AKG VOCAL D7 S Reference Dynamic Vocal Microphone

AKG VOCAL D7 S Reference Dynamic Vocal Microphone Instruction Manual

Contents

AKG VOCAL D7 S Reference Dynamic Vocal Microphone

Product Information

Specifications

- Model: D7, D7 S, D7 LTD
- Type: Vocal microphone

Description

The D7 is a vocal microphone with a formable steel mesh cap and a symmetrical output with a 3-pin XLR connector. The D7 S is identical to the D7 in terms of electrical, mechanical, and acoustic features but includes a click-free On/Off switch.

Safety Instructions

Please read the manual before using the equipment.

Package Contents

- 1 D7/D7 S/D7 LTD microphone
- 1 SA 61 replacement inner windshield
- 1 Microfiber cloth (only included with D7 LTD)

Application

The microphone is suitable for various vocal applications. It is recommended to maintain a proper distance and angle for optimal sound capture.

Cleaning

D7, D7 S

1. Rotate the mesh cap counterclockwise to remove it from the microphone.
2. Take out the inner windshield from the mesh cap.
3. Clean the inner windshield with a dry cloth or brush.
4. Allow the replacement inner windshield to dry.
5. Insert the replacement inner windshield into the mesh cap.
6. Screw the mesh cap clockwise onto the microphone.

D7 LTD

1. Rotate the mesh cap counterclockwise to remove it from the microphone.
2. Take out the inner windshield from the mesh cap.
3. Clean the inner windshield with a dry cloth or brush.
4. Allow the replacement inner windshield to dry.
5. Insert the replacement inner windshield into the mesh cap.
6. Screw the mesh cap clockwise onto the microphone.

Troubleshooting

For troubleshooting assistance, please visit the **manual-hub.com** website.

FAQs

Can I use the D7 microphone for recording instruments?

The D7 microphone is primarily designed for vocals but can also be used for recording instruments.

How do I connect the microphone to my audio equipment?

The microphone has a symmetrical output with a 3-pin XLR connector. Connect pin 1 to ground, pin 2 to in-phase audio, and pin 3 to audio.

Can I use the D7 S microphone without an external On/Off switch?

Yes, the D7 S microphone includes a built-in click-free On/Off switch.

Precaution/Description

Precaution

Please make sure that the piece of equipment your microphone will be connected to fulfills the safety regulations in force in your country and is fitted with a ground lead.

Unpacking

				
1 D 7 / D 7 S / D 7 LTD	1 SA 61	1 Extra internal windscreen	1 Car-rying case	1 Micro-fiber cloth (D 7 LTD only)

Check that the packaging contains all of the components listed above. Should anything be missing, please contact your AKG dealer.

Optional Accessories
• For optional accessories, refer to the current AKG catalog or folder, or visit **www.akg.com**. Your dealer will be glad to help.

Features

- Frequency response optimized for vocal use.
- Integrated wind and pop screen for effective suppression of pop and breath noise.
- Frequency independent supercardioid polar pattern for high gain before feedback.
- New Varimotion diaphragm for brilliant sound.
- Mechanical/pneumatic transducer shock mount reduces handling and cable noise.
- Highpass filter and humbucking coil minimize low-fre-quency noise
- Extremely resilient, spring-steel wire-mesh cap for extra impact resistance.

Description

1.5 D 7

The AKG D 7 is a supercardioid dynamic microphone. It has been designed specifically as a vocal microphone for rough on-stage use. The wide frequency response of the D 7 slightly fa-vors the midfrequency and treble regions to ensures
good intelligibility of speech. The term “supercardioid polar re-sponse” means that the D 7 is most sensitive to sound arriving from in front of it, less sensitive to sound arriving from the sides and rear. This pickup pattern is virtually the same for all fre-quencies or, in other words, from the lowest to the highest notes (“frequency independent”). A mechanical/pneumatic shock mount on the transducer ele-ment minimizes handling and cable noise. An integrated wind-screen reduces pop, wind, and breath noise to a minimum. A built-in humbucking coil and 80-Hz highpass filter will effec-tively suppress any other kind of unwanted low-frequency noise. The filter is permanently active. Therefore, the micro-phone has no separate on/off switch for the highpass filter. A rugged front grill made of spring-steel wire mesh that is ex-tremely resistant to deformation and a sturdy zinc alloy die-cast body effectively protect the microphone and transducer ele-ment from damage on stage and on the road.

