



VT-LTR13V-KIT Laser Video Transmission System



The VITEK VT-LTR13V-KIT is a laser optical video transmission system which was specifically designed for elevator CCTV surveillance applications. Because it transmits DVD quality video using a optical laser, cabling complexity, installation costs, and maintenance issues are drastically reduced. With a much longer lifespan than traditional 'moving coaxial cable' video* transmission systems, the elevators operation, security, and safety is also increased.

- Interference & latency free Laser Optical Video Transmission System
- Quick & easy installation
- Large building support with a Maximum Operational Distance of up to 1000ft
- Maintenance Free Operation (No more cable wear problems)
- High quality image transmission (DVD quality resolution)
- Real time Transmission
- Semi-permanent life span
- Dramatically reduces installation and maintenance costs
- Compatible with all standard CCTV products and peripherals
- No Frequency/Site license fees



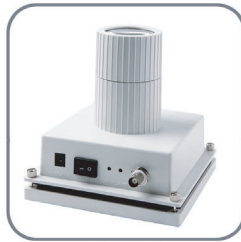
CAUTION
RISK OF ELECTRICAL SHOCK
DO NOT OPEN



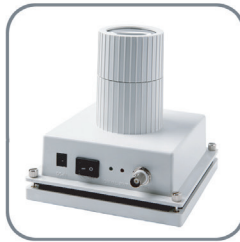
1. Unit contains uninsulated dangerous voltage within the enclosure that may be of sufficient magnitude to constitute a risk of electric shock to persons
2. Only use DC Power Supply
3. Read & Keep these instructions.
4. Heed to all warnings and follow all instructions carefully.
5. Do not use near water.
6. Clean only with dry cloth.
7. Do not block any ventilation openings. install in accordance with the instructions.
8. Do not install near any heat source such as radiators, heat resisters, stoves, or other apparatus (including amplifiers) that produce heat.
9. Do not defeat the safety purpose of the polarized or grounding-type plug. A polarized plug has to blades with one wider the other. A grounding type plug has to blades and a third grounding plug. The wide blade or the third prong are provided for safety. if the provided plug dose not fit into your into your outlet, consult an electrician for replacement of the obsolete outlet.
10. Protect the power cord from being walked on a pinched particularly at plugs, convenience receptacle, and the point where they exit from the apparatus.
11. Only use attachment/accessories specified by VITEK.
12. Use only with cart, stand, tripod, bracket, or table specified by the manufacturer, or sold with the Unit,
13. Unplug this unit during lightning storms or when unused for long periods of time.
14. Refer all servicing to qualified service personnel, Servicing is required when the unit has been damaged in any way, such as power-supply cord or plug is damaged, liquid has been spilled or objects have fallen into the unit, the unit has been exposed to rain or moisture, does not operate normally or has been dropped.
15. Do not attempt to service this product yourself as opening or removing covers may expose you to dangerous voltage or other hazards. Refer all servicing to qualified service personal.

CAUTION - To reduce the risk of electric shock, do not perform any servicing other than contained in these operating instructions unless you are qualified to do so.

What is in the box?



