



## Standards and Procedures

Installation of Cameras and Camera Systems  
At  
University of North Carolina at Wilmington

# UNCW

REV 062817

Provided by UNCW Physical Security and Access

# INDEX

<b>OVERVIEW.....</b>	<b>3</b>
<b>RESPONSIBILITIES.....</b>	<b>4</b>
<b>Contractor.....</b>	<b>5</b>
<b>CAMERA OVERVIEW.....</b>	<b>6</b>
<b>GROUNDING AND SURGE PROTECTION DOCUMENTATION.....</b>	<b>7</b>
- <b>Camera Grounding Notes.....</b>	<b>7</b>
- <b>DITEK Grounding 101.....</b>	<b>8-10</b>
- <b>DTK-RM12POE Datasheet.....</b>	<b>11</b>
- <b>DTK-RM12POE Installation Instructions.....</b>	<b>12</b>
- <b>DTK-MRJPOE Datasheet.....</b>	<b>13</b>
- <b>DTK-MRJPOE Installation Instructions.....</b>	<b>14</b>
<b>TYPICAL INSTALLATION DIAGRAMS AND OVERVIEW.....</b>	<b>15</b>
- <b>Typical Camera Installation.....</b>	<b>16</b>
- <b>Typical Elevator Camera Installation.....</b>	<b>17</b>
- <b>Typical Camera Panel.....</b>	<b>18</b>
- <b>Typical Interior Camera Mounting Diagram.....</b>	<b>19</b>
- <b>Camera Data/POE Signal Flow Chart.....</b>	<b>20</b>
<b>PARTS LIST AND TECHNICAL DATA.....</b>	<b>21</b>
<b>Revision List.....</b>	<b>22-23</b>
<b>Contact Information.....</b>	<b>24</b>

# **OVERVIEW**

The purpose of this document is to define the standards and procedures for the installation of security cameras, security camera systems and all ancillary equipment on the campus of the University of North Carolina at Wilmington (UNCW) and all properties owned or leased by the university.

The integrity of all equipment, cabling and proper installation is essential to the University's commitment to providing a safe and secure environment for students, faculty, staff and visitors of UNCW. These standards and procedures will be reviewed and updated regularly to ensure that are up-to-date and accurate.

All standards and procedures in this document shall be compliant with all relevant laws or directives set forth by the Federal Government, the State of North Carolina, The University of North Carolina System and the University of North Carolina at Wilmington. In addition, all contractors installing security camera equipment on property owned or leased by the University of North Carolina at Wilmington shall be fully licensed in the State of North Carolina pursuant to N.C.G.S. 74D, the Alarms Systems Licensing Act.

# **Responsibilities**

## **UNCW**

1. Prior to installation a “Kickoff Meeting” shall be held to include all parties with duties and responsibilities during the installation process. The purpose of the meeting is to ensure that everyone is clear as to their roles and that all UNCW policies and standards in regard to security cameras and their installation are satisfied.
2. UNCW shall provide the approved camera make, type and models that are approved at the time of bid or installation.
3. UNCW shall provide, install and maintain the system video servers. The specifications for the server shall be provided by the UNCW Physical Security and Access.
4. UNCW shall provide all network equipment to include network switches. The UNCW Network Data Analyst shall assign switches, ports and IP addresses for use in new camera installations.
5. The UNCW Physical Security and Access Manager, shall provide user names, passwords and IP addresses to the contractor.
6. UNCW Physical Security and Access and a UNCW Police Department representative shall approve the final aiming and focus.
7. The UNCW Network Infrastructure Analyst shall monitor the installation to ensure that all UNCW NetCom Department standards are satisfied.
8. Upon completion of the installation a final meeting may take place to include the UNCW Department that requested security cameras, UNCW Physical Security and Access, the UNCW Project Manager in charge of the project, the UNCW Network Infrastructure Analyst and the UNCW Network Data Analyst. This group shall review the installation to be sure all requirements and standards have been met before the contractor has been released from the job.

## Contractors

- The contractor shall ensure that they are operating in compliance with North Carolina General Statute 74D. (Alarms Systems Licensing Act)
- The contractor shall provide and install all cameras, ancillary equipment or parts required for a complete installation as specified by UNCW standards. Any substitutions **must** be submitted to the UNCW Physical Security and Access Manager for approval.
- The contractor shall provide and pull all data cabling and ground wire as required.
- The contractor shall ensure that the latest firmware approved for use with LENEL video software is installed in all cameras. Contact the UNCW Physical Security and Access Manager for firmware version.
- The contractor shall program cameras with the IP address, user name and password provided by the UNCW Physical Security and Access Manager.
- The contractor shall label all cables and wires. Camera labeling shall conform to the UNCW Physical Security and Access standard. Contact the Physical Security and Access Manager for more information.
- The contractor shall schedule a time with the Physical Security and Access Manager and a UNCW Police Department representative to approve the final aiming and focus of all installed cameras.
- All cameras shall be compatible with the current software version of Lenel OnGuard Access Control and Security System in use at UNCW.
- Camera security systems shall include a system of **Surge Suppression** that conforms to the standards set forth in this document.
- Cabling and cabling installation shall meet or exceed all specifications as per the Standards for Installation of Infrastructure and Telecommunication Equipment provided by UNCW NetCom Department. The UNCW Network Infrastructure Analyst shall be the point of contact for all issues that pertain to the cables, patch panels and other telecommunications equipment.
- Camera systems shall conform to the approved equipment list and application schematics provided in this document.
- The contractor shall provide “As Built” drawings to UNCW Physical Security and Access.

