

dBUD USER MANUAL

WHEN AND WHERE CAN I USE dBUD?

dBud is designed to reduce harmful noise levels down to safe levels, and at the same time have a minimal impact on the sound experience. And with the volume slider, you can easily switch between two levels of noise-reduction without having to take the plugs out of your ears.

High volume

- **MUSIC EVENTS:** For DJs, musicians and party animals at concerts, festivals, dancefloors.
- **SPORT EVENTS:** At football stadiums and motor sports venues.
- **MANUFACTURING, PRODUCTION & CONSTRUCTION:** Hearing protection while clearly hearing what is going on around you: Alarms, communicating with staff, awareness of vehicles and equipment.
- **CHILD CARE & SCHOOLS:** Hearing protection and still easy communication with children, parents and colleagues.

Lower background noise

- **OFFICE WORKERS & STUDENTS COMMUTERS & TRAVELLERS** on buses, trains, planes.
- Helpful for people with **HYPERSENSITIVITY, MIGRAINE, AUTISM AND MISPHONIA**

WHAT IS THE NOISE-REDUCTION IN dBUD'S TWO VOLUME SETTINGS?

Attenuation as an average across all frequencies:

Open setting 15 dB

Closed setting 30 dB

SNR:

Open setting 11 dB

Closed setting 24 dB

NRR:

Closed setting 20 dB

All the above measures are based on verifications by two independent acoustic labs, using the memory foam eartips.

dBud by
Ear Labs AB

Grimsbygatan 24, 21112 Malmö, Sweden

The logo for dBud, featuring the letters 'dBud' in a bold, red, sans-serif font.

IS dBUD'S NOISE-REDUCTION LEGALLY CERTIFIED?

dBud's noise-reduction is certified with EPA and CE marking, tested and verified according to both the U.S. standard ANSI S3.19-1974 and the EU standard EN 352-2:2002.

US ATTENUATION TABLE (foam eartips)

CLOSED	Frequency HZ	125	250	500	1000	2000	3150	4000	6300	8000	H=25 dB M=21 dB L=20 dB
	Mean Attenuation dB	28.8	26.6	30.4	29.4	34.4	33.6	35.4	35.1	31.1	
	Standard Deviation dB	4.9	5.0	5.4	4.9	4.2	3.6	3.6	4.8	5.4	
	Assumed Protection dB (APV)	23.9	21.6	25.0	24.5	30.2	30.0	31.8	30.3	25.7	NRR=20 dB
OPEN	Frequency HZ	125	250	500	1000	2000	3150	4000	6300	8000	
	Mean Attenuation dB	9.0	9.0	8.0	13.0	22.0	25.0	23.0	30.0	28.0	

NVLAB

Noise Reduction Rating	20 DECIBELS
(WHEN USED AS DIRECTED)	
THE RANGE OF NOISE REDUCTION RATINGS FOR EXISTING HEARING PROTECTORS IS APPROXIMATELY 0 TO 30 (HIGHER NUMBERS DENOTE GREATER EFFECTIVENESS)	
Ear Labs AB Malmö, 211 20, Sweden	dBud
Federal law prohibits removal of this label prior to purchase.	EPA LABEL REQUIRED BY U.S. EPA REGULATION 40 CFR Part 211, Subpart B.

EU ATTENUATION TABLE (foam eartips)

CLOSED	Frequency HZ	125	250	500	1000	2000	4000	8000	H=25 dB M=21 dB L=20 dB
	Mean Attenuation dB	19.8	21.3	20.4	23.4	29.2	31.1	31.0	
	Standard Deviation dB	2.5	2.0	2.2	2.8	3.7	3.1	4.9	
	Assumed Protection in dB (APV)	17.3	19.3	18.2	20.6	25.5	28.0	26.1	SNR=24 dB
OPEN	Frequency HZ	125	250	500	1000	2000	4000	8000	H=14 dB M=7 dB L=4 dB
	Mean Attenuation dB	3.3	4.9	5.5	10.3	19.1	21.6	25.9	
	Standard Deviation dB	2.4	2.2	3.1	3.4	3.5	2.6	4.3	
	Assumed Protection in dB (APV)	0.9	2.7	2.4	6.9	15.6	19.0	21.6	SNR=11 dB

CIOP PIB



In the US, dBud has been tested and verified by Michael & Associates Inc. – which is an acoustic laboratory accredited by NIST – National Institute of Standards and Technology. They are recommended by EPA – Environmental Protection Agency, the authority of enforcing the regulation about noise labelling in the US.

NVAP LAB 100427-0

Michael & Associates Inc.

2766 W. College Ave Suite 1

State College, PA 16801 USA

In Europe, test results from any acoustic lab must pass a conformity assessment by a Notified Body, accredited by the European Commission. Only then can the earplug be legally CE marked. dBud has been verified by a Notified Body during the entire process from beginning to end – from the tests to the conformity assessment.