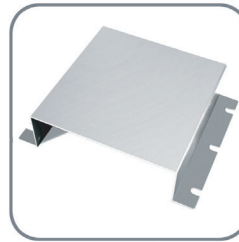
Laser Optical
Video Transmitter



Laser Optical
Video Receiver



2 AC/DC Power Adapters.
AC 100~240V, 50~60Hz, 0.3A
Output : DC 12V, 1A



Mounting Bracket
for the Receiver

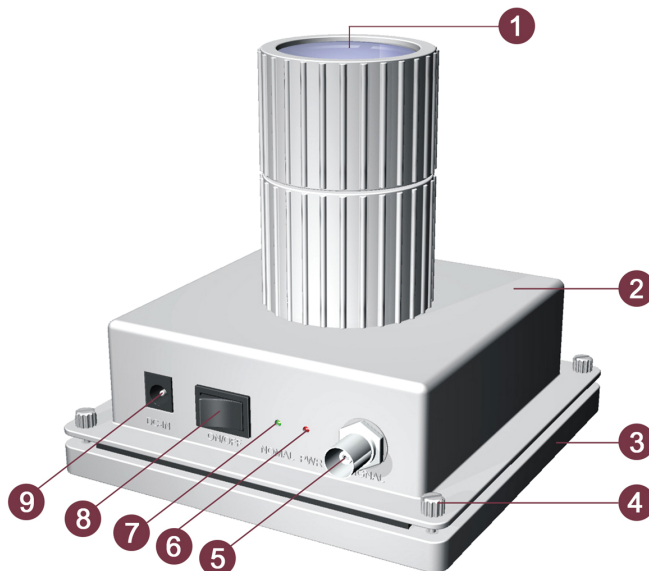
Safety Warning

WARNING



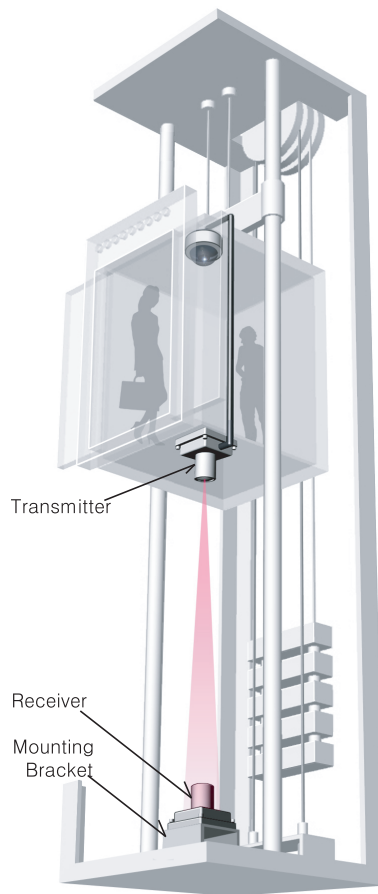
1. This product VT-LTR13V-KIT is a laser device. Do not stare at the laser light directly or through the optical system when the device is on. It may be harmful to your eyes.
2. VT-LTR13V-KIT is a precise optical device. Installation requires professional knowledge. Please consult with a professional who has knowledge and experience in elevator and CCTV for maintenance.
3. Elevator safety is critically relevant to human life. When installing VT-LTR13V-KIT, pay special attention to elevator's operation mechanism. Passenger access MUST be restricted or prohibited until installation is completed. Any problem in wiring, sensors, and switches can result in safety accident including death.
4. VT-LTR13V-KIT is not water-proof. Do not place the transmitter and receiver on wet surface or near the water. Rain, snow, or humidity can damage the equipment.
5. VT-LTR13V-KIT comes with Mounting Bracket made of metal. Pay special attention in handling bracket to avoid injuries from sharp edges. Use safety gloves.

VT-LTR13V-KIT Name of Components



- 1 Optical Lens
- 2 Body
- 3 Permanent magnetic base
- 4 4 Screw knobs for adjusting body angle
- 5 BNC Connector
. Transmitter : Video Input
. Receiver : Video Output
- 6 Power Indicator (Red LED)
- 7 Signal Indicator (Green LED)
- 8 Power Switch
- 9 DC Power Input

How to install VT-LTR13V-KIT



Step 1 : Move the elevator car to the lowest position where it is easy to work under the outer surface of the bottom of the elevator car.

Step 2 : Install CCTV camera inside the elevator car. Run video coaxial cable and transmitter power cable along the exterior wall of elevator car. Tie or fasten the cables appropriately to avoid any friction or damage. CCTV camera power must be connected according to the camera specs.

Step 3 : Place the Transmitter, with magnetic base to the flat metallic surface, on the bottom of shaft. Connect video coaxial and Transmitter power cables. Position of Receiver and Transmitter must be well planned before the installation.

Step 4 : Turn on Transmitter switch. Confirm the laser beam is emitted. Laser beam reflection must be a circular shape, not oval shape. Use 4 corner screws to fine-tune the angle.

