

## Acoustic Modification Accessories



### Product Focus

#### Changing Characteristics

By using DPA Acoustic Modification Accessories you can acoustically alter the behaviour of your microphone. From one single 4003 or 4006, for instance, you can achieve 7 different frequency responses and directional characteristics without compromising noise, phase-shift or distortion! Every console or outboard EQ - no matter the quality - will to some degree add these affectations to the sound colour.

**The Acoustic Pressure Equalisers - APEs** - are passive acoustic processors functioning as both spatial and spectral equalisers. They use diffractions on the surface to modify the sound field near the microphone diaphragm. This technique is only possible on omnidirectional, pressure microphones.

Two primary changes occur:

1. An upper-midrange/high frequency boost (without changing the low end) due to the pressure build-up at certain frequencies depending on the element's size.
2. More directionality at higher frequencies (focus).

A presence (upper-midrange) lift is often desirable in rhythmical genres, to make a voice or an instrument cut through a mix or simply to make it more intelligible or well-defined. For symphonic music, the frequency response of certain legendary vintage types of microphones can be obtained using one of the APEs from the APE L6 kit. However, you will achieve a much higher degree of naturalness and detail, when using a precision handcrafted 4003 or 4006.

**The interchangeable grids** are not only for protecting the microphone diaphragm, but are as much an important part of the microphone's acoustical design. They are used to obtain a final adjustment of the frequency response and to control the behaviour of sound waves on the diaphragm. A relevant use of grids is adaptation of the microphone's frequency response to the sound field. In the diffuse sound field a high frequency loss will occur. This can be compensated for by using the DD0297 Diffuse-field Grid which - as with the Acoustic Pressure Equalisers - will work as an acoustical object over the capsule. The DD0254 Close-miking Grid will gently roll-off the highest audible frequencies to make the microphone's response softer for the often intense high frequency character from sound sources recorded at very short distances. The UA0777 Nose Cone makes the microphone perfectly omnidirectional in the audible frequency range and can for instance be used in optimal acoustic environments where every direction should be reproduced uncoloured.

#### It's like using an equaliser - but then again not...

Whenever you switch in a filter or an EQ electronically it will influence the total sound field picked up by the omni microphone. You actually do a "360 degree equalisation" of the microphone signal. Alternatively, by using acoustic modification accessories, you can choose to make the desired frequency alteration in the direction you actually need it. The change is made acoustically - right at the diaphragm.

Every craftsman will bring along his toolbox to optimize his work with the ability to always choose the right tool for the specific job. For the ambitious and discerning sound engineer, the DPA Acoustic Modification Accessories are serious tools to claim.

Read more about acoustic modification accessories at the Microphone University on the DPA website.

## Acoustic Pressure Equalisers



For use with DPA 4006, 4006-TL, and 4003



L30B

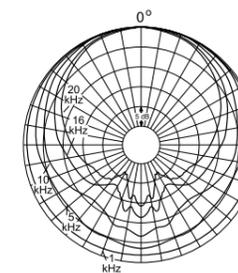
L40B

L50B

#### L30B Acoustic Pressure Equaliser, 30 mm

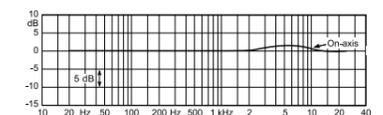
Provides on-axis boost between 2 and 8 kHz, making your recordings more present and crisp.

#### Directional Characteristics



Directional characteristics of L30B (normalised).

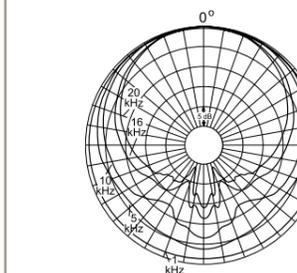
#### Frequency Responses



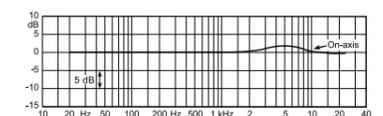
On-axis frequency response with L30B.

#### L40B Acoustic Pressure Equaliser, 40 mm

Provides on-axis boost between 2 and 8 kHz and increases the directivity of your recordings.