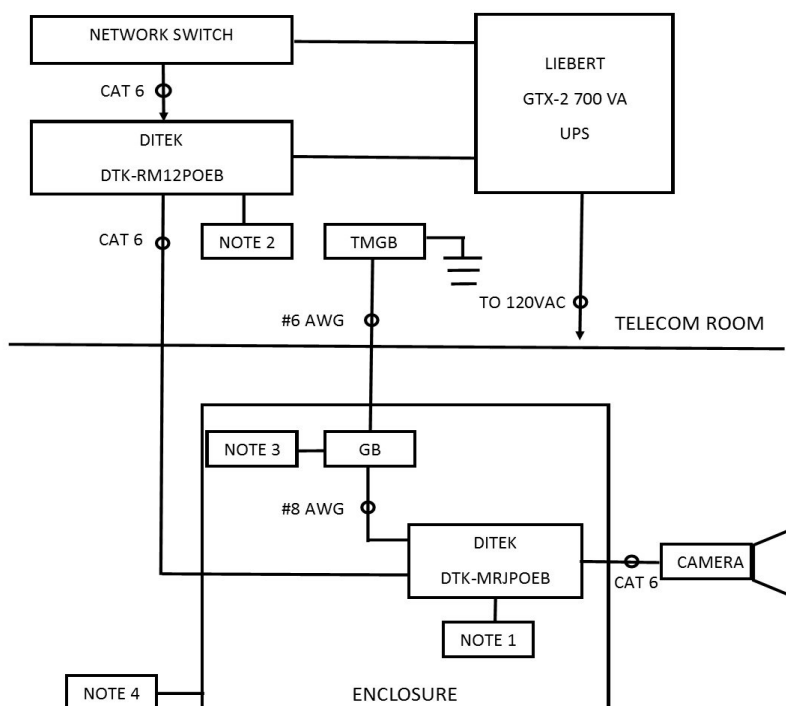
# **Cameras**

## **UNCW Camera Requirements**

- Internal and External cameras shall be vandal resistant.
- External cameras shall be built to withstand the extreme temperature and coastal weather conditions of southeastern North Carolina.
- Cameras shall include day and night functionality.
- Cameras shall have a minimum 2.0 MP resolution.
- Cameras shall be minimum H.264 compatible.
- All cameras shall be compatible with the latest versions of Lenel OnGuard in use by UNCW.
- Cameras shall conform to the list of approved make, types and models provided by UNCW Physical Security and Access. Contractors shall be provided the approved list upon request.

# Grounding and Surge Protection

## Camera Surge Protection Notes



1. Provide Cat 6 Surge Protector (DTK- MRJPOE) in an enclosure located within 6 feet of each camera.
2. Provide rack mounted Ditek DTK-RM12POE 12 port Surge Protection Patch Panel. Surge Protection Patch Panel shall be grounded using #8 AWG wire to TMGB or Security Room Grounding Block.
3. Provide Ground Bar in enclosure to provide a connection to ground for camera surge protectors.

**The distance between the Ditek MRJPOE modules and ground should be less than the cable distance between the module and the camera it protects.**

Provide #6 AWG, Green, Insulated, and Stranded Ground Conductor from TMGB in Main Telecom Room to Ground Bar. Provide #12 AWG, Green, Insulated, and Stranded Ground Conductor from Ground Bar to each camera Surge Protector.

4. Provide hinged enclosure located within 6 feet of each camera to house DTK-MRJPOEB and Ground bar.
5. If Network Switch and Ditek Patch Panel are not located in a Telecom room the contractor shall install a local grounding block as per UNCW Netcom standards.



## Grounding 101

*Technical White Paper*  
*Page 1 of 3*

The service life of any piece of electronically controlled equipment is, to a large degree, determined by the quality of the electrical service that it receives power from. The number one complaint from electronics (commercial and residential) owners is downtime. The number one cause of downtime (other than user error, neglect, or abuse) is poor power quality. According to Utility Industry information, power quality is at an all time low, and with deregulation rolling along, it's getting worse.

A low impedance ground is imperative to both surge protection designs and power quality. A regular check and upgrade (as needed) of grounding systems will reduce interference and line noise, improve power factors, reduce the risk of accidental electrocution, help decrease potentially damaging harmonics and improve the efficiency and durability of surge protection equipment. Since many electricians use the terms "bonding" and "grounding" interchangeably, for the purpose of this paper they will be defined in short, as follows:

**Ground/Grounding** – Any direct conducting connection between an electrical circuit or equipment and earth.

**Bond/Bonding** – The permanent connection of metallic parts to form an electrically conductive path.

An example would be an electrical service panel that is grounded while the telecommunications rack is bonded to the grounding system.

A primary concern that needs to be addressed when beginning any power quality survey is the need for a "complete" grounding and bonding system, between the electrical service entrance and remotely grounded buildings or equipment. If the remote ground home runs back to the service entrance, it will be a relatively simple process to create a "single point ground" that will reference the initial utility company electrical ground back at the service entrance electrical meter.

Articles 100 and 250 of the NATIONAL ELECTRIC CODE (NEC) describe an acceptable ground as being rated at 25 Ohms of resistance or less, and requirements to achieve this. Optimum performance of surge protectors is achieved at five Ohms or below. Several manufacturers of electronic equipment also require five to ten Ohms as a maximum resistance for their gear to work correctly. Failure to properly ground the metal parts of the electrical system to the earth can result in electric shock, fires and the destruction of expensive electronic equipment from lightning and high voltage line surges. We realize that in many areas of the country you may be starting with 350 ohms or more, instead. However, there are several preliminary tasks that we can perform to reduce that number to a more acceptable level.

The first (and most important) task to undertake is the actual measurement of resistance to ground at the service entrance meter's electrical ground, or of the soil itself. Several things can affect the actual resistance of the soil, including moisture content, quality and type of electrolytes, conductive objects, temperature, depth and spacing of the ground rods. This critical measurement can be accomplished in one of two ways... either by the use of a special "clamp-on" ground resistance measuring device (good for existing locations) or an earth resistance meter ("Megger") (preferred in new installations). Although the earth resistance meter is less expensive, it requires the use of multiple ground probes and leads from the tester with specific distance requirements between rods and measurements to be plotted on a nomograph in order to calculate the actual resistance of the ground.







