



d:fine™

## Headset Microphones Manual

d:fine™ Omnidirectional

d:fine™ 4065

d:fine™ 4067

d:fine™ 66

d:fine™ Directional

d:fine™ 4066

d:fine™ 4088

d:fine™ 88



## Introduction

All the d:fine™ Headset Microphones provide a uniquely natural and open sound. Ultra-lightweight and adjustable, d:fine™ Headset Mics ensure a secure and comfortable fit in live performance environments. To ensure optimal performance of your d:fine Headset Mic, please follow the simple instructions below.

## 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.



Mount a directional mic 2 – 3 cm (1 in) from the corner of the mouth to ensure optimal sound quality compared to an omnidirectional mic that can be placed further away from the mouth.

### Omnidirectional characteristics

- The microphone is sensitive to sound from all directions.
- The sound remains more or less the same regardless of the distance between the sound source and the microphone.
- The positioning of microphones with omnidirectional characteristics is less critical than with directional.
- An omnidirectional microphone is generally not very sensitive to wind, breathing and handling noises.

### Directional characteristics

- Rejects background noise and creates higher separation.
- The microphone is most sensitive to sound on the side of the chevron.
- The positioning of mics with directional characteristics is essential as the low frequency level will change according to the distance to the mouth. Choose a distance which yields the desired amount of bass.
- Care should be taken to protect against wind and pop noise e.g. by using a windsceen.

## How to tell the difference between d:fine™ Headset Microphone capsules

d:fine™ Omnidirectional



Omnidirectional



See the mark on the capsule

d:fine™ Directional



Directional



See the mark on the capsule

d:fine™ 4065  
d:fine™ 4066  
d:fine™ 4067  
d:fine™ 66



Omnidirectional

d:fine™ 4088  
d:fine™ 88



Directional

### Adjusting the d:fine™ 4065

4065 is pre-formed but may require adjustment in order to get a tight, fixed position to the back of the neck. Adjust the steel tube carefully at the curves.

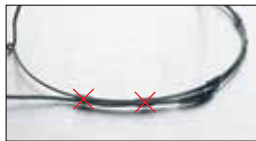
A protection grid is mounted over the microphone head. If clogged with dirt or make-up, gently remove it and clean it with distilled water.

### Adjusting the d:fine™ 4066, 4067, and 4088

The size of the headset 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.



### Adjusting the d:fine™ Omnidirectional, d:fine™ Directional, d:fine™ 66 and d:fine™ 88.

The directional characteristics of the microphone is indicated on the flat microphone head with © for omnidirectional and > for directional as shown on page 3. This marking should always point towards the mouth. Mount a directional headset 2 – 3 cm (1 in) from the corner of the mouth to ensure optimal sound quality.

For the single-ear, just open the spring hook lightly, first place the slide behind your ear-lobe (Pic. 1) and let go of the spring over your ear (Pic. 2). For the dual-ear, place the headset behind your ears and place the springs like for the single-ear. Adjust the headset mount by pulling or pushing the wires until it fits tight (Pic. 3).

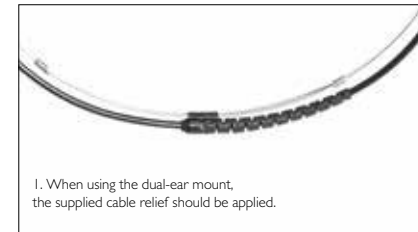


### Correct placement behind the earlobe



See instruction video at

[dpamicrophones.com/dfine](http://dpamicrophones.com/dfine)



1. When using the dual-ear mount, the supplied cable relief should be applied.



2. Slide the cable into the relief cut.



3. The relief is pre-mounted with dual-ear headsets and supplied with single-ear.



Position the microphone properly by pulling or pushing the boom along the slide.



Switch between left and right ear wearing style simply by rotating the microphone boom. Hold on to the earhook while gently turning the boom.



For the dual-ear versions, also rotate the two earhooks.



Adjust the microphone boom to follow the shape of your face by gently bending the soft steel on the cable hanger.



Adjust the angle of the cable run, also by gently bending the soft steel (see arrows). Position the cable as shown on the picture for securing the position of the microphone.



The cable relief on the dual-ear version should be fixed in the clip that also holds the two wires on the mount.



Always leave the protection grid on the d:fine Omnidirectional and d:fine™ Directional, as it protects the inner grid and offers protection against wind and breathing noise. The protection grid is replaceable.



**Service connector for exchange of cables or booms on the d:fine™ Omnidirectional, d:fine™ Directional, d:fine™ 66 and d:fine™ 88**

These d:fine™ Headset Microphones offer exchange of cables or microphone booms. Simply locate the service access point, pull back the small protection cap and gently pull the boom away from the cable hanger.



