



PAVA  
LONDON UNDERGROUND



## the requirement

In November 1987, a devastating fire took hold at King's Cross Underground Station in London, where 31 people were killed and 19 seriously injured. It was concluded that the fatalities would have been greatly reduced had there been a spoken voice alarm to direct the passengers out of the station.

In response to the tragedy, London Underground Ltd (LUL) ensured that installation of voice alarm across all 130+ stations was given high priority. The tragedy prompted the evolution of the first nationally recognised standards for Public Address and Voice Alarm (PAVA).

Certified to the most stringent voice alarm and safety standards, including EN54-16, ASL's PAVA solutions met LUL's safety needs.

## the solution

ASL's solution began with the design and development of SIL2 rated matrix control and micro control products for LUL in 1993. From here, ASL then began developing its comprehensive PAVA and Long Line Public Address (LLPA) product ranges; adopting SIL2 standards for both hardware and software design.

ASL pioneered the use of Adaptive Class D amplification with fanless cooling and DSP routing. These unique developments in voice alarm technology gave marked improvements in space utilisation, energy efficiency and Mean Time Between Failure (MTBF) performance.

## the result

Over 130 LUL stations now rely on ASL's PAVA systems. ASL's work on the project led to the award of the Whole Life Maintenance Contract for the Jubilee Line Extension over a 19-year period.

ASL continue to provide ongoing support for installation, commissioning and maintenance to delivery partners. ASL's long-standing relationship with LUL is further strengthened through continued investment in research and product development.

