



enVision Power Conditioning System Solves Mysterious Digital Display Failures

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The Problem:

Shortly after AVAD, a premier AV solutions provider, moved into its Van Nuys, CA facility two years ago several of its expensive video displays began to experience pixelation, performance issues, downtime, and failure. The problems were happening on a consistent basis across all of their displays on site, regardless of the brand. Branch Manager Timo Hildebrandt noted that AVAD replaced at least six HD panels ranging in size from 60" to 85" without ever knowing the cause. Hildebrandt assumed the equipment was defective and expected its replacement would function properly. When the replacement equipment also experienced similar issues everyone was left scratching their heads.

The Solution:

The mystery remained unsolved until ESP/SurgeX vice president of global accounts, Rick Komendera, came to the AVAD facility to give a presentation on the ESP/SurgeX enVision Power Conditioning System, a power protection product that includes real-time diagnostic software. After plugging the unit into the outlet to setup his presentation Komendera noticed the light did not turn on, indicating a power issue. He immediately checked for a bad ground but that was not the problem. He tried other options as well but none indicated any issues, so the mystery deepened.

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Identify and troubleshoot power-related problems



The electrician picked up \$6 worth of parts, bonded the unit to the ground, and instantly solved the feedback voltage issue.

At this point, Komendera used the enVision unit to measure the line voltage and made an illuminating discovery; a constant 17 volts flowing unchecked from neutral to ground. He then confirmed this reading with a voltage meter. Once the issue had been identified he suggested the AVAD team bring an electrician down to investigate further. During the initial phone conversation the electrician suspected that the feedback voltage was likely being caused by a faulty device on the circuit. After subsequent testing at the line, panel, and transformer it was the electrician’s turn to make an illuminating discovery. Seeing no issues from faulty devices he ultimately called the manufacturer of the building’s 15 year-old transformer and determined by the model/serial number that the unit was not bonded at the factory. This simple but critical step can cause serious power issues when not performed correctly. The electrician picked up \$6 worth of parts, bonded the unit to the ground, and instantly solved the feedback voltage issue.

The Result:

Since the transformer was bonded to the ground, there have been no more unexplained display failures or disruptions at the AVAD facility. The whole experience highlights the fact that power disturbances occur on a regular basis, and from many sources. Having a product like the enVision Power Conditioning System to monitor, control, and troubleshoot these issues is the best way to protect connected equipment and avoid power issues before they cause damage.



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