## How to Avoid Alarm Panel Problems

## By Richard van Leeuwen P Eng (Electrical)

I often get called to assist after an alarm panel fails. The scenario is as follows: An alarm panel fails in a high rise building, the parts are no longer available, and a new system will cost 80,000 dollars. The part that failed, if available, would have cost 500 dollars retail (and probably less than 100 dollars to manufacture). Progress (well, at least change) in the electronics industry is rapid and it is hard to fault manufacturers for moving on to better equipment. But they are reluctant to keep supplying old parts, especially if they can sell a new system when the parts run out. My response to this is usually to look for competitive bids from other suppliers. This way, there is some limit on the costs and manufacturers will think twice before ending the supply of parts and risk losing a customer altogether.

Insurance companies often want to know what caused the alarm panel to fail. This can be difficult to determine but often the problem is exposure to water. The alarm panel is frequently installed in the basement so that it is out of sight and out of harm's way. Then the cables are run into the top of the cabinet. This means that if there is a leak in the building, the water can (and often does) run down the cable (either on the outside or on the inside) and directly into the top of the cabinet.

If you think that a leak in an apartment building is unlikely, think again. There is at least one kitchen sink, a dishwasher, two taps, a toilet, a shower, and a bathroom sink and several sprinkler heads and lots of interconnecting piping in each apartment. If there are 10 things that can leak in an apartment building with 100 apartments, that's 1,000 things that could spring a leak. Water from those leaks often finds its way down to the basement by way of the cable chase and gets into the alarm panel.

The solution is simple. Just run the cables into the bottom of the alarm panel. If this was done at the time of installation, I would be able to spend my time on more challenging assignments.

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