

D 7

D 7 S

D 7 LTD

V O C A L

BEDIENUNGSANLEITUNG S. 2
Bitte vor Inbetriebnahme des Gerätes lesen!

USER INSTRUCTIONS p. 12
Please read the manual before using the equipment!

MODE D'EMPLOI p. 22
Veuillez lire cette notice avant d'utiliser le système!

ISTRUZIONI PER L'USO p. 32
Prima di utilizzare l'apparecchio, leggere il manuale!

MODO DE EMPLEO p. 42
¡Sirvase leer el manual antes de utilizar el equipo!

INSTRUÇÕES DE USO p. 52
Favor leia este manual antes de usar o equipamento!





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1 Precaution/Description



- 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.

1.1 Precaution



				
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)

1.2 Unpacking

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

- For optional accessories, refer to the current AKG catalog or folder, or visit www.ake.com. Your dealer will be glad to help.

1.3 Optional Accessories

- 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-frequency noise
- Extremely resilient, spring-steel wire-mesh cap for extra impact resistance.

1.4 Features



1 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 favors the midfrequency and treble regions to ensure good intelligibility of speech. The term "supercardioid polar response" 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 frequencies or, in other words, from the lowest to the highest notes ("frequency independent").

A mechanical/pneumatic shock mount on the transducer element minimizes handling and cable noise. An integrated windscreen reduces pop, wind, and breath noise to a minimum. A built-in humbucking coil and 80-Hz highpass filter will effectively suppress any other kind of unwanted low-frequency noise. The filter is permanently active. Therefore, the microphone has no separate on/off switch for the highpass filter.

A rugged front grill made of spring-steel wire mesh that is extremely resistant to deformation and a sturdy zinc alloy die-cast body effectively protect the microphone and transducer element from damage on stage and on the road.

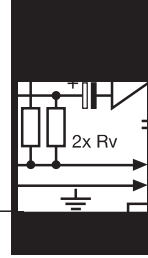
1.6 D 7 S

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 special esthetic requirements.

2 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 unbalanced microphone input.

- To connect the microphone to a balanced input (XLR connector), 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.

- Please note that unbalanced cables may pick up interference 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).

Note:



3 Using your microphone

3.1 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.

3.2 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 reverberation.

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 frequencies that occurs when you sing into the microphone from less than 2 inches. It gives more "body" to your voice and an intimate, bass-heavy sound.

3.3 Angle of Incidence

Refer to fig. 1.



Fig. 1: Typical microphone position.

If you sing directly into the microphone, 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.

