

## STOP THIEF!!

By Mads Glaad for "Computer Sweden"

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A home becomes increasingly attractive to thieves in direct proportion to the number of gadgets it holds. Strangely enough, the best defence against the thief is to install more gadgets. Following a break-in, the most traumatic consequence is understandably the invasion of your territory. Someone has disrespectfully roamed through your domain, rummaging around for something that can be sold. One cannot disregard the practical dilemma when someone steals your property - you often need to replace the items. Insurance is of course an answer, but perhaps not the solution. Insurance may replace a flat screen TV but it can certainly not replace the last 10 year's digital photos stored on the stolen laptop.

What is the most effective method to keep thieves away? Johan Sandberg, Managing Director of Indusec, is ideally qualified to answer this question. Indusec specializes in scaring away intruders - in no uncertain terms. Meet Johan and his powerful Inferno sound barriers. *"One could well ask why you need an alarm. When the security patrol arrives it is usually too late to catch the thief, and even if nothing has been stolen, he has already managed to desecrate your home. For us it is not about alarms or security - it's all about making it hell for the thief."* explains Johan.

### A high-tech inferno

Until now, Indusec has concentrated on selling its high tech sound barriers almost solely to companies, both commercial and industrial. However, demand from ordinary consumers is building steadily as an increasing number of private individuals seek to boost the effectiveness of their existing alarm system with Inferno sound barriers.

*"Here, press this button and see for yourselves."* says Johan, almost absentmindedly. He slides the unit across the desk - it resembles a home cinema speaker in polished aluminium. I inspect it and am impressed by its size and authority. I reach for the red button - Johan and his colleague Thomas Höglér immediately cover their ears. Unfortunately, neither myself nor the poor photographer are quite as wise. I press the red button and instantly, all hell breaks loose. It is undeniably the worst sound I have ever heard in my life. This in spite of the fact that as a music producer, I've been exposed to acoustic feedback that could wake the dead.

### A developing sense of sickness

It was like a shock from a power cable, and I instinctively lost control after just a half second. It propelled me from the table with incredible force, at the same time a series of expletives spilled from my mouth. The photographer's mouth seemed to be doing the same yet I couldn't hear a word - at that moment, I was totally deaf. In the midst of the chaos, I knocked a couple of things off the table and felt pressure on my forehead like I'd been hit. After a few moments the deafness began to subside - Johan and Thomas' suspiciously malicious laughter slowly became more clear. For a long time, I sat with my head buried in my hands - I was in a state of shock. *"That was 125dB. You obviously don't want to hurt anyone, but if you need more impact, you can combine four units"* say Johan, and points proudly to a tower-like construction with four elements of the type we had just experienced. For those that have no idea just how loud 125dB is, consider this : a cannon shot is 180dB and will make you deaf. A less considerate club dj will play at 115dB, and a jumbo jet engine at 5 metres is 130dB. Get this - the sound pressure from the Inferno is just below the human pain threshold.

### The optimal situation

The unit, which I initially viewed as a home cinema speaker, now resembles a sleeping pit bull with rabies. I'm dreadfully fearful that Johan will demonstrate the 4 unit 'tower'. Luckily, we avoid such a demonstration. The sound produced by the Inferno can most simply be described as a very high-pitched car alarm - except 7 times louder. If an ordinary house alarm is



enough to scare off a thief, then the Inferno's sound level will without doubt make him turn on his heels as quickly as humanly possible. With a watchful eye of the red button, we continue the interview.

*"It's based on the transmission of four unique dynamic tones that when combined, have a terrible effect on the ears. The four tones are audible simultaneously - their frequencies are very close to one another yet they're constantly 'shifting' - all the time. One becomes confused and paralysed to a degree - in fact you cannot determine where the sound is actually coming from. You do however, know that it is unbearable."* says Johan. *"Finally, one feels physically ill as a result of the confusion and din."* adds Thomas. I don't doubt his word for a second.

This however is just one of the elements of Inferno. Johan produces another item which in this instance almost seems superfluous. In case the aural assault is not sufficient, it is possible to compliment the experience with another piece of technology. This unit looks evil - like a broken transformer from an East European nuclear plant. A sign warns "CAUTION! HIGH VOLTAGE INSIDE!".

### **Disco death**

*"This is the light barrier"* explains Johan, with poorly masked glee. I dread the impending experience, and duck instinctively when Thomas presses the button. In spite of the fact that it is bright daylight, I receive a further shock - although not to the same magnitude as the sound barrier. The light barrier is a strobe of the type used in association with dance floors & night clubs - only much more powerful. Extremely disturbing and invasive. Once again I feel ill and as the flash frequency increases, I'm forced to close my eyes. I can't help but consider how effective a burglar would be with his eyes closed.

I decided, in spite of my now mangled condition, to test drive the two units simultaneously. We setup a test area in an office, the plan being that I rush into the room and try to remain as long as possible. I steel myself, and rush in at full speed. It is like being hit by a train. Up and down, left and right is a ferocious din. The light barrier has temporarily destroyed my vision, causing me to stumble around searching for the door. There is no chance I would ever go in again. *"No more of that!"* I shouted.

### **Theatre technique**

In some installations, the light and sound barriers are combined with a third element - smoke generators. I can hardly begin to imagine the combined effect of all three. Johan explains that one of the large home electronic chains recently installed all three elements (light, sound, smoke) and then suffered a break-in which was captured on CCTV. *"Viewing the footage was quite an interesting experience - the thieves running around like headless chickens, desperate to get out of the premises. They had no idea where to go and definitely had nothing with them when they fled."* explains Johan with an evil smirk. *"It's impossible to orient oneself - that's the whole point. In actual fact, it's quite simple - it's all about disturbing the senses. The technique has been taken from the theatres and industrialized."* explains Thomas. *"Of course, it's possible to defeat, to a certain extent, the power of the sound barrier"* continues Johan. *"If one wears ear protectors, you can reduce the effect - however it is still difficult to orient oneself and you feel very isolated. Professional thieves aren't comfortable with that - nor the fact that communication is impossible with the unit sounding."*

### **Hand grenade**

A single sound barrier can effectively cover an area of 70m<sup>2</sup>. If the location is on more than one level, it would be sensible to install additional units. The over-riding principle is to force intruders to leave at the first entry point - so placement is generally obvious. Most of Indusec's customers are found abroad and are to a great degree commercial and industrial. However, Sweden has begun to waken to the idea of the sound barriers in particular, being used by consumers. Before we left Indusec's office, we caught sight of a peculiar gadget on a shelf. I remarked that it looked like a hand grenade. *"That's what it is."* says Johan, grinning with anxiety provoking shrewdness. *"It's essentially a sound barrier that functions like a grenade - it's for the Police - pull the pin and throw it into a room and..."* At this point, we left the building immediately. We may return to do another article on other Indusec's high-tech security solutions - but don't hold your breath. Whilst very interesting and impressive, it was far from an enjoyable experience.