

# OPERATION MANUAL

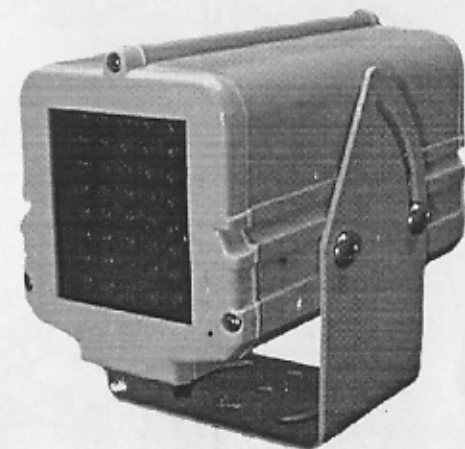
## INFRARED ILLUMINATOR

### VT-IR1/24

IR Distance:	15M (50FT)
IR Angle:	56°



CHINA...Z197 2 31205.6  
TAIWAN ...142870



CE  IP33

# VITEK

# VITEK

INDUSTRIAL VIDEO PRODUCTS INC.

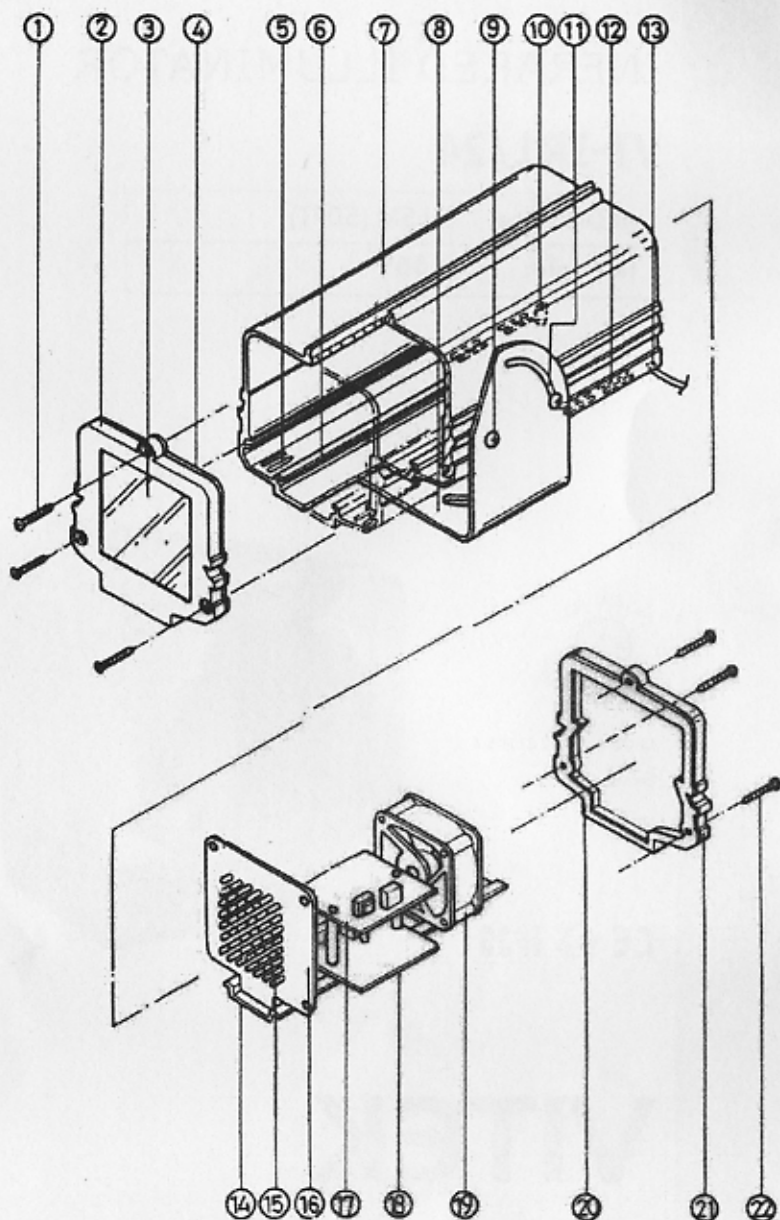
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## Operating components and connections



