AKG ACOUSTICS

INSTALLED SOUND 2004/2005

MICROPHONES
HEADPHONES
HEADSETS
MODULAR MICROPHONE SYSTEMS
WIRELESS MICROPHONE SYSTEMS
SOUND PROCESSING SERIES
CONFERENCE SYSTEMS

Key to AKG Product Names

Here is a list of the prefixes and suffixes we use to designate the various types of products:

Microphone, Headphone, and System Prefixes

C	Condenser microphone, e.g., C 1000 S
CK	Condenser microphone capsule, e.g., CK 91
D	Dynamic microphone, e.g., D 770
GN	Gooseneck for Discreet Acoustics Series microphones, e.g., GN 15 E
HSC	Headset with condenser microphone, e.g., HSC 200 SL
HSD	Headset with dynamic microphone, e.g., HSD 200 SR
HT	Handheld transmitter for wireless microphone systems, e.g., HT 4000
K	Headphones, e.g., K 240 Studio
PT	Bodypack transmitter for wireless microphone systems, e.g., PT 4000
SE	Powering module for modular microphones, e.g., SE 300 B
SR	Stationary receiver for wireless microphone systems, e.g., SR 4000
WMS	Wireless microphone system, e.g., WMS 4000

Accessory Prefixes

A	Adapter, e.g., A 48 V
B	Battery power supply, e.g., B 18, B 29 L
GNS	Gooseneck system, e.g., GNS 36
H	Support, e.g., H 38
KA	Camera adapter, e.g., KA 38
MK	Microphone cable, e.g., MK 90/3
MPA	Phantom power adapter for microphones, e.g., MPA III
MSH	Gooseneck for microphones, e.g., MSH 70
N	AC power supply, e.g., N 62 E
SA	Stand adapter, e.g., SA 60, SA 61
ST	Floor or table stand, e.g., ST 1, ST 45
VR	Extension tube, e.g., VR 61, VR 91
W	Windscreen, e.g., W 23, W 90

Microphone, Headphone, and System Suffixes

B	Bass rolloff or bass cut filter, e.g., C 391 B
BL	Boundary microphone, e.g., C 400 BL
C	Miniature cardioid microphone, e.g., CK 97-C
CM	Ceiling mount microphone, e.g., C 562 CM
DF	Diffuse-field equalized headphones, e.g., K 240 DF
E	XLR connector. e.g., GN 15 E. Also used for some earlier microphone models, to distinguish versions with XLR connectors, e.g., C 535 E, from versions with DIN connectors.
L	Microphones or systems with miniature-XLR connector, e.g., C 417 L
M	Headphones for monitoring use, e.g., K 141 M
O	Miniature omnidirectional microphone, e.g., CK 97-O
OC	Microphones or systems with stripped and tinned leads (open connection), e.g., CK 77 WR OC
/P	Microphones in flesh-color finish, e.g., C 477 WR L/P
PP	Microphones with phantom power adapter provided, e.g., C 420 PP
S	On/off switch, e.g., D 880^{M} S
SH	Microphones with miniature-Lemo connector, e.g., C 477 WR SH
ULS	Ultra Linear Series: condenser microphone with a preamplifier with extremely linear transfer characteristics, e.g., CK 61-ULS
/W	White version of a microphone that is available in various colors

Please note that some or all of these products may not be available in your country, and that availability of some products in your country may be restricted to specifically authorized AKG distributors.
For details, please contact your local dealer or national AKG distributor or visit our website at: www.akg.com

PLEASE NOTE
You can download Architects' and Engineers' Specifications for selected AKG products from the AKG website. Visit http://www.akg.com and select the desired product.

AKG – THE STORY OF A LEGENDARY BRAND

For more than five decades, AKG has been a leading manufacturer of microphones and headphones, accessories, OEM and telecom products of fine quality and high reliability. The resulting experience and engineering know-how is the foundation for the unique sound of AKG products as well as the reputation and popularity of the legendary AKG brand. Today, AKG products are available throughout the world and have become a standard in many radio and TV studios. Did you know that according to the 1990 Billboard Survey every US recording studio uses at least one AKG product?

"When it comes to sound system and PA products, consider AKG. You may not want to look any further because the engineering competence and world-wide reputation of AKG give you the confidence of using equipment of the highest standards of quality and reliability."

Dr. Hugo Lenhard-Backhaus,
CEO, AKG Vienna

Facts and Figures

- **Established in Vienna, Austria in 1947**
- **Founders: Dr. Rudolf Görike, Ing. Ernst Pless**
- **The two-man company grew into a multinational group.**
- **More than 1400 patents applied for worldwide**
- **Leading audio manufacturer**

Engineering innovation and cost efficient production have made the sound system market grow at two-digit annual rates.

AKG recognized this trend early on and developed a specific line of products and accessories that provide professional solutions for all types of applications and installations. The line includes products for conference and communications systems, fixed and mobile PA systems, as well as wireless systems that are becoming more and more important.

Should you find no product for your specific application in this Catalog, or if you have any suggestions for improvements, new products, or other ideas, please let us know and write to the Installed Sound Forum at **www.akg.com/forum**.

We appreciate your input.

INSTALLED SOUND
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Tour guide

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Aerobics

Camera, dispatcher's office, interpreter's booth

Intercom

Monitoring

Interpretation system

TV, motion picture, video production

Sound/A/V company

HEADPHONES AND HEADSETS: APPLICATIONS

Radio Gecko provides information and entertainment for UN troops in Syria around the clock, seven days a week, with live programming from 7 p.m. to midnight. Most of the station's equipment was financed by fund raising activities or special projects. AKG donated a number of products for the Austrian radio station which has become extremely popular with the UN troops at Camp Faqar.

"We are very pleased with the equipment provided by AKG. Moderator duos particularly appreciate the AKG HSC 200 SR headsets for the kind of mobility they provide."

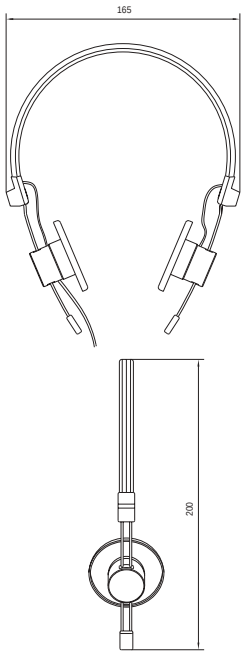
Major Anton Rettenbacher,
Founder and Director General of Radio Gecko

Major Anton Rettenbacher, Senior Staff Officer, Personnel of the United Nations Disengagement Observer Force (UNDOF), founder and director general of Radio Gecko, asked AKG for technical support for Radio Gecko. One major problem in day-to-day broadcasting work that had to be solved without compromising quality was the lack of space in the station building. The studio is located in a 30 m^2 L shaped room in a trailer and the programming includes everything from classical music to the latest hits.

The AKG HSC 200 SR proved to be an ideal solution for the station because this headset provides both maximum mobility in a studio of any size and excellent audio. "The HSC 200 SR headsets are extremely useful, particularly for moderator duos,..." Major Anton Rettenbacher said about everyday broadcasting routines, "...because they allow us to move about easily, which is very important, above all when searching for a specific CD." Radio Gecko has been such a success that there are plans to set up similar stations on all future missions in which Austria may be involved. "It would be great if Radio Gecko were to have babies," Major Rettenbacher said with a smile.

K 10

Headphones



Lightweight yet extremely **rugged mono headphones**. Plastic coated steel wire headband, individually adjustable supraaural earphones. **Easy-to-clean**, hygienic plastic earcups. Fully serviceable, single cable.

- **Extremely rugged, supraaural dynamic headphones**
- **Easy to clean, hygienic**
- **Ideal conference headphones**

Architect's and Engineer's Specifications

Lightweight, supraaural, closed-back dynamic headphones. Applications: Conference, language lab, language school. Frequency range: 100–13,000 Hz; sensitivity: 98 dB SPL/1 mW; impedance: 360 ohms; power handling capability: 200 mW; THD: < 1 %; headband pressure: 2.8 N. Mini jack plug; 1.5 m (5 ft.) single cable. Net/shipping weight: 72/110 g (2.5/3.9 oz.).

SPECIFICATIONS

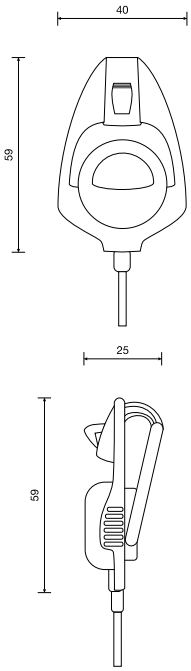
Type:	Dynamic, supraaural/ closed-back
Sensitivity:	98 dB SPL/1 mW
Frequency range:	100 to 13,000 Hz
Impedance:	360 ohms
Power handling capybility:	200 mW
THD:	<1%
Headband pressure:	2.8 N
Cable:	1.5 m (5 ft.), single entry
Connector:	gold plated TS mini jack plug
Finish:	black
Net/shipping weight:	72 g (2.5 oz.)/ 110 g (3.9 oz.)

Item Number

K 10	2246Z0013

K 11

Headphones



Featherweight single earphone for speech-signal monitoring in a wide variety of situations and applications. The mature mechanical design uses no headband and allows the **K 11** to be **put on and taken off single-handedly**, even in stressful situations.
With the earphone sitting right in front of your ear, you can still hear what is going on around you, without feeling isolated.

- **Featherweight single earphone**
- **Can be put on and removed single-handedly**

Architect's and Engineer's Specifications

Lightweight, supraaural, single earphone. Applications: Conference, language lab, language school. Frequency range: Hz 300–3,400 Hz; impedance: 150 ohms; THD: < 1 %; 3,5 mm-jack plug (2,5 mm stereo jack for Mini-jack Version); 3 m (15 ft.) single cable 1,5 m (7,5 ft) for Minijack Version); cable. Net/shipping weight: 10/70 g (0,35/2,47 oz.).

SPECIFICATIONS

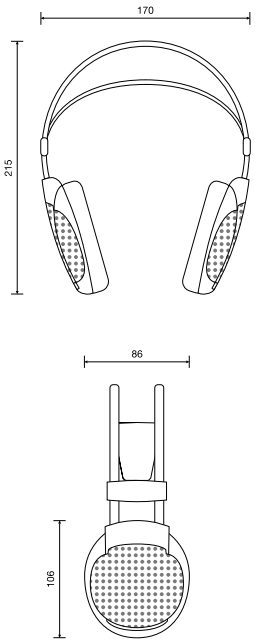
Type:	open-air, on-ear speaker
Frequency range:	300 to 3,400 Hz
Electrical impedance:	150 ohms
Connector:	TS mini jack plug
Cable:	1.65 m (5.4 ft.)
Finish:	matte black
Size:	25 x 40 x 59 mm (1.0 x 1.6 x 2.3 in.)
Net/shipping weight:	10 g (0.35 oz.)/70 g (2.47 oz.)

Item Number

K 11	2724Z0011

K 44

Headphones



The **K 44** stand out from all other **affordable stereo headphones** for their incredible price/performance ratio and unique AKG styling. **Low weight**, soft, circumaural leatherette ear pads, and a **self-adjusting headband** ensure **superior wearing comfort**.

- **Affordable closed-back stereo headphones**
- **Soft, circumaural leatherette ear pads**
- **Self-adjusting headband**

Architect's and Engineer's Specifications

Supraaural, closed-back headphones with self-adjusting headband; Applications: Multiple purpose, "all in one"-talented headphones; Frequency range: 18–20.000 Hz; Sensitivity: 115 dBV; impedance: 32 ohms per channel; power handling capability: 200 mW; Cable: 2,5 m (OFC) single-sided, cable with screwable 1/4" jack plug; Net (headphones without cable)/shipping weight: 220/323 g (7.7/11.3 oz.).

SPECIFICATIONS

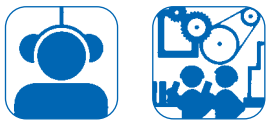
Type:	closed-back, supraaural dynamic headphones
Sensitivity:	115 dB SPL/V
Audio bandwidth:	18 to 20,000 Hz
Max. input power:	200 mW
Rated impedance:	32 ohms
THD:	<1%
Cable:	single cable, approx. 2.5 m (8 ft. 3 in.)
Connector:	stereo mini jack
Stereo adapter:	mini to 1/4" adapter jack
Net/shipping weight:	220/323 g (7.7/11.3 oz.)

