

Introduction

Both the DPA 4065/66/67 (omnidirectional) and the DPA 4088 (cardioid) microphones provide a uniquely natural and open sound. Ultra-lightweight and adjustable, DPA Headbands ensure a secure and comfortable fit in live performance environments. To ensure optimal performance of your DPA Headband, please follow the simple instructions below.

Adjusting the DPA 4066, 4067, and 4088

The size of the headband mount can easily be adjusted. Change the standard bend by carefully expanding the distance between the earhooks.

To change sides, simply click the boom out of the clips and switch it over to the other side.



The remaining two clips are not used. The soft cable must not be attached into the clips.



DPA 4065

4065 is pre-formed and requires only minor adjustment in order to get a tight, fixed position to the back of the neck. Adjust the steel tube carefully at the curves.

Placement of microphone

For discreet placement, you can bend the microphone boom slightly so that the capsule is as close to the cheek as possible. Do not hold the capsule while bending; bend the wire boom, making a smooth curve with your thumb to best fit the profile of the face.

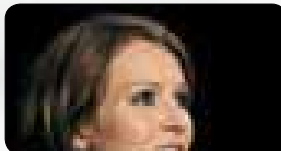
DPA 4066 and 4067

Point microphone toward the mouth for best performance.



DPA 4088

Mount the 4088 2 – 3 cm (1 in) from the corner of the mouth to ensure optimal sound quality.



Always use the foam windscreen to avoid pop noise.

Do not use any of spray or fluid containing chemicals that could remove static electricity on or close to the microphone. This could cause permanent damage. When mounting the Headband on a performer, care should be taken to avoid sweat from running directly into the microphone. If the microphone gets filled up with water it will not be damaged, but possibly turn deaf while the water is captured inside the microphone, behind the protection grid. Remove the water by shaking the headband gently. When it is left to dry out it will recover its original specifications. Drying out the Headband between exposures to humidity will also help to extend its lifetime.

Cleaning the microphone grid of DPA 4065, 4066, and 4067

Remove the microphone grid from the microphone element and clean the grid using a soft cloth and distilled water only. Make sure the grid is dry before remounting it on the microphone element. **This is not possible on the 4088.** The diaphragm of the 4088 is protected inside the microphone housing and the protection grids are not removable. Therefore, no attempt should be made to clean the grid surface and extreme care should be taken not to clog the grids with makeup or other such substances.

Cleaning guide

DPA Headbands are designed to be resistant to humidity and moisture. Highly resistant materials are used in construction of the microphones to avoid damage. Nevertheless, it is a good idea to keep the Headband away from unnecessary exposure to water and cleaning fluids, and to keep the microphone element dry at all times. Use the Protection Cap DUA6019. The cable and, except for the Cardioid Headband 4088, the protection grid are the only parts that may be cleaned.

The microphone cable

Use organic oil (e.g. olive oil) or lukewarm, distilled water to remove residue from tape, glue, or makeup on the cable. Use of organic oil after cleaning the cable may help protect the cable sleeve thereby prolonging its useful life.

Do not bend the cable or rub it harshly, it may stress the inner cores of the cable and cause them to break over time.

Learn more www.dpamicrophones.com



Correct use of microphone grids

The two different protection grids that are supplied with 4066 and 4067 are for acoustical equalization, depending on the placement on the performer.

Remove the premounted soft boost grid before replacing it with the high boost grid.



Correct use of adapters and MicroDot connectors

To provide users with safe and compact mounting of connectors, all Headbands from DPA are fitted with the MicroDot connector as standard. A broad range of connection adapters is offered as optional accessories for most wireless systems for professional use.

Use the supplied connector-tightening tool whenever the MicroDot connector needs to be fastened to the adapter for long periods of time.



Correct treatment of the microphone cable

The cable is usually longer than required. Make sure that superfluous cable is wound up in soft figure-of-eight loops (preferably 6 – 8 cm (2.5 – 3 in) diameter) and avoid kinks in the cable.



