



**NEW ALARM TECHNOLOGY MORE EFFECTIVE AT WAKING PEOPLE  
THAN STANDARD SMOKE ALARMS**

***Lifetone Technology's low-frequency alarm especially effective with older adults,  
those with hearing loss and children.***

**CHICAGO – (April 13, 2009)** – People at risk of sleeping through standard smoke alarms now have a new safety option available to them. To address recent fire safety research, [Lifetone Technology](#)<sup>™</sup> has developed a new fire alarm with the technologies proven to be most effective at waking older adults, people with hearing loss and children during a fire.

According to [fire safety studies](#) commissioned by the U.S. Fire Administration and the Fire Protection Research Foundation, an affiliate of the National Fire Protection Association (NFPA), a 520 Hz square-wave signal is proven to be more effective at awakening at-risk individuals than standard fire alarms, which use a high-frequency 3100 Hz pure tone signal. The [Lifetone HL<sup>™</sup> Bedside Fire Alarm and Clock](#) listens for the sound from standard fire alarms, and then broadcasts its own 520 Hz square-wave signal at the bedside. The Lifetone HL also includes a bed shaker, which produces strong, intermittent vibration. This feature will aid those with profound or fluctuating hearing loss at 500 Hz and higher who may not reliably hear and wake up to the 520 Hz square-wave signal alone.

"Fire safety is an overlooked problem for the millions of Americans who are heavy sleepers or experience hearing loss at any level," said Mark Colello, [Lifetone Technology's](#) president and chief executive officer. "Lifetone Technology is dedicated to introducing technologies in new products that improve personal safety in fires and other life-threatening emergencies."

An estimated 70 million Americans<sup>1</sup> have high-frequency hearing loss. In fact, 44 percent of people with hearing loss do not wake to the sound of standard fire alarms due to their high pitch. With roughly [half of all home fire deaths](#) resulting from incidents reported between 11:00 p.m. and 7:00 a.m., this is a significant safety issue.

"Even though some people might hear their smoke alarm during the day, it may not wake them from sleeping, either due to hearing loss or deep sleep patterns," said Brenda Battat, executive director of the [Hearing Loss Association of America](#). "It's critical that people evaluate their safety needs and take the necessary precautions to protect themselves and their families."

While new industry standards are being reviewed for smoke alarms, the Lifetone HL provides a state-of-the-art fire alert system in an easy-to-use alarm clock. Developed by David Albert, M.D., a scientist and well-known expert in biomedical engineering and cardiovascular research, the Lifetone HL is the only UL-Listed fire alarm to use the 520 Hz signal and a bed shaker. The Lifetone HL works with all smoke alarms manufactured since 1999 that are UL certified for the U.S.

"About 94 percent of households have working smoke detectors, so it's time to embark on the next endeavor," said Kim Bacon, community liaison officer for the [West County EMS and Fire Protection District](#) near St. Louis. "We need to identify those who may not be able to wake from a standard smoke alarm and help them find a fire alarm that is right for their needs."

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<sup>1</sup> Based on Johns Hopkins study published in Archives of Internal Medicine July 2008, which states 55 million Americans ages 20 to 69 have high-frequency hearing loss; and Cruickshanks et. al. Beaver Dam study published in American Journal of Epidemiology, 1998, which states that 66 percent of people 70 to 79 have high-frequency hearing loss, and 90 percent of people ages 80 to 92 have high-frequency hearing loss.

### **New Technology Developed at Home**

In 1999, Dr. Albert was at home working on a wireless heart monitor he planned to use during surgery for his daughter, Kathryn, when Kathryn noticed that the smoke alarm signal produced by the test had been detected by the heart monitor. This discovery ultimately led Dr. Albert to develop the Lifetone HL technology that listens for standard smoke alarms and emits a low frequency, 520 Hz square-wave sound pattern.

“What began as an accidental discovery has evolved into a new chapter in fire safety technology,” said Dr. Albert. “It’s thrilling to see this new technology finally available to people who need it the most.”

Albert, who serves as the company’s chief scientific officer and chairman of the board, currently holds 22 U.S. patents with 23 more pending.

To bring his patented technology to the public, in 2004 Dr. Albert founded InnovAlarm™, which has since evolved to become [Lifetone Technology, Inc.](#) Based on Dr. Albert’s technology, Lifetone Technology develops products that offer improved alerting and awakening capabilities during emergencies, such as fires and smoke accumulation.

### **About the Lifetone HL™ Bedside Fire Alarm and Clock**

The [Lifetone HL™ Bedside Fire Alarm and Clock](#) is expected to retail for about \$180. Additional product features include:

- Uses 520 Hz square-wave sound pattern – a lower frequency than standard smoke alarms.
- Hears your existing T3 smoke alarms. No new alarms are required.
- Functions as a standard alarm clock.
- Battery backup lasts seven days or more while still providing emergency alarm signals.
- Alerts to AC power loss and low or no battery.
- Alerts to unplugged or improperly connected bed shaker.
- Two year limited warranty.
- Measures 8 1/2” L x 5” W x 4” H.
- Includes a water-resistant bed shaker.

Available nationally beginning in April, the Lifetone HL™ Bedside Fire Alarm and Clock can be found in catalogues and online retailers. For more information, visit [www.lifetonesafety.com](http://www.lifetonesafety.com).

### **About Lifetone Technology™**

Lifetone Technology™ is dedicated to introducing technologies in products that improve Life Safety in fire, carbon monoxide, and other life threatening emergencies. Lifetone Technology is headquartered in Oklahoma City, Okla., with offices in the Chicago area. Additional information can be found on the company’s Web site [www.lifetonesafety.com](http://www.lifetonesafety.com).

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