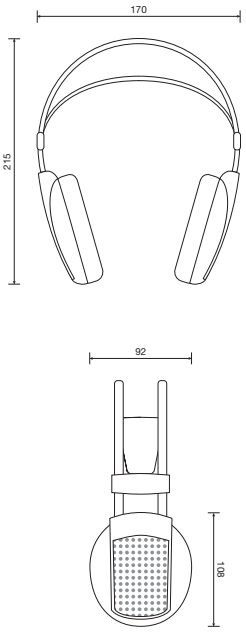
Item number

K 44	6000H0877

K 55

Headphones





These closed-back headphones provide both **excellent comfort** and **Turbo Bass speakers for superior, powerful sound**. Closed-back earphones ensure high ambient noise attenuation and minimum sound leakage.
K 55 HD: Heavy Duty cersion for CD listening stations, with 5-foot (1.5 m) theft-proof armored cable and installation clamp.

- **Closed-back circumaural stereo headphones**
- **Excellent comfort**
- **Turbo Bass speakers for powerful sound**

Architect's and Engineer's Specifications

The headphones shall be a circumaural, closed-back design with a self-adjusting headband. The headphones shall be designed for monitoring on location or in noisy environments. The headphones shall meet the following performance criteria: frequency range: 16 to 20,000 Hz, sensitivity: 96 dB SPL at 1 mW, electrical impedance: 32 ohms, power handling capability: 200 mW. The headphones shall be fitted with a 3 m single cable terminated in a 1/4" adapter jack. The net/shipping weight of the headphones shall be 241/488 g (8.4/17.1 oz.).

SPECIFICATIONS

Type:	closed-back, circumaural dynamic headphones
Sensitivity:	114 dB SPL/V
Audio bandwidth:	16 to 20,000 Hz
Max. input power:	200 mW
Rated impedance:	32 ohms
THD:	<1%
Cable:	single cable, approx. 3 m (10 ft.)
Connector:	stereo mini jack
Stereo adapter:	mini to 1/4" adapter jack
Net/shipping weight:	241/488 g (8.4/17.1 oz.)

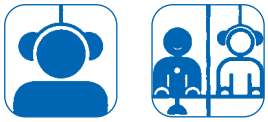
Special version K 55 HD with sheathed cable

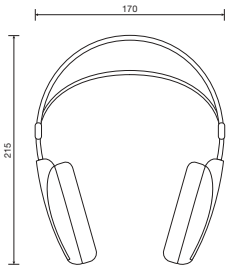
Item Number

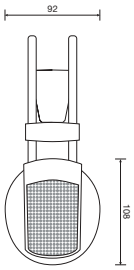
K 55	6000H0875

K 66

Headphones







These hi-fi stereo headphones **combine excellent sound and outstanding price/performance**.

The proven self-adjusting headband, soft, circumaural leatherette ear pads, and low weight ensure a comfortable fit. Large, powerful 40 mm (1.6 in.) speakers provide **superior sound quality for perfect listening enjoyment**.

- **Semi-open hi-fi stereo headphones**
- **Low weight for excellent comfort**
- **Skin compatible leatherette ear pads**
- **Excellent price/performance**

Architect's and Engineer's Specifications

The headphones shall be a circumaural, semi-open design with a self-adjusting headband. The headphones shall be designed for monitoring use. The headphones shall meet the following performance criteria: frequency range: 18 to 20,000 Hz, sensitivity: 96 dB SPL at 1 mW, electrical impedance: 32 ohms, power handling capability: 200 mW. The headphones shall be fitted with a 3 m single cable terminated in a 1/4" adapter jack. The net/shipping weight of the headphones shall be 249/463 g (8.7/16.2 oz.).

SPECIFICATIONS

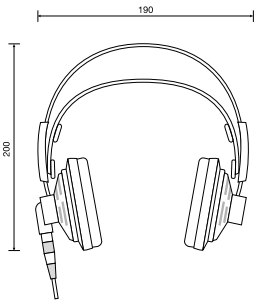
Type:	closed-back, circumaural dynamic headphones
Sensitivity:	112 dB SPL/V
Audio bandwidth:	18 to 22,000 Hz
Max. input power:	200 mW
Rated impedance:	32 ohms
THD:	<1%
Cable:	single cable, approx. 3 m (10 ft.)
Connector:	stereo mini jack
Stereo adapter:	mini to 1/4" adapter jack
Net/Shipping weight:	249/463 g (8.7/16.2 oz.)

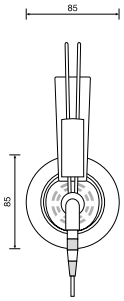
Item Number

K 66	6000H0876

K 141 Studio

Headphones





Studio quality headphones with improved response and **55 ohms rated impedance**. The new **XXL speakers** with **Varimotion diaphragms** provide higher sensitivity for a wider dynamic range and a louder sound. This semi-open design with a plug-in cable delivers powerful bass and sparkling highs at a very attractive price/performance ratio. Also connects to portable equipment (CD players, DAT recorders, notebook computers, MP3 players, etc.)

- **Stereo headphones for project and recording studios**
- **Undistorted sound even at high volume levels**
- **Semi-open supraaural earphones**
- **Patented Variomotion speakers**

Architect's and Engineer's Specifications

Supraaural, semi-open headphones with self-adjusting headband; Applications: Monitoring, Recording, Playback, Portable Equipment; Frequency range: 18–24.000 Hz; Sensitivity: 101 dB at 1 mW/114 dBV; impedance: 55 ohms per channel; power handling capability: 200mW; Cable: 3 m (OFC) single-sided, plug-in, easily replaceable cable with mini-XLR connector and with hard-gold plated, screwable 1/4" jack plug; Net (headphones without cable)/shipping weight: 225/550 g (7.8/19.2 oz.).

SPECIFICATIONS

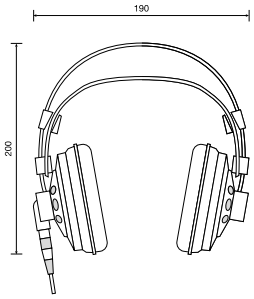
Type:	semi-open, supraaural dynamic headphones
Sensitivity:	101 dB SPL/mW
Audio bandwidth:	18 to 24,000 Hz
Max. input power:	200 mW
Rated impedance:	55 ohms
THD:	<0.4%
Cable:	plug-in single cable, approx. 3 m (10 ft.)
Connector:	gold plated stereo mini jack
Stereo adapter:	gold plated mini to 1/4" screw-on adapter jack
Net/shipping weight:	225/550 g (7.8/19.2 oz.)
Special feature:	plug-in cable

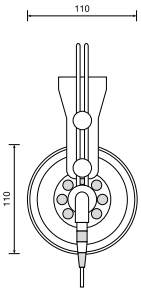
Item Numbers

K 141 Studio	2144Z0013
K 141 Monitor	2144Z0024
EK 300	6000H1008
Connecting cable: 3 m (10 ft.)	
EK 500 S	6000H1010
Connecting cable: 5 m (16.5 ft.), coiled	

K 240 Studio

Headphones





These professional hi-fi stereo studio headphones from use **XXL speakers with Varimotion diaphragms for higher sensitivity, a wider dynamic range, and higher sound levels**. Other features include a plug-in cable, semi-open earphones, a solid bass range, clear highs, and excellent comfort.
Also connects to portable equipment (CD players, DAT recorders, notebook computers, etc.)

- **Professional hi-fi stereo studio headphones**
- **Self-adjusting headband for optimum fit**
- **Single cable for ease of use**
- **Semi-open, circumaural design**
- **Patented Varimotion speakers**

SPECIFICATIONS

Type:	semi-open, circumaural dynamic headphones
Sensitivity:	91 dB SPL/mW
Audio bandwidth:	15 to 25,000 Hz
Max. input power:	200 mW
Rated impedance:	55 ohms
THD:	<0.3%
Cable:	plug-in single cable, approx. 3 m (10 ft.)
Connector:	gold plated stereo mini jack
Stereo adapter:	gold plated mini to 1/4" screw-on adapter jack
Net/shipping weight:	240/550 g (8.4/19.2 oz.)
Special feature:	plug-in cable

Architect's and Engineer's Specifications

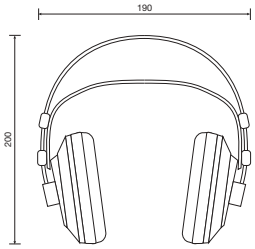
Circumaural, semi-open headphones with self-adjusting headband; Applications: Professional stereo-studio-headphones; Frequency range: 15–25.000 Hz; Sensitivity: 91 dB at 1 mW / 104 dBV; impedance: 55 ohms per channel; power handling capability: 200 mW; Cable: 3 m (OFC) single-sided, plug-in, easily replaceable cable with mini-XLR connector and with hard-gold plated, screwable 1/4" jack plug; Net (headphones without cable)/shipping weight: 240/550 g (8.4/19.2 oz.).

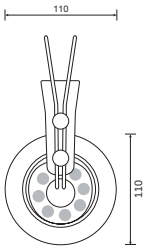
Item Numbers

K 240 Studio	2058Z0013
K 240 Monitor	2058Z0015
EK 300	6000H1008
Connecting cable: 3 m (10 ft.)	
EK 500 S	6000H1010
Connecting cable: 5 m (16.5 ft.), coiled	

K 240 DF

Headphones





Used as r**eference headphones** by **many radio stations worldwide**, this model has been in the AKG catalog unchanged for ten years and has become a **classic** by now. With their **flat frequency response**, these headphones provide an **uncolored sound**. The **diffuse-field equalized K 240 DF** meets not only the stringent criteria of the **IRT standard** but those of professional sound engineers as well. Created to fulfill the international IRT specification, the K 240 DF establishes a **uniform quality** standard **free from environmental variables**. In fixed apposition to the ears, the sound output quality is unchanging and reliable – as opposed to loudspeaker monitors, sound from which is markedly influenced and colored by variations in control room architecture and furnishings.

- **Radio station reference headphones**
- **Diffuse-field equalized, designed strictly to IRT (German Institute for Radio Technology) standards**
- **Single cable for ease of use**
- **Semi-open, circumaural design**

SPECIFICATIONS

Type:	semi-open, circumaural dynamic headphones
Sensitivity:	88 dB SPL/mW
Audio bandwidth:	15 to 20,000 Hz
Max. input power:	200 mW
Rated impedance:	600 ohms
THD:	<0.25%
Cable:	single cable, approx. 3 m (10 ft.)
Connector:	gold plated stereo mini jack
Stereo adapter:	gold plated mini to 1/4" adapter jack
Net/shipping weight:	290/434 g (10.2/15.2 oz.)
Special features:	Diffuse-field equalized, designed strictly to IRT (German Institute of Radio Technology) standards

Architect's and Engineer's Specifications

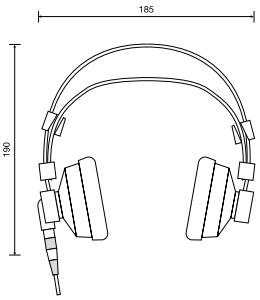
The headphones shall be a circumaural, semi-open design with a self-adjusting headband. The headphones shall be designed for high quality monitoring. The headphones shall meet the following performance criteria: frequency range: 15 to 20,000 Hz, diffuse-field equalization to IRT standard, sensitivity: 88 dB SPL at 1 mW, electrical impedance: 600 ohms/channel, power handling capability: 200 mW. The headphones shall be fitted with a 3 m single cable terminated in a 1/4" adapter jack. The net/shipping weight of the headphones shall be 290/434 g (10.2/15.2 oz.).

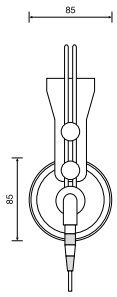
Item Numbers

K 240 DF Studio Monitor 2058Z0016

K 171 Studio

Headphones





Designed specifically for monitoring audio sources in noisy environments, these headphones combine the benefits of a **closed-back design** and the **comfort of supraaural earphones**. The K 171 Studio are light, extremely rugged, and easy-to-use headphones you can wear in many different ways. Providing high noise attenuation and a powerful sound, they are as **loud and convenient** as DJs like them. The **K 171 Studio** will be a very good choice for **DJ and broadcast use** as well as any applications where no sound must leak from the headphones (e.g., **TV productions**).