## Grounding 101

*Technical White Paper*  
*Page 2 of 3*

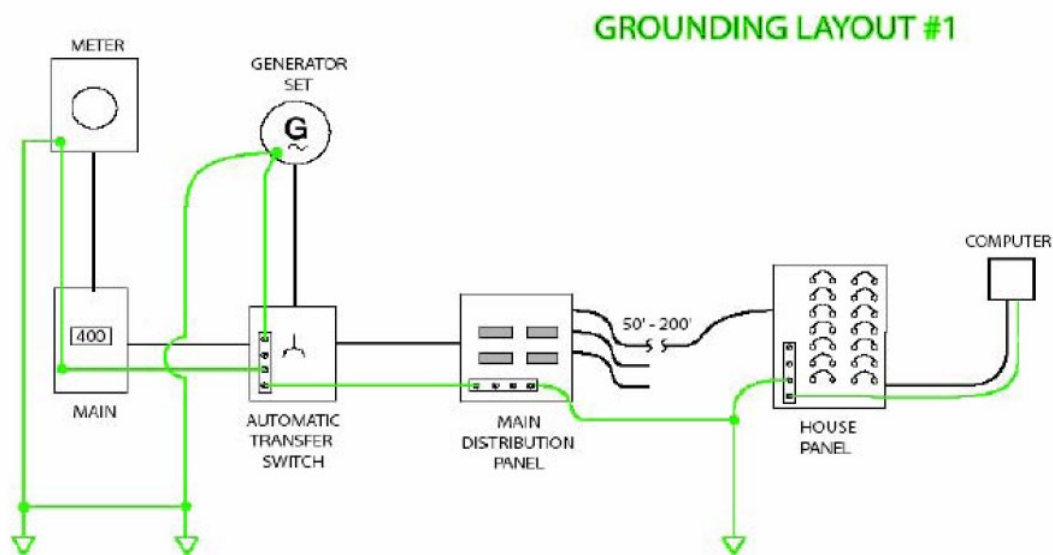
Another issue with the Megger is that they come in three and four terminal configurations. To test the actual resistivity of the soil itself, a four terminal model is required. The advantage of this method is that you are not connected to the electrical system during testing. An electrical line fault during testing can send high current to the grounding system. This could result in high current and voltage at the test leads and meter. Safety is a primary concern working on "live" electrical systems. Always use proper protection equipment. Remember, if you are in contact with the grounding system (particularly if the ground rod is disconnected) YOU are the ground for the system.

Once an accurate measurement of resistance to ground has been calculated, we can perform a few tasks to help reduce resistance even further. Since DITEK is in Florida, and geological features can vary greatly in other parts of the country, it will fall to the installing contractor to make the determination of how best to lower resistance to ground in his region. The recommended grounding conductor at the service entrance is specified by NEC based on the ampacity of the service.

1. Drive a new service entrance ground rod. Since it is impossible to know the exact length or current condition of the original ground rod, it may be prudent to install a new rod of suitable length and composition at the service entrance. Solid copper is the preferred material however, galvanized or copper clad may also be suitable if acceptable resistance levels are met.
2. Bond a new rod and the existing rod together. If the target ground resistance is not achieved by a new rod, drive a second rod and bond the two rods together by exothermic welding a piece of the grounding conductor between the two. The new rod should be approximately one rod length or more from the first rod. Multiple rods can be connected this way (See item #4 below). One additional rod will lower ground resistance by 40%. Two rods will result in a 60% reduction. Three rods will improve resistance by 66%.
3. Drive the rod deeper. Couple a new rod of equal length on top of the existing rod to effectively double the depth of the rod. Be sure to use rods of like type and a coupler matched to that type of rod. This will result in an approximate 40% reduction in ground resistance.
4. Create a "Ground Grid". This procedure involves creating a grid of grounding electrodes, or rods, in close proximity (10 to 20 feet, or at least one rod length apart,) and welding or bonding the grounding conductor between the rods together. The entire grid is then backfilled with soil and compacted to complete the grid. Also, review NEC section 250-32(b) for more information.
5. Create a "Trench Ground" or "Ground Ring". If your region provides a solid substrate such as bedrock immediately below a shallow layer of soil, it is possible to create a circular trench around the building (minimum 20 feet long) at least 30 inches deep utilizing a minimum of #2AWG bare copper conductor, lay in the grounding conductor, bond the two ends together to the ground rod, and then backfill the trench with soil. This allows maximum contact with the ground, yet need not be excessively deep to do the job.



A key element to the creation of a complete grounding system may involve making some fundamental adjustments to the routing of the grounding conductor if more than one ground can be referenced (campus environments, etc.). This will not be difficult or time consuming, but is very important in the system's ability to reference the original equipment ground back at the service entrance utility service meter. The normal routing would be to bring the HOTS, the NEUTRAL and the GROUND wire into the remote electrical panel and terminate them to the appropriate busses. Then route the GROUND wire down to the house grounding electrode (ground rod). For our purposes, it is necessary to route the GROUND wire to the grounding electrode FIRST, and then up to the ground bus within the panel. This simple adjustment still follows NEC code, but provides an unobstructed pathway to divert surges to these ground rods while continuing to reference the service entrance ground. The fundamental result of this routing is the elimination of potential equipment damage from the ground loop created by multiple ground rods. It accomplishes this by allowing the electrical potential of the entire facility to rise and fall in a uniform manner, reducing the possibility of excessive current flow on the grounding system. Please note the diagram #1 for a sample layout.



Finally, inspect and tighten all wiring terminations at the service entrance and at each of the remote panels, disconnects or equipment. It is surprising how over time, these terminations can loosen. It can make a substantial difference in lowering resistance to ground if these connections are inspected for oxidation, cleaned up and tightened down.





## DTK-RM12POE

*Rack Mount Power Over Ethernet Surge Protection  
Gigabit Ethernet General Product Specifications*



DITEK's RM12POE protects circuits that use state-of-the-art Power Over Ethernet connections. This 12-port, 1U Rack Mount surge protector is designed to protect midspans, injectors, PoE hubs, and other PoE network equipment. The DTK-RM12POE is ideal surge protection for PoE Network Video Recorders, Voice over IP (VoIP) systems, or any other multi-port system requiring power and data.

