

Pre-INSTALLATION PLANNING

To ensure the most successful installation, we strongly recommended that the following tasks be considered prior to any installation



❑ Installation ASME approvals

All our devices are in compliance with ASME A17.1 B44-10 2.8.1 – 2.8.2 for use in an elevator hoistway. Before starting any installation, consult your local elevator authority for any variance to installation requirements.

❑ Access to the Elevator Shaft & Pit

Installing the wireless transmitter & receiver requires access to the pit, the hoistway and the top of the elevator car. To gain access you may require permission by the property management and the presence of a licensed elevator technician. Contact elevator service company for coordinated installation time.

❑ Device Clearances

The transmitter & receiver location must be clear of any moving mechanisms including but not limited to; the traveling cable, counter-weight, cabling trough, guide rails, brakes, door mechanics, sensors and safety devices. Consult with elevator service company prior to any installation.

❑ Wireless Transmission Path

You must determine your transmission path before installation so you can plan mounting locations for the transmitter & receiver , network cabling routes and powers resources.

- **To Transmit UP** – this is defined as transmitting from the roof of the car, UP to the TOP of the elevator shaft. The transmitter would mount to the top of the elevator car and the receiver would mount on or near the roof of the shaft

See illustration: **TRANSMITTING UP INSTALLATION**

- **To Transmit DOWN** – this is defined as transmitting from the bottom of the elevator car and shooting down to the bottom of the hoistway/ pit. The transmitter mounts to the bottom of the elevator car and the receiver is mounted on the wall , near the bottom of the elevator pit

See illustration: **TRANSMITTING DOWN INSTALLATION**

❑ Recommended Camera

Since the average elevator floor space is 4 x 6 feet, a 2MP IP camera will sufficiently capture most incidences in the elevator. **Camera lens should be at least 2.8mm.** Mount the camera in the furthest corner from the doors and at an angle and height that will capture activity with the elevator control panel and “floor status” display.

□ Electrical Outlets

Contact the elevator service company and confirm electrical outlet/power sources availability prior to installation.

How many power outlets are available ?

- **TRANSMITTER** – Requires 48VDC PoE Power - Injector NOT included.
Verify the availability of dedicated 110-115 Volt AC electrical outlet, usually on the roof top of the elevator car.
We strongly recommend a 48VDC PoE enabled switch to connect all of your network devices but more for conveniently powering the same devices.
- **RECEIVER** - Requires 48VDC PoE Power - Injector NOT included
Since the receiver is either at the top or bottom of the pit (transmit up or down), the receiver could ideally be powered by a 48VDC PoE enabled switch, or PoE enabled network video recorder – NVR – Usually from the equipment demarcation room.
Consider using conduit for the network cable, between the receiver, through the hoistway wall.
- **CAMERA** - Network cameras usually 48VDC PoE powered. (sometimes 12VDC)
If this is a “New Camera” installation, review available power sources on the elevator roof considering you will need to power the transmitter and camera separately. Consider available power outlets.
- **NETWORK SWITCH** – If using the wireless system for multiple network IP devices, consider installing an unmanaged multi-port PoE switch.
The switch will connect to a single electrical outlet on roof of elevator car an feed 48VDC PoE power to other network devices. Since the wireless system will transmit 150Mbps high speed data with excellent reliability and data quality, it can easily manage the data load and speed requirements for ALL elevator network devices.

Add a network switch to Transmit multiple IP devices with ease.

- Network security camera
- Access Control / Biometrics
- VoIP emergency phone
- Audio system / Elevator music
- Streaming media / 1080p video / news & weather
- Security tamper sensors
- Passenger guest WiFi

❑ **Wireless Device Programming**

Probably the most important pre-installation task. Systems are factory shipped pre-programmed with default settings and ready for use. However if multiple wireless systems are to be installed at same location, systems will require individual channel settings to ensure there are not any frequency/channel conflicts. See product instructions for details.