1.6 D 7 S

The D 7 S has the same mechanical, electrical, and acoustic characteristics as the D 7 and features a noiseless

on/off switch.

1.7 C 7 LTD
The D 7 LTD has the same mechanical, electrical, and acoustic characteristics as the D 7 and boasts a chrome-plated case to satisfy specail esthetic requirements.

Interfacing

The microphone provides a balanced output on a 3-pin male XLR connector:

Pin 1: ground
Pin 2: hot
Pin 3: return

You can connect the microphone either to a balanced or an un-balanced microphone input.

- To connect the microphone to a balanced input (XLR con-nector), use a commercial XLR cable.
- To connect the microphone to an unbalanced microphone input (1/4″ jack), use a cable with a female XLR connector and a 1/4″ TS jack plug.

Note:
Please note that unbalanced cables may pick up interfer-ence from stray magnetic fields near power or lighting cables, electric motors, etc. like an antenna. This may cause hum or similar noise when you use a cable that is longer than 16 feet (5 m).

Using your microphone

Introduction
A handheld vocal microphone provides many ways of shaping the sound of your voice as it is heard over the sound system. The following sections contain useful hints on how to use your microphone for best results.

Working Distance and Proximity Effect
Basically, your voice will sound the bigger and mellower, the closer you hold the microphone to your lips. Moving away from the microphone will produce a more reverberant, more distant sound as the microphone will pick more of the room's reverber-ation.
You can use this effect to make your voice sound aggressive, neutral, insinuating, etc. simply by changing your working distance.
Proximity effect is a more or less dramatic boost of low fre-quencies that occurs when you sing into the microphone from less than 2 inches. It gives more "body" to your voice and an in-timate, bass-heavy sound.

Angle of Incidence Refer to fig. 1.

If you sing directly into the mi-crophone, it will not only pick up excessive breath noise but also overemphasize "sss", "sh", "tch", "p", and "t" sounds.
Therefore, sing to one side of the microphone or above and across the microphone's top. This provides a well-balanced, natural sound.

Fig. 1: Typical micro-phone position.