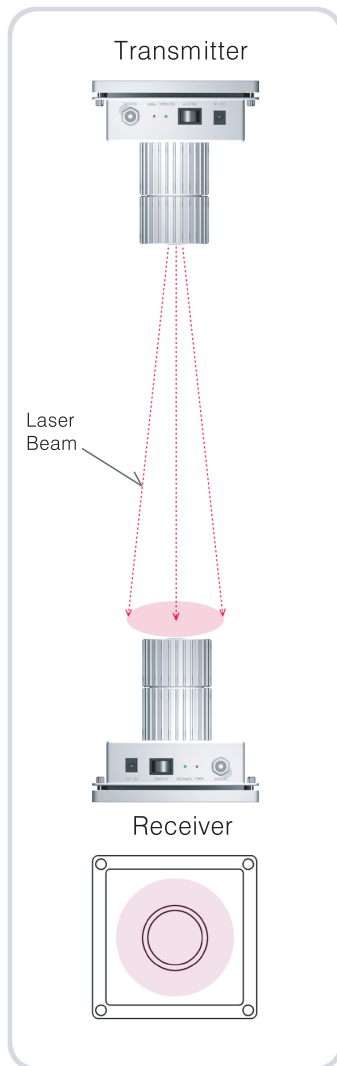
Step 5 : Using the beam reflection as guide, install metallic mounting bracket on floor. Mounting bracket and the receiver should be placed in the center of the beam reflection.

Step 6 : Place the receiver on mounting bracket. Center of the Receiver should be aligned with laser beam reflection and mounting bracket. Use the level and corner screws to make the receiver horizontality.

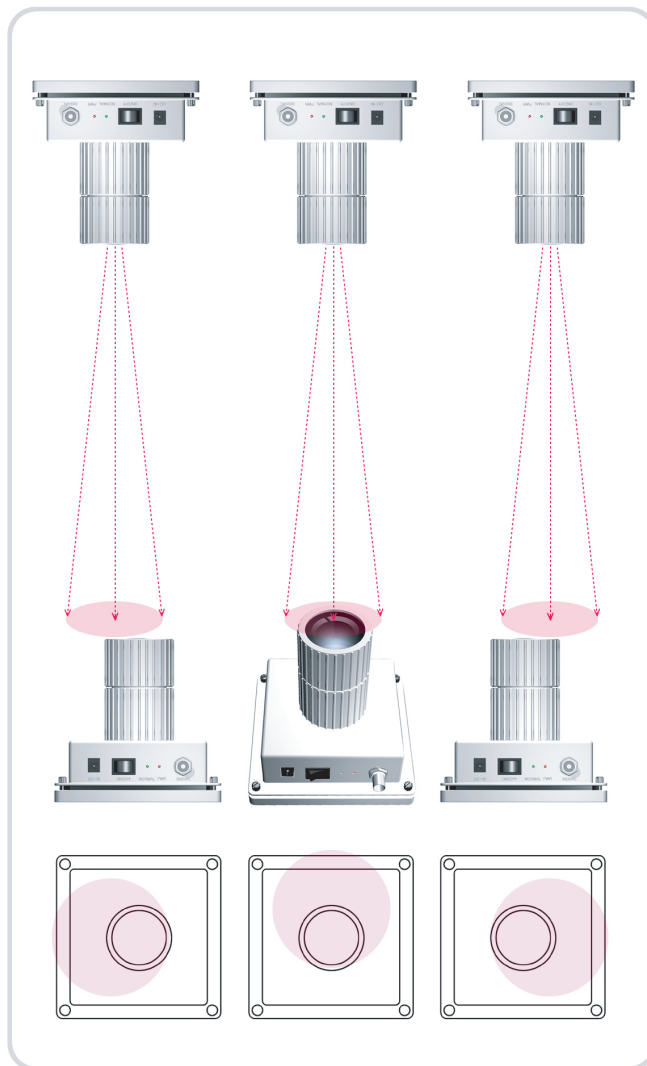
Step 7 : Connect the power cable to the Receiver. Use field monitor to test video transmission. Check the condition of video quality while moving the elevator up floor by floor. If you notice any video noise or disruption, adjust the angle of receiver with 4 corner screws. Beam-Receiver alignment must be corrected until the video transmission is clean at the highest floor. Repeat adjustment until good video quality is confirmed at all floor levels.

