**VITEK**
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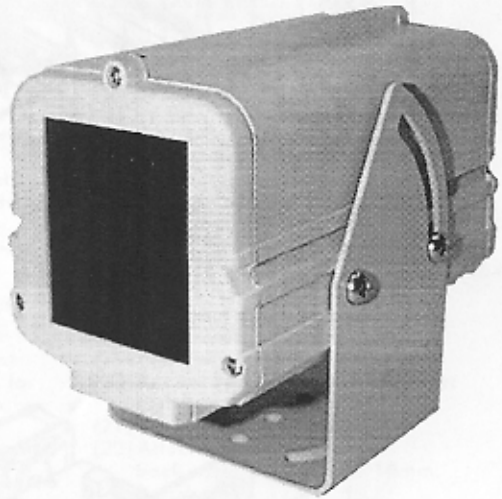
# VITEK

# VT-IR1B/12

***CCD LENS:6mm F1.8**
***IR RANGE:15M(50FT)**
***IR ANGLE:56°**

**PATENT NO**
CHINA : ZL97 2 31205.6
TAIWAN : 142870

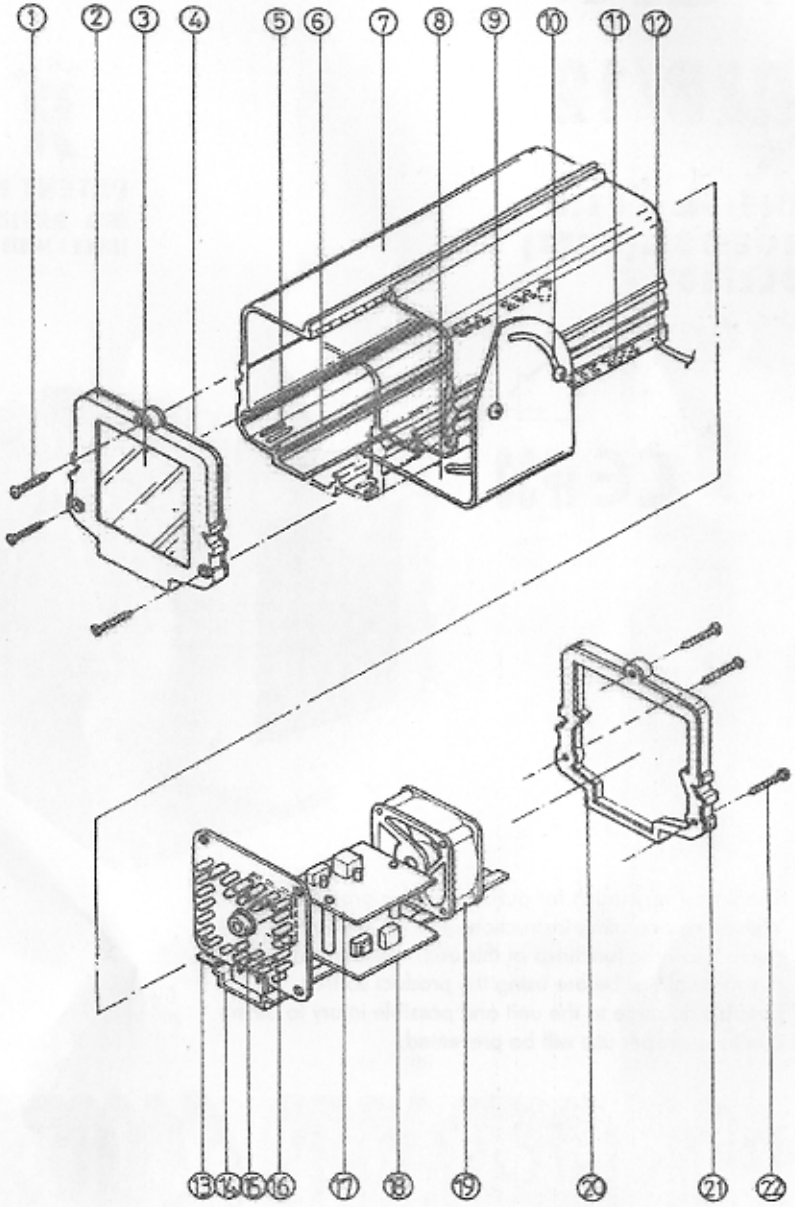
**CE IP33**



Thank you very much for purchasing this product. With these operating instructions you will be able to get 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.

