



PRODUCT CATALOGUE

Our years of in-depth research ensures that all our products carry the Audio Geometry promise of quality.

The ASP - 202



A m b i e n c e

Compensator has been designed to automatically adjust programme audio levels to compensate for changes in ambient noise levels within a specific area. Background music and PA systems that are too loud when an area is not busy and then are too soft to be heard when the area is noisy, annoy and distract the listener.

The **ASP-202** is able to differentiate between programme sound and background noise levels and adjusts the programme audio to the optimum listening level, irrespective of the background noise. Cost

Effective - by utilising discrete electronics as opposed to expensive DSPs or microprocessors the **ASP-202** is able to offer extremely stable and reliable performance in a cost effective, industrial specification package. More importantly the Ambience Compensator requires neither complex installation nor repeated adjustment to ensure that the audio levels remain tightly controlled.

Installation and Operation

The **ASP-202** can be installed and set-up by any technician with a basic understanding of audio principals. The 19" rack mount frame is designed to be installed in a control room or office area with other audio processing equipment.

The **ASP-202** is inserted into the programme feed (before the power amplifier) and connections are made via industry standard XLR connectors. Any mixture of balanced or unbalanced feeds are accommodated. The Sound Pressure Level Sensor - SPL 202 is located in the target area where the ambient noise level is to be monitored and connected to the ASP-202.

Tech. Specs: Front Panel & Features

Input level trim with peak indication for both stereo channels.



The ASP-202 automatically adjusts for any changes made in the target area from time to time (such as the installation of additional speakers, furnishings etc).

- Programme audio present indicator.
- Internal power supply indication.
- Fault indication if a short circuit is detected on the programme outputs.
- Fault indication if SPL 202 sensor not connected and SPL 202 sensitivity adjustment.
- Front panel programme level control - set for optimum listening level.

Rear Panel & Feature



Monitor jack

For monitoring the SPL 202 sensor signal.

Remote control facilities: Remote manual override of programme volume and Timer input for pre-set programme level override.

Technical Specifications:

● Peak Programme Input Levels	-10 dBm to +4 dBm XLR Connectors
● Programme Input Connection	Balanced or single-ended stereo
● Peak Programme Output Levels	-10 dBm to +4 dBm XLR Connectors
● Programme Output Connection	Balanced or single-ended stereo
● Programme Dynamic Range	> 90 dB
● THD	0.12% @ 0dB
● Frequency Response	(-3dB) 40Hz - 60kHz
● SPL Sensor Cable Length	< 300 m. (2 core twisted, shielded cable)
● Power Requirements	220 VAC, 10 VA (110V optional)

Specifications may be subject to change without notice.

The LE-207



The Audio Level Equaliser consistently maintains the optimum audio volume irrespective of input level changes.

Variations in audio intensity annoy the listener, whether they are in a restaurant, banking hall, music shop, or 'surfing' through television channels at home.

Due to a lack of standards for volume reference levels in the recording industry, every CD and even adjacent tracks can be recorded at a different level.

Attending to these varying levels often takes up valuable time. The solution is the **LE-207** which automatically maintains the optimum listening level no matter how much the input level varies. The **LE-207** smoothly translates any changes in input level to maintain a constant perceived average audio output volume level.

The **LE-207** utilises several internal time constants (pre-set) in order to avoid 'pumping' effects and no compression artefacts are generated. The entire dynamic range of the input audio is maintained and moved up or down in level. A limiter is only incorporated to protect sensitive downstream equipment such as amplifiers and speakers from a large instantaneous increase in the input level. Once the **LE-207** has smoothly tracked the increase in level, the limiter is disabled.

Cost Effective - The **LE-207** has been designed with the discerning, price conscious client in mind and offers extremely stable and reliable performance in a cost effective, industrial specification package.

More importantly the Audio Level Equaliser requires neither complex installation nor on-going adjustment to ensure that your audio levels remain tightly controlled.

Installation and Operation

The **LE-207** is packaged in a robust, free-standing, aluminium enclosure and can be installed by an unskilled person.

The **LE-207** is inserted into the programme feed (before the power amplifier) and connections are made via industry standard RCA connectors.

Once the **LE-207** is connected, the power amplifier volume control is set to the preferred listening level, and that's it! No more problems with varying audio levels.

Tech-Specs:

Front Panel & Features



The front panel bar graph and central multi-colour LED display the amount of correction required when there is a change in input level as follows:

- Input changes to a lower level - bar graph display moves to the left and the central LED is red while the LE-207 is equalising.
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- Input changes to a higher level - bar graph display moves to the right and the central LED is green while the LE-207 is equalising.
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- Input is constant and LE-207 has completed equalising - bar graph is centered (green LED's lit) and central LED flashes (mixture of red and green).

Technical Specifications:

● Programme Input Levels	-25 dBm to +25 dBm
● Programme Input Connection	RCA single-ended stereo
● Programme Output Levels	Switchable -5 dBm or +5 dBm (to suit power amplifier)
● Programme Output Connection	RCA single-ended stereo
● THD	+ Noise < 0.3%
● Frequency Response	(+1dB -2dB) 20Hz - 20kHz
● Power Requirements	220 VAC, 5 VA (110V optional)
● Enclosure	Freestanding Unit : 14.6cm (W) x 4.4cm (H) x 17cm (D)

Specifications may be subject to change without notice.

The NL 221



Noise Level Controller has been designed to automatically limit noise levels from audio amplification equipment, in order to comply with local noise pollution by-laws and socially acceptable norms.

Whether the sound source is a Discotheque, live band, or background music in a restaurant, the NL 221 will sense the radiated sound pressure level, and automatically attenuate the programme sound to maintain a preset maximum level.