Step 8 : After fine-tuning beam alignment is complete, connect a coax cable from the Receiver to DVR or display equipment in control room. Test video monitoring during a regular elevator operation.

Good Alignment

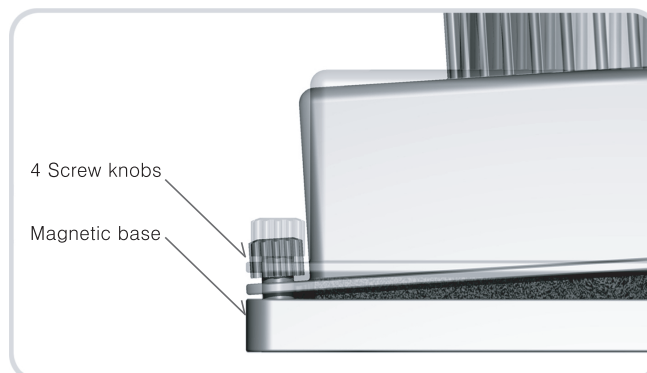


Bad Alignments



Fine adjustment for alignment

Use 4 screw knobs on the magnetic base for fine adjustment of the optical Axis alignment between the transmitter and the receiver.



Optical axis alignment method between transmitter and receiver

It is extremely important to align optical axis between the transmitter and the receiver for optimal image transmission since VT-LTR13V-KIT is an image data transmission device which uses Laser Light. The receiver needs to be installed where the center of the receiver lens can be aligned with the center of the laser light circle from the transmitter. Use test monitor and screw knobs to fine-tune the alignment

Recommended Operational Distance (Elevator's running distances)

VT-LTR13V-KIT : max up to : 1000ft

FCC-Verification

This device complies with Part 15 of the FCC Rules. Operation is subject to the following two conditions: (1) this device may not cause harmful interference, and (2) this device must accept any interference received, including interference that may cause undesired operation.

Information to the user

This equipment has been tested and found to comply with the limits for a Class A digital device, pursuant to part 15 of the FCC Rules. These limits are designed to provide reasonable protection against harmful interference when the equipment is operated in a commercial environment. This equipment generates, uses, and can radiate radio frequency energy and, if not installed and used in accordance with the instruction manual, may cause harmful interference to radio communications. Operation of this equipment in a residential area is likely to cause harmful interference in which case the user will be required to correct the interference at his own expense.

Warning

Changes or modifications not expressly approved by the manufacturer could void the user's authority to operate the equipment.

How to solve a problem

Symptoms	Troubleshooting
If there is no image on the monitor or "No Signal" on the DVR monitor	<ul style="list-style-type: none">. Check CCTV camera and power Adapter first.. Check power adapter of the VT-LTR13V-KIT.. Check the power LED and signal indicator LED on the transmitter and the receiver of VT-LTR13V-KIT.
If severe noise appears on the screen	<ul style="list-style-type: none">. Check CCTV camera.. Check if the receiver optical lens has excessive amount of dust.. Check the optical axis alignment between the transmitter and the receiver again.
Dust on the receiver lens	<ul style="list-style-type: none">. It is recommended to clean the lens during the safety inspection.. Use a camera lens cleaning brush and do not touch the receiver body.
Etc.	<ul style="list-style-type: none">. Please consult with the distributor for further technical assistance.

Detailed Specifications

TRANSMITTER	
Bit Error Rate	$<10^{-9}$
Light Source	inGaAlP Laser Diode
Laser Wavelength	658 nm
Output Power	30mW
Transmission Lens Diameter	50mm (1.97")
Beam Divergence	18mrad
Detector	Si APD
Operational Range	1000 Feet
RECEIVER	
Receiver Lens Diameter	50mm (1.97")
Gain	$> -45\text{dBm}$
Video Format	CVBS Max 2Vp-p, 75ohm
Power Supply Input	AC100~240V(50~60Hz)
Power Supply Output	DC12V
Operating Temperature	$-4 \sim 158^{\circ}\text{F} (-20 \sim 70^{\circ}\text{C})$
Dimensions (W x H x D)	5.5" x 5.6" x 5.5" (139.7 x 142.2 x 139.7mm)