- **Stereo headphones**
- **For broadcast and DJ use**
- **Supraaural earphones, minimum-pressure comfort**
- **High ambient noise attenuation**
- **Rugged construction for tough handling**
- **Patented Varimotion speakers**

Architect's and Engineer's Specifications

Supraaural, closed-back headphones with self-adjusting headband; Applications: Professional, portable stereo-headphones for monitoring and broadcast applications; Frequency range: 18–26.000 Hz; Sensitivity: 94 dB at 1 mW / 107 dBV; impedance: 55 ohms per channel; power handling capability: 200 mW; Cable: 3 m (OFC) single-sided, plug-in, easily replaceable cable with mini-XLR connector and with hard-gold plated, screwable 1/4" jack plug; Net (headphones without cable)/shipping weight: 200/500 g (7/17.5 oz.).

SPECIFICATIONS

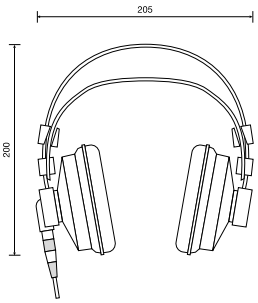
Type:	closed-back, supraaural dynamic headphones
Sensitivity:	94 dB SPL/mW
Audio bandwidth:	18 to 26,000 Hz
Max. input power:	200 mW
Rated impedance:	55 ohms
THD:	<0.4%
Cable:	plug-in, 99.99% OFC single cable, approx. 3 m (10 ft.)
Connector:	gold plated stereo mini jack
Stereo adapter:	gold plated mini to 1/4" screw-on adapter jack
Net/shipping weight:	200/500 g (7/17.5 oz.)
Special feature:	plug-in cable with mini XLR connector

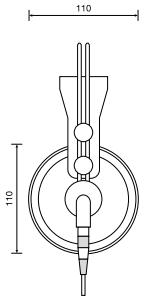
Item Numbers

K 171 Studio	2908Z0001
EK 300	6000H1008
Connecting cable: 3 m (10 ft.)	
EK 500 S	6000H1010
Connecting cable: 5 m (16.5 ft.), coiled	

K 271 Studio

Headphones





The extremely popular K 270 Studio have unfailingly proven to be a reliable tool over the years. The **new K 271 Studio**, while providing the same performance as the K 270 Studio, is much **lighter and easier to use**, and still provides a natural, pristine sound. The closed-back, circumaural earphones provide **maximum attenuation** of ambient noise. The K 271 Studio are also ideal for all applications where no sound must leak from the headphones. The headphones **switch off automatically when taken off**. Since this feature prevents headphone signals from spilling over into an open microphone it is highly appreciated by recording studios, live sound, TV sound, and broadcast engineers.

- **Stereo headphones**
- **For onstage and studio use**
- **Circumaural earphones**
- **High noise attenuation**
- **Automute feature mutes headphones when they are taken off.**
- **Patented Varimotion speakers**

Architect's and Engineer's Specifications

Circumaural, closed-back headphones with self-adjusting headband and auto-shut-off feature; Applications: Professional stereo-studio-headphones for live sound and studio monitoring; Frequency range: 16–28.000 Hz; Sensitivity: 91 dB at 1 mW / 104 dBV; impedance: 55 ohms per channel; power handling capability: 200 mW; Cable: 3 m (OFC) single-sided, plug-in, easily replaceable cable with mini-XLR connector and with hard-gold plated, screwable 1/4" jack plug; Net (headphones without cable)/shipping weight: 240/550 g (8.4/19.2 oz.).

SPECIFICATIONS

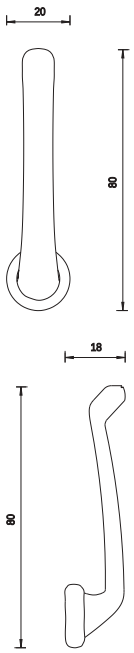
Type:	closed-back, circumaural dynamic headphones
Sensitivity:	91 dB SPL/mW
Audio bandwidth:	16 to 28,000 Hz
Max. input power:	200 mW
Rated impedance:	55 ohms
THD:	<0.3%
Cable:	plug-in, 99.99% OFC single cable, approx. 3 m (10 ft.)
Connector:	gold plated stereo mini jack
Stereo adapter:	gold plated mini to 1/4" screw-on adapter jack
Net/shipping weight:	240/550 g (8.4/19.2 oz.)
Special feature:	plug-in cable with mini XLR connector

Item Numbers

K 271 Studio	2470Z0012
EK 300	6000H1008
Connecting cable: 3 m (10 ft.)	
EK 500 S	6000H1010
Connecting cable: 5 m (16.5 ft.), coiled	

HSC 100 SR/OC

Headset



The **HSC 100 SR/OC** headset is **extremely small and light**, and sets a new standard for quality, compactness, and engineering. With its **AKG DNC (Dual Noise Canceling*) microphone**, the headset is the perfect choice for use in noisy offices. The **HSC 100 in-ear communication headset** leaves your hands free for taking notes or similar tasks.

* Dual Noise Canceling stands for perfect intelligibility of speech even in extremely noisy environments.

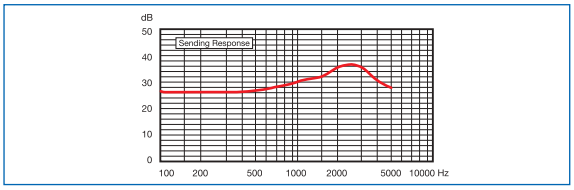
- **In-ear speaker**
- **Compact, featherweight design**
- **Noise canceling microphone with figure eight polar pattern**

SPECIFICATIONS

Microphone	
Polar pattern:	figure eight
Type:	condenser
Frequency range:	500 to 5,000 Hz
Sensitivity:	5 mV/Pa (-46 dBV)
Electrical impedance:	≤2.2 kohms
Power requirement:	1.5 to 10 VDC
Current Consumption:	≤2 mA
Headphones	
Type:	open, in-ear
Frequency range:	300 to 3,400 Hz
Electrical impedance:	150 ohms
System	
Connector:	unterminated leads
Cable length:	1.6 m (5 ft.)
Finish:	matte black
Size:	20 x 18 x 80 mm (0.8 x 0.7 x 3.1 in.)
Net/shipping weight:	8/80 g (0.3/3 oz.)

Architect's and Engineer's Specifications

Extra light weight, single sided headset, with figure eight, noise suppressing, speech optimzed condenser microphone capsule. Main application is any kind of communication. The headset can be positioned with one hand and has no arches or headband leading over the head. The microphones frequency range is 500–5000 Hz with a sensitivity of 5 mV/Pa. Impedance is 2,200 ohms. The required feeding voltage is 1.5–10 VDC. The phones's impedance is 150 ohms with a frequency range of 300–3400 Hz. Type: open, in-ear; open cable ends, cable length: 1.6 m (5 ft.). Size: 20 x 18 x 80 mm (0.8 x 0.7 x 3.1 in.). Net/Shipping weight 8/80 g (0.3/3 oz.).

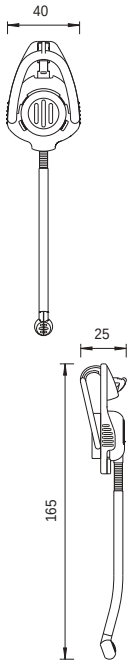


Item Number

HSC 100 SR/OC 2723Z0003

HSC 150 SR/OC

Headset



This **highly comfortable headset** is the ideal choice for **long-time use**.
The **HSC 150 headset** is simply placed on one ear and will stay in place securely. The optimized response of the AKG **DNC (Dual Noise Canceling*)** microphone gives best results with speech recognition software.
Special features include a DHF (Digital High Frequency) filter and DNC (Dual Noise Canceling*) microphone.

* Dual Noise Canceling stands for perfect intelligibility of speech even in extremely noisy environments.

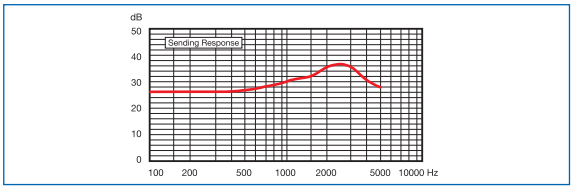
- **On-ear speaker**
- **Microphone mounted on flexible gooseneck**
- **Compact, featherweight design**
- **Noise-canceling microphone with figure eight polar pattern**

SPECIFICATIONS

Microphone	
Polar pattern:	figure eight
Type:	condenser
Frequency range:	500 to 5,000 Hz
Sensitivity:	5 mV/Pa (–46 dBV)
Electrical impedance:	≤2.2 kohms
Power requirement:	1.5 to 10 VDC
Current Consumption:	≤2 mA
Headphones	
Type:	open, in-ear
Frequency range:	300 to 3,400 Hz
Electrical impedance:	150 ohms
System	
Connector:	unterminated leads
Cable length:	1.6 m (5 ft.)
Finish:	matte black
Size:	25 x 40 x 165 mm (1.0 x 1.6 x 6.5 in.)
Net/shipping weight:	18/110 g (0.7/4.0 oz.)

Architect's and Engineer's Specifications

Extra light weight, single sided headset, with figure eight, noise suppressing, speech optimzed condenser microphone capsule. Main application is any kind of communication. The headset can be positioned with one hand and has no arches or headband leading over the head. The microphones frequency range is 500–5,000 Hz with a sensitivity of 5 mV/Pa. Impedance is 2,200 ohms. The required feeding voltage is 1.5–10 VDC. The phones's impedance is 150 ohms with a frequency range of 300–3,400 Hz. Type: On ear. Lead: Open cable ends; cable length: 1.6 m (5 ft.). Size: 25 x 40 x 165 mm (1.0 x 1.6 x 6.5 in.). Net/Shipping weight: 18/110 g (0.7/4.0 oz.).

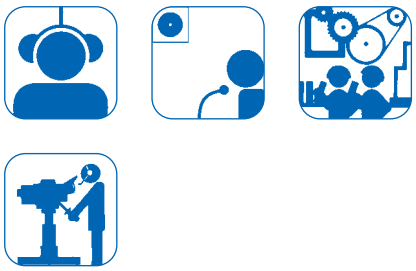


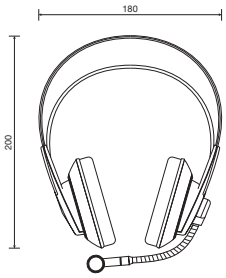
Item Number

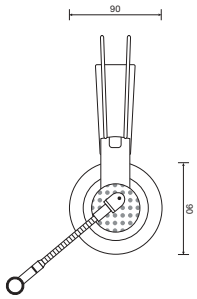
HSC 150 SR/OC 2724Z0003

HSC 200 SR

Headset







The **AKG HSC 200 SR broadcast headset** includes semi-open headphones that do not isolate the user from their surroundings. **All exposed parts are extremely rugged** to meet the requirements of tough day-to-day use. The shock mount of the condenser microphone prevents acoustic leakage from the headphones to the microphone more efficiently than many headsets with "isolating" headphones. Ideal for fatigue-free long-time use.

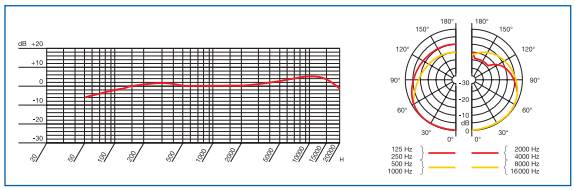
- **Semi-open broadcast headset**
- **Condenser microphone with shock mounted gooseneck**
- **Rugged, lightweight construction, ideal for long-time use**
- **Complete with phantom power adapter**

SPECIFICATIONS

Microphone	
Polar pattern:	cardioid
Type:	condenser
Frequency range:	20 to 20,000 Hz
Sensitivity:	7 mV/Pa (–43 dBV)
Max. SPL for 1% THD:	126 dB
Equivalent noise level:	22 dB-A
Signal/noise ratio (A-weighted):	72 dB
Impedance:	≤200 ohms
Recommended load impedance:	≥2000 ohms
Supply voltage:	9 to 52 V phantom power to DIN/IEC
Current consumption:	≤2 mA
Headphones	
Type:	semi-open, supraaural, dynamic headphones
Frequency range:	20 to 20,000 Hz
Sensitivity:	100 dB SPL/mW
Rated impedance:	100 ohms
System	
Connector:	3-pin XLR and 1/4"/ mini TRS jack
Cable:	3 m (10 ft.) single cable
Finish:	matte black
Net/shipping weight:	250/450 g (8.8 oz./1 lb.)
Standard accessories:	windscreen, mini to 1/4" adapter jack
Optional accessories:	B 15, B 18, N 62 E, N 66 E

Architect's and Engineer's Specifications

Light weight headset, with cardioid condenser microphone capsule. Main application is any kind of communication. The microphones frequency range is 20–20,000 Hz with a sensitivity of 7 mV/Pa. The microphones frequency response is individually adjustable. The required feeding voltage is 9 to 52 V phantom-power. The phones's impedance is 200 ohms with a frequency range of 20–20,000 Hz. Type: supraaural semi-open back with self adjusting headband. Connectors: 3,5 mm Stereojack with 6.3 mm adapter, gold plated, 3-pin XLR for microphone. Lead: Open cable ends; cable length: 3 m (10 ft.) Net/Shipping weight: 250/450 g (8.8 oz./1 lb.).