❑ **Camera Programming**

- Pre-programming camera network settings, prior to installation, is critical to save time at the job site.
- The network cameras IPv4 default gateway will need to be configured to the same IP address scheme as the local building and local NVR if any
- Remember to change and record camera network passwords/settings
- Test camera with building job site network video recorder, if any, to validate programming

❑ **Property Management Communication**

- Confirm rules of installation as per property management guidelines
- Obtain Pre-approval for equipment, electrical, conduit and wiring locations
- Confirm electrical source/supply locations and availability
- Confirm Cat5/6 network cable & conduit installation requirements, locations between wireless receiver (from the hoistway/shaft) and the demarcation/video recording equipment room
- Confirm and review installation and objectives with the elevator service contractor for the building

❑ **OTHER**

- Communicate with elevator service contractor to coordinate installation
- Consider that some buildings have been known to have garbage debris, water or garbage in the pit. This can create a physical and/or health hazard
- AVERAGE installation time for each wireless elevator transmitter & receiver system is usually less than 2-hours per elevator car/shaft – budget accordingly

The Connected Elevator is Safe, Smart and Wireless

Model # VNO-5815PT
Wireless Elevator Video & Data Link

1080p HD Security Camera

VoIP Emergency Phone System

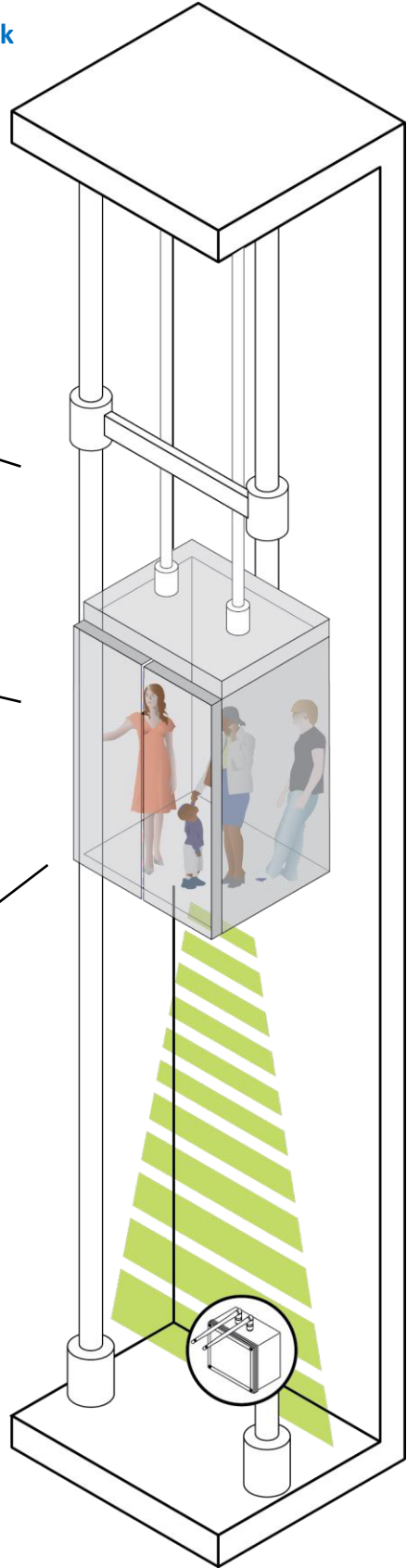
Streaming Media – 1080p In Car Entertainment

IoT Devices / Tamper Sensors

Security Access Control

Elevator Music

Passenger Guest WiFi



Professional -Tip

Connect almost any Network IP device to the wireless system.
You will never know it was wireless.

