

Sound Level Meter

Entertainment Noise

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Noise and its influence on people has been studied and analyzed for a long time. In the long run, it not only is just unpleasant and annoying, it can carry serious consequences and if it level goes far beyond the permissible limits, can even cause serious damage to the human health.

One of very important and very widely-spread areas is an entertainment sector. It usually involves lots of people, from one side, those who provide those entertainments and need to work in that environment, from the other – those who come to entertain and have fun. Discos, clubs, bars, concerts and musical events, theaters, movie theaters, etc. and etc. – in every of those establishments or events the Norms regulating the level of noise should be considered and followed.



Noise Regulations derived from the European Regulations from 2003. These norms help to create and maintain the appropriate environment which allows people both – to enjoy music and to avoid hearing damage.

For example, if the musical concert takes place inside, an appropriate hall should be chosen, the isolation of walls, floor and scenery checked etc. The musicians should have enough space between each other so that not to influence each other by the sound they are performing. The performers should go through a regular check-up confirming that there is no deterioration of their hearing abilities. For outside concerts the location should be chosen in such a way so that to exclude the negative influence of the amplifiers on the audience, the correct distance should be chosen between the stage and the listeners. If necessary, people organizing the event and working in the immediate proximity to the musical instruments should wear personal hearing protection. Amplified music is a famous kind of entertainment. But to provide it, it is necessary to get a license allowing doing that. How well the requirements are followed is checked regularly by the official representatives. Windows, walls, ventilation, appropriate isolation, double doors, presence of the devices limiting the noise – should correspond to the requirements of the Health and Safety Executive.



To monitor the level of the noise in all the entertainment venues is becoming easier, as more and more devices appear at the market.

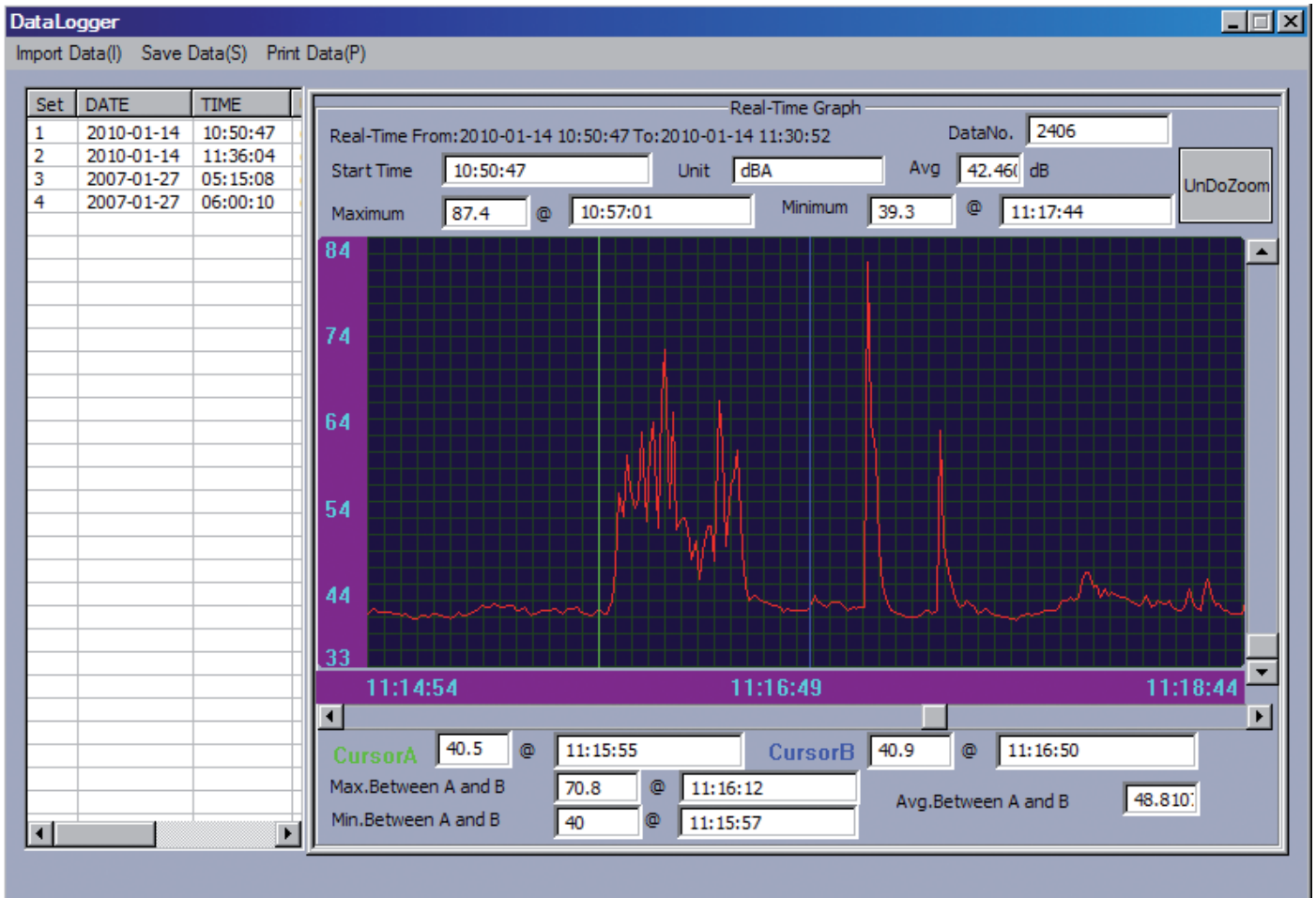
Sentry device represents a simple means of controlling the intensity of the sound. If the sound coming from the amplifier exceeds the limits the device cuts the power. It is situated between the power sockets and the main source of the sound and the light on the device shows either the sound is too loud or not. The device cuts the power only if the sound has been too loud (according to the preset level) for too long.



An interesting device which helps to check and control the sound level is also sound ear. It is often used also in educational establishments as well as in hospitals and recreation centers. When the device is mounted on the wall, an ear can be seen on it and the device gives people a reminder itself when they are getting too loud.

A simple and very effective device is a noise monitor, presents a microphone and a small processing unit and a power supply. It can be used outside and in any weather conditions. The recorded information can be later seen as a table or graphic on the computer, on the particular web site, in addition, one can even choose particular day and time.

When analyzing the influence of the entertainment noise on the people it is also important to consider for how long the person has been exposed to the noise. The noise level is usually measured in decibels. There is an average magnitude which is considered normal and appropriate for each particular activity, but very often there are momentary changes when the sound level reaches its peak. The legal limit for such sounds, for example, 140 dB. It means that even if happens for a few seconds, the sound exceeding that limit should be avoided. Depending on the intensity the duration of the exposure to the sound should be considered. The person working in the environment with 85 dB for 8 hours gets almost the same exposure to 86 dB, as the person working under 92dB, but just for 1 hour. A calculation helps to define how much time people can spend in different environment.



Correspondingly the level of risk changes tremendously, depending on the sound level. Thus, there seem to be not a big difference between 80 and 90 dB, but the risk of the health damage increases ten times (from 0.1 to 1)! And if we compare 90 and 93 dB the risk doubles – every three decibels bring double risk – so, 96 dB mean four times bigger risk and so on.

Sound Level Meters – easy to operate and maintain, give precise measurement of the noise level in various entertaining sectors allowing to apply appropriate changes and give people affected by that noise necessary protection.