3 Using your microphone



3.4 Feedback

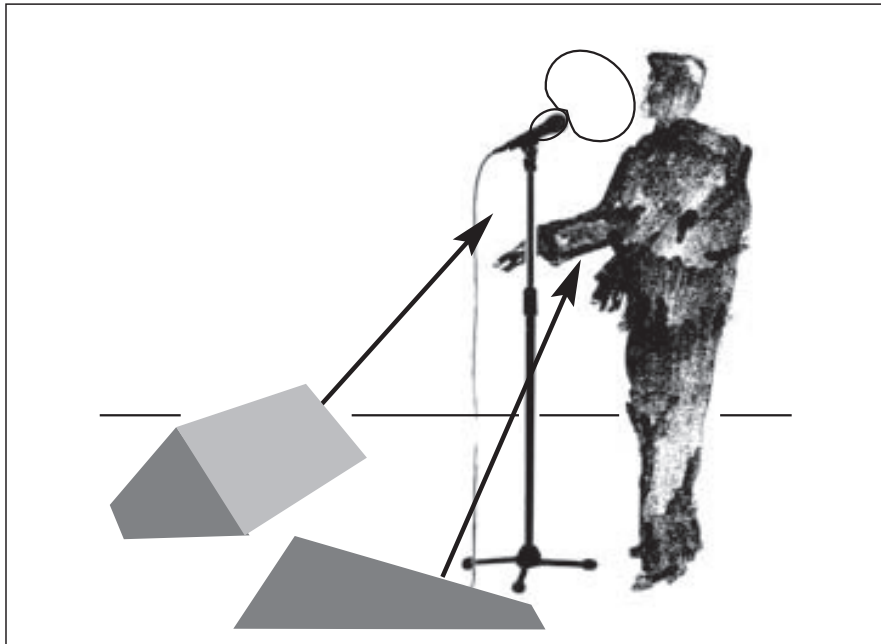


Fig. 2: Microphone placement for maximum gain before feedback.

The term “feedback” means that part of the sound projected by a speaker is picked up by a microphone, fed back to the amplifier, and projected again by the speaker. Above a specific volume or “system gain” setting the sound system will start howling 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 arriving 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 microphone 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 frequencies, proximity effect may cause feedback. In this case, it is often enough to move away from the microphone a little to stop the feedback.

Refer to fig. 2.



3 Using your microphone

3.5 Backing Vocals

Fig. 3: Two vocalists sharing a microphone.



1. Never let more than two persons share a microphone.
2. The microphone is very insensitive to off-axis sounds. If the two vocalists 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.



4 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 supplied microfiber cloth.

4.3 Cleaning the Internal Windscreen

Dust, moisture, lipstick, etc. may gradually turn the windscreen inside the front grill into a “high-frequency trap” making the microphone sound dull. We therefore recommend cleaning the internal 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.

4 Cleaning



Should the sound remain dull even after cleaning the windscreen, you can replace the original internal windscreen with the extra windscreen supplied with the microphone:

4.4 Replacing the Internal Windscreen

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.
-



5 Troubleshooting

Problem	Possible Cause	Remedy
No sound.	<ol style="list-style-type: none">1. Power to mixer and/or amplifier is off.2. Channel or master fader on mixer, or volume control on amplifier is at zero.3. Microphone is not connected to mixer or amplifier.4. Cable connectors are seated loosely.5. Cable is defective.	<ol style="list-style-type: none">1. Switch power to mixer or amplifier on.2. Set channel or master fader on mixer or volume control on amplifier to desired level.3. Connect microphone to mixer or amplifier.4. Check cable connectors for secure seat.5. Check cable and replace if damaged.
Distortion.	<ol style="list-style-type: none">1. Gain control on mixer or transmitter module not set correctly.2. Mixer input sensitivity too high.	<ol style="list-style-type: none">1. Set gain control to stop distortion.2. Insert 10 dB preattenuation pad between microphone cable and input.
Microphone sound becomes duller by and by.	<ul style="list-style-type: none">• Internal or external windscreen attenuates high frequencies when soiled.	<ul style="list-style-type: none">• Clean or replace internal or external windscreen.

