

LIGHTNING VS ELECTRONICS

Lightning creates some bizarre claims --- it welds the joints of ceiling grids and metal siding, splits trees with surgical precision, wipes out cows and computers. Lightning's behaviour is especially puzzling when it involves electronics.

Electronic devices function by precisely managing minute quantities of electrical current. They usually handle a narrow power range; when the power exceeds that range, these devices may fail. Satellite dish antennas, telephone installations, security systems and computers are all vulnerable to power surges.

The problem is that other phenomena besides lightning, can cause damage of this kind. Line spikes, brownouts, power interruptions, operator negligence and the premature failure of internal components can cause what appears to be identical damage. A spike may be caused by something as simple as disconnecting a printer cable from a computer, while the computer is running.

The only difference between them, may be the fact that lightning is more likely to be covered by insurance. Anyone can file a claim. However, how can it be proven that lightning <u>did not</u> cause the failure?

This is doubly difficult when there is no evidence that an irreparable loss occurred, accompanied by pressure from equipment owners to replace the failed system immediately! Lightning or supply spikes often leave no, or very minor evidence that such damage has occurred. The damage has taken place within sensitive electronic componentry.

Some lightning claims never yield a clear answer. However, facts often combine to point towards one finding preference to another. Insightful questions may bring those facts to light.

- 1. Does independent information confirm lightning activity on the date of loss?
- 2. Were other electronic devices damaged at that location?
- 3. Was the device being used, or energised when the damage occurred?
- 4. Does the distribution panel reveal a damaged breaker or system imbalance?
- 5. Does the power supply appear to be adequate for the damaged device?
- 6. Was damage found in several areas of the same device?
- 7. Does the equipment represent current state-of-the-art; is it adequate for its current application?
- 8. Does the damage differ from typical failure modes encountered on the device?
- 9. Is the service history clear of recent or recurring complaints?
- 10. Is the inspecting technician (or agency) free of any inducement to replace? Are they independent?

"Yes" answers point towards lightning damage, while "No" suggest another scenario. Direct physical evidence of damage may be more satisfying. But perfectly legitimate lightning claims sometimes provide no visible evidence at all. When it is absent, facts like these may be the only road signs available to come to an acceptable solution