Notified body nr. 1437

Central Institute for Labour Protection,

National Research Institute (CIOP-PIB)

Czerniakowska 16, 00-701 Warsaw Poland

dBud by

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Grimbygatan 24, 21112 Malmö, Sweden

dBud

NRR and SNR? WHAT DOES THE DIFFERENT ATTENUATION VALUES MEAN?

There are mainly two different methods of measuring and calculating the level of protection:

- NRR- Noise Reduction Rating - as per the US standard.
- SNR - Single Number Rating - as per the EU standard.

The difference between the SNR and NRR is because they calculate variations in a broad population. Meaning, since people have differently shaped ear-canal, or they insert and use the earplugs differently - the protection can be higher or lower. The NRR includes a larger variance factor and is always lower than the SNR and the averaged values.

HOW QUIET DOES IT GET WITH dBUD, FOR INSTANCE IN A CAFÉ OR IN AN OFFICE?

How much you'll hear from your surroundings is of course dependent on the kind of noise that you are in.

It's probably good to know that the average human speech is 60-75 dB, and the noise levels in for instance cafés is often around 80 dB. That would obviously mean that no earplug with avg 30 dB noise reduction will block out ALL that noise - but it can be enough for you to turn down background noise enough to a comfortable level for calm and concentration. Or just to rest your ears from the noise that we are exposed to daily.

This is a good source of further reading about daily recommended limits for decibel exposure: Center for Disease Control and Prevention:
<https://blogs.cdc.gov/niosh-science-blog/2016/02/08/noise>

Also, keep in mind that dBud is not designed for complete silence and isolation. Instead, dBud is made to turn down the volume, while keeping as much of the sound quality as possible. Meaning, an attenuation that ensures that harmful loud noises are reduced to safe levels, with minimal distortion to the sound curve.

HOW DO I INSERT MY dBUDS CORRECTLY AND COMFORTABLY IN MY EARS?

The eartips should be inserted only in the entrance of the ear-canal.

dBud is not designed to reach very far into the ear-canal – and with the correct choice of size of eartips, dBud will seal sufficiently, without having to be pushed in too far.

Just push the eartip slightly into the ear, while you make a twisting movement of the plug.

If you are using the memory foam eartips; squeeze and compress them before inserting them, and they will then expand to the shape of the inside of your ears.

The two outer circles on the neck of the plug enables two different positions of the eartip, so that you can make small adjustments to how far into the ear you want the eartip to go. Do not push the eartip fully down to the most inner circle that is closest to the plug body, because then the end of the neck is close to sticking out from the eartip, which is probably not very comfortable for you. The eartip should fully cover and cushion the hard plastic neck.

Foam tips:

Squeeze the foam tips before insertion. Then gently push the plug to the entrance of the ear-canal, while at the same time twisting the plug slightly.

The foam tips expand after insertion in the ear and provide a slightly better seal and attenuation than the silicone tips.

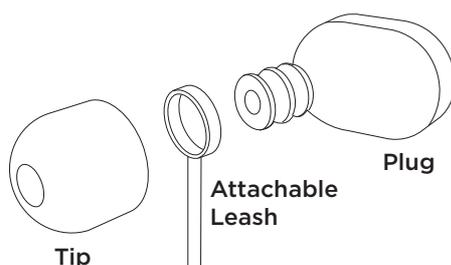
HOW DO I SAFELY REMOVE THE EARTIPS FROM THE PLUG?

Please take some extra care when you remove the tips from the plug.

There are three small circles on the neck of the plug that securely position the eartips and the leash. Therefore, do not pull the eartips straight off the plug, because then they risk breaking.

Grip the eartip with three fingers. Slowly pull and TWIST the eartip off the plug.

This applies to both the silicone tips and the foam tips, but it is even more important for the foam tips, because of the little inner tube that can release from the foam if it's pulled too hard, and without the twisting movement.



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IS dBUD AVAILABLE IN DIFFERENT SIZES?

6 pairs of silicone and memory foam eartips are always included in the dBud kit, so that you can find a comfortable size and fit for you.

Foam tip outer diameter

S 10 mm

M 12 mm

L 14 mm

Silicone tip outer diameter

S 9 mm

M 10.5 mm

L 13 mm

CAN I EXCHANGE THE EARTIPS IF I NEED NEW ONES?

Yes, you can order new foam eartips in our webshop.

Always keep your dBuds in the little carrying case (and not loose in your bag or your pockets) to protect the eartips from unnecessary friction and damage.

HOW DO I CLEAN MY dBUDS?

We recommend that you remove the silicone or foam eartips to clean them in water.

The body of the earplug should be cleaned using a damp cloth.

If you see the need to clean the inside of the sound canal, be careful not to insert anything more than 5mm inside the canal, or you may damage the acoustic filter.

It's no panic if dBud gets wet, since there is no electronics inside. But the acoustic filter contains several meshes and small air channels, so we don't recommend to submerge dBud in water for cleaning. If water gets trapped inside it will take time for your dBuds to dry out completely, and this may affect the performance.

After cleaning, let everything dry on a towel before placing them in the storage case.