Specifications

4065/4066/4067/4088

Directional characteristics

4065/66/67: Omnidirectional
4088: Cardioid

Principle of operation

4065/66/67: Pressure
4088: Pressure gradient

Cartridge type

Pre-polarized condenser element with vertical diaphragm

Frequency range ± 2 dB

Soft boost grid:

4065/66: 20 Hz – 20 kHz, 3 dB soft boost at 8 – 20 kHz
4067: 50 Hz – 20 kHz, 3 dB soft boost at 8 – 20 kHz,
lo-cut -10 dB at 20 Hz

High boost grid:

4066: 20 Hz – 20 kHz, 10 dB boost at 12 kHz
4067: 50 Hz – 20 kHz, 10 dB boost at 12 kHz,
lo-cut -10 dB at 20 Hz

4088: 100 Hz – 20 kHz (± 2 dB between 500 Hz and
20 kHz; 4 – 6 dB soft boost at 15 kHz)

Sensitivity, nominal, ± 3 dB at 1 kHz

4065: 6 mV/Pa; -44.5 dB re. 1 V/Pa
4066: 6 mV/Pa; -44.5 dB re. 1 V/Pa
4067: 1 mV/Pa; -60 dB re. 1 V/Pa
4088: 6 mV/Pa; -44.5 dB re. 1 V/Pa

Equivalent noise level, A-weighted

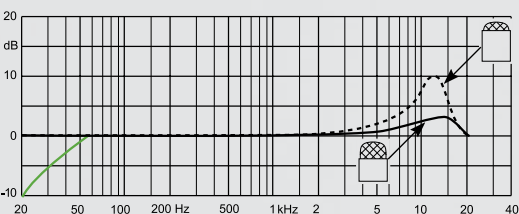
4065/66/88: Typ. 26 dB(A) re. 20 μ Pa (max. 28 dB(A))
4067: Typ. 31 dB(A) re. 20 μ Pa (max. 35 dB(A))

S/N ratio, re. 1 kHz at 1 Pa (94 dB SPL)

4065/66/88: 68 dB
4067: 63 dB

On-axis frequency response of 4065/66/67

Solid line is with soft boost grid.
Dotted line is with high boost grid.
Green line is 4067 below 50 Hz.
(4065 only utilizes the soft boost frequency response).



Total harmonic distortion (THD)

<1 % THD up to 123 dB SPL peak;
<1 % THD up to 120 dB SPL RMS sine

Dynamic range

4065/66/88: Typ. 97 dB
4067: Typ. 92 dB

Max. SPL, peak before clipping

4065/66/88: 144 dB
4067: 154 dB

Output impedance

30 – 40 Ohm depending on current draw

Cable drive capability

Up to 300 m (984 ft), with DAD6001: 100 m

Power supply

4065/66/88: Min. 5 V, max. 50 V through DPA adapter
4067: Min. 3 V, max. 50 V through DPA adapter

Connector

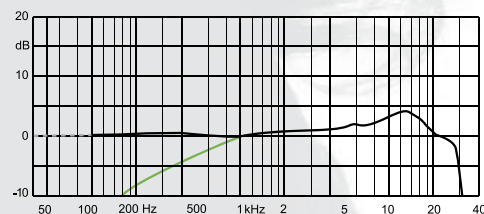
MicroDot adapters are available for common connections

Polarity

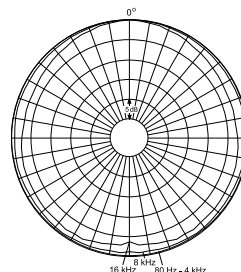
Positively increasing sound pressure produces positive-going voltage on MicroDot pin

On-axis frequency response of 4088

Solid line is near field (2 – 3 cm/0.8 – 1.2 in).
Green line is far field (more than 30 cm/12 in).
Dotted line is typical low frequency in near field (estimated).

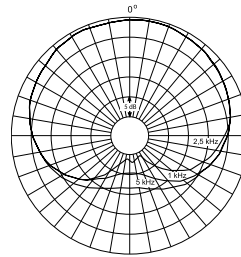


Polar pattern of 4065/66/67



Directional characteristics (normalized)

Polar pattern of 4088



Directional characteristics (normalized)

SERVICE & REPAIR

Products from DPA Microphones are extremely stable and there should not be any significant change in the specifications with time and use. If, however, you are not totally satisfied with the characteristics exhibited by this product, please contact your nearest DPA Microphones representative for further details of service and the repair facilities that are available.

CE MARKING

The CE mark guarantees that the product conforms with relevant directives approved by the European Commission.

EMC directive: 2004/108/EEC

Low voltage directive: 2006/95/EC



WARRANTY

All products from DPA Microphones are covered by a two-year limited warranty on both mechanical functionality and documented specifications as long as the items are not mistreated, abused, or modified in any way. In case of a warranty claim your invoice is your warranty registration.

ENVIRONMENTAL POLICY

This product is comprised by the WEEE Directive, and should not be thrown in the garbage bin when obsolete. Instead, return it to your local DPA representative (or DPA Microphones A/S directly) who will dispose of the product in accordance with the current environmental standards.

RoHS directive: 2002/95/EC
WEEE directive: 2002/96/EC



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MICROPHONES