VTC-EL52H

Vandal/Weather Resistant Corner Mount (Elevator) Camera w/550 TV Lines

- 1/3" Color CCD Image Sensor w/550 TV Lines
- Ball Socket Mounted Camera to Achieve the Perfect Viewing Angle
- 2.97mm Fixed Iris Lens Included (Optional lenses available)
- Minimum Illumination of 0.5 Lux
- Aluminum and Polycarbonate Vandal Resistant Enclosure with IP-66 Weather Resistance
- Camera Mounted with infinity ball to help Achieve the Perfect Viewing Angle



Remote viewing with many popular phones including: Apple iPhone, Palm, Google, Blackberry, and Android based devices.

H.264
Compression

VT-EH Series

4, 8, and 16 Channel Digital Video Recorders with H.264 Compression

Vitek industrial Video Products, Inc. understands the challenge that you, the Security Dealer, face everyday to continually provide the most powerful and cost effective solutions to your customers. You need products that deliver the very best performance without being overly complicated or difficult to manage. Our new "EH" series DVR does just that at a fraction of the price of our competitors, while still delivering state-of-the-art features like:

- Intuitive graphical user interface that will guide you quickly through all menu functions.
- Compatible with virtually any web-based browser, eliminating the need for a dedicated viewer.
- Expanded list of remote connectivity including: iPhone, Google Android, Palm based PDAs and Mac based computers.
- Increased recording speed up to 240 PPS for smooth, fluid movement.
- Available in 4, 8 and 16 channels with up to 4 Terabytes of internal storage.



Mighty Dome Inside (Shown in Black)



UTP Interface and Heater & Blower Options Available

Mighty Dome Series

The Ultra Versatile Dome Camera Series

The VITEK Mighty Dome incorporates an industry leading combination of a Sony SuperHAD II Image Sensor with a Sony Digital Signal Processor to deliver the best possible performance. As a result, the Mighty Dome provides the truest colors with crisp, clean images in every lighting condition.

- Indoor and outdoor versions available
- High Resolution 480 or Super High Resolution 550 TV Line Cameras
- WDR Version Available with PIXIM Image Sensor
- True Mechanical Day/Night function available
- Flush or Surface Mount
- UTP Interface & Heater / Blower Options Available
- Dual Voltage 12VDC & 24VAC



Fully Gasketed IP68 Rated Weatherproof Design. (Outdoor Vandal Version Only)



May be Surface Mount Casing or Semi-Flush Mounted for Sleek, Low Profile Installation.



Secondary Video Output Enables Ease of Adjustment after Installation.



Friction Fit Ball Mount Camera Module Can Achieve Virtually Any Viewing Angle.



The NEW Mighty Dome Vandal base has been designed to manage and protect video and power cables without the need for external adaptors. Designed to attach directly to a double gang electrical box.

VITEK LIMITED PRODUCT WARRANTY

VITEK products carry a three (3) year limited warranty. Digital recording and storage products are also warranted for 3 years except for the hard drives which carry their own independent factory warranty from the hard drive manufacturer. VITEK warrants to the purchaser that products manufactured by VITEK are free of any rightful claim of infringement or the like, and when used in the manner intended, will be free of defects in materials and workmanship for a period of three (3) years, or as otherwise stated above, from the date of purchase by the end user. This warranty is non-transferable and extends only to the original buyer or end user customer of a Vitek Authorized Reseller.

The product must have been used only for its intended purpose, and not been subjected to damage by misuse, willful or accidental damage, caused by excessive voltage or lightning.

The product must not have been tampered with in any way then the guarantee will be considered null and void.

This guarantee does not affect your statutory rights.

Contact your local VITEK Reseller should servicing become necessary.

Vitek makes no warranty or guarantee whatsoever with respect to products sold or purchased through unauthorized sales channels. Warranty support is available only if product is purchased through a Vitek Authorized Reseller.



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