Troubleshooting:

Wavy or ghost video image if connected to an image processor (e.g., multiplexer or DVR), but not if connected directly to the monitor.	• Move the cable away from possible sources of interference. • Replace the cable with a new cable. • Ensure that the protected cable is as short as possible
Video image background flutters between dark and light.	• Remove a local power source, or adjust the monitor's brightness and contrast.
Video image is weak or faded.	• Reduce the cable length. • Replace with a higher-grade cable. Cat5 cable meets the specifications in the manual. Cat6 cable allows longer range.
No video image.	• Double-check that the cables were connected properly. • Run a continuity test on all wires in the cable.

Also Available from SECO-LARM:

Video Surge Protector
VS-1V12BQ

PoE Surge Protector
IPV-P188Q

HD-SDI Surge Protector
VS-1V22AQ

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ENFORCER®

IPV-PD88Q

IP Surge Protector

Manual

- Helps prevent damage to sensitive computer or CCTV equipment such as cameras, monitors, digital video recorders, video splitters, PCs, servers or networking hubs
- Intercepts repeated surges and spikes that could damage network equipment
- Installs on Cat5e/6 4-pair UTP cable with RJ45 jacks
- Passive operation – no external power required
- Includes a grounding post

SECO-LARM® SLI

Introduction:

The ENFORCER IP Surge Protector is a passive device that helps protect sensitive networking equipment from power surges. The device can be deployed in new installations or added to existing ones.

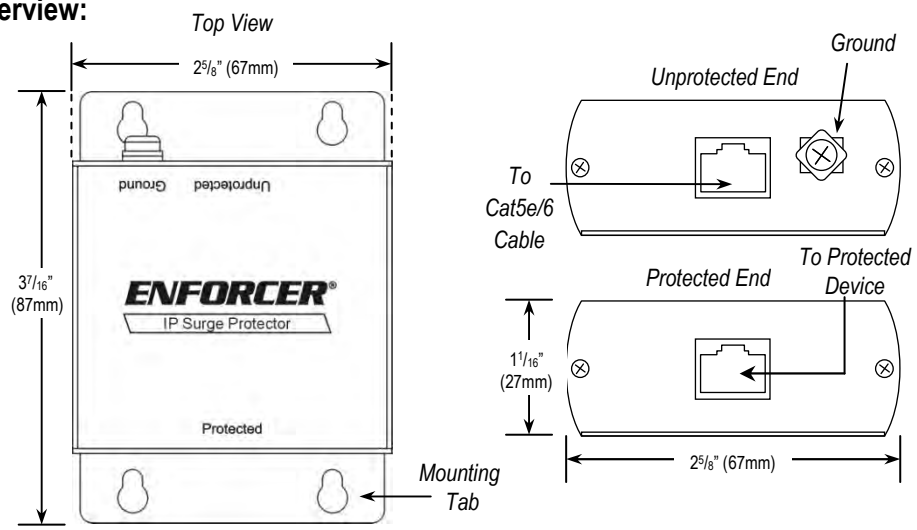
The IPV-PD88Q IP Surge Protector should be installed between devices connected by Cat5e/6 4-pair UTP cable to protect against surges that could damage computer or video equipment.

NOTE: For the best protection, installing two surge protectors is recommended: one at each end of the network cable.

Specifications:

Bandwidth		Up to 1GHz
Maximum input		7.6Vp-p
Insertion loss		<0.2dB
Return loss		16dB@100Ω
Frequency response		Up to 3dB@113MHz
Insulation resistance		10,000MΩ
Maximum surge voltage		4 kV
Discharging current		100A
Surge life		300 surges@100A
Surge protection time		1ns
Surge resistance		0Ω
Signal passing capability	Breakdown voltage	7.6V
	Clamping voltage	10.0V
Connector	In	RJ45
	Out	RJ45
Impedance		42Ω
Dimensions		$3^{7}/_{16}$"x$2^{5}/_{8}$"x$1^{1}/_{16}$" (87x67x27 mm)
Weight		4.4-oz (126g)
Material		Aluminum
Operating temperature		-40°~194° F (-40°~90° C)

Overview:



Parts List:

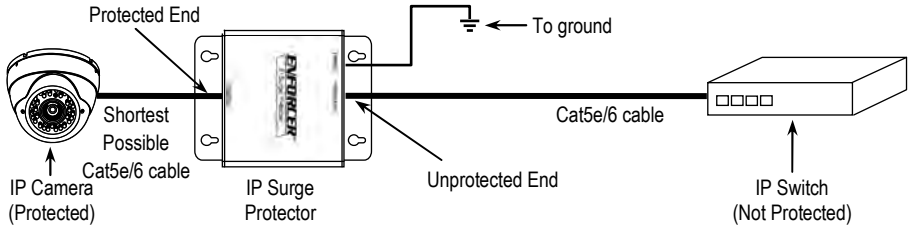
1x IP Surge Protector
1x 12" (305mm) Ground Cable
4x Mounting Screws
4x Plastic Wall Anchors

Installation:

NOTE: These instructions assume that 2 IP devices have already been connected together.

Protecting a Single Device:

1. Mount the IP Surge Protector as close as possible to the device to be protected.
2. Detach the Cat5e/6 cable from the device to be protected and attach to the "Unprotected" port of the IP Surge Protector.
3. Attach an additional short Cat5e/6 cable between the device to be protected and the "Protected" port of the IP Surge Protector. This cable should be as short as possible to connect the two devices. In addition the protected cables should not cross unprotected cables.
4. Use supplied ground cable to connect the ground (GND) terminal to earth ground. The system should use a single ground point and the protected device should be isolated from ground.



Protecting Multiple Devices:

1. Mount the two IP Surge Protectors as close as possible to each device to be protected.
2. Detach the Cat5e/6 cable from each device to be protected (such as an IP switch or IP camera) and attach to the "Unprotected" port on its respective IP Surge Protector.
3. Using additional short Cat5e/6 cables, connect each device to be protected to the "Protected" end of its respective IP Surge Protector. These cables should be as short as possible to connect each device to its respective surge protector. In addition the protected cables should not cross unprotected cables.
4. Use supplied ground cable to connect each IP Surge Protector's ground (GND) terminal to earth ground. The system should use a single ground point and the protected device should be isolated from ground.