Cost Effective - by utilising discrete electronics as opposed to expensive DSPs' or microprocessors the NL221 is able to offer extremely stable and reliable performance in a cost effective, industrial specification package. More importantly the Noise Level Controller requires neither complex installation nor on-going adjustment to ensure that your audio levels remain tightly controlled.

Installation and Operation

The NL 221 can be installed and set-up by any technician with a basic understanding of audio principals. The 19" rack mount frame is designed to be installed in a control room or office area with other audio processing equipment. The NL 221 is inserted into the programme feed (before the power amplifier) and connections are made via industry standard XLR connectors. Any mixture of balanced or unbalanced feeds are accommodated.

The Sound Pressure Level Sensor - SPL 202 - is located in a key area where sound level is to be monitored and connected to the NL 221. An optional NLP 20 Stage Power Controller can be located near the stage and inserted into the main power feed. If maximum attenuation is reached continuously for two minutes, the NLP 20 will cut the stage power and it will remain switched off for a period of approximately five minutes. A remote lamp on the stage (customer supplied) as well as indicators on both the NL 221 and the NLP 20 will flash when the programme is being attenuated, in order to warn controllers and artists to reduce the level.

Tech. Specs:

Front Panel & Features



Once installed, the unit can be set-up subjectively by setting the maximum comfortable level, or more precisely by injecting a noise source, into the NL 221, that will produce a known (legislated) level in the area of the sound pressure level sensor.

One multiturn potentiometer internal to the NL 221 is then adjusted so that attenuation is just initiated as indicated by the SPL level display on the front panel.

Extremely low frequency radiation is restricted by a factory adjustable low frequency cut filter.

Rear Panel & Features

Security Features (with optional NLP - 20)

Should operational staff have access to the NL 221, a number of security features have been included:

Should the inputs and outputs of the unit be cross plugged in order to bypass the controller, the NL221 will continue to detect the sound pressure level and cut power to the stage / amplifiers if the reference level is exceeded for two minutes.

If the power to the NL 221 is removed, the NLP 20 will cut power to the stage / amplifiers until power is restored.

There are no front panel controls that can be used to change set-ups.

Technical Specifications:

- Peak Programme Input Levels (*) -10 dBm to +6 dBm
- Programme Input Connection Balanced or single-ended stereo
- Peak Programme Output Levels -10 dBm to +6 dBm
- Programme Output Connection Balanced or single-ended stereo
- Programme Dynamic Range > 90 dB
- THD 0.12% @ 0dB
- Maximum Attenuation > 80 dB
- Nominal Attenuation Response time Attack 2 seconds; Release 1 minute (factory adjusted)
- Frequency Response (-3dB) 40Hz - 60kHz
- Factory Programmable Low Cut Filter -3 dB @ 40Hz
- SPL Sensor Cable Length < 300 m. (2 core twisted, shielded cable)
- Power Requirements 220 VAC, 10 VA (110V optional)
- Mounting 1 U, 19" rack mount

Options:

SPL 202 Sound Pressure Level Sensor



The SPL 202

A referenced sound pressure level sensor.

NPL 20 Stage Power Controller



The NPL 20

Used in conjunction with the NL 221 to cut power to the stage / amplifier when continual, excessive attenuation is required.

Specifications may be subject to change without notice.

Lighting & Lighting Controllers :

Griven , Abstract , Zero 88 - [Click here for more information](#)

Ambient Noise controller :

Item :	Product :	Description :	Format
More Info	ASP-202	Dual Channel with sensor.	1u x 19"

Electronic Crossovers :

Item :	Product	Description :	Format
More Info	FDN-2S	2-Way Stereo with RCA connectors.	1u x 19"
More Info	FDN-2S + PRO	2-Way Stereo and Bass processor.	1u x 19"
More Info	FDN-2SP (PROF)	2-Way Stereo with balanced XLR connectors.	1u x 19"
More Info	FDN-3S	3-Way Stereo with RCA connectors.	1u x 19"
More Info	FDN-4S	4-Way Stereo with RCA connectors.	1u x 19"

Frequency Shifter :

Item :	Product :	Description :	Format
More Info	FS-10	Mono with balanced XLR connectors.	1u x 19"

Level Control Equipment :

Item :	Product :	Description :	Format
More Info	LE-207	Automatic Volume Controller, Stereo.	1u x 19"

Lighting Equipment :

Item :	Product :	Description :	Format
More Info	FX-4S	4-Channel x 1 Kw Light Controller.	1u x 19"
More Info	DM-4	4-Channel x 2,2 Kw Dimmer pack.	1u x 19"

Limiter/Compressor :

Item :	Product :	Description :	Format
More Info	LN-22	Limiter, Stereo, XLR connectors.	1u x 19"
More Info	NL-221	Noise Level Controller, Stereo.	1u x 19"

100v Line Equipment :

Item :	Product :	Description :	Format
More Info	ELA-50	Mixing Amp, 50w, Table top.	Table
More Info	ELA-60	Mixing Amp, Professional, 60w, Rack mount.	2u x 19"
More Info	ELA-120	Mixing Amp, 120w, Table top.	Table
More Info	ELA-121	Mixing Amp, 120w, Rack mount.	2u x 19"
More Info	ELA-125	Mixing Amp, Professional, 125w, Rack mount.	2u x 19"
More Info	ELA-126	Booster Amp , 125w, Rack mount.	2u x 19"

Power Amplifiers :

Item :	Product :	Description :	Format
More Info	A-2180	2 x 270w Rms at 4 Ohms.	3u x 19"