TRANSMITTING DOWN INSTALLATION

Elevator CAR Bottom

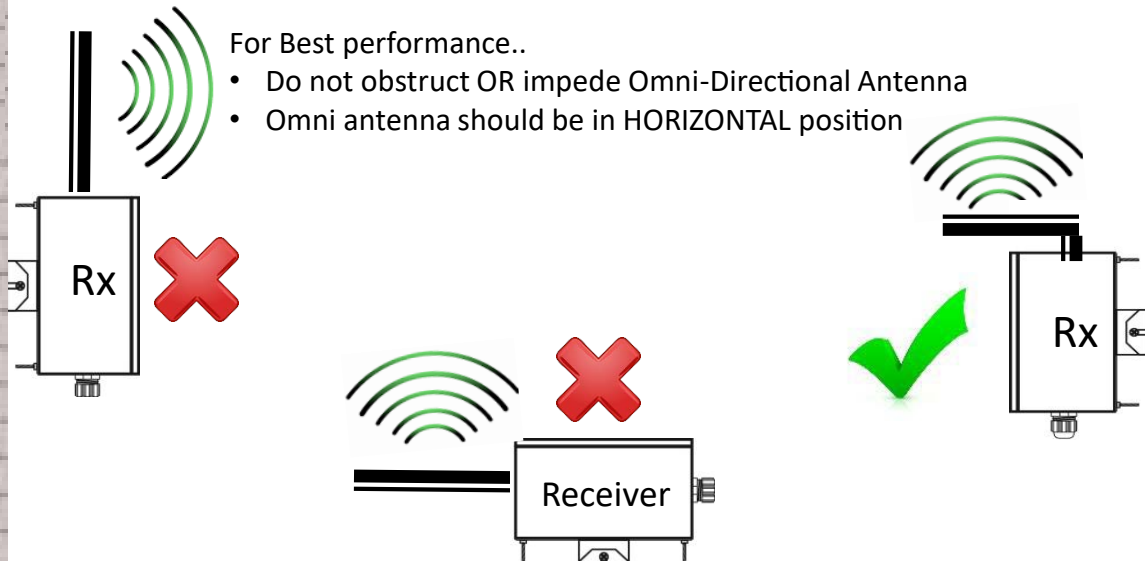


TRANSMITTER

- Transmitter cannot obstruct any moving elevators mechanics
- Transmitter can mount on any available horizontal surface as permitted by elevator service technician
- Transmitter has embedded antenna in enclosure face and must “face” Downwards
- Do not obstruct OR impede embedded Directional Antenna

RECEIVER

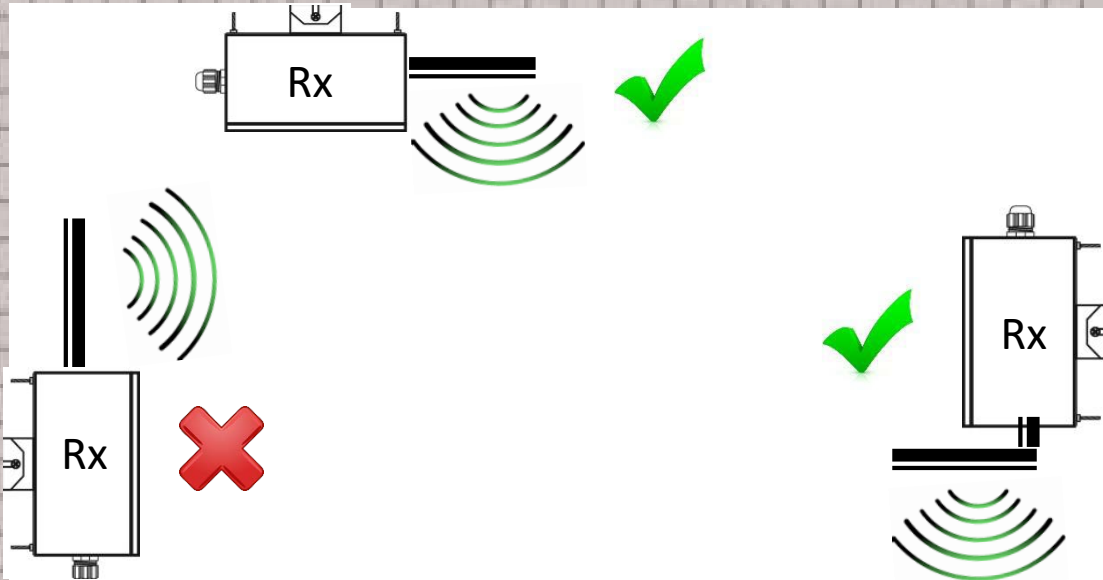
- Receiver cannot obstruct any moving elevators mechanics
- Receiver can mount on any available vertical or horizontal surface as permitted by elevator service technician
- Consider that receiver will require power input connection when choosing mount location – 48VDC PoE
- Receiver should NOT sit in elevator pit – garbage and foreign material could impede receiver performance



Elevator PIT

TRANSMITTING UP INSTALLATION

Elevator Hoistway ROOF



RECEIVER

- Receiver cannot obstruct any moving elevators mechanics
- Receiver can mount on any available vertical or horizontal surface
- Consider that receiver will require power input connection when choosing mount location – 48VDC PoE

For Best performance..