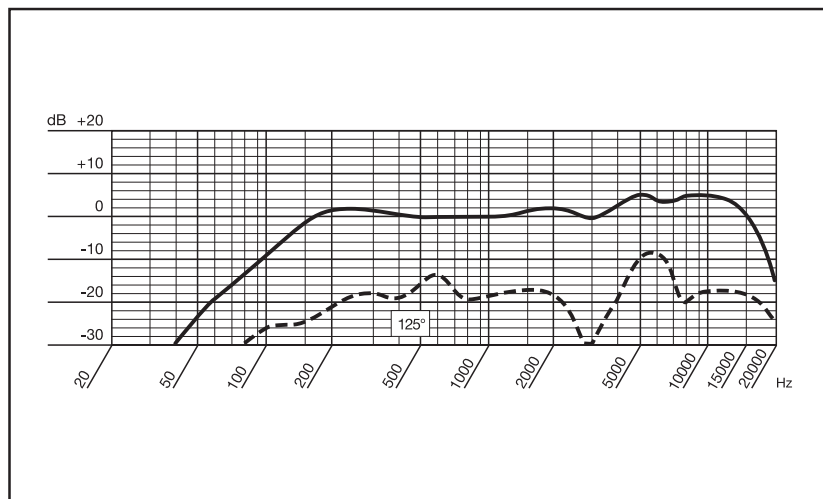
6 Specifications



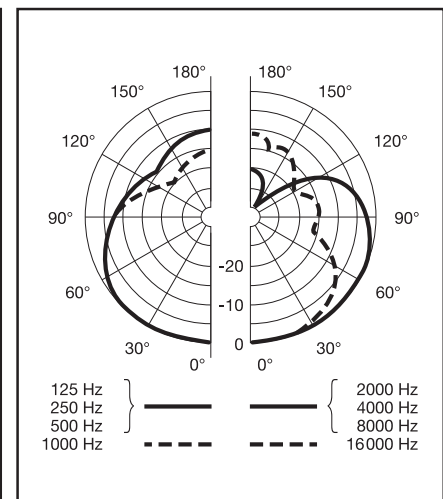
Polar pattern:	supercardioid
Frequency range:	70 Hz to 20 kHz
Highpass filter	80 Hz, permanently on
Sensitivity:	2.6 mV/Pa (-52 dBV re 1 V/Pa)
Max. SPL for 1% / 3% THD:	147 / 156 dB SPL
Equivalent noise level:	18 dB(A) to IEC 60268-4
Impedance:	≤ 600 ohms
Recommended load impedance:	≥ 2000 ohms
Humbucking 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.ake.com> or contact sales@ake.com.

Frequency Response



Polar Diagram



Mikrofone · Kopfhörer · Drahtlosmikrofone · Drahtloskopfhörer · Kopfsprechgarnituren · Akustische Komponenten
Microphones · Headphones · Wireless Microphones · Wireless Headphones · Headsets · Electroacoustical Components
Microphones · Casques HiFi · Microphones sans fil · Casques sans fil · Micros-casques · Composants acoustiques
Microfoni · Cuffie HiFi · Microfoni senza filo · Cuffie senza filo · Cuffie-microfono · Componenti acustici
Micrófonos · Auriculares · Micrófonos inalámbricos · Auriculares inalámbricos · Auriculares con micrófono · Componentes acústicos
Microfones · Fones de ouvido · Microfones s/fios · Fones de ouvido s/fios · Microfones de cabeça · Componentes acústicos

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Printed in Austria

02/09/9100 U 12970



Vocals
Recording
Concert Sound
Live Sound / AV Rentals

- Reference-quality dynamic vocal microphone
- Exceptionally high gain-before-feedback
- Built-in high-pass filter greatly improves vocal intelligibility
- Built-in Hum-Cancelling Coil minimizes electrical interference
- AKG Laminate Varimotion diaphragm delivers incredibly consistent performance
- New inner windscreen ensures ultra-low p-pops
- Precision metal dust filter guards the diaphragm



D 7

The AKG D 7 delivers the subtle, open, detailed sound of a condenser microphone, while maintaining the rugged reliability and ease of control of a dynamic microphone. At the heart of the D 7's design is AKG's new Laminate Varimotion diaphragm which allows precise response tuning without resonators. Thanks to the Laminate Varimotion diaphragm, the D 7 delivers beautifully-detailed sound, amazing response consistency at any SPL and absolutely incredible gain-before-feedback. You'll find that the D 7 always sounds "right" even on the loudest stages.

The D 7 also features a built-in high-pass filter that cuts out unwanted low frequencies, minimizes handling noise, and provides superior audio clarity and intelligibility. AKG's newest dynamic microphone also features a humbucking coil that greatly reduces interference from electrical devices—ensuring that only pure vocal sounds come through.

The D 7 isn't just a pretty package – it features a super-strong, heavy-duty die-cast chassis with a thick, dent-resistant grille screen that can easily handle the inevitable accidents that happen in live performances on the road. The mic is also equipped with a gold-plated XLR-type output connector for loss-free signal transfer.

