# Network Camera Surge Protection Methods

## ☐ A Guide to Network Camera Surge Protector Installation

Since lightning is frequent in summer, there are frequent POE power and camera failures caused by an electrical surge.

To prevent such a surge, it is necessary to take the following measures including grounding network devices, using STP cables, and installing surge protectors. STP cabling allows a ground path from the camera to the network equipment. Using UTP cabling prevents a ground patch.

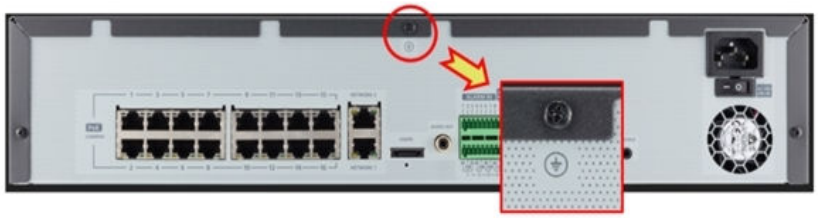
### ① Grounded Outlet and POE Equipment Grounding

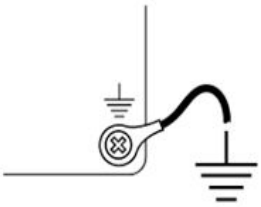
NVRs and network switches should all use grounding power plugs and have the grounding screw attached to an earth ground.

← Power Plug Grounding

100V, 220V cases

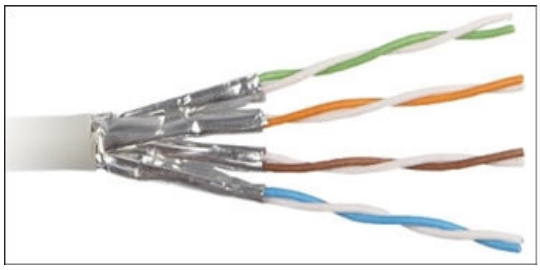
↙ POE Equipment Grounding

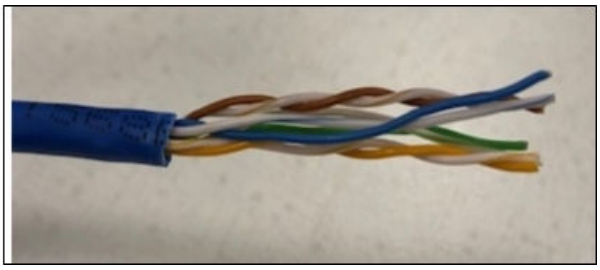




### ② Using STP cables

STP cabling must be used to provide an earth ground path.





[STP LAN Cable for Surge Protection] [Standard UTP LAN cable without a shield]

### ③ Using Surge Protectors

Surge protection should be installed and properly grounded at the camera side and the network equipment side to provide full protection.

Using a Surge Protector

Earth-Leakage Circuit Breaker (ELCB)