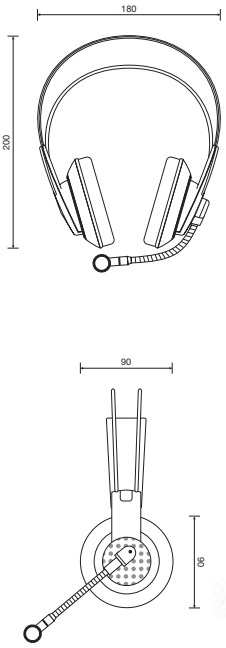


Item Number

HSC 200 SR	2656Z0003

HSD 200 SR/OC

Headset



The **high-performance noise-canceling microphone** recommends the HSD 200 headset for use in noisy environments. You won't need to shout to be heard!
With the HSD 200, you can talk for a long time with **no fatigue or hoarseness**, even under difficult conditions.

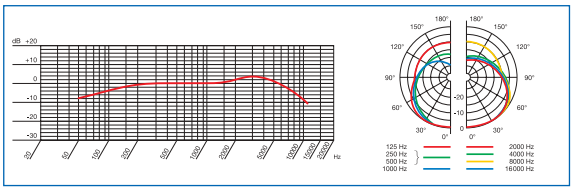
- **High quality headset**
- **Shock mounted, noise-canceling dynamic microphone**
- **Hypercardioid microphone polar pattern**
- **Speech optimized frequency response**
- **Rugged, lightweight construction**

Architect's and Engineer's Specifications

Light weight headset, with hypercardioid, noise cancelling, speech optimized dynamic, close talking microphone capsule. Main application is any kind of communication. The microphones frequency range is 50–11,000 Hz with a sensitivity of 1 mV/Pa. Impedance is 650 ohms. The phones's impedance is 650 ohms with a frequency range of 20–20,000 Hz. Type: supra-aural half closed back with self adjusting headband. Lead: Open cable ends; cable length: 1.8 m (6 ft.) single cable. Net/shipping weight: 250/450 g (8.8 oz./1 lb.).

SPECIFICATIONS

Microphone	
Polar pattern:	hypercardioid
Type:	dynamic
Frequency range:	50 to 11,000 Hz
Sensitivity:	1 mV/Pa (-60 dBV)
Max. SPL for 1% THD:	130 dB
Impedance:	≤650 ohms
Recommended load impedance:	≥1000 ohms
Headphones	
Type:	semi-open, supraaural, dynamic headpones
Frequency range:	20 to 20,000 Hz
Sensitivity:	100 dB SPL/mW
Rated impedance:	100 ohms
System	
Connector:	stripped and tinned leads
Cable:	1.8 m (6 ft.) single cable
Finish:	matte black
Net/shipping weight:	250/450 g (8.8 oz./1.0 lb.)
Standard accessories:	windscreen



Item Number

HSD 200 SR/OC 2656Z0006

Q 34

Headset

Headset with vertically pivoted circumaural, closed-back earphones. Metal arches, self-adjusting headband, continuously adjustable microphone arm. Extremely rugged construction, single cable. Close-talking microphone for **good intelligibility**, earphones with special **intercom-type response**. Closed-back earphone design for **high attenuation of ambient noise**. Matte black/grey finish. Particularly suited for radio and surveillance services, broadcast and TV (picture and sound control rooms), theater stage managers and lighting engineers.

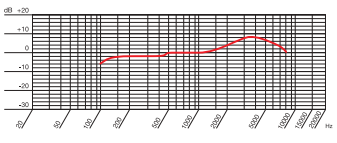
- **Extremely rugged headset**
- **High ambient noise rejection**
- **Good intelligibility**

Architect's and Engineer's Specifications

The headset shall have circumaural, closed-back headpones. The headphones shall meet the following performance criteria: mean noise attenuation: 15 dB, frequency range: 150 to 5,000 Hz, sensitivity: 90 dB SPL at 1 mW, electrical impedance: 200 ohms/channel. The microphone shall be a hypercardioid dynamic design mounted on a continuously adjustable arm and meet the following performance criteria: frequency range: 100 to 8,000 Hz, sensitivity: 0.72 mV/Pa. The headset shall be fitted with a 1.8 m single cable with stripped and tinned leads. Finish: matte gray/black. Net/shipping weight: 250/450 g (8.8 oz./1.02 lbs.)

SPECIFICATIONS

Microphone	
Polar pattern:	hypercardioid
Type:	dynamic
Frequency range:	100 to 8,000 Hz
Sensitivity:	0.72 mV/Pa (-63 dBV)
Max. SPL for 1% THD:	130 dB
Impedance:	≤230 ohms
Recommended load impedance:	≥500 ohms
Headphones	
Type:	closed-back, circumaural dynamic headphones
Frequency range:	150 to 5,000 Hz
Sensitivity:	90 dB SPL/mW
Rated impedance:	200 ohms
System	
Connector:	stripped and tinned leads
Cable:	1.8 m (6 ft.) single cable
Finish:	matte grey/black
Net/shipping weight:	250/450 g (8.8 oz./1.02 lbs.)
Standard accessories:	W 40, Z 62/1 ear pads
Optional accessories:	Z 62/3 imitation leather ear pads



Item Number

Q 34	2248Z0002

K 109 SB

Headset

Headset with ear protector headphones that **effectively attenuate** both **ambient noise** and sound leaking from the headphones. **Vertically adjustable, swiveling earphones** with foam lined plastic ear pads. Single cable. Close-talking microphone for **good intelligibility**. Particularly suited for **communication systems** in noisy environments, manufacturing halls, construction sites as well as theater use, e.g., transmitting directions to camera operators in the audience area. Custom versions will be made in large or small runs.

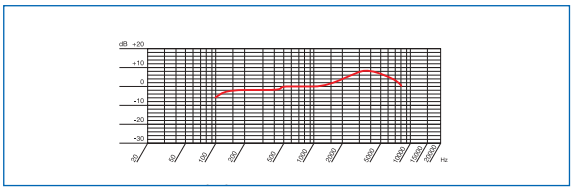
- **Extremely rugged headset**
- **Good intelligibility**
- **High ambient noise attenuation**

Architect's and Engineer's Specifications

Headset with circumaural, closed-back earphones. Average noise attenuation: 25 dB; frequency range: 50–13,000 Hz; sensitivity: 90 dB SPL; impedance: 200 ohms. per speaker. Continuously adjustable microphone arm with dynamic transducer element; hypercardioid polar pattern; frequency range: 100–8000 Hz; sensitivity: 0.72 mV/Pa. Cable length 2.5 m, tinned ends. Net/shipping weight: 225/435 g (7.9/15.4 oz.).

SPECIFICATIONS

Microphone	
Polar pattern:	hypercardioid
Type:	dynamic
Frequency range:	100 to 8,000 Hz
Sensitivity:	0.72 mV/Pa (-63 dBV)
Max. SPL for 1% THD:	130 dB
Impedance:	≤230 ohms
Recommended load impedance:	≥500 ohms
Headphones	
Type:	closed-back, circumaural
Noise attenuation:	>25 dB
Frequency range:	50 to 13,000 Hz
Sensitivity:	90 dB SPL/mW
Impedance:	200 ohms
System	
Connector:	stripped and tinned leads
Cable:	2.5 m (8 ft. 4 in.), single-entry
Finish:	matte black/blue
Net/shipping weight:	225/435 g (7.9/15.4 oz.)
Standard accessory:	W 40 windscreen

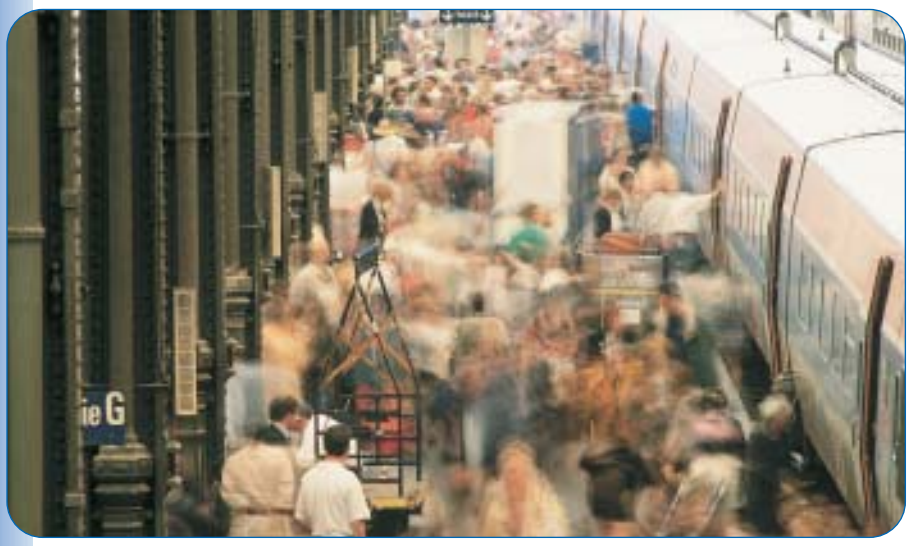


Item Number

K 109 SB	1039Z0002

PA MICROPHONES: APPLICATIONS

PA microphones are used wherever announcements need to be made in noisy environments such as public places, railroad platforms, subway stations, or supermarkets. Usually, these environments are rather tough and PA microphones must withstand high stresses including mechanical vibrations, bad weather, dirt and dust, and still ensure good intelligibility in spite of high ambient noise levels. What counts is absolute reliability and impeccable quality.



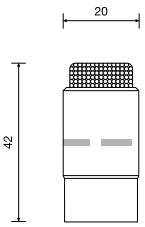
For these reasons, AKG uses cardioid dynamic transducers for all PA microphones. Designed as close-talking microphones, they will optimally reject ambient noise. Many announcers were never trained in using microphones, are usually pressed for time, and need to make sure their messages will be clearly understood. AKG close-talking microphones are the best choice for this application because they ensure optimum intelligibility even with inexperienced users, without picking up excessive amounts of ambient noise.

PA microphones from AKG are extremely rugged and virtually indestructible. They will resist every kind of weather and their goosenecks are thicker and more durable than most competitive models to ensure a longer useful life in tough day-to-day use.

AKG products reflect the company's decades of experience in this field. Therefore, many users all over the world have found AKG PA microphones to be the best choice for all paging and announcement applications.

D 58

PA Microphone



Special, hypercardioid **close-talking dynamic microphone** for communication, PA, and intercom use in noisy environments (train stations, airports, restaurants, ticket windows, reception desks, bank counters, etc.). **Small and lightweight**, the **D 58** has an integral XLR connector for mounting on a gooseneck or microphone cable. Finish is satin nickel. The D 58 is a small and inconspicuous, extremely rugged close-talking microphone.
D 58 E: Identical to D 58, matte black finish.

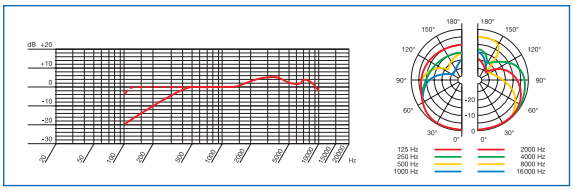
- **Hypercardioid PA microphone**
- **Small and inconspicuous**
- **Close-talking microphone**
- **Extremely rugged**

Architect's and Engineer's Specifications

D 58/D 58 E
Hypercardioid dynamic close-talking microphone. Applications: noisy environments, train, bus, taxi, ticket window, bank counter, reception desk, restaurant. Frequency range: 70–10,000 Hz; sensitivity at 1 kHz: 0.72 mV/Pa; impedance: 240 ohms. Dimensions: 20 mm (0.8 in.) dia., 42 mm (1.6 in.) long. Finish: D 58: satin nickel, D 58 E: matte black. Net/shipping weight: 40/150 g (1.4/5.3 oz.).

