.

- If the surrounding light is too bright, you may have to manually simulate night setting to see effectiveness.

10. Changing the LED P C Board

1. Firstly ensure that the power supply is disconnected.
2. When changing the LED PC Board, you must first remove the 3 screws in the front cover and then take out the front cover.
3. Use needle nose pliers to pull the module plate out so that you can easily release the socket connector of the power input.
4. Use the needle nose pliers again to remove the socket connector of the LED power input and the CDS power input.
5. Loosen the screws of fixing LED PC Board and module plate.
6. From the miniature support post, take out the LED PC Board, item (16) and CCD Camera
7. Replace a new LED PC Board and repeat the steps in sequence 5→4→3→2→1.

- Located on the front and back panels is the sealing tape. If removed, water damage could affect the unit
- It is recommended you return unit to factory for LED replacement.

11. Cleaning

Unplug this unit before cleaning. Use clean and dry cloth for cleaning. Do not use a corrosive cleaner or chemical.

12. Specifications

Pick Up Device	1/3"SONY CCD
Picture Elements	NTSC : 510(H)x492(V)
Pixel	NTSC : 251K
Resolution	400 Lines
Horizontal Frequency	NTSC:15.734KHz
Vertical Frequency	NTSC:60Hz
Scanning System	NTSC:525Line/60Hz
SYNC System	Internal SYNC
S/N Ratio	48dB
Gamma Current	0.45
White Balance	Auto
AGC	Auto
BLC	Auto
Shutter Control	NTSC: 1/60~100,000 SEC
Video Out	1.0Vp-p/75 ohm
Board Lens Mount	6mm
Lens Angle	53°
IR Angle	56°
IR Range	15M
CCD Min Illumination	IR ON~0 Lux / IR OFF~1 Lux
LED	32pcs(Expendable)
LED Lifetime	Approx 10,000 hours
Wavelength	840nm
Color	Black(IR on) Color(IR off)
IP Rating	IP33
Heat Dissipation	Built-in fan/ With ventilation holes/ Aluminum housing
Power On	CCD Camera from power supply control; IR illuminator from light sensor control.
Housing	Aluminum
Operation Temp	-10°C~+60°C (14°F~140°F)
Input Voltage	12VDC (530mA)
Dimensions	103(W)x130(H)x159(L)mm
Weight	Approx 875gs(1.93lb)

* Design and specifications are subject to change without prior notice.

MEMO