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 too much of the sound quality.

**Dateq Distortion Free Dynamical Limiter System**

The word limiter sometimes has a bad taste for users. It causes limitations, rather than advantages. Dateq SPL limiters use refreshing new techniques without disturbing effects like pumping and distortion.

This is due to the fact that our limiters are not peak limiters. They keep the acoustical average sound level below the set threshold while leaving the dynamics merely untouched. Short peaks and dynamics stay untouched. The µProcessor continuously monitors and controls the output signal to the maximum set value.

**Time Slot Limiters**

The TS limiters are equipped with a time clock to divide each day into 3 time slots with independent settings. The built-in calendar allows you to program a list of 20 dates to switch the limiter to bypass automatically (models SPL2 TS and SPL3 TS).

**Problems... solved!**

Enthusiastic players of a live band normally will exceed the allowed level. The Dateq measuring microphone made for the SPL3, SPL3 TS and SPL5 will assure accurate limiting of these sound levels by continuously adjusting its settings to the maximum allowed level. When sound level are exceeded for a longer time a sanction will follow. Short circuiting, and tampering of the microphone is seen as sabotage, and will also immediately shut down the audio outputs. The SPL5 also has an option to connect a three stage warning light, that will indicate the SPL status.
DATEQ SPL5

A state of the art Limiter. This limiter can be programmed to be accurate within 1dB and is capable of storing data for a period of two months. Data and settings can be accessed and programmed by computer over a network.

Microphone controlled
The SPL5 measures the audio level by means of a microphone; the µP continuously samples this level and attenuates the output as much as necessary to keep the sound level below the given threshold.

Live and line level limiter
The SPL5 can be used in live-situations to monitor the audio level produced by a live-band, and sanction if necessary by cutting off the mains voltage or give an optical indication to the band. In a non-live situation where music is played over the PA-equipment the SPL5 is inserted between the mixer and amplifiers. It uses the microphone to determine the audio level, and attenuates the output level if required.

Setup and data storage
Configuring the limiter is done with easy to use software. In auto setup mode the computer fully automatically measures the sound level, and calibrates the limiter. Sound-level data and event history are stored for a period of two months.

The SPL-D2 Sound level Display
This oversized display unit is the perfect extension to the SPL5. It can be connected to the SPL5 or as a stand alone unit with a separate Dateq SPL measuring microphone.
The Multi segment Bicoloured LED display unit shows the actual sound level, and when a preprogrammed threshold level is exceeded the LED's will light up in red. The LED bar can be set to function as a VU meter or to display the reduction.
Cabinet size: 12,5 x 25 x 4,6 cm (HxWxD).
**DATEQ SPL2**

The SPL2 is a basic limiter that guards the sound pressure level under all circumstances. It offers a cost effective solution to sound level problems. This limiter is recommended as ‘best buy’ by an increasing number of professional sound installers.

**DATEQ SPL3**

The SPL3 limiter is ideal for live performances with bands that use their own sound system. The measuring microphone and the sanction output also controls the sound level of the bands PA system. Even with a sold out house!

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**Dateq Limiter Cross Reference**

<table>
<thead>
<tr>
<th>Model</th>
<th>TimeSlots</th>
<th>Microphone</th>
<th>dBA readout</th>
<th>Data storage</th>
<th>Sample memory</th>
</tr>
</thead>
<tbody>
<tr>
<td>Dateq SPL2</td>
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<td>Dateq SPL5TS</td>
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**DATEQ SPL2 TS**

Thanks to the built in clock/timer, different sound levels can be programmed at different periods of the day. In addition the built in calendar allows programming of a list of 20 dates that switch the limiter to bypass automatically.

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**DATEQ SPL3 TS**

Practically identical to the SPL2TS, but with the advantage of a microphone circuitry that also controls sound levels during live performances.
The advantages

SPL Series
The SPL series limiters are the easiest way to control the sound pressure level. This is done without the usual disadvantages of ‘peak limiters’.

Live Music Mode
The Dateq SPL 3 and 3TS Limiters are equipped with ‘Live Music Mode’ which also controls the sound levels of live performances. The limiter of choice for bars and clubs.

Time Slot Programming
Time slot switched programmes will provide optimized playing levels during every moment of the day.
# Technical specifications

## Inputs
- **Mic (measuring microphone)**: XLR-3 female, electronically balanced
  - Use only supplied microphone
- **Line (left and right)**: XLR-3 female, electronically balanced
- **Signal level**: -14..+6dBu
- **Input impedance**: 10kOhm

## Outputs
- **Line (left and right)**: XLR-3 male, electronically balanced
- **Output impedance**: 600 Ohm

## Audio
- **Frequency response**: 20Hz ... 20kHz
- **Signal/noise ratio**: >80dB
- **THD**: < 0.05%
- **Limiter threshold (adjustable)**: -14..+6dBu
- **Limiter threshold (adjustable)**: 80..120dBa
- **Output reduction (adjustable)**: 0..-40dB

## External signalling
- **External attenuation**: 0..-18dB
- **Signalling-and switch outputs**: 15V/10mA DC

## Power Supply
- **Supply voltage**: 220-240 VAC/50Hz
- **Power consumption**: 10W

## Size and weight
- **Front**: 4830x 45 mm (w x h) = 19, 1 HE
- **Depth**: 175 mm
- **Weight (net.)**: 3.5 kg

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