### DTK-RM12POE

#### Product Features

- 12 port, RJ45 In/Out connection
- Field-replaceable individual modules
- Multi-stage, SAD technology, hybrid design provides the best possible protection
- Gigabit Ethernet data speed without signal degradation
- Complies with IEEE Std. 802.3af and 802.3at for Power Over Ethernet
- High wattage PoE Plus compliant

#### Specifications

Agency Approvals: UL497B

Standards Compliance:

CAT5e, EIA/TIA568A, EIA/TIA568B

Connection Method: RJ45 In/Out, 8 pins, 12 ports

Pinout: Data & Power – All 8 Pins (4 pairs)

Max Continuous Current: 1.5A

Data Rate: Gigabit Ethernet

Power Dissipation: 3,000W/pair (10/1000µs impulse)

Protection Modes: Line-Ground (All)

Operating Temperature: -40°F - 158°F (-40°C - 70°C)

Maximum Humidity: 95% non-condensing

Dimensions: 1.75" x 19.0" x 2.75"

(45mm x 483mm x 70mm)

Weight: 1.67lb (.76kg)

Housing: Galvanneal Sheet Metal

Warranty: Ten Year Limited Warranty

#### Performance Data

	DTK-RM12POE
Service Voltage	48V – 54V
MCOV	64V
Clamp Voltage	72V
Peak Surge Current	30A/pair







DITEK Corporation  
One DITEK Center  
1750 Bailey Road  
Largo, FL 33771

## INSTALL INSTRUCTIONS

### DTK-RM12POE

This Surge Protective Device (SPD) is a high performance device, designed to provide protection for sensitive electronic loads connected to service panels, fire panels, or where the SPD is directly connected to the electronic device. Maximum protection will only be achieved if the SPD is properly installed.

Please read and follow the installation instructions carefully.

**NOTICE:** This SPD should be installed by a qualified electrician in accordance with the National and Local Electrical Codes and the following instructions.

### APPLICATION

Surge suppression for rack mount PoE Network Equipment and systems.

### INSTRUCTIONS

Note: This device is intended to be installed indoors on the equipment rack closest to the point of use.

1. Test circuit prior to install to verify correct operation.
2. Turn off the power to the equipment to be protected.
3. This device can be mounted in a standard 19" equipment rack, or wall mounted using a hinged wall mount bracket.
4. Connect to equipment ground using the ground lug provided on rear of faceplate. Use a minimum #10 AWG wire.  
Make sure the ground wire length is less than the jumper wires to the protected equipment.  
**Ground Resistance Rule:** Max ground resistance is 25 Ohms, 5 Ohms or less is optimum.  
This cannot be an assumed value and must be measured to assure proper grounding.
5. Plug the RJ45 connector tipped cable from the field or supply wiring to the "IN UNPROTECTED" RJ45 jack.
6. Plug a 3' RJ45 male to RJ45 male patch cable from the "OUT PROTECTED" RJ45 jack to the equipment to be protected. The 3' patch cable will give this device time to react.
7. After all connections have been made and no hazards exist, restore power to the equipment.

**Surge Module Replacement:** This product is made up of 12 individual surge modules.

If 1 or more channels self sacrifice, you can replace that module as follows.

1. Power down the equipment before servicing this device.
2. Disconnect the ground wire from the ground lug located on the rear of the enclosure.
3. Remove the enclosure from its mounting and place on a flat surface.
4. Remove 4 screws holding front and rear cases together. Save these screws.
5. Remove the hardware from the specific module with the bad port, remove module. Be careful to save all hardware.
6. Insert new surge module into opening aligning RJ45 connectors. The orientation should match the previous module.
7. Replace hardware and tighten.
8. Join front and rear cases together and fasten with the screws previously removed.
9. Re-connect the ground wire to the ground lug on the rear of the enclosure.
10. Re-mount the enclosure.
11. After all connections have been made and no hazards exist, restore power to the equipment.

DITEK Technical Support Available 24/7

1-888-472-6100

[www.ditekcorp.com](http://www.ditekcorp.com)

Drawn By: R. Mitchell 3-22-12  
Approved By: H. Tu 3-22-12

Doc # INT-100108-001  
Part No. 191532 Rev. 3 3-22-12

# INSTALLATION



## DTK-MRJPOE

*Power Over Ethernet Power/Video/Data Surge Protection  
Gigabit Ethernet General Product Specifications*

DITEK's MRJPOE protects circuits that use state-of-the-art Power Over Ethernet connections. This point of use surge protector can be installed either at the equipment end or ahead of injectors or midspan devices. The DTK-MRJPOE is ideal surge protection for PoE DVRs, NVRs, cameras, telephones and access control systems.



### DTK-MRJPOE

#### Product Features

- Protects power, video and data on fixed or PTZ cameras
- RJ45 connection with external grounding screw
- Ethernet data speed without signal degradation
- Multi-stage, SAD technology, hybrid design provides the best possible protection
- Complies with IEEE Std. 802.3af and 802.3at for PoE
- Available as a single device or 12-Port, 1U Rack Mount (DTK-RM12POE)
- PoE Plus ready for high-wattage applications
- Ten Year Limited Warranty

#### Performance Data

	DTK-MRJPOE
Service Voltage	48V
MCOV	64V
Clamp Voltage	72V
Peak Surge Current	30A/pair

#### Specifications

Agency Approvals: UL497B

Standards Compliance:

CAT5e, EIA/TIA568A, EIA/TIA568B

Connection Method: RJ45 In/Out

Pinout: All 8 pins are protected

Data Rate: Gigabit Ethernet

Max Continuous Current: 1.5 Amps

Dissipation: 3,000W/pair (10/1000µs impulse)

Protection Modes: Line-Ground (All)

Operating Temperature: -40°F - 158°F (-40°C - 70°C)

Maximum Humidity: 95% non-condensing

Dimensions: 1.7" x 3.0" x 1.2"

(43mm x 76mm x 30mm)

Weight: 4oz (113g)

Housing: ABS





DITEK Corporation  
One DITEK Center  
1750 Bailey Road  
Largo, FL 33771

# INSTALLATION

## INSTALL INSTRUCTIONS

DTK-MRJ45C5e / DTK-MRJPOE

This Surge Protection Device (SPD) is a high performance device, designed to provide protection for sensitive electronic loads connected to service panels, fire panels, or where the SPD is directly connected to the electronic device. Maximum protection will only be achieved if the SPD is properly installed.

