Alerter group

# Why Mobile Phone Text Systems Are Not Reliable As A Fire Alarm:

## Do Not Meet BS5839

Mobile phone systems do not and can not with current technology meet British and European fire standards, such as BS5839-1. There is a section (18) dedicated to the special requirements of “Fire alarm warnings for people with Impaired Hearing”.

## Weak Vibration

Mobile phone vibration is generally quite weak. The strongest we have tested is less than half the strength of our vibrating Alerter. Text message vibration is also very short in duration; our Alerter vibrates until the fire alarm is reset. Is a user guaranteed to notice the message on a mobile phone?

## Unreliable Signal

Relying on phone networks is extremely dangerous as signal can be patchy throughout a building and varies from network to network. You have no control on which network the recipient is using, posing a risk to the user. Will they receive a message in your building?

## Poor Battery Life

Smart phone battery life is very poor and will often not last a full day of use. Our Alerter has a typical battery life of 4-6 weeks with several days of low battery warning. If a recipients battery has run out how are they going to receive emergency messages?

# BS5839-1 section 18

Since 2002, BS5839-1 section 18 has been dedicated to the special requirements of "Fire alarm Warnings for people with Impaired Hearing". It is vital that this standard is adhered to as this is seen by industry experts as the minimum acceptable standard that should be considered safe to use. We feel it is important not to cherry pick areas and ignore others, as some suppliers appear to do. The standard offers 3 types of equipment: fixed, movable and portable, stating the requirements for each. The following are some of the areas we consider mobile phone based systems struggle with compliance:

**18.2.1 c) "The intensity of output of tactile device should be of sufficient to attract attention."**
Mobile phone vibrations are generally quite weak. During testing we found that the strongest vibration from a mobile phone was less than 50% that of our Alerter device. Can you guarantee that a user will feel the vibration from a mobile device?

**18.2.2 a) "The alarm should be given at the portable alarm device within five seconds of the generation of the alarm signal..."**
With a mobile phone solution it is impossible to guarantee that a user will receive an alarm message within the stated 5 seconds. Although a text message may come through within this time, some messages will be delayed and some may never arrive. This becomes an even greater concern when taking into consideration that during a major incident such as an evacuation, local phone masts/systems can very easily become overwhelmed with network traffic.

**18.2.2 b) "The alarm signal emitted by the portable alarm device should continue for at least 60 seconds after the reception of every alarm transmission or until it is acknowledged by the portable alarm device. This emitted alarm signal may be intermittent."**
When receiving an alarm message, just like any text message, a mobile phone vibrates for just a few seconds, not the required 60 seconds. Most mobile phones will vibrate for a couple of seconds and will not give any more notifications after that.

**18.2.2 c) "In a fire alarm condition the transmission equipment should continue transmitting the alarm signal to the portable alarm devices until the alarm is cancelled by a signal from the fire alarm control equipment. If the transmission equipment does not send the alarm signal continuously, it is acceptable the transmission equipment to send the alarm signal repeatedly at periods not exceeding 10 seconds."**
The text-based solutions we have seen do not repeatedly send the text message until the fire alarm is reset.

**18.2.2 d) "Where the portable alarm device is also used for other purposes (e.g. general paging), the recipient should, by means of cadence pattern, be able to tell the difference between a signal of fire and signal for other non-emergency purposes."**
There is no way to differentiate between a general text message and an alarm warning text message with a mobile phone solution.

**18.2.2 e) "Where the portable alarm device is also used for other purposes (e.g. general paging), the fire signal should have priority over any other signal so that 18.2.2a is satisfied, regardless of the occurrence of the other system activity."**
Mobile phone solutions do not have access to the emergency mobile phone priority system. In fact, during a major terrorism incident, under the Civil Contingencies Act, mobile phone networks may be turned off to normal users, restricting use to authorised users only, to prevent a mobile phone being used to trigger a bomb for example.