Using your microphone

Feedback

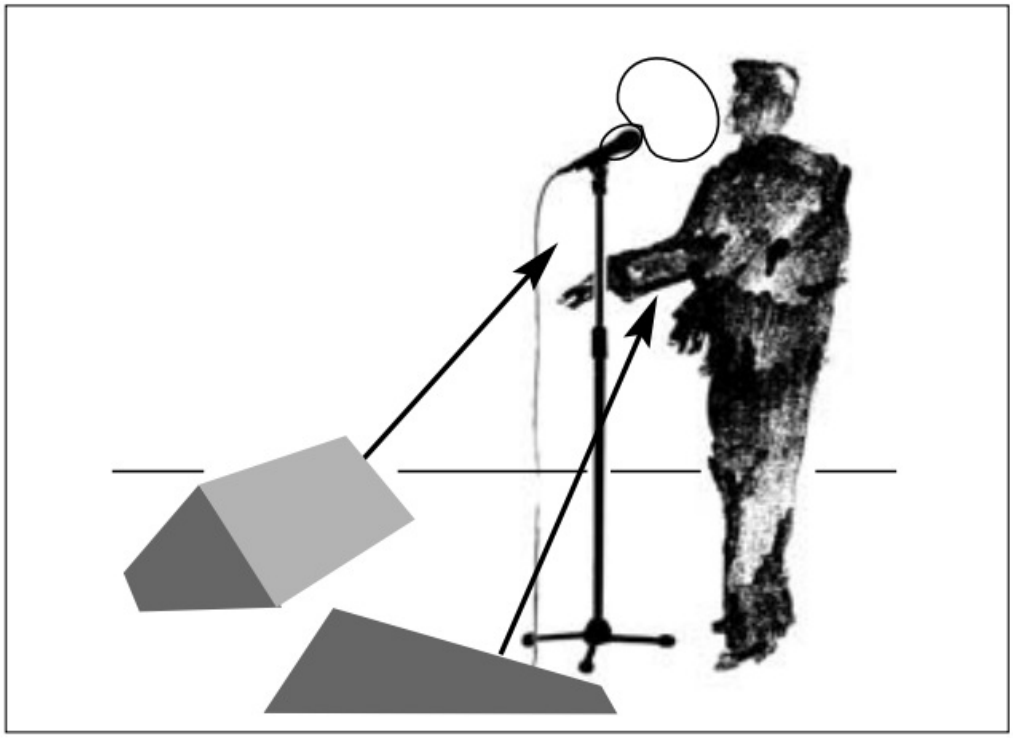


Fig. 2: Microphone placement for maximum gain before feedback.

- The term “feedback” means that part of the sound projected by a speaker is picked up by a microphone, fed back to the ampli-fier, and projected again by the speaker. Above a specific vol-ume or “system gain” setting the sound system will start howl-ing and the sound engineer will desperately dive for the master fader to reduce the volume and stop the howling.
- To increase usable gain before feedback, the microphone has a supercardioid polar pattern. It is most sensitive

to sounds arriv-ing from in front of it (your voice) while picking up much less of sounds arriving from the sides or rear (from monitor speakers for instance).

- To maximize gain before feedback, place the main (“FOH”) speakers in front of the microphones (along the front edge of the stage).
- If you use monitor speakers, be sure never to point any micro-phone directly at a monitor or FOH speaker.
- Feedback may also be triggered by resonances depending on the acoustics of the room or hall. With resonances at low fre-quencies, proximity effect may cause feedback. In this case, it is often enough to move away from the microphone a little to stop the feedback.

Backing Vocals

1. Never let more than two persons share a micro-phone.
2. The microphone is very in-sensitive to off-axis sounds. If the two vo-calists were to sing into the microphone from an angle wider than 35 degrees, you may end up bringing up the fader of the microphone channel far enough to create a feedback problem.

Fig. 3: Two vocalists sharing a microphone.

Cleaning

4.1 D 7, D 7 S
To clean the surface of the microphone body, use a soft cloth moistened with water.

4.2 D 7 LTD
To clean the surface of the microphone body, use the sup-plied microfiber cloth.

Cleaning the Internal Windscreen
Dust, moisture, lipstick, etc. may gradually turn the windscreen inside the front grill into a “high-frequency trap” making the mi-crophone sound dull. We therefore recommend cleaning the in-ternal windscreen as soon as the microphone sound begins to lose its sparkle and clarity.

1. Unscrew the front grill from the microphone CCW.

2. Remove the internal windscreen from the front grill.
3. Soak the internal windscreen in soap suds and squeeze out the suds again. Repeat three or four times.
4. Allow the internal windscreen to dry overnight.
5. Insert the cleaned internal windscreen into the front grill.
6. Screw the front grill on the microphone CW.

Cleaning

Replacing the Internal Windscreen
Should the sound remain dull even after cleaning the wind-screen, you can replace the original internal windscreen with the extra windscreen supplied with the microphone:

1. Unscrew the front grill from the microphone CCW.
2. Remove the internal windscreen from the front grill.
3. Wet the extra windscreen with a few drops of water and squeeze the windscreen a couple of times, to the point that it assumes the correct shape.
4. Allow the extra windscreen to dry.
5. Insert the extra windscreen into the front grill.
6. Screw the front grill on the microphone CW.