Please read and follow the installation instructions carefully.

**NOTICE:** This SPD should be installed by a qualified electrician in accordance with the National and Local Electrical Codes and the following instructions.

### APPLICATION

Surge suppression for circuits using CAT 5e cable and RJ45 connectors.

### INSTRUCTIONS:

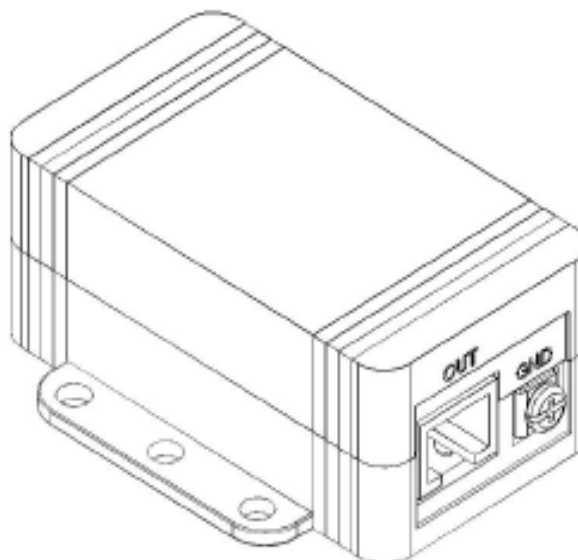
**Caution:** Measure all voltages to insure applied voltage does not exceed the voltage rating of the unit. Improper installation voids the warranty.

This unit must be connected in series with the equipment to be protected.

1. Connect the incoming wires to the "IN" connector.
2. Connect a CAT 5e patch cable from the "OUT" to the equipment to be protected.
3. Use one common ground per system to eliminate the possibility of a differential in ground potentials.

**Ground Resistance Rule:** Max ground resistance is 25 ohms, 5 ohms or less is optimum. This cannot be an assumed value and must be measured to assure proper grounding.

4. For mounting, use double sided tape, or two (2) #8 screws.



DITEK Technical Support Available 24/7  
1-888-472-6100  
[www.ditekcorp.com](http://www.ditekcorp.com)

Doc # INT-100101-001  
Part No. 191529 Rev. 4

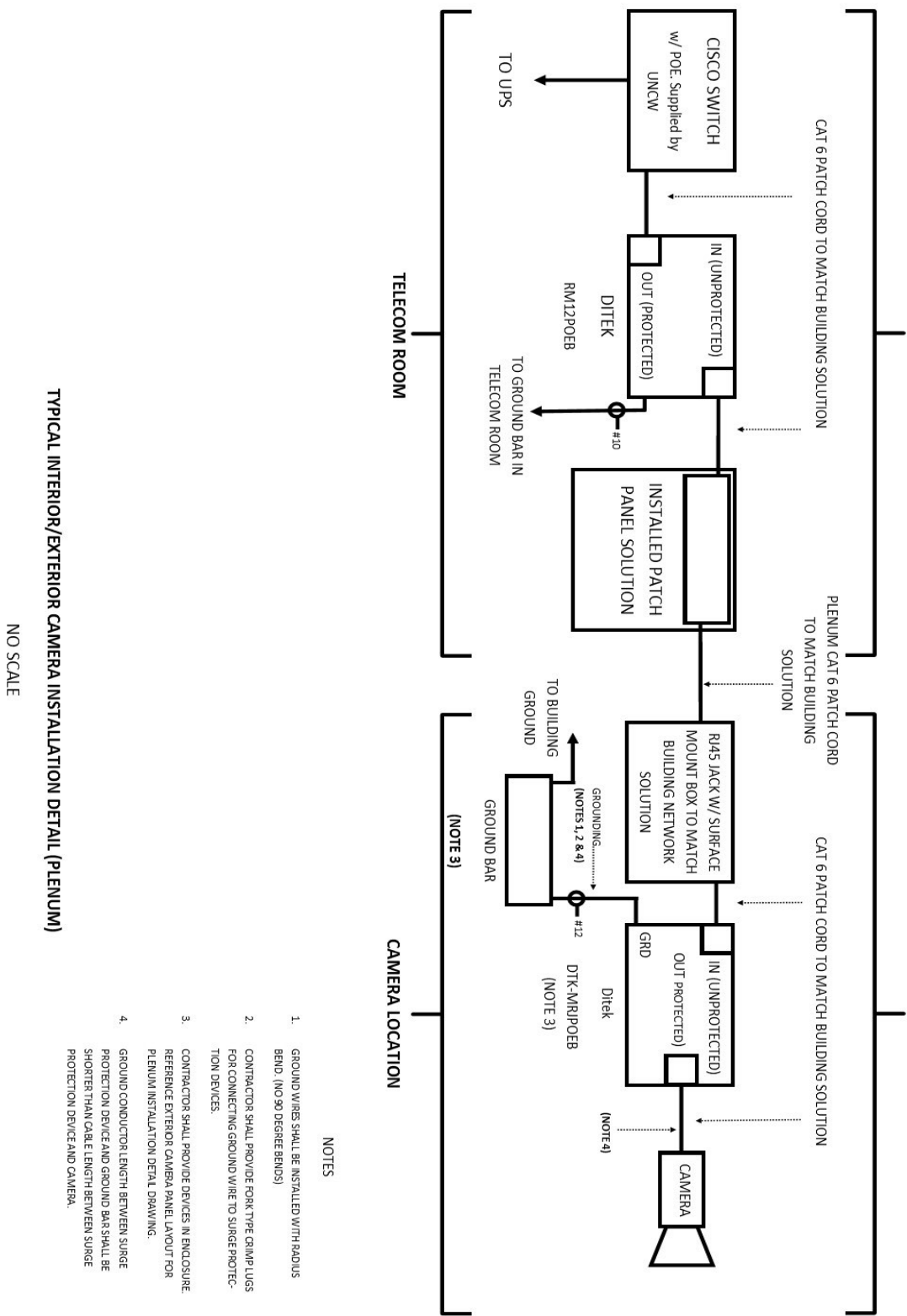
Drawn By: J.Ramirez 11-30-06  
Approved By: R.Mitchell 11-30-06

## **Typical Installation Drawings**

Included are examples of installations for exterior, interior and elevator cameras. These are intended as basic guidelines for future installations. UNCW understands that changes and revisions will be necessary to accommodate structural challenges, cost restraints, new technologies as well as differences in security requirements.