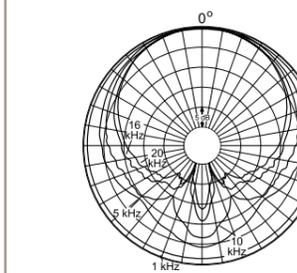
Directional characteristics of L40B (normalised).



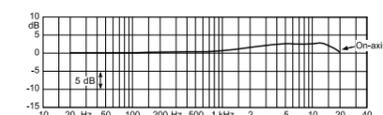
On-axis frequency response with L40B.

#### L50B Acoustic Pressure Equaliser, 50 mm

Provides broad on-axis boost between 1 and 16 kHz and a more intense sensation of source clarity.



Directional characteristics of L50B (normalised).



On-axis frequency response with L50B.

## Interchangeable Grids



For use with DPA 4006, 4006-TL, 4003, 4051, 4052, and 4053



DD0251



DD0254

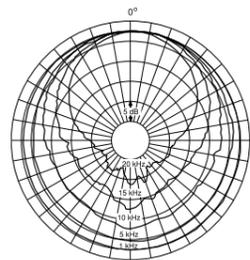


DD0297

### DD0251 Free-field Grid, Silver

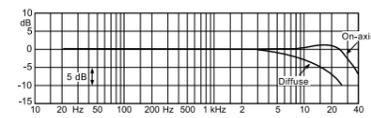
Provides linear response in the free sound field.

#### Directional Characteristics



Directional characteristics of DD0251 (normalised).

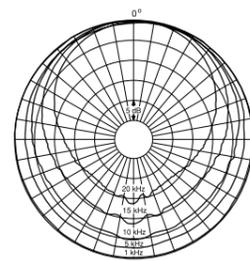
#### Frequency Responses



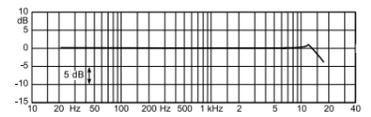
On-axis and diffuse-field response with DD0251.

### DD0254 Close-miking Grid, Silver, Trapezoid

Provides a soft response in the high frequencies.



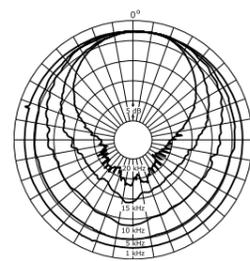
Directional characteristics of DD0254 (normalised).



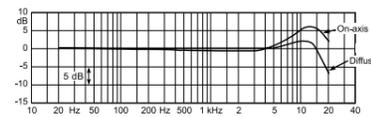
On-axis frequency response with DD0254.

### DD0297 Diffuse-field Grid, Black

Provides linear response in the diffuse sound field.



Directional characteristics of DD0297 (normalised).



On-axis and diffuse-field response with DD0297.

## Interchangeable Grids



For use with DPA 4006, 4006-TL, 4003, 4051, 4052, and 4053

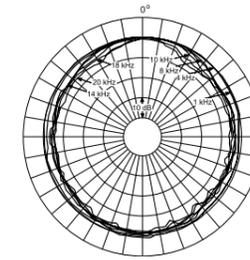


UA0777

### UA0777 Nose Cone

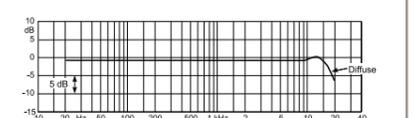
Provides a perfectly omnidirectional microphone at all audible frequencies.

#### Directional Characteristics



Directional characteristics of UA0777 (normalised).

#### Frequency Responses



Diffuse-field response with UA0777.

### Kits including APEs & Grids

**APE L6 Acoustic Modification Kit, 2 x 3 pcs**  
A pair of all three Acoustic Pressure Equalisers for 4006, 4006-TL, and 4003.

**3503 4003 Stereo Kit, 130 V**  
A complete A-B Stereo Kit with two factory-matched 4003s, mic amp and accessories.

**3506 4006-TL Stereo Kit, P48**  
A complete A-B Stereo Kit with two factory-matched 4006-TLs and accessories.

**4052 with UA0777 Nose Cone in SM4000 Suspension Mount.**

