



A SOUND EVACUATION SOLUTION

A new type of fire alarm sounder, which can guide the occupants of a building to the emergency exits, is set to make life a great deal safer for all of us. This new technology allows those with impaired vision, or any occupants of a smoke-filled building, to make a safer and quicker evacuation in the event of an emergency. Because fatalities in fires are often caused by inhalation of poisonous smoke, this will help save lives.

The 'Localizer' alarm has been developed by Sound Alert Technology plc, a company that develops innovative products based on research by Prof. Deborah Withington and a team of scientists at Leeds University, and manufactured in partnership with Klaxon Signals, leading suppliers of sound signalling products.

Conventional fire alarm sounders merely alert us to the presence of danger; it gives no information concerning the direction to, or location of, the nearest emergency exits and therefore relies on people's ability to find their way out using exit signs. Even if such an alarm were to be

placed over an exit door, we would not be able to find it because a conventional alarm produces a sound, which our brain cannot localise. In other words, it is difficult to distinguish where the sound is coming from. Voice evacuation systems can tell us where to go, but the problem is that they cannot show us how to get there. In order for alarms to be located by the brain, the frequency content of the sound has to be as wide as possible



Prof. Deborah Withington and Mike Lunch, Managing Director of Sound Alert Technology plc, with a lab prototype.

Standalone directional sounder
manufactured by Klaxon Signals.

(20-20,000 Hz) and is the reason why conventional alarms will not work in this situation.

Localizer directional sound technology is a broadband, multi-frequency sound (or "white noise"), whose direction can be easily detected by the brain.

The Localizer sounders fitted in addition to existing bells or sounders allows people to move towards the nearest exits and also offer intuitive guidance as to whether to go up or down stairs. Used in conjunction with modern analogue addressable fire detection systems, which can determine the seat of fire, a preferred evacuation route can be set by triggering the appropriate Localizer sounders. In combination with Voice Evacuation systems, it is possible to educate people on the use of the system when it is needed, even if they did not possess prior knowledge.

In recent trials filmed for a Channel 5 documentary, half of the evacuees in a first test using conventional fire alarm sounders failed to locate the emergency exits in time and would have died due to smoke inhalation or the fire itself. In a second test, this time utilising Localizer sounders, all escaped successfully in less than half the time.

In addition, Localizer has received extensive TV coverage, having been featured in the BBC World Service, BBC's "Tomorrow's World" and "999 Lifesavers" as well as achieving widespread press coverage, including articles in British broadsheets, New Scientist and The New York Times. On top of this, Localizer has already won a number of awards: the Fire Industry Council Product Innovation Award in 2001, judged by a panel of Fire Industry experts; three DTi SMART awards in the period from 1994 to 1997; the prestigious Prince of Wales Award for Innovation as well as a special award for the product with the greatest commercial potential; and finally, Localizer had been awarded Millennium product status by the Design Council (in the form of emergency vehicle sirens and evacuation beacons).

The technology is not just limited to buildings, but can also be utilised for marine, railway and airline applications where a controlled evacuation would be crucial in an emergency. Furthermore, Localizer has the benefit of international applications that are totally independent of language constraints.

For further information of this technology or for a demonstration, please contact Klaxon on +44 (0) 20 8952 5566 or e-mail sales@klaxonsignals.com.