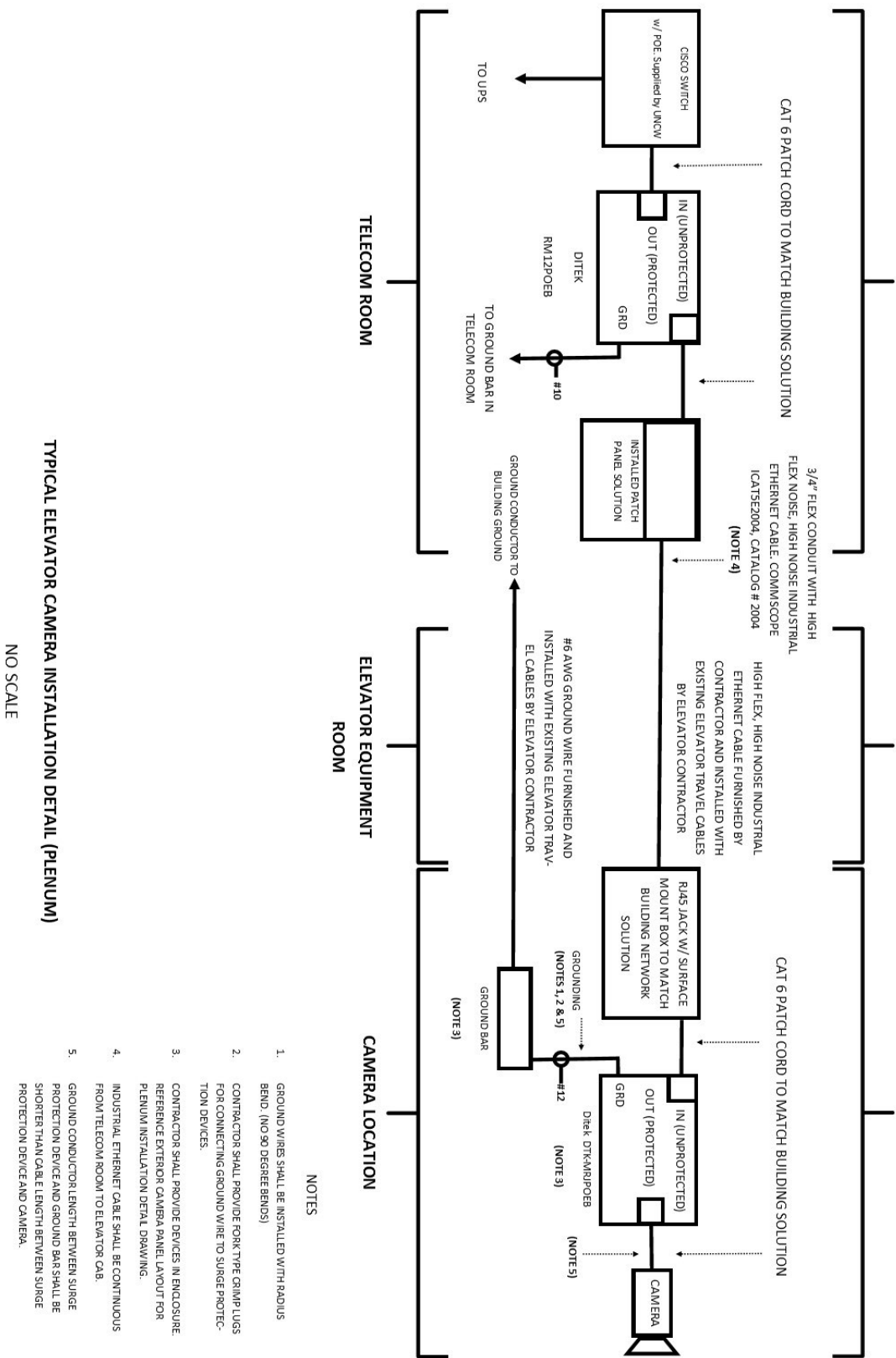
The examples included represent those that have thus far, proven the most effective in meeting campus security needs as well as providing the best protection of equipment. UNCW will continue to work with manufacturers, vendors, contractors and staff to develop new and cost effective standards that ensure quality, reliability and functionality.