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 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 x1.6mm, 3 pcs)  | (11) Arc type rail for up and down angle adjustment                         |
| (2) Front cover (material:ABS)  | (12) Ventilation holes on bottom of the housing (for air inlet)             |
| (3) Glass (thickness:2mm)   | (13) Main cable (power source based on the input voltage shown on the unit) |
| NOTES:Please avoid the glass being touched by sharp or coarse objects as they might damage the glass and affect the working unit. | (14) Module plate/with item (6) for fixing the PC Board                     |
| (4) Rubber seal (prevents water from entering the unit)   | (15) LED PC Board (48pcs LED)   |
| (5) Ventilation holes on the bottom of the housing (for air outlet)   | (16) Miniature Support Post   |
| (6) Rail/power supply module  | (17) PC Board (power source device)   |
| (7) Housing (material:Aluminum)   | (18) PC Board (light-control device)  |
| (8) Mounting bracket (connectable with other brackets for left and right angle adjustments)                                       | (19) Fan (for heat dissipation)   |
| (9) Adjustment screws (size:1/4" x3/8", 4 pcs, for adjustment, first loosen the screws and then adjust up and down)               | (20) Rubber seal (prevents water from entering the unit)                    |
| (10) Light sensor control   | (21) Back cover (material:ABS)  |
|   | (22) Attachment screws for the back cover (size:3mmx1.6mm, 3 pcs)           |

### 4. Applications

The infrared illuminator offers an effective way of illuminating an area where low-lightness b/w ccd camera or day & night color camera are operating in the dark. (The general color camera are not suitable for use with IR illuminator) It has an automatic light sensor control. When the light source is not sufficient (2 Lux $\pm$  15%), the infrared illuminator will turn on automatically.

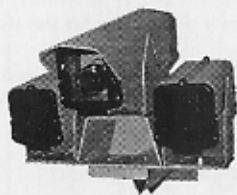
- The LED lifetime is approximately 10,000 hours, but because of varying conditions, they are not included in the guarantee period.
- This unit is suitable for both Indoor and Outdoor use (IP Rating: IP33)
- If this unit is to be fitted for outdoor use, please ensure that a suitable waterproof method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

## 5. Suggestions

The wavelength of this unit is 840nm. Please make sure the b/w camera or day & night camera which you use to match this unit, is compatible to the above-mentioned wavelength and the illumination of your camera is under 0.5 Lux. If the camera is for outdoor use, it would be better to use auto iris lens with aperture F1.4 below as the effect would be much clear and obvious.

## 6. Different methods for installation

The following are several ways of matching and fixing the Infrared Illuminator. You can choose any of the installation methods according to your needs.



1. 1 PCS Camera + Housing  
2 PCS Infrared Illuminator



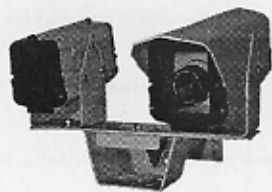
2. 1 PCS Camera + Housing  
2 PCS Infrared Illuminator



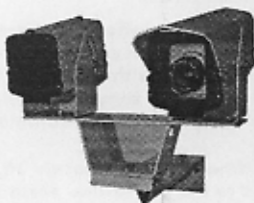
3. 1 PCS Camera + Housing  
2 PCS Infrared Illuminator



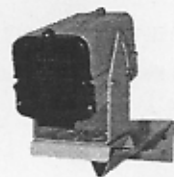
4. 1 PCS Camera + Housing  
1 PCS Infrared Illuminator



5. 1 PCS Camera + Housing  
1 PCS Infrared Illuminator



6. 1 PCS Camera + Housing  
1 PCS Infrared Illuminator



7. 1 PCS Infrared Illuminator

- The mounting bracket is not included, but can be separately purchased.

## 7. Installation process

- Step 1: Measure the projective angle of the camera and find a proper position for mounting the infrared illuminator.
- Step 2: Adjust the angle of the infrared illuminator to be horizontal with the camera angle.
- 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 12 FT) 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.
- If a Video Motion Detector is also used, the following precaution can be taken: Separation of 3m between the camera and infrared illuminator to avoid insect infiltration. This infiltration may cause a false alarm if above precaution is not taken.
- When in operation, this unit will generate a high temperature; therefore, do not place flammable objects near it.
- After the unit warms up, module may become very hot, so do not touch 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.
- If power cord is unretrievable, do not pull excessively on the cord causing damage to the unit.
- This unit must be grounded.

## 8. 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 (10) 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 illuminator to be working by using the above methods, please check monitor or VCR for picture.
- If the surrounding light is too bright, you may have to manually simulate night setting to see effectiveness.

## 9. 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 take out the front cover.
3. Use needle nose pliers to pull the module plate, item(14) out so that you can easily release the socket connector of the power input.
4. Loosen the screws of fixing LED PC Board and module plate.
5. Replace a new LED PC Board and repeat the steps in sequence 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.

## 10. Cleaning

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

## 11. Specifications

Wave Length	840nm
Range	15M
Angle	56°
LED	48pcs
LED Lifetime	Approx 10,000 hours
IP Rating	IP33
Heat Dissipation	Built-in fan / With ventilation holes
Power On	Light sensor control
Housing	Aluminum
Operation Temp	-10°C~+60°C (14°F~140°F)
Input Voltage	24VAC (450mA)
Dimensions	103(W)x130(H)x159(L)mm
Weight	Approx 1.27Kg (2.8 lb)

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

MEMO