The sum total of D 7's technology is a reference-quality dynamic microphone that offers complete control for singers and speakers and, therefore, a better listening experience for audiences. Its precise, detailed sound quality, mind-boggling gain-before-feedback, low handling noise and road-tough reliability ensure you'll be seeing and hearing D 7s on stage with leading performers for a long time!

The European-built D 7 is backed by a two-year parts and labour warranty from AKG.

Available versions

D 7: for standard applications.

D7 WL/1: D 7 capsule for use with AKG WMS 4000 and WMS 4500 wireless systems

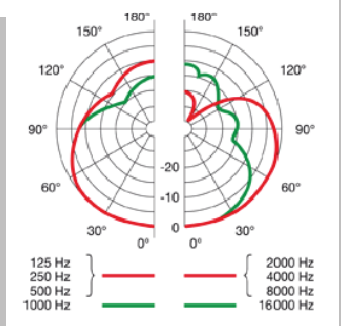
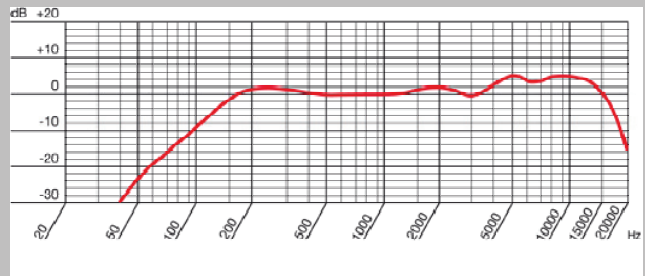
AKG SOUNDS BETTER





SPECIFICATIONS

Polar pattern	Supercardioid
Frequency range	70 to 20,000 Hz
High pass Filter	80 Hz, always active
Sensitivity	2.6 mV/Pa (-52 dBV)
Max. SPL for 1%/3% THD	147 / 156 dB SPL
Equivalent noise level	18 dB-A (IEC 60268-4)
Signal/noise ratio (A-weighted)	76 dB
Impedance / load Impedance	≤600 ohms, 2000 ohms
Humbucking coil	Integrated on capsule
Connector	3-pin XLR
Finish	Matte gray blue
Dimensions	Length: 185.2 mm (7.3 in.); Diameter: 51 mm (2 in.)
Net / shipping weight	340 g (12 oz.) / 655 g (1.45 lbs.)
Standard accessories	Padded cylindrical zip case, SA 61, replacement inner windscreen
Item numbers	D 7: 3139Z00010



D 7 WL 1*: D 7 capsule for WMS 4000 and 4500
*available summer 2008

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D7.....3139Z00010

D7 S.....3139Z00020

D7 LTD....3139Z00030



Description	Pos.	Part number Bestellnummer	D7	D7 S	D7 LTD	Bezeichnung
Grid cap	1	3139M11010	1	1	-	Gitterkappe
Grid cap	1	3139M11030	-	-	1	Gitterkappe
Foam insert	2	3139Z10010	1	1	1	Windschutz innen
Capsule compl.	3	2610Z00350	1	1	1	Kapsel kompl.
Handle w/o. switch	4	3139M10040	1	-	-	Griff ohne Schalter
Handle w. switch	4	3139M10050	-	1	-	Griff mit Schalter
Handle w/o. switch	4	3139M10060	-	-	1	
Standadapter SA61	-	6001H61010	1	1	1	Stativanschluß SA61
Case	-	1605P00150	1	1	1	Etui
Handle with gridcap	-	3139M10030	-	-	1	Griff mit Gitterkappe

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Reparaturhinweise:

Bitte beachten Sie daß die Litzen der Kapsel wie im Bild 1 verlegt sein müssen.

Repair – Hints:

Please take care that the litz wires are routed as in the picture 1.