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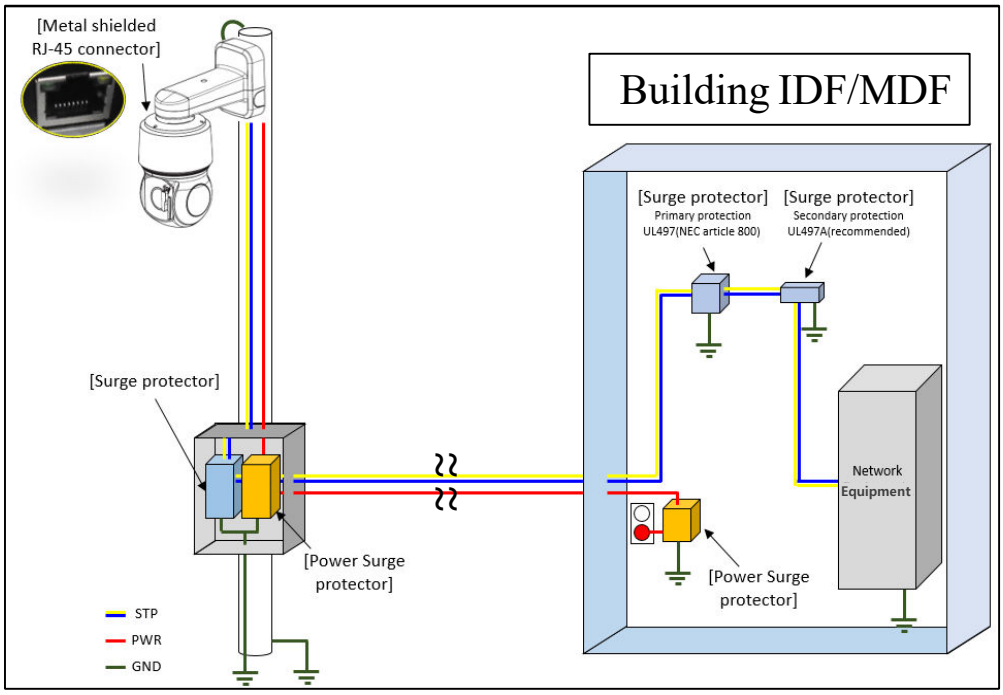
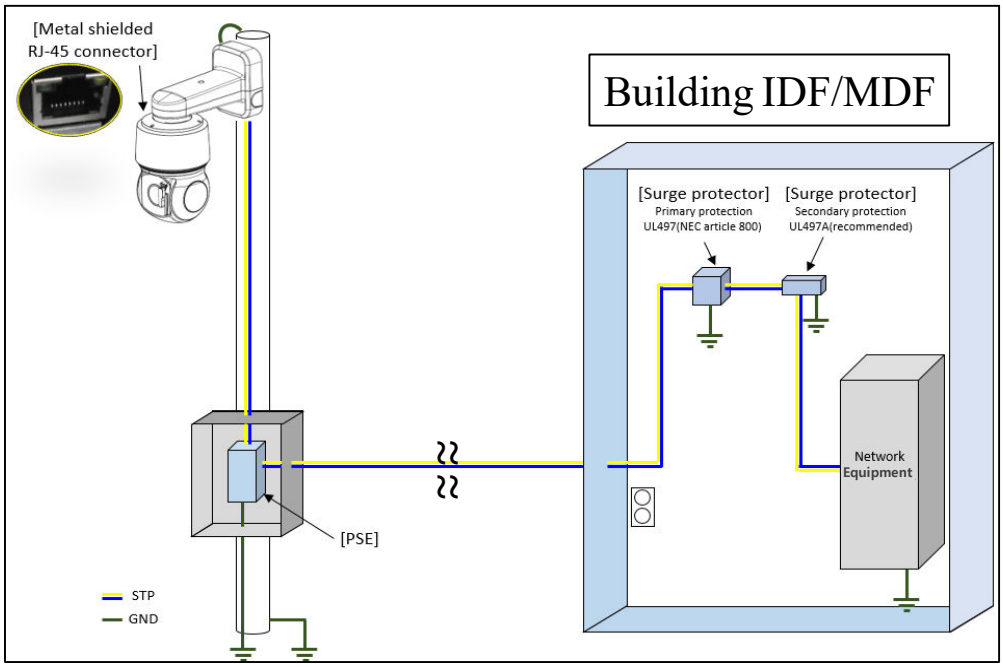
## ☐ Network Camera Surge Protector Installation Cases




**<Figure 1. Installation Using DC/AC Power>**




**<Figure 2. Installation Using POE Power>**

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## ☐ Applicable Network Camera Models as of 9/2020

PNB-A9001
PND-A9081RF
PND-A9081RV
PNM-9002VQ
PNM-9084QZ
PNM-9084RQZ
PNM-9085RQZ
PNO-A9081R
PNV-A9081R
QNV-6023R
QNV-6023R
TNB-9000
XNB-8002
XNB-9002
XND-6081REV
XND-8081REV
XND-8082RF
XND-8082RV
XND-9082RF
XND-9082RV
XNO-8082R
XNO-9082R
XNP-6400RW
XNP-8300RW
XNP-9300RW
XNV-6081RE
XNV-8081RE
XNV-8082R
XNV-9082R
XNZ-L6320