# Typical Camera Installation

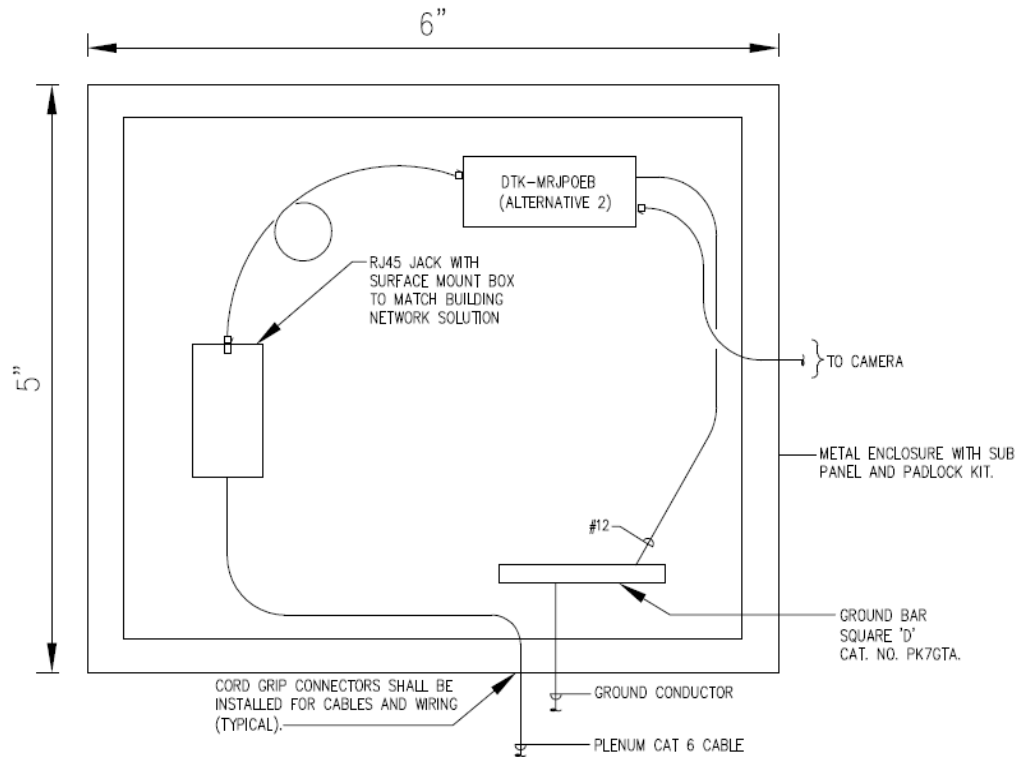




# Typical Elevator Camera Installation

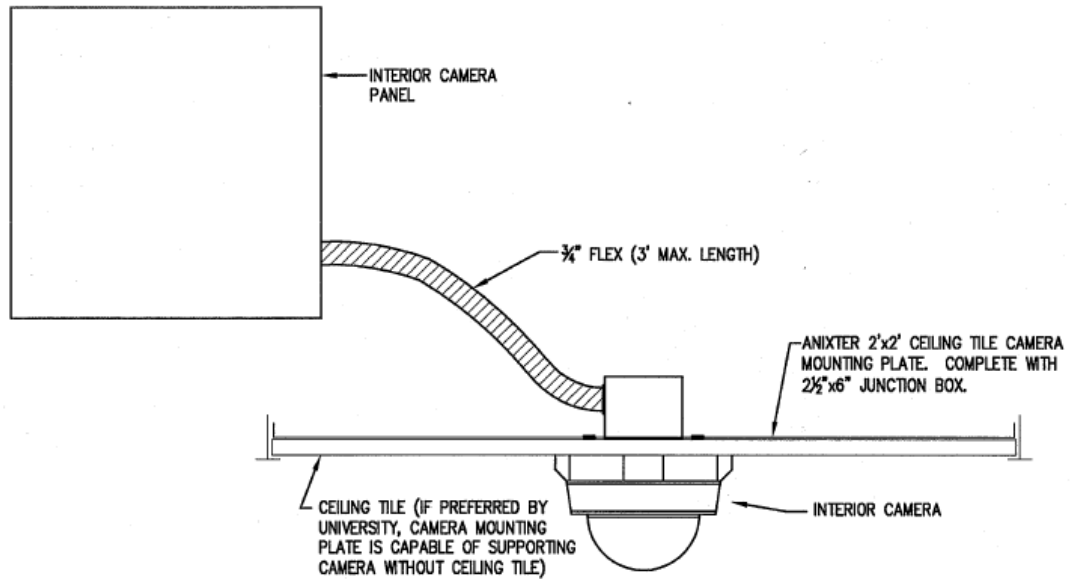


## Typical Panel Layout



TYPICAL PANEL LAYOUT FOR PLENUM INSTALLATION  
NO SCALE

## Typical Interior Camera Mounting

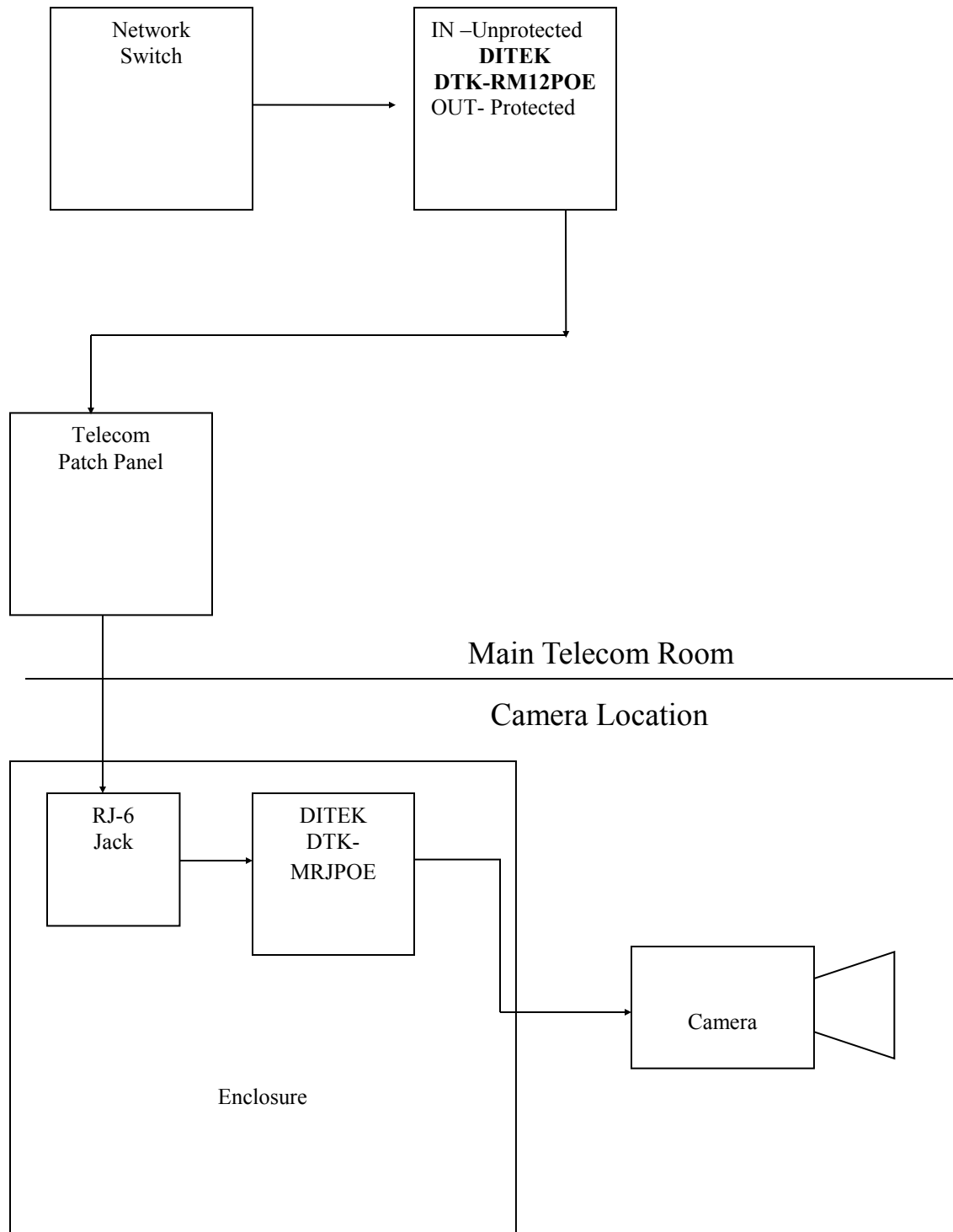


### INTERIOR CAMERA MOUNTING DETAIL

NO SCALE

Dwg.# 080154-EB008.DWG

# Typical Data/POE Signal Flow Chart



# Parts List and Technical Data

## Approved Parts List

Note: Contractor to provide all parts and cables necessary for complete installation.

	<b>Description</b>	<b>Manufacturer</b>	<b>Part Number</b>
1	Data Surge Protector	Ditek	DTK-MRJPOE
2	Rack Mount Data Surge Protector	Ditek	DTK-RM12POE
3	2x2 Ceiling Tile Camera Mounting Plate	Anixter	
4	RJ6 Jack	Solution Dependent	
5	RJ6 Jack Surface Mount Box	Solution Dependent	
6	Plenum Cat 6 Cable	Solution Dependent	
7	3/4" conduit w/ high flex/high noise industrial Ethernet cable for use in elevator installation	Commscope	ICAT5E2004 - Catalog# 2004
8	#6 AWG Green, Insulated, Stranded Ground Conductor	N/A	N/A
9	#10 AWG Green, Insulated, Stranded Ground Conductor	N/A	N/A
10	Appropriate Patch Cables as needed	N/A	N/A

# UNCW Camera Standards Changes

---

## **Rev. 7/15/10**

All Items required in the previous version concerning power supplies have been deleted. These items include the power supply, the Ditek surge suppression for power supplies, DC/DC power converter, and the wire for power supply connection.

Ditek surge suppression for each camera has been changed to a model that supports POE injection instead of “Phantom” switch POE.

Standard Camera models have been change from the previous models used by the old standards to the following models:

AXIS Model P3343-VE – used for all exterior applications

AXIS Model P3343-V – used for all interior applications

AXIS Model 209 FD-V – used in elevator installations

Adjusted wire and network jack types to be Netcom building solution dependent to match cabling in the rest of the building.

## **Rev. 9/22/10**

Page 14 Grounding Notes

The ground wire from the TMGB to all Camera enclosures was changed from 6 AWG to 8 AWG

The ground wire from the GB in camera enclosures to Ditek components was changed from 8 AWG to 12 AWG