SPECIFICATIONS

Polar pattern:	hypercardioid
Frequency range:	70 to 10,000 Hz
Sensitivity:	0.72 mV/Pa (–63 dBV)
SPL capability:	130 dB
Impedance:	≤240 ohms
Recommended load impedance:	≥500 ohms
Connector:	3-pin XLR
Finish:	D 58: satin nickel D 58 E: matte black
Dimensions:	20 dia. x 42 mm (0.8 dia. x 1.6 in.)
Net/shipping weight:	40/150 g (1.4/5.3 oz.)
Optional accessories:	GNS 36, MK 9/10, W 32

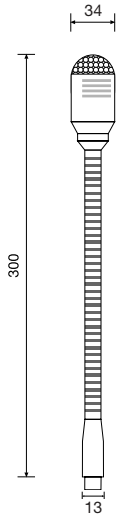


Item Numbers

D 58	1632Z0013
D 58 E	1632Z0015

D 542

PA Microphone



Rugged, affordable dynamic cardioid gooseneck microphone for general public address and communications use. The **D 542** provides a **frequency response tailored to speech use** for optimum intelligibility as well as **good off-axis rejection for high gain before feedback and suppression of unwanted ambient noise**. The all-metal body ensures a long useful life for the microphone even in tough day-to-day use. The **D 542 E** features a built-in XLR connector for quick connection, while the D 542 has been designed for permanent (single-hole or screw-on) installation and comes with a 6 ft. 4 in. (2 m) fixed, unterminated cable. The D 542 ST-S is mounted on a table stand with an on/off switch and coiled cable with 3-pin XLR connector.

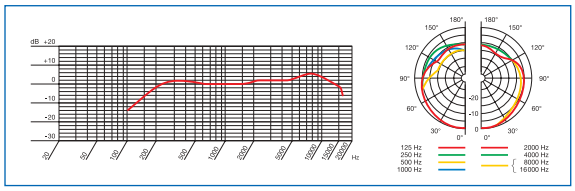
- **PA microphone with rugged, all-metal body**
- **Frequency response optimized for intelligibility**
- **Long useful life even in tough day-to-day usage**
- **Frequency response tailored to speech use**

Architect's and Engineer's Specifications

The microphone shall be a cardioid dynamic gooseneck microphone. It shall be usable in places of worship, on lecterns, in trains, buses, taxis, and outdoors. The microphone shall perform to the following specifications: frequency range: 150 to 15,000 Hz; sensitivity at 1 kHz: 2.2 mV; impedance: 530 ohms; length: 300 mm (11.8 in.); gooseneck diameter: 13 mm (0.51 in.); microphone capsule dimensions: length 345 mm (13.6 in.), diameter 34 mm (1.34 in.); finish: matte grey. The D 542 shall be fitted with a 2 m (6 ft., 4 in.) unterminated cable, the D 542 E with a built-in 3-pin XLR connector.

SPECIFICATIONS

Polar pattern:	cardioid
Frequency range:	150 to 15,000 Hz
Sensitivity:	2.2 mV/Pa (–54 dBV)
Max. SPL for 1 % THD:	133 dB
Equivalent noise level:	21 dB-A
Signal/noise ratio (A-weighted):	73 dB
Electrical impedance:	≤530 ohms
Recommended load impedance:	≥2,000 ohms
Power requirement:	9 to 52 V phantom power to DIN/IEC
Current Consumption:	≤2 mA
Connector:	D 542: unterminated cable ends D 542 E: 3-pin male XLR
Cable length:	D 542: 2 m (6 ft., 4 in.)
Finish:	matte grey/black
Size:	microphone: 34 dia. x 345 mm (1.3 dia. x 13.5 in.) gooseneck: dia. 13 x 300 mm (0.51 x 11.8 in.)
Net/shipping weight:	D 542: 275/422 g (9.6/14.8 oz.) D 542 E: 285/334 g (10.0/11.7 oz.)
Optional accessories:	D 542: ST 5/3; D 542 E: PS 3 F-Lock



Item Numbers

D 542	6000H1461
D 542 E	6000H1462

D 542 ST-S

PA Microphone

Rugged, affordable dynamic cardioid announcement microphone set for general public address and communications use. The microphone is mounted on a table stand with a built-in ON/OFF switch and coiled cable with 3-pin XLR connector for “plug & play” ease of use. **D 542 ST-S** provides a **frequency response tailored to speech use** for optimum intelligibility as well as **good off-axis rejection for high gain before feedback and suppression of unwanted ambient noise**. The matte gray/black, all-metal body ensures a long useful life for the microphone even in rough day-to-day use.

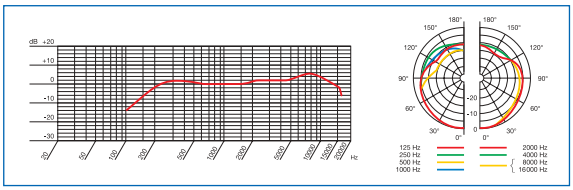
- **PA microphone with rugged, all-metal body**
- **Frequency response optimized for intelligibility**
- **Long useful life even in tough day-to-day usage**
- **Frequency response tailored to speech use**

Architect’s and Engineer’s Specifications

The microphone shall be a cardioid dynamic gooseneck microphone. It shall be mounted on a table stand containing an on/off switch. The microphone shall perform to the following specifications: frequency range: 150 to 15,000 Hz; sensitivity at 1 kHz: 2.2 mV; impedance: 530 ohms. The table stand shall measure 160 x 120 x 65 mm (6.3 x 4.7 x 2.5 in.) and the total weight of the microphone and stand shall be 805 g (1.8 lbs.). The microphone shall be finished in matte gray and black.

SPECIFICATIONS

Polar pattern:	cardioid
Frequency range:	150 to 15,000 Hz
Sensitivity:	2.2 mV/Pa (–54 dBV)
Max. SPL for 1 % THD:	133 dB
Equivalent noise level:	21 dB-A
Signal/noise ratio (A-weighted):	73 dB
Electrical impedance:	≤530 ohms
Recommended load impedance:	≥2,000 ohms
Power requirement:	9 to 52 V phantom power to DIN/IEC
Current Consumption:	≤2 mA
Connector:	3-pin male XLR
Cable length:	approx. 50 to 100 cm (20 to 40 in.), coiled
Finish:	matte grey/black
Size:	microphone: 34 dia. x 345 mm (1.3 dia. x 13.5 in.) gooseneck: dia. 13 x 300 mm (0.51 x 11.8 in.); table stand (l x w x h): 160 x 120 x 65 mm (6.3 x 4.7 x 2.5 in.)
Net/shipping weight:	805/1,125 g (1.8/2.5 lbs.)



Item Number

D 542 ST-S 6000H1460

BOUNDARY MICROPHONES: APPLICATIONS

The distinguishing features of boundary microphones are inconspicuousness, ruggedness, and clear audio even at long working distances. The AKG C 400 BL boundary microphone played a major part in the US promotion tour for the world-famous TV serial “Team Knightrider”.

Universal Studios commissioned Jim Byron of Direction Sound/Vision to design an interactive audio system for a special version of a Ford F-150 called “Beast” in the serial. Beast is used by one of five actors who relate so closely to their futuristic, state-of-the-art cars that their characters merge with those of the vehicles. Together, they form an elite unit that fears no danger and takes over in emergencies where national security services have failed. The true star of the team is Beast, a black four-wheel-drive Ford F-150. Equipped with a laser gun and an arsenal of other special weapons, Beast is usually deployed as an advance guard when the going gets tough. The specialty of the serial is that every car used by the team has its own voice in which it talks with the other cars.

The idea for the US promotion tour for Team Knightrider was to create the illusion that Beast actually talks to the audience at public shows and answers questions, of course in the familiar voice of Kerrigan Mahan. For this purpose, the Ford F-150 had to be fitted with “ears” and Jim needed a microphone that was inconspicuous, mechanically rugged, and provided a wide pickup angle as well as high sensitivity for far miking.

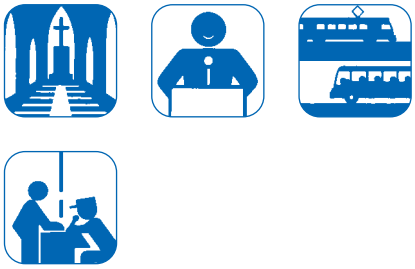
Shopping for a suitable microphone, Jim came across the AKG C 400 BL, a miniature boundary microphone that exactly fit the bill for the Team Knightrider tour as it was both inconspicuous and provided optimum intelligibility. Following successful tests, Beast was equipped with C 400 BL microphones and enthralled many faithful fans on the tour.

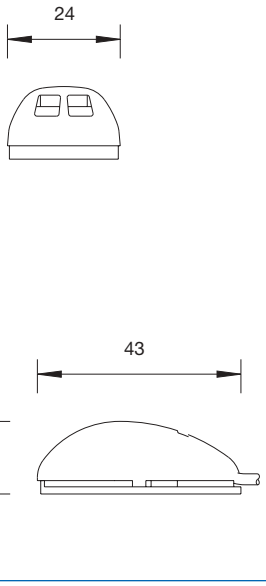
Throughout the tour, the AKG C 400 BL proved to be absolutely roadworthy and a reliable “ear” for the tough secret agent with a four-wheel drive. By the way, more and more automobile manufacturers use C 400 BLs as handsfree microphones for their standard car telephones.

C 400 BL

Boundary Microphone

discreet acoustics





The **C 400 BL** is the first choice for any application calling for a **small, low-profile boundary layer microphone**. Its uses range from conferencing and lectures to theaters, surveillance, paging, and many others. Its frequency response has been optimized for speech pickup. Its hypercardioid polar pattern, **speech optimized frequency response**, and extremely small dimensions have made the C 400 BL extremely popular. The design is inconspicuous and the housing can be painted easily in any color to make it **almost invisible** against its backing.

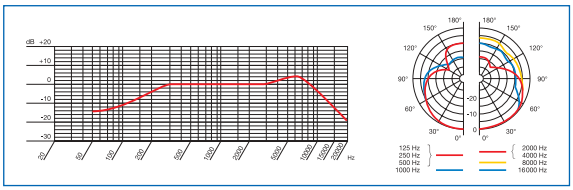
- **Small and inconspicuous boundary layer microphone**
- **Speech optimized frequency response**
- **Hypercardioid polar pattern**
- **Easy to repaint**

Architect's and Engineer's Specifications

Unidirectional boundary layer microphone with frequency response tailored to the speech range (low frequency roll off of 6 dB/octave below 300 Hz; high frequency roll off above 7 kHz of 12 dB/octave, with a rise of 4 dB in the 6 kHz range). Microphone sensitivity shall be no less than 13.5 mV/Pa (–37 dBV), and the microphone's dynamic range shall be no less than 62 dB. Total harmonic distortion (THD) shall be no greater than 1 % at an acoustical operating level of 115 dB. Size: 1.7 x 0.9 x 0.6 in. (43 x 24 x 15 mm), color: non-reflective black. Net/shipping weight: 5.5/160 g (0.2/5.7 oz.).

SPECIFICATIONS

Polar pattern:	hypercardioid
Frequency range:	150 to 15,000 Hz
Sensitivity:	13.5 mV/Pa (-37 dBV)
Max. SPL for 1 % THD:	115 dB
Equivalent noise level:	32 dB-A
Signal/noise ratio (A-weighted):	62 dB
Electrical impedance:	≤200 ohms
Recommended load impedance:	≥2,000 ohms
Power requirement:	9 to 52 V phantom power to DIN/IEC
Current Consumption:	≤3 mA
Connector:	3-pin XLR
Cable length:	3 m (10 ft.)
Finish:	matte black
Size:	43 x 24 x 15 mm (1.7 x 0.9 x 0.6 in.)
Net/shipping weight:	5.5/160 g (0.2/5.7 oz.)
Standard accessories:	installation tape, installation plate
Optional accessories:	B 15, B 18, MK 9/10, N 62 E, N 66 E



Item Number

C 400 BL 2746Z0002

C 680 BL

Boundary Microphone

discreet acoustics

The **C 680 BL** is a **cost-efficient tabletop microphone** for inconspicuous installation. The transducer shock mount **minimizes knocking noise pickup from the table**.
The supplied strip of **special adhesive tape** allows you to fix the microphone temporarily on a table without staining the table or leaving any residue after removal.
Preferred uses include conferencing, lectern, or places of worship.

