The Inferno sound
Customer categories
Applications
The Inferno Sound

• Purpose with a normal siren:
  – Announce – the alarm is activated

• Purpose with an Inferno siren
  – Annoying – you want to disappear
  – Dramatic reduction of the time for break in and damage

• Characteristics of an Inferno Siren
  – Unbearable noise, a sound barrier
  – Harmless
  – Nice design

• Means of achieving the Inferno Sound
  – High dB
  – Irritating frequencies
  – Patented method

• Next generation of sirens – The Inferno Sound
The Inferno Sound builds up over time

Perception

Unbearable

Time

seconds

The Inferno Sound characterises of 3 phases
1. Surprise
   The sudden impact: Help
2. Adjustment
   The ear adapts: Not so bad
3. Irritation
   Intolerable: It gets worse
## Compare sound pressure

<table>
<thead>
<tr>
<th>Description</th>
<th>Sound Pressure N/m²</th>
<th>dB(A)</th>
<th>Sound Intensity W/m²</th>
</tr>
</thead>
<tbody>
<tr>
<td>Large jet aircraft (5m)</td>
<td>63.2</td>
<td>130</td>
<td>10</td>
</tr>
<tr>
<td>Large jet aircraft (40m)</td>
<td>20</td>
<td>120</td>
<td>1.0</td>
</tr>
<tr>
<td>Large orchestra (5m)</td>
<td>6.3</td>
<td>110</td>
<td>0.1</td>
</tr>
<tr>
<td>Tube Train passing</td>
<td>2.0</td>
<td>100</td>
<td>0.01</td>
</tr>
<tr>
<td>Inside Tube Train</td>
<td>0.63</td>
<td>90</td>
<td>10⁻³</td>
</tr>
<tr>
<td>Noisy Office</td>
<td>0.2</td>
<td>80</td>
<td>10⁻⁴</td>
</tr>
<tr>
<td>Conversational speech</td>
<td>0.063</td>
<td>70</td>
<td>10⁻⁵</td>
</tr>
<tr>
<td>Reading From a Book (1m)</td>
<td>0.02</td>
<td>60</td>
<td>10⁻⁶</td>
</tr>
<tr>
<td>Average Office</td>
<td>6.3x10⁻³</td>
<td>50</td>
<td>10⁻⁷</td>
</tr>
<tr>
<td>Quiet Office</td>
<td>2x10⁻³</td>
<td>40</td>
<td>10⁻⁸</td>
</tr>
<tr>
<td>Public Library</td>
<td>6.3x10⁻⁴</td>
<td>30</td>
<td>10⁻⁹</td>
</tr>
<tr>
<td>Whisper (2m)</td>
<td>2x10⁻⁴</td>
<td>20</td>
<td>10⁻¹⁰</td>
</tr>
<tr>
<td>Quiet Whisper (1m)</td>
<td>6.3x10⁻⁵</td>
<td>10</td>
<td>10⁻¹¹</td>
</tr>
<tr>
<td>Threshold of audibility</td>
<td>2x10⁻⁵</td>
<td>0</td>
<td>10⁻¹²</td>
</tr>
</tbody>
</table>
Siren Coverage Comparison

to achieve 112 dB(A) in an area 15 x 7 m

Either fit twenty eight sirens with 115 dB(A) at 1m

or fit just two Inferno Mini 125 dB(A) at 1 m
Inferno Sound Generator

Traditional siren

- A single tone

The Inferno siren

- Four tones
  - The four tones move, tuned in pairs
  - Any given moment, close in frequency
Customer categories

• Premises critical to the business
  – Server rooms, stocks, research laboratories etc

• Hazardous locations
  – Dangerous for unauthorized people: distribution plants, nuclear power plants etc
  – Could be dangerous: chemical industries, laboratories etc

• Theft hit areas
  – Jeweller’s, watch-maker’s, fur-dealer’s etc
  – Golf and electronic shops, lorries etc

• Goods especially liable to be stolen
  – Drugs, cigarettes, weapons, cash etc
Applications

- Places with an extra need of protection
  - Shops, jeweller’s, watchmaker’s, fur-dealer’s, etc
  - Warehouses: electronics, cigarettes, weapons, valuable goods etc
  - Offices: server rooms, computer centres, show rooms
  - Building sheds, base stations, distribution plants, oil platforms
Applications

- Objects with an extra need of protection
  - Boats, cars and caravans
  - ATMs and other money containing machines
  - Plasmascreens and other valuable objects
Applications

- Other applications
  - Warning device
    - Mines
    - Horn (Military tanks)
  - Hazardous areas, to protect people
    - For unauthorized people: power stations, signal tower, petrochemical plants etc
    - Gas leaks, laboratory accidents etc