**Windscreens**

The enclosed windscreens offer additional protection against wind and pop noise. Gently draw the windscreen over the microphone head. For even better protection, bigger windscreens are available.



**Sweat stop**

The microphone is equipped with a transparent sweat stop around the microphone boom to prevent sweat running along the microphone boom to the microphone head.

**Accessories** (see more at [www.dpamicrophones.com](http://www.dpamicrophones.com))

Grids and windscreens, cables and adapters, booms and earhooks.

### Protection cap

The d:fine™ Omnidirectional and d:fine™ Directional microphones come with a red plastic cap which serves to protect the microphone head when putting on make-up, hairspray and more. Remove the cap before use.



### Color codes & cable steer

The d:fine™ Omnidirectional and d:fine™ Directional microphones come with a number of cable steer clips in different colours. Mounted on the cable relief, this clip allows for quick recognition of a specific headset microphone.



### Clothing clip for d:fine™ Omnidirectional, d:fine™ Directional, d:fine™ 66 and d:fine™ 88.

The supplied clothing clip allows you to attach the cable to your clothes, thus relieving the cable draw to the headset mic. This is essential on the single-ear headset mic.



### Correct use of microphone grids

The two different protection grids that are supplied with 4066, 4067, and d:fine66 are for acoustical equalization, depending on the placement on the performer. Remove the premounted soft boost grid before replacing it with the high boos



### Cleaning the mic grid of d:fine™ 4065, 4066, 4067 and d:fine™ 66

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 and d:fine™ 88 as the diaphragm 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 e.g.

### Cable maintenance

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.

Use organic oil (e.g. olive oil) or lukewarm distilled water to remove residue from tape, glue, or make-up on the cable. 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.

### General Maintenance

The d:fine Headsets are resistant to high levels of humidity. However, care must be taken to keep the headset microphone away from exposure to water and cleaning fluids, and to keep the microphone head dry at all times. Do not use spray or use fluid containing chemicals that could remove static electricity on or close to the microphone. This could cause permanent damage.

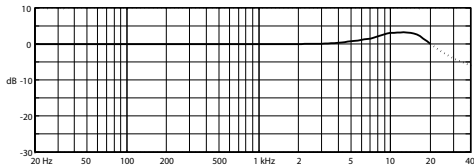
### MicroDot connectors and adapters

To provide users with safe and compact mounting of connectors, all headsets 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. See [www.dpamicrophones.com/adapters](http://www.dpamicrophones.com/adapters)

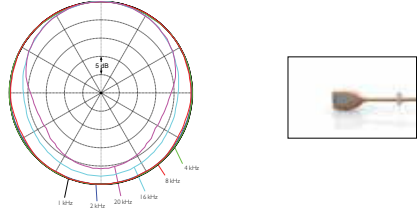
Use the supplied connector-tightening tool whenever the MicroDot connector needs to be fastened to the adapter for long periods of time.



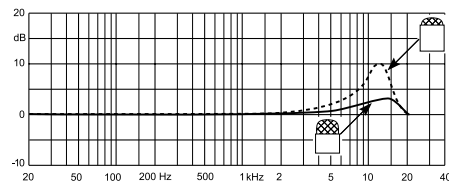
**Frequency Response of d:fine™ Omnidirectional**



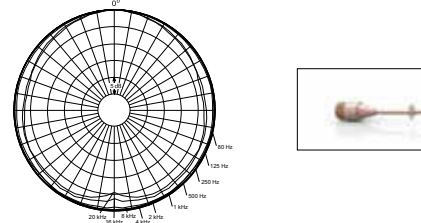
**Polar Pattern of d:fine™ Omnidirectional**



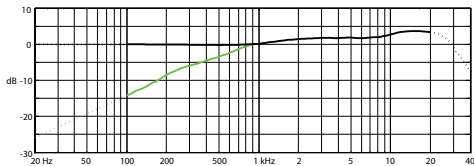
**Frequency Response (d:fine™ 4065, 4066, 4067 and d:fine™ 66)**



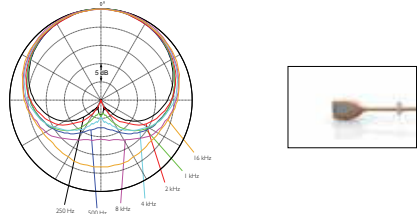
**Polar Pattern (d:fine™ 4065, 4066, 4067 and d:fine™ 66)**



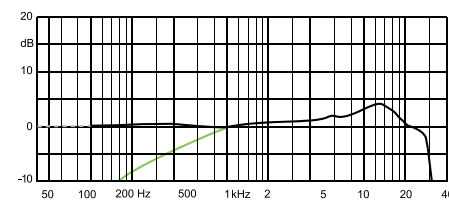
**Frequency Response of d:fine™ Directional**