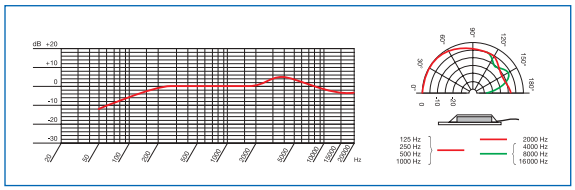
- **Small and inconspicuous boundary layer microphone**
- **Shock mounted transducer**
- **Cardioid polar pattern**
- **Easy to repaint**
- **Integrated phantom power adapter**

Architect's and Engineer's Specifications

The boundary layer microphone shall have a hyper-cardioid pattern and shall fit within a rectangular envelope given by: 97 x 67 x 20 mm (3.9 x 2.6 x 0.8 in.). The sensitivity shall be no lower than 30 mV/Pa, and total harmonic distortion (THD) at an operating level of 115 dB shall be no greater than 1 %. The equivalent noise level shall be no greater than 27 dB-A. The frequency response shall be flat from 60–20,000 Hz. The microphone shall operate on phantom power over the range from 9 to 52 volts dc. Net/shipping weight: 100/400 g (3.5/14.1 oz.).

SPECIFICATIONS

Polar pattern:	cardioid
Frequency range:	60 to 20,000 Hz
Sensitivity:	30 mV/Pa (–30 dBV)
Max. SPL for 1 % THD:	115 dB
Equivalent noise level:	27 dB-A
Signal/noise ratio (A-weighted):	67 dB
Electrical impedance:	≤200 ohms
Recommended load impedance:	≥2,000 ohms
Power requirement:	9 to 52 V phantom power to DIN/IEC
Current Consumption:	≤2 mA
Connector:	3-pin XLR
Cable length:	3 m (10 ft.)
Finish:	matte black
Size:	97 x 67 x 20 mm (3.9 x 2.6 x 0.8 in.)
Net/shipping weight:	100/400 g (3.5/14.1 oz.)
Standard accessories:	installation tape
Optional accessories:	B 15, B 18, MK 9/10, N 62 E, N 66 E



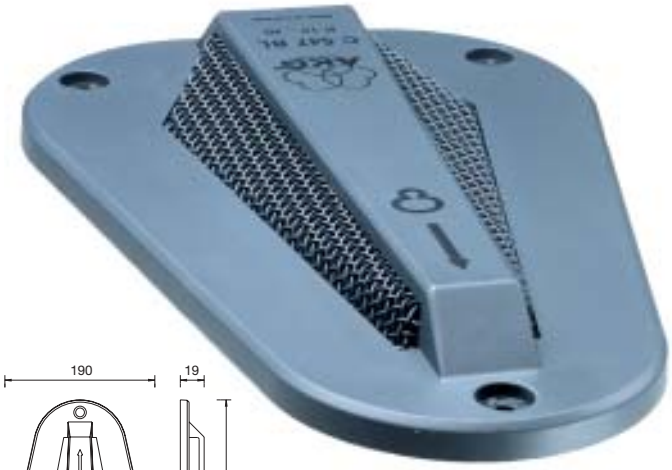
Item Number

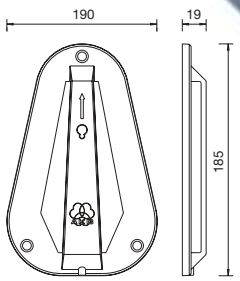
C 680 BL 2587Z0001

C 547 BL

Boundary Microphone

discreet acoustics





Hypercardioid, studio-quality **boundary layer microphone** with rugged, **"non-crush" case** and switchable bass-cut filter for reducing footfall noise, ideal for tough on-stage assignments. Other benefits include optimum acoustic properties, high directivity, and neutral sound. Having the same frequency response, the **C 547 BL** can be combined with the CK 47 with excellent results. Primarily designed for use in places of worship, theaters, and conferencing, the C 547 BL is also a good choice for miking kick drums and other instruments. **C 547 BL-T**: Identical to C 547 BL, except with no windscreen. For tabletop use.

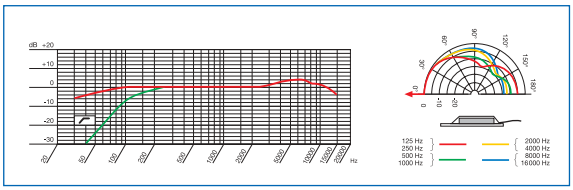
- **"Non-crush" case**
- **Inconspicuous and rugged**
- **Hypercardioid polar pattern**
- **Easy to repaint**

SPECIFICATIONS

Polar pattern:	hypercardioid
Frequency range:	30 to 18,000 Hz
Sensitivity:	8.5 mV/Pa (-42 dBV)
Max. SPL for 1% THD:	133 dB
Equivalent noise level:	22 dB-A
Signal/noise ratio (A-weighted):	72 dB
Bass cut filter:	12 dB/octave at 150 Hz
Electrical impedance:	≤400 ohms
Recommended load impedance:	≥1000 ohms
Powering:	9 to 52 V phantom power to DIN 45596
Current consumption:	≤2 mA
Connector:	3-pin XLR
Cable:	3 m (10 ft.)
Finish:	matte dark grey
Dimensions:	185 x 120 x 19 mm (7.3 x 4.7 x 0.8 in.)
Net/shipping weight:	160/420 g (5.6 /14.8 oz.)
Standard accessories:	W 547 (C 547 BL only)
Optional accessories:	B 15, B 18, MK 9/10, N 62 E, N 66 E

Architect's and Engineer's Specifications

The microphone shall be a boundary layer condenser type with a hypercardioid pattern. The size shall fall within the rectangular envelope given by: 185 x 120 x 19 mm (7.3 x 4.7 x 0.8 in.). The microphone's sensitivity shall be no lower than 8.5 mV/Pa, and the microphone shall produce no more than 1 % total harmonic distortion (THD) at an acoustical operating level of 133 dB. The equivalent noise floor shall be no greater than 22 dB-A. The microphone shall operate on phantom powering over the range from 9 to 52 volts dc. The microphone shall be rugged enough to withstand the weight of a normal person who steps on it. Net/shipping weight: 160/420 g (5.6/14.8 oz.)



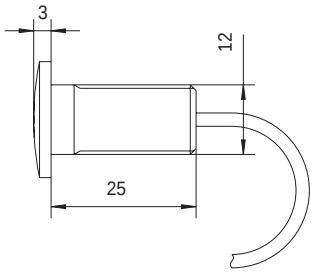
Item Numbers

C 547 BL	2447Z0001
C 547 BL-T	2447Z0003

C 562 CM

Boundary Microphone

discreet acoustics



The **C 562 CM** flush-mount boundary microphone uses the same transducer as the C 562 BL. The C 562 CM has been designed specifically for **permanent**, "invisible" mounting in ceilings, walls, tables, stage props, etc. Owing to its **high sensitivity**, the C 562 CM is a perfect tool for **surveillance or live recording** since a single microphone can cover an entire room. The supplied XLR phantom power adapter connects to the microphone cable through a miniature connector so installation holes can be smaller than the diameter of the phantom power adapter.

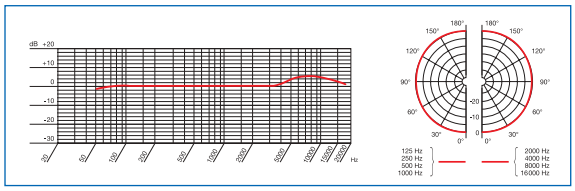
- **Small, low-profile boundary layer microphone**
- **Wide frequency range**
- **High sensitivity**
- **Ideal for inconspicuous installation in a room**
- **Suited for surveillance or recording**

Architect's and Engineer's Specifications

Omnidirectional boundary microphone. Applications: Live and studio recording, theater, stage miking, ticket window, bank counter, reception desk, restaurant, surveillance, conference. Frequency range: 20 to 20,000 Hz; sensitivity at 1 kHz: 25 mV/Pa; impedance: 600 ohms. Dimensions: 28 mm (1.1 in.) head dia.; 20 mm (0.8 in.) long. Net/shipping weight: 30/195 g (1.1/76.9 oz.).

SPECIFICATIONS

Polar pattern:	omnidirectional (hemispherical)
Frequency range:	20 to 20,000 Hz
Sensitivity:	25 mV/Pa (-32 dBV)
Max. SPL for 1% THD:	130 dB
Equivalent noise level:	16 dB-A
Signal/noise ratio (A-weighted):	78 dB
Impedance:	≤600 ohms
Recommended load impedance:	≥2000 ohms
Powering:	9 to 52 V phantom power to DIN/IEC
Current consumption:	≤2 mA
Connector:	3-pin XLR
Cable:	0.5 m (20 in.)
Finish:	matte nickel plated
Dimensions:	20 dia. x 28 mm (0.8 dia. x 1.1 in.)
Net/shipping weight:	30/195 g (1.1/76.9 oz.)
Standard accessories:	installation hardware, phantom power adapter
Optional accessories:	B 15, B 18, MK 9/10, N 62 E, N 66 E



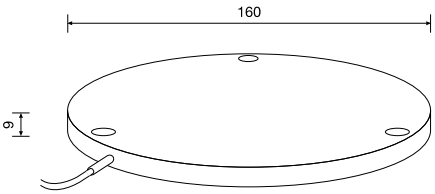
Item Number

C 562 CM 2262Z0003

C 562 BL

Boundary Microphone

discreet acoustics



The **C 562 BL** is an excellent tool for getting uncolored recordings of acoustic instruments or a choir. Here are some **examples**: 1) Choir/brass section: Mount two C 562 BLs on a reflecting surface, about 3 to 5 feet (1 to 1.5 m) apart (A-B stereo technique). Place the choir or brass section about 7 to 10 feet (2 to 3 m) in front of the mics. 2) Acoustic guitar: Mount a single C 562 BL on a reflecting surface at the same height as the guitarist's seat. Place the mic about 1 to 1 1/2 feet (30 to 40 cm) from the guitar. Many engineers use this as a spot/ambience microphone in a main microphone setup. This technique works best in rooms with good acoustics.

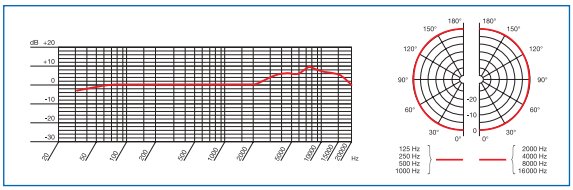
- **Thin case**
- **Extended bass and high end**
- **Frequency independent hemispherical polar pattern**
- **High sensitivity**
- **Excellent workmanship, high SPL capability**

SPECIFICATIONS

Polar pattern:	omnidirectional (hemispherical)
Frequency range:	20 to 20,000 Hz
Sensitivity:	20 mV/Pa (–34 dBV)
Max. SPL for 1% THD:	130 dB
Equivalent noise level (CCIR 468-3):	26 dB
Equivalent noise level:	16 dB-A
Signal/noise ratio (A-weighted):	78 dB
Bass cut filter:	12 dB/octave at 150 Hz
Impedance:	≤600 ohms
Recommended load impedance:	≥2000 ohms
Powering:	9 to 52 V phantom power to DIN 45596
Current consumption:	≤2 mA
Connector:	3-pin XLR
Cable:	3 m (10 ft.)
Finish:	dark grey
Dimensions:	160 dia. x 9 mm (6.3 dia. x 0.35 in.)
Net/shipping weight:	950 g/1.9 kg (2.1 lbs./4.2 lbs.)
Standard accessories:	W 62
Optional accessories:	B 15, B 18, MK 9/10, N 62 E, N 66 E

Architect's and Engineer's Specifications

The microphone shall be a condenser boundary type with a frequency independent, semi-omnidirectional polar pattern. Its application range shall include stage and table miking, round table discussion recording, and piano miking. Frequency range: 20–20,000 Hz; sensitivity at 1 kHz: 20 mV/Pa; maximum SPL: 130 dB SPL for 1 % T.H.D.; electrical impedance: ≤600 ohms. Three rubber feet designed specifically to support the overall weight of the microphone shall provide excellent footfall noise rejection and contain holes for mounting the microphone on a wall. The microphone shall be capable of operating on phantom power at any voltage between 9 and 52 V conforming to DIN 45596. The case shall be no larger than 160 mm in diameter and 9 mm high. Net/shipping weight: 950 g/1.9 kg (2.1/4.2 lbs.)



