

FPAA101D/HFS101D Automatic Fire Sprinkler System

Class 1 Home Care Guide

Context

The development of the original FPAA101D Technical Specification (currently in the process of being renamed the 'HFS101D Standard') aimed to provide a safe, reliable, cost-effective and fit-for-purpose solution for home/residential fire sprinklers. Residential systems typically respond faster to a fire due to their primary focus being life safety, increasing the time for occupants to safely egress, with international studies confirming around a 90% improvement in surviving a typical home fire¹. There are some known risks with traditional sprinkler systems utilising separate piping, inert and filled with stagnant water. Consequently, regular periodic testing and proven back-flow prevention is needed, over and above what is required for integrated home fire sprinklers.

Integration of fire sprinklers into the domestic drinking water system means the normal operation of other home fixtures and fittings (like taps, dishwashers, toilets, etc) acts as a 24/7/365 reliability check on the system's availability. Construction affordability and whole-of-building-life costs are improved, with servicing and maintenance for 101D systems installed in Class 1 homes being simpler and therefore less expensive.

Guidance – ongoing monitoring and inspections

1. It is the responsibility of the building owner for properly maintaining a sprinkler system. Those responsible should understand how the sprinkler system operates.
2. Routine ongoing monitoring of the system includes:
 - Visual inspection of sprinklers to check for obstructions of the spray pattern.
 - NEVER hanging anything from an exposed sprinkler head.
 - Visual inspection of fire sprinkler cover plates (for concealed heads) and sprinkler heads (for exposed pendant type) to ensure they have not been damaged, corroded or tampered with. For example, painting over a cover plate will adversely affect the activation performance of the sprinkler head.

¹ <https://www.nfpa.org/education-and-research/research/nfpa-research/fire-statistical-reports/us-experience-with-sprinklers> - accessed 22-07-2024

Note: Sprinkler heads or cover plates need to be immediately replaced if they have been damaged, painted over, or if there is noticeable damage or corrosion.

- Visual inspection for signs of water leaks.
- While doing messy work, such as painting, protect your sprinkler heads by temporarily covering them.
- All relevant water valves are maintained in the fully open position.
- Any pressure limiting devices checked that they have not been adjusted.
- Noticing any interruption or significant drop in domestic water pressures and flows that could affect the performance of fire sprinklers, and having this immediately investigated and rectified.

Note: If your sprinklers are connected to a separate water supply rather than the reticulated water network, consider an annual water flow test.

3. Sprinkler heads need to be replaced in accordance with the manufacturer's specifications in their fire sprinkler data sheet.