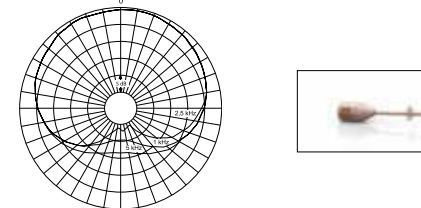
**Polar Pattern d:fine™ Directional**



**Frequency Response (d:fine™ 4088 and d:fine™ 88)**



**Polar Pattern (d:fine™ 4088 and d:fine™ 88)**



Black line is near field (2 – 3 cm/0.8 – 1.2 in).  
Green line is far field (more than 30 cm/12 in).

## Specifications

d:fine™ Omnidirectional Headset Microphones

### Directional characteristics

Omnidirectional

### Principle of operation

Pressure

### Frequency range

20 Hz - 20 kHz

### Frequency range, ± 2 dB

d:fine omnidirectional

20 Hz - 20 kHz with 3 dB soft boost at 8 - 15 kHz  
4065, 4066, 4067 and d:fine 66:

20 Hz - 20 kHz with 3 dB soft boost at 8 - 20 kHz

### Sensitivity, nominal, ± 3 dB at 1 kHz

6 mV/Pa; -44 dB re. 1 V/Pa

### Equivalent noise level, A-weighted

Typ. 26 dB(A) re. 20 µPa (max. 28 dB(A))

### S/N ratio (A-weighted),

re. 1 kHz at 1 Pa (94 dB SPL)

Typ. 68 dB(A)

### Total Harmonic Distortion (THD)

< 1 % up to 123 dB SPL peak

< 1 % up to 120 dB SPL RMS sine

### Dynamic range

Typ. 97 dB

### Max. SPL, peak before clipping

144 dB

### Power supply (for full performance)

Min. 5 V - max. 50 V through DPA adapter for wireless systems. 48 V phantom power ± 4 V with DAD6001-BC XLR adapter

### Current consumption

Typ. 1.5 mA (microphone)

3.5 mA with DAD6001-BC XLR adapter

### Connector

MicroDot

**Color** (microphone, cable and earhook)

Black, beige, brown

### Microphone head size (h x w x d)

9,5 x 5,3 x 2,9 mm (0,37 x 0,21 x 0,11 in)

### Cable length

1,3 m (4,3 ft)

### Cable diameter

1,6 mm (0,06 in)

### Temperature range

-40 °C to 45 °C (-40 °F to 113 °F)

### Relative Humidity (RH)

Up to 90%

## Specifications

d:fine™ Directional Headset Microphones

### Directional characteristics

Cardioid

### Principle of operation

Pressure gradient

### Frequency range

20 Hz - 20 kHz

### Frequency range, ± 2 dB,

**Near field 2-3 cm (0.8-1.2 in)**

d:fine directional

100 Hz - 20 kHz with 3 dB soft boost at 8 - 20 kHz

4088 and d:fine 88

100 Hz - 20 kHz with 4-6 dB soft boost at 15 kHz

### Sensitivity, nominal, ± 3 dB at 1 kHz

6 mV/Pa; -44 dB re. 1 V/Pa

### Equivalent noise level, A-weighted

Typ. 28 dB(A) re. 20 µPa (max. 30 dB(A))

### S/N ratio (A-weighted),

re. 1 kHz at 1 Pa (94 dB SPL)

Typ. 66 dB(A)

### Total Harmonic Distortion (THD)

< 1 % up to 123 dB SPL peak

< 1 % up to 120 dB SPL RMS sine

### Dynamic range

Typ. 95 dB

### Max. SPL, peak before clipping

144 dB

### Power supply (for full performance)

Min. 5 V - max. 50 V through DPA adapter for wireless systems. 48 V phantom power ± 4 V with DAD6001-BC XLR adapter

### Current consumption

Typ. 1.5 mA (microphone)

3.5 mA with DAD6001-BC XLR adapter

### Connector

MicroDot

**Color** (microphone, cable and earhook)

Black, beige, brown

### Cable length

1,3 m (4,3 ft)

### Cable diameter

1,6 mm (0,06 in)

### Temperature range

-40 °C to 45 °C (-40 °F to 113 °F)

### Relative Humidity (RH)

Up to 90%

## Service & repair

If you are not satisfied with the characteristics exhibited by this product, please go to [www.dpamicrophones.com/service](http://www.dpamicrophones.com/service) for instructions.

## Warranty

The d:fine™ headset microphone is covered by a two-year limited warranty.

## CE marking

This product conforms with all relevant directives approved by the European Commission.

Product features and specifications are subject to change without notice.



© Copyright 2014