Item Number

C 562 BL	2262Z0001

PROFESSIONAL SOLUTIONS

Düsseldorfer Landtag (Building of the Düsseldorf Land Parliament, Germany)

Media technology is a crucial issue not only for economic experts, but also for politicians. The *Düsseldorfer Landtag* building was equipped by Siemens Building Technologies with state-of-the-art sound systems and innovative media technology. For AKG, this project was a huge challenge. Within a very short time, over 500 microphones had to be manufactured individually and integrated into existing components. “We implemented the project within six months. This was made possible thanks to the perfect cooperation of all partners on the project team. Customer satisfaction is excellent,” says Siemens project manager Jürgen Schaaff.

Lecture hall of the Law School at the University of Pennsylvania

The GN 30 E gooseneck and the CK 31 capsule were selected as the ideal combination, since the cardioid polar pattern of each CK 31 capsule ensures the ideal pickup angle for two students (total capacity: 72 students). All lines right up to the capsule are fully shielded to provide optimum immunity to electromagnetic interferences (e.g., from mobile phones). The hall was preserved in its original Victorian style, with every two students sharing one permanently installed AKG microphone.

Norwegian Criminal Police Headquarters

The hall of the Norwegian Police Headquarters has 160 seats, 84 of which are equipped with GN 30 goosenecks + CK 31 capsules mounted in an H 500 fixture. All microphones are controlled by eleven AS 8 automatic mixers.

DISCREET ACOUSTICS COMPACT SERIES: SYSTEM DESCRIPTION

With its new Discreet Acoustics Compact Series (DAC), AKG offers a cost efficient alternative for installations where a lean budget has top priority. This is why the DAC Series goosenecks come with only one flexible section, a rigid connection between gooseneck and capsule, and a 3-pin standard XLR connector for joining the gooseneck to the cable.

The Discreet Acoustics Compact Series offers a user-friendly system that fulfils its basic functions just perfectly. While an excellent price-performance ratio was achieved by focusing on essential features, no compromise was made with regard to the sound of the capsules.

Each of these capsules provides the outstanding, “legendary” AKG sound that enjoys worldwide popularity and accounts for the company’s success. Acoustic excellence made in Austria by AKG!

You can choose between goosenecks 30 or 50 cm (12 or 20 in.) long, with either a cardioid or hypercardioid polar pattern, and a cardioid hanging module. For the tough requirements of everyday usage, the DAC Series features rugged all-metal parts and is designed as a true plug-and-play solution. Quick setup and takedown as well as permanent installations all are possible.

The new Discreet Acoustics Compact Series is the unique alternative for applications where budget, not modularity, is a major consideration. Moreover, the Compact Series can be combined with the Modular Series, so that modules with additional features can be used as well wherever they are actually needed.

A special feature of the new Discreet Acoustics Compact Series is that the gooseneck and microphone capsule form an inseparable unit. The rugged metal front grill is joined permanently to the gooseneck, the contacts inside are soldered. This protects the delicate condenser capsule against mechanical stress and electromagnetic interference, and ensures maximum reliability and excellent audio.

The gooseneck foot features an XLR connector with gold-plated contacts, making connecting and mounting incredibly easy. The metal case also houses the electronic components of the microphone. The extra-strong flexible section lets you position the microphone precisely as required.

CGN 321 (521) E

Condenser Gooseneck Microphone

discreet acoustics

The cardioid polar pattern is the most popular because its uses are almost limitless. The 125° pickup angle is especially suited for inexperienced or very “vivacious” talkers who often fail to talk directly into the microphone.
The choice of two different lengths and the flexible joint ensure optimum alignment of the gooseneck to any talker position. Numerous options for installation are available, such as mounting on a stand or tabletop, while optional accessories include a lockable mounting fixture.

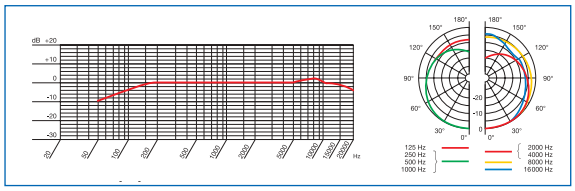
- **Cardioid polar pattern**
- **30 or 50 cm (12 or 20 in.) long**
- **125° pickup angle**
- **Especially suited for inexperienced talkers**
- **Connects easily via XLR connector**

Architect’s and Engineer’s Specifications

The microphone shall be a cardioid gooseneck microphone. Its pickup angle shall be 125 degrees; frequency range 70 Hz to 18 kHz; sensitivity 18 mV/Pa; max. SPL 125 dB; electrical impedance <600 ohms for 9 to 52 V phantom power. The microphone shall be finished in matte dark gray. It shall measure approx. 13.5 x 380 (580) mm and its net weight shall be 160 (170) grams, its shipping weight 480 (500) grams.

SPECIFICATIONS

Polar pattern:	cardioid
Frequency range:	70–18.000 Hz
Sensitivity:	18 mV/Pa (–35 dBV)
Max. SPL for 1 % THD:	125 dB
Equivalent noise level:	21 dB-A
Signal/noise ratio (A-weighted):	73 dB
Bass cut filter:	250 Hz, –10 dB at 50 Hz
Impedance:	≤600 Ohm
Recommended load impedance:	≥2.000 Ohm
Powering:	9 to 52 V phantom power to DIN 45596
Current consumption:	≤3 mA
Connector:	3-pin male XLR
Finish:	matte dark grey
Dimensions:	13.5 Ø x 380/580 mm (0.5 Ø x 15/23 in.)
Net/shipping weight:	160/480 g (5.7/17 oz.) 170/500 g (6/17.7 oz.)
Standard accessories:	windscreen
Optional accessories:	B 18, PS 3 F-Lock, H 500, H 600, SA 60, ST 45



Item Numbers

CGN 321 E	2965Z0001
CGN 521 E	2965Z0003

AKG®

CGN 323 (523) E

Condenser Gooseneck Microphone

discreet acoustics

The hypercardioid polar pattern with its narrow 95° pickup angle is suited best for situations where noise typically occurs from all sides (particularly in worship centers), where people talk into the microphone from a greater distance, or where several talkers are grouped side by side.
Two different lengths are available. The flexible joint ensures optimum alignment of the gooseneck to any talker position. Several options are available for installation, i.e., stand, tabletop installation, and lockable.

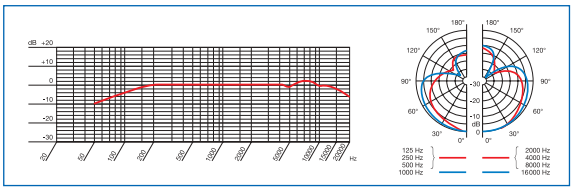
- **Hypercardioid polar pattern**
- **30 or 50 cm (12 or 20 in.) long**
- **95° pickup angle**
- **For acoustically difficult environments**
- **Connects easily via XLR connector**

Architect's and Engineer's Specifications

The microphone shall be a hypercardioid gooseneck microphone. Its pickup angle shall be 95 degrees; frequency range 50 Hz to 19 kHz; sensitivity 12 mV/Pa; max. SPL 125 dB; electrical impedance <600 ohms for 9 to 52 V phantom power. The microphone shall be finished in matte dark gray. It shall measure approx. 13.5 x 380 (580) mm and its net weight shall be 160 (170) grams, its shipping weight 480 (500) grams.

SPECIFICATIONS

Polar pattern:	cardioid
Frequency range:	50–19.000 Hz
Sensitivity:	12 mV/Pa (–38 dBV)
Max. SPL for 1 % THD:	125 dB
Equivalent noise level:	21 dB-A
Signal/noise ratio (A-weighted):	73 dB
Bass cut filter:	250 Hz, –10 dB at 50 Hz
Impedance:	≤600 Ohm
Recommended load impedance:	≥2.000 Ohm
Powering:	9 to 52 V phantom power to DIN 45596
Current consumption:	≤3 mA
Connector:	3-pin male XLR
Finish:	dunkelgrau, matt
Dimensions:	13.5 Ø x 380/580 mm (0.5 Ø x 15/23 in.)
Net/shipping weight:	160/480 g (5.7/17 oz.) 170/500 g (6/17.7 oz.)
Standard accessories:	windscreen
Optional accessories:	B 18, PS 3 F-Lock, H 500, H 600, SA 60, ST 45



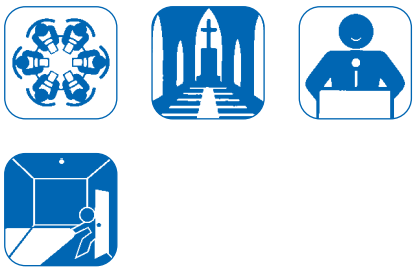
Item Numbers

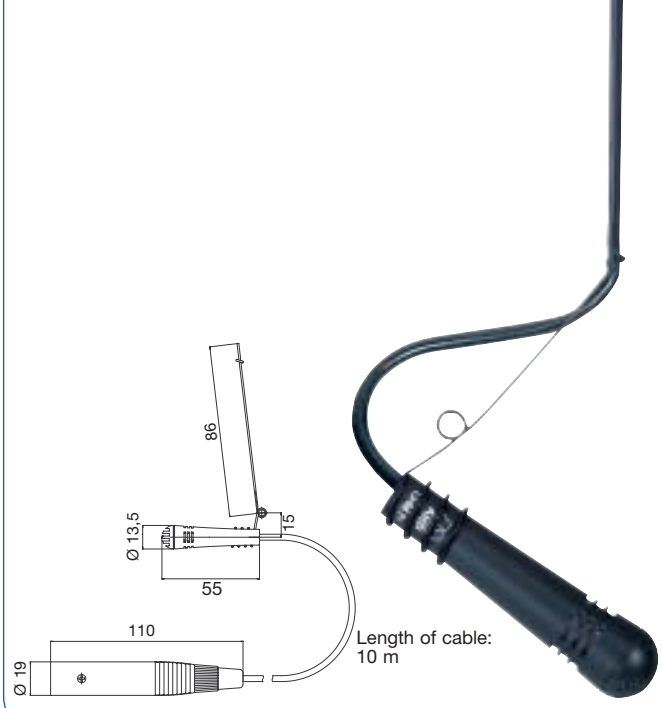
CGN 323 E	2965Z0002
CGN 523 E	2965Z0004

CHM 21

Condenser Hanging Microphone

discreet acoustics





The new Discreet Acoustics Compact Series Condenser Hanging Microphone provides both ease of use and a high level of functionality. There is hardly any more affordable and simpler solution for recording choirs at worship centers. Suspended from the ceiling or a beam, the hanging microphone is aligned and then fixed in the correct position. Now use the spring steel clamp to adjust the correct angle, and off you go!

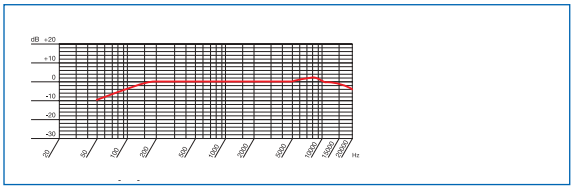
- **Cardioid polar pattern**
- **10 m (33 ft.) cable**
- **125° pickup angle**
- **Especially suited for choir recordings**
- **Integrated spring steel clamp for optimum alignment**

Architect's and Engineer's Specifications

The microphone shall be a cardioid microphone for flown use with a non-twisting cable. Its pickup angle shall be 125 degrees; frequency range 70 Hz to 18 kHz; sensitivity 18 mV/Pa; max. SPL 125 dB; electrical impedance <600 ohms for 9 to 52 V phantom power. The microphone shall be finished in matte dark gray and fitted with a 10 m cable. It shall measure approx. 13.5 x 55 mm and its net weight shall be 20 grams, its shipping weight 480 grams.

