

Ask Mike

About all things emergency lighting



Mike Klarenaar

Q How often should emergency lighting be tested and what impact does incorrect testing have on battery life?

Twice a year. Testing and the required repairs or replacements are required to be carried out at intervals no greater than 6 months. The inspection and maintenance procedures are detailed in AS/NZS 2293 Part 2, but basically involves a discharge duration test and inspection to identify fittings that require maintenance.

The discharge test involves simulating a power fail and can be manually initiated via a test switch/timer at the switchboard, or automatically initiated by self-testing fittings or computerised testing systems which provide detailed reporting and maintenance records. The required duration of the discharge test is defined in the NZBC Clause F6, and is typically 90 minutes for most buildings or 30 minutes for small sites.

Battery life

It is not so much “incorrect testing” that will shorten the life of a battery. Nickel Cadmium (NiCd) and Nickel Metal Hydride (NiMH) batteries should be discharged to full cut-out to maximise the calendar life of the battery, because partial or shallow discharging of these types of batteries result in a memory effect - a faster loss of capacity over time.

Lithium Ion batteries do not suffer from a memory effect and also can be discharged many more times without affecting the life of the battery. The Lithium Iron Phosphate and Lithium Nanophosphate battery technology in Clevertronics fittings benefit from these and many other advantages against the older NiCd and NiMH battery technology.