# B/W INFRARED CAMERA

# Operating components and connections




## 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.

**Please note the following operating components and connections diagrammed on the left.**

## 3 Operating Components and Connections

(1) Attachment screws for the front cover (size:3mm x 16mm, 3 pcs)
(2) Front cover (material:ABS)
(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.
(4) Rubber seal (prevents water from entering the unit)
(5) Ventilation holes on the bottom of the housing (for air outlet)
(6) Rail/power supply module
(7) Housing (material:Aluminum)
(8) Mounting bracket (connectable with other brackets for left and right angle adjustments)
(9) Adjustment screws (size: 1/4" x 3/8", 4 pcs, for adjustment, first loosen the screws and then adjust up and down)
(10) Arc type rail for up and down angle adjustment
(11) Ventilation holes on bottom of the housing (for air inlet)
(12) Main cable (power source based on the input voltage shown on the unit)
(13) CDS auto control (light 2 Lux ± 15%, power auto on)
(14) Module plate/with item (6) for fixing the PC Board
(15) B/W CCD Camera (Lens:6mm F1.8)
(16) LED PC Board (32 pcs LED)
(17) PC Board (light-control device)
(18) PC Board (power source device)
(19) Fan (for heat dissipation)
(20) Rubber seal (prevents water from entering the unit)
(21) Back cover (material:ABS)
(22) Attachment screws for the back cover (size:3mm x 16mm, 3 pcs)

## 4 Applications

This Infrared Camera is desinged to perform day and night surveillance. (Range:15M, angle:56° It has an automatic light-source sensor (CDS auto control). When the light sourec is sufficient (Ex. Daylight ), the infrared Camera will perform monitoring normally. On the contrary,when the light source is not sufficient (2 Lux± 15%), the Infrared Illuminator will turn on automatically.

- **The LED lifetime is approximately 6000 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 15M from the entrance and exit at an 56° angle.

## 6 Mothod for installation

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

## 7 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 -20℃—60℃ (-4°F—140°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.

## 8 Function testing

1. First check to make sure the unit has power.
2. If light source is sufficient, you can cover the CDS AUTO 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.**

## 9 Changing the LED PC 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. To loosen, you may need to use needle nose pliers to pull the module plate out so that you can easily release the socket connector of the power input.
4. Using the needle nose pliers again to remove the socket connector of the LED power input and the CDS power input.
5. Loosen the screws for fixing LED PC Board and module plate.
6. From the miniature support post, item (16), 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.**

## 10 Cleaning

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

## 11 Specification

| | |
|---|---|
| Pick Up Device | : 1/3" Image Sensor |
| Chip Size | : 6.3mm (H) x 5.4mm (V) |
| Cell Size | : 9.6um (H) x 7.5um (V) |
| Picture Elements | : EIA: 512 (H) x 492 (V) |
| Pixel | : EIA: 251K |
| Horizontal Frequency | : EIA: 15.734KHz |
| Vertical Frequency | : EIA: 60Hz |
| Scanning System | : EIA: 525 Line / 60Field |
| SYNC System | : Internal SYNC |
| S/N Ratio | : 45dB (AGC OFF) |
| Gamma Correct | : 0.45 |
| Shutter Control | : 1/60-1/10000 SEC, 1/50-1/10000 SEC |
| Video Out | : 1.0Vp-p / 75 ohm |
| Lens Mount Type | : Board Lens Mount 6mm F1.8 |
| LED Lifetime | : Approx 6000 hours |
| Wave Length | : 840nm |
| Angle | : 43° |
| Range | : 15M (50 ft) |
| Resolution | : 420 Line |
| Min Illumination | : 0 Lux (IR Illuminator On), 0.2 Lux (IR Illuminator Off) |
| Power On | : CCD Camera from power supply control; IR Illuminator from CDS control |
| Material | : Aluminum |
| U-Shape Bracket | : Included with the unit for angle adjustment |
| Sunlight Protection Cover | : Can be purchased separately |
| Heat Dissipation | : Built-in Fan/With Ventilation holes/Aluminum Housing |
| IP Rating | : IP 33 |
| Operation Temperature | : -20℃～60℃(-4°F～140°F) |
| Power Consumption | : 370mA |
| Power Source | : 12VDC |
| Dimension | : 103(W) x 130(H) x 159(L)mm |
| Weight | : Approx 875g (1.93lb) |

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

## MEMO