These changes were also made it the notes of this page.

The standard camera used for all elevator installations has changed from the Axis 209 FD to the Axis M3113-R. This change was noted in the following locations of the Camera Standards document.

Page 2 Outline

Page 7 Camera Overview

Page 12-13 Camera Datasheet

Page 28 Parts List

## **Rev. 10/30/12**

The standard camera used for all interior installations has changed from the Axis P3343-V to the Axis P3363-V. This change was noted in the following locations of the Camera Standards document:

Page 2 Outline

Page 7 Camera Overview

Page 8-11 Camera Datasheet

Page 28 Parts List

The standard camera used for all exterior installations has changed from the Axis P3343-VE to the Axis P3363-VE . This change was noted in the following locations of the Camera Standards document:

Page 2 Outline

Page 7 Camera Overview

Page 8-11 Camera Datasheet

Page 28 Parts List

The documentation for the Ditek DTK-RM12POE has been updated to reflect the newest model. This change was noted in the following locations of the Camera Standards document:

Page 18 DTK-RM12POE Datasheet

Page 19 DTK-RM12POE Install Instructions

Page 28 Parts List

The documentation for the Ditek DTK-MRJPOE has been updated to reflect the newest model. This change was noted in the following locations of the Camera Standards document:

Page 20 DTK-MRJPOE Datasheet

Page 21 DTK-MRJPOE Install Instructions

Page 28 Parts List

The Contact information on Page 32 was amended as appropriate.

## **Rev. 02/17/16**

Removed any reference to name ‘Business Applications’.

# UNCW Camera Standards Changes

---

**Rev. 10/21/16**

Change all references of Access Control to Physical Security and Access  
Remove all references to midspan injectors  
Updated Personnel Page

**Rev. 1/24/17**

Changes made to index to reflect page number changes

**Rev. 2/28/17**

Changes made to Page 3, UNCW Responsibilities and Page 6, UNCW Camera Requirements regarding camera make, type and models used for UNCW projects.

# **UNCW Physical Security and Access**

**Contact Information:**  
**Accessmgmt@uncw.edu**  
**(910)962-3564**

Please contact the Physical Security and Access Manager with any questions or concerns pertaining to this document.