- Do not obstruct OR impede Omni-Directional Antenna
- Omni antenna should be in HORIZONTAL position

TRANSMITTER

- Transmitter cannot obstruct any moving elevators mechanics
- Transmitter can mount on any available horizontal surface as permitted by elevator service technician
- Transmitter has embedded antenna in enclosure face and must “face” upwards
- Do not obstruct OR impede embedded Directional Antenna



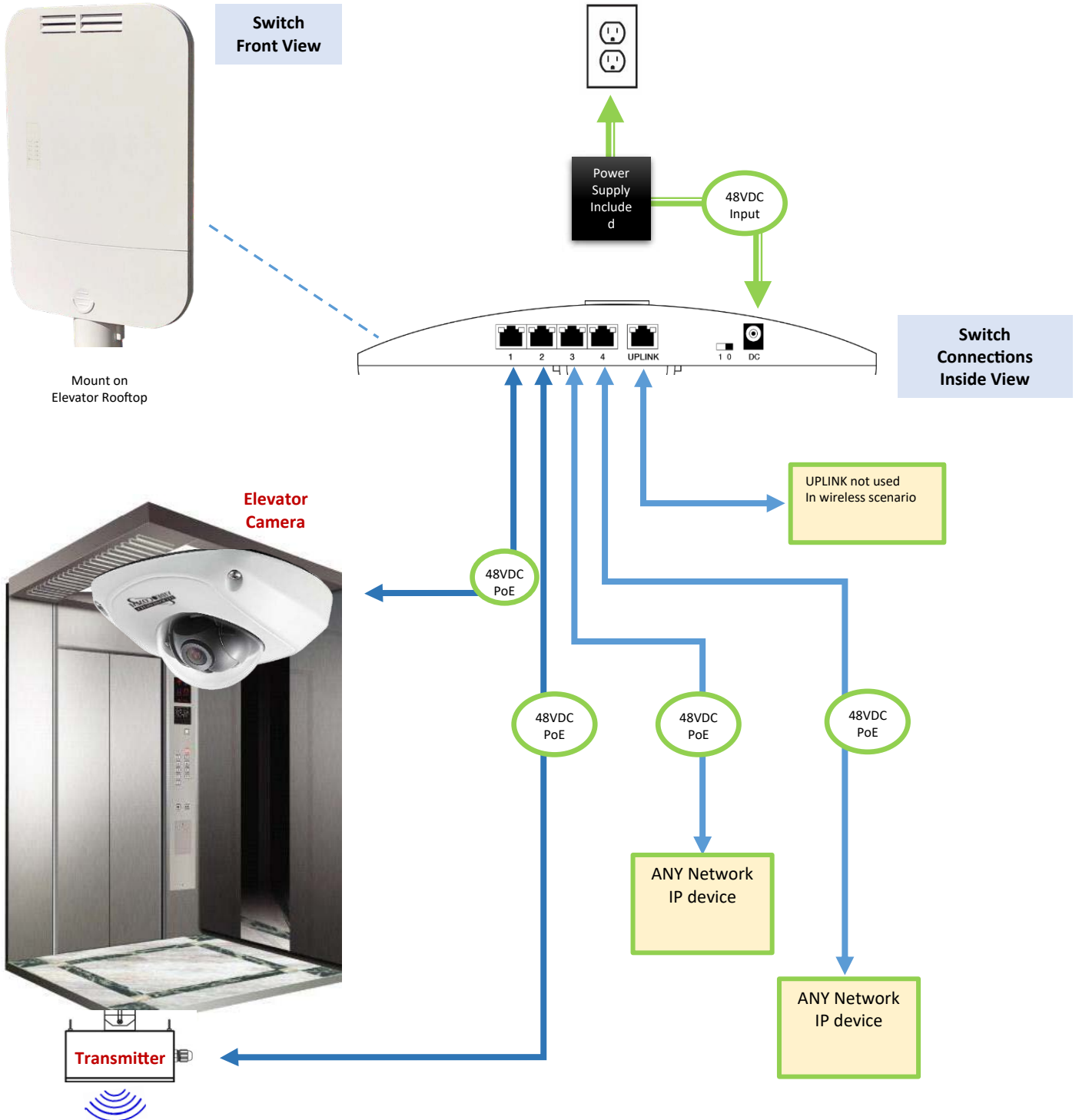
Elevator CAR Roof Top

Wireless Elevator Camera Power + Video Connections



Elevator Installation - Transmitter

- Convenient single source PoE power and manage network connections
- Up to 3x PoE network cameras (or network devices) **PLUS** PoE for Elevator Transmitter



Wireless Receiver & Power Connection Options