Troubleshooting

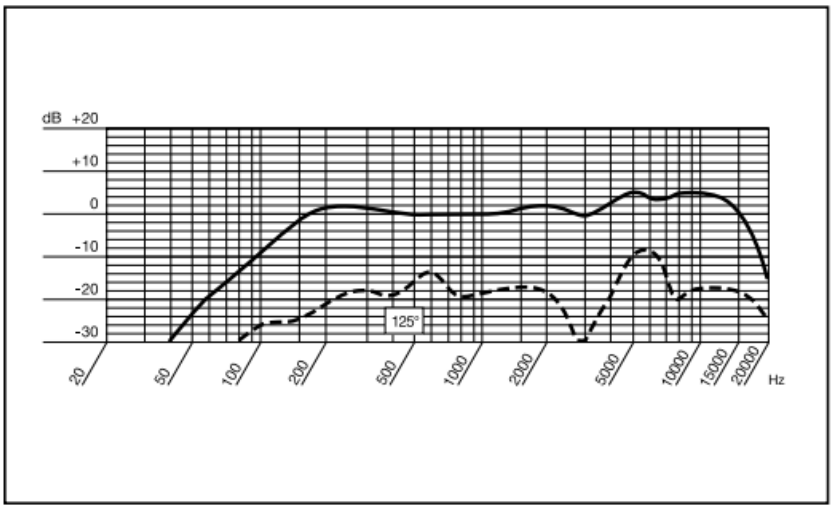
C	Possible Cause	Remedy
No sound.	1. Power to mixer and/or amplifie r is off. 2. Channel or master fader on mi xer, or volume control on amplifier i s at zero. 3. Microphone is not con- nected to mixer or am- plifier.	1. Switch power to mixer or amplif ier on. 2. Set channel or master fader on mixer or vol- ume control on amplifi er to desired level. 3. Connect microphone to mixer o r amplifier.
	4. Cable connectors are seated lo osely. 5. Cable is defective.	4. Check cable connectors for sec ure seat. 5. Check cable and re- place if da maged.
Distortion.	1. Gain control on mixer or trans mitter module not set correctly.	1. Set gain control to stop distortion .
	2. Mixer input sensitivity too high.	2. Insert 10 dB preattenu- ation pad between mi- crophone cable and in- put.
Microphone sound be- comes duller by and by.	• Internal or external windscreen a ttenuates high frequencies when soiled.	• Clean or replace inter- nal or external wind- screen.

Specifications

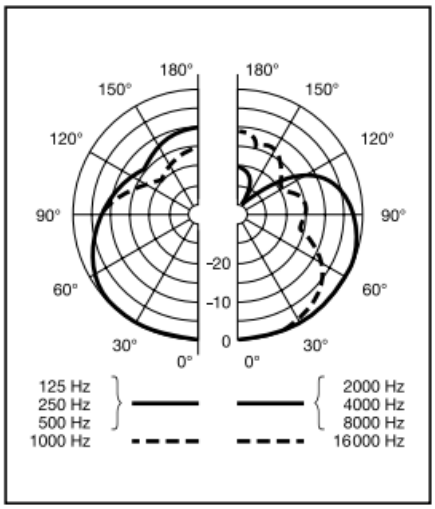
- Polar pattern: supercardioid
- Frequency range: 70 Hz to 20 kHz
- Highpass filter 80 Hz, permanently on
- Sensitivity: 2.6 mV/Pa (-52 dBV re 1 V/Pa)
- Max. SPL for 1% / 3% THD: 147 / 156 dB SPL
- Equivalent noise level: 18 dB(A) to IEC 60268-4
- Impedance: ≤ 600 ohms
- Recommended load impedance: ≥ 2000 ohms
- Humbucking coil: integrated
- Connector: 3-pin XLR
- Finish: D 7, D 7 S: matte gray-blue; D 7 LTD: chrome plated
- Size: length: 185.2 mm (7.3 in.); diameter: 51 mm (2 in.)
- Net weight: 340 g (12 oz.)
- Shipping weight: 655 g (1.45 lbs.)
- Patents: Varimotion varying-thickness diaphragm for dynamic transducers (patents nos. AT 403.751, US 6.185.809, DE 814.637, DK 814.637, FI 814.637, FR 814.637, GB 814.637, IT 814.637, NL 814.637)

This product conforms to the standards listed in the Declaration of Conformity. To order a free copy of the Declaration of Conformity, visit **http://www.akg.com** or contact **sales@akg.com**.

Frequency Response



Polar Diagram



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H A Harman International Company
Specifications subiect to change without notice.

Printed in Austria

Documents / Resources

	AKG VOCAL D7 S Reference Dynamic Vocal Microphone [pdf] Instruction Manual VOCAL D7 S Reference Dynamic Vocal Microphone, VOCAL D7 S, Reference Dynamic Vocal Microphone, Dynamic Vocal Microphone, Vocal Microphone, Microphone

References

- Official AKG Store â€“ Microphones, Headphones, and More!
- Manual-Hub.com - Free PDF manuals!
- User Manual