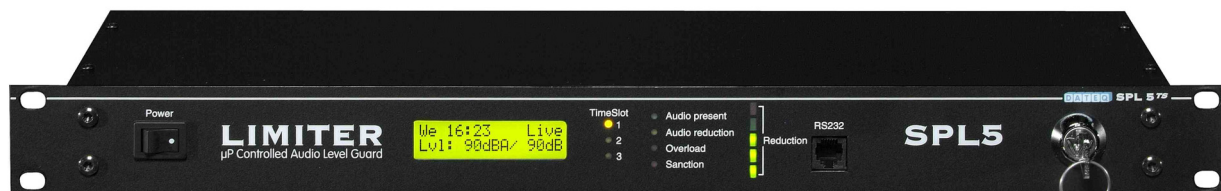# SPL5 LIMITER

DATEQ audio technologies

µP CONTROLLED AUDIO LEVEL GUARD

More and more often pubs, clubs and discotheques have to install a limiter to comply with the local regulations. For this particular group of users DATEQ developed a series of limiters which meet the highest standards available in sound control. DATEQ's SPL-series Sound Pressure Limiters offer a new and vastly improved method to control sound levels during performances of DJ's and live bands without affecting the sound quality.

The SPL5 measures the audio level by means of a microphone; the microcontroller continuously samples this level and attenuates the output level as much as necessary to keep the sound level below the given threshold.
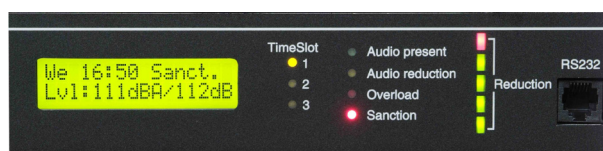
The SPL5 can be used in live-situations to monitor the audio level produced by a live-band, and sanction is necessary by cutting off the mains voltage or give an optical indication to the band.

In a non-live situation, so music played over the PA-equipment the SPL5 is inserted after the mixer, and before the amplifiers. It uses the microphone to determine the audio level, and attenuates the output level is required.

New in the SPL5 is the possibility to store the sound-level data, and event history over a period of two months. With the PC-software the limiters memory can be read out.
Configuring the limiter is done with the same software. But before it becomes possible to make any changes this software has to be registered; this makes it impossible for unauthorised people to alter the limiters configuration.
This PC-software makes it possible to control the limiter over a computer-network, and even over the Internet!

The display shows all the important information

Technical specifications

Inputs	
Mic	XLR-3 female; electronically balanced
Line	XLR-3 female; electronically balanced 0dBu
Outputs	
Line	XLR-3 male; elektronically balanced
Freq. response	5Hz...35kHz @ -1dB
THD+N	<0.06%
Limiter settings	
Threshold	70...120dBA; resolution 1dB
Output correction	-50...+18dB resolution 0,5dB
Microphone correction	-40...+18dB resolution 0,5dB
Max. Attenuation adjustment	-6...-50dB resolution 0,5dB
Memory	
2MBit EEPROM for 2 months data storage	

**The SPL5 software consists of two parts:
a communications-server and a client.**

When the server is started it automatically searches for the SPL5, and connects to it when found. From that moment it is possible for the clients to access the limiter over the network.
The server is password-protected to prevent unauthorised access.
For security reasons it is possible to write an event to a syslog server when clients (try to) connect to the server.

Both client and server software operate on Microsoft Windows 98 and up.

**The SPL5 client is used to connect to the server.
After connecting, and entering the password all the settings can be adjusted.**

Besides it is possible to perform an automatic installation. The computer fully automatically measures the sound level, and calibrates the limiter. All you have to do is check the soundlevel when the calibration is finished!

All stored data can be showed, and printed for a period of two months. After selecting one of the dates in the limiters memory you can plot a graph of all the sound samples stored for that day.
The sample data can be exported to a file, and at a later time opened in a spread-sheet program.

Preliminary information