SPECIFICATIONS

Polar pattern:	cardioid
Frequency range:	70–18.000 Hz
Sensitivity:	18 mV/Pa (–35 dBV)
Max. SPL for 1 % THD:	125 dB
Equivalent noise level:	21 dB-A
Signal/noise ratio (A-weighted):	73 dB
Bass cut filter:	250 Hz, –10 dB at 50 Hz
Impedance:	≤600 Ohm
Recommended load impedance:	≥2.000 Ohm
Powering:	9 to 52 V phantom power to DIN 45596
Current consumption:	≤3 mA
Connector:	3-pin male XLR
Finish:	dunkelgrau, matt
Dimensions:	13.5 Ø x 55 mm (0.5 Ø x 2.1 in.)
Net/shipping weight:	20/480 g (0.7/17 oz.)
Standard accessories:	spring clamp
Optional accessories:	B 18



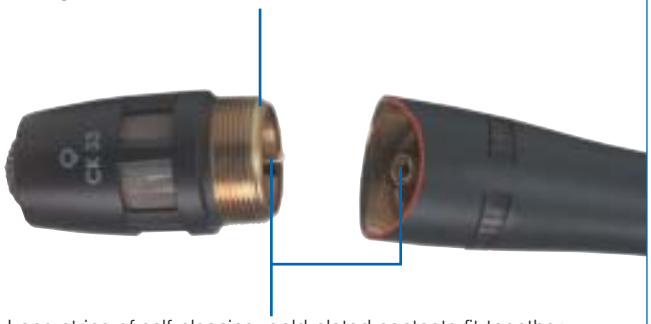
Item Number

CHM 21 2965Z0005

DISCREET ACOUSTICS MODULAR SERIES: SYSTEM DESCRIPTION

For more than five decades, AKG has been the leading manufacturer of microphones, headphones, and accessories as well as OEM and telecommunications products. The three cardioids logo is a symbol of technical innovation, exceptional quality, and international reputation. The new Discreet Acoustics Modular Series comprises a wide choice of fully interchangeable Capsule and Installation Modules that can be combined to meet the specific requirements of virtually every sound system design. Easy to use and reliable, the new Discreet Acoustics Series provides an extended range of new products and improvements that you should not miss!

The deep groove of the thread prevents the capsule from being misaligned.



Long strips of self-cleaning, gold plated contacts fit together seamlessly.

Added reliability: maximum contact area

The size of the contact area between the microphone capsule and the gooseneck determines the reliability of the entire installation. Instead of the failure-prone conventional point contacts, all Discreet Acoustics Modular Series products use large-area, self-cleaning gold plated contacts that engage in groove-and-tongue fashion. In addition, a hard, rugged thread stabilizes the joint. The extremely deep groove of the thread prevents misalignment and ensures long useful life of all Discreet Acoustics Modular Series products even if they are used in installations that are frequently reconfigured or in mobile systems. A seemingly small detail, this feature will make your work definitely easier.

Added reliability: tested for stability

A high quality gooseneck bends precisely into the desired shape and is resistant to inadvertent readjustment. This stability of shape depends entirely on consistent resilience of the springs inside the gooseneck. Therefore, all Discreet Acoustics Modular Series Gooseneck Modules are subjected to a rigorous quality test during which they are bent into extreme shapes and must keep their shape until bent again. Any gooseneck that does not pass this test is rejected immediately.

DISCREET ACOUSTICS MODULAR SERIES: SYSTEM DESCRIPTION

Added reliability: useful indicator LED

All Installation Modules (except the LM 3) provide an LED ring. A world first, it uses special circuitry to operate off standard phantom power or a separate power supply. The LED ring indicates system status:

System Standby Mode:
In this mode (factory default), the LED ring glows dimly to indicate that the system has been wired correctly and phantom power is on. Thus, the operator will know at a glance whether the hardware has been installed correctly. There is no need to test each microphone.

Mic On Mode:
When powered from an external supply, the LED ring can be configured such that it will only light when the microphone is on.

Off:
If none of the above functions is desired, the LED ring can be deactivated. In this mode, it is practically invisible.

System standby mode | Mic On | Off

Hidden inside the case, the two jumpers are protected from unintentional misalignment.

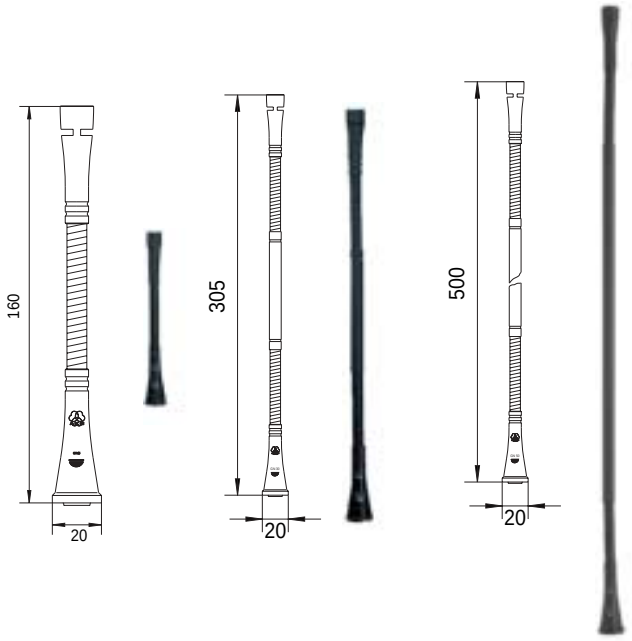
Added reliability: hidden controls

The phantom power adapter contains two jumpers that let you activate a 200 Hz bass rolloff and deactivate the LED ring. Since the jumpers are hidden inside the adapter case they cannot be realigned unintentionally.

GN SERIES

Gooseneck Modules

discreet acoustics



Goosenecks for permanent screw-on installation in various lengths. GN 15: approx. 15 cm (6 in.); GN 30: approx. 30 cm (12 in.); GN 50: approx. 50 cm (20 in.). Except for the GN 30 OC with stripped and tinned leads, all GN Series goosenecks come with a **DPA in-line XLR phantom power adapter with integrated 250 Hz bass rolloff and LED ON/OFF jumper**. The DPA connects to any XLR mixer input with 9 to 52 V phantom power. The mini XLR connector on the DPA cable will thread through any hole only 11 mm (0.44 in.) in diameter or larger. This eliminates the need for large holes or awkward unsoldering and resoldering of the much larger phantom power adapter during installation.

- **Gooseneck modules for use with all Discreet Acoustics Modular capsules**
- **Rugged construction**
- **Highly reliable contacts for Capsule Modules**
- **Integrated LED ring status indicator**
- **Integrated, jumper selectable bass rolloff**

SPECIFICATIONS

Bass rolloff filter:	250 Hz, –10 dB at 50 Hz
Electrical impedance:	≤600 ohms
Recommended load impedance:	≥2,000 ohms
Power requirement:	9 to 52 V phantom power to DIN/IEC
Current Consumption:	≤3 mA
Connector:	3-pin male XLR; GN 30 OC: stripped and tinned leads
Cable length:	1.5 m (5 ft.)
Finish:	matte dark grey
Size:	max. dia.: 20 mm (0.8 in.), length: 160/305/500 mm (6.3/12/20 in.)
Net/shipping weight:	72/400 g (2.5/14.1 oz.), 110/522 g (3.9/18.4 oz.), 120/495 g (4.2/17.5 oz.)
Standard accessories:	DPA phantom power adapter (integrated), screw set with rubber bush
Optional accessories:	B 18, MF-DA installation flange, MK 9/10, N 62 E, N 66 E, ST 45

Architect's and Engineer's Specifications

The installation module shall be a 160/305/500 mm (6.3/12/20 in.) gooseneck with a rugged connecting thread and self-cleaning, large gold plated contacts for connection to all D.A.M. Capsule Modules. The installation module shall incorporate an LED ring that may be phantom powered or externally powered. The installation module shall be finished with several layers of nonreflective, dark gray enamel. The installation module shall be provided with a 3/8" internal thread for permanent installation. The installation module shall be supplied with an in-line XLR phantom power adapter (DPA) with a 1.5 m cable terminated in a mini XLR connector. The DPA shall incorporate a jumper selectable highpass filter and LED ring. Also supplied with the installation module shall be a set of installation screws. The net/shipping weight of the installation module shall be: GN 15: 72/400 g (2.5/14.1 oz.); GN 30: 110/522 g (3.9/18.4 oz.); GN 50: 120/495 g (4.2/17.5 oz.).

Item Numbers

GN 15	2765Z0001
GN 30	2765Z0003
GN 30 OC	2765Z0005
GN 50	2765Z0008

AKG®

GN SERIES: INSTALLATION

Hidden cable duct

Tabletop installation

Standard installation hardware

For permanent installation, a 3/8" screw is mounted from below. Two supplied rubber buffers reduce structure-borne noise. The screw requires a 14 mm (0.6 in.) opening.

MF-DA

Optional installation hardware MF-DA Mounting flange

The MF-DA mounting flange is the Discreet Acoustics Modular solution for situations where it is impractical to fix a gooseneck from below. The rugged, all-metal MF-DA can be screwed on permanently and allows you to route the cable above or below the tabletop.
This installation method is very popular for altars and lecterns.

ST 45

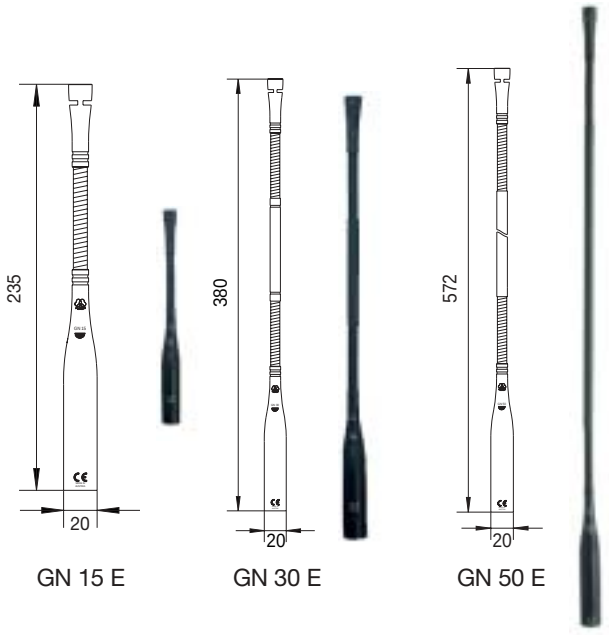
Optional installation hardware ST 45 Table stand

The ST 45 table stand is the Discreet Acoustics Modular solution for mobile applications or installations where supporting surfaces must not be changed. GN Series goosenecks screw directly onto the ST 45.
Rugged construction and shock absorbing rubber feet ensure optimum stability and reduce footfall noise.

GN E SERIES

Gooseneck Modules

discreet acoustics



GN 15 E GN 30 E GN 50 E

All GN E Series Gooseneck Modules feature an **integrated XLR connector** for quick setup and takedown. Goosenecks are available in various lengths. GN 15 E: approx. 23 cm (9 in.); GN 30 E: approx. 38 cm (14.9 in.); GN 50 E: approx. 57 cm (22.4 in.). Integrated **250 Hz bass rolloff filter** and **LED ON/OFF jumper**.
A rugged connecting thread for the Capsule Module with **large, self-cleaning gold plated contacts** ensures a stable, seamless joint for exceptional reliability of the entire installation.

- **Gooseneck modules with integrated XLR connector**
- **Rugged construction, quick installation and takedown**
- **Highly reliable contacts for Capsule Modules**
- **Integrated LED ring status indicator**
- **Integrated, jumper selectable bass rolloff**

SPECIFICATIONS

Bass rolloff filter:	250 Hz, –10 dB at 50 Hz
Electrical impedance:	≤600 ohms
Recommended load impedance:	≥2,000 ohms
Power requirement:	9 to 52 V phantom power to DIN/IEC
Current Consumption:	≤3 mA
Connector:	3-pin male XLR
Finish:	matte dark grey
Size:	max. dia.: 20 mm (0.8 in.), length: 235/380/572 mm (9/14.9/22.4 in.)
Net/shipping weight:	112/396 g (3.9/13.9 oz.), 160/530 g (5.6/18.7 oz.), 160/535 g (5.6/18.8 oz.)
Standard accessories:	DPA phantom power adapter (integrated), screw set with rubber bush, PS 3 F-lock
Optional accessories:	B 18, H 500, H 600, MF-DA installation flange, MK 9/10, N 62 E, N 66 E, SA 60, ST 45

Architect's and Engineer's Specifications

The installation module shall be a 235/380/572 mm (9/14.9/22.4 in.) gooseneck with a rugged connecting thread and large self-cleaning, gold plated contacts for connection to all D.A.M. Capsule Modules. The installation module shall incorporate an LED ring for phantom or external powering. The installation module shall be finished with several layers of non-reflective, dark gray enamel. The installation module shall be provided with an in-line XLR phantom power adapter (DPA) permanently attached to the gooseneck. The DPA shall incorporate a jumper selectable highpass filter and LED ring on/off jumper. Supplied with the installation module shall be a theft-proof XLR panel mount socket (PS 3 F-Lock). The net/shipping weight of the installation module shall be: GN 15 E: 112/396 g (3.9/13.9 oz.); GN 30 E: 160/530 g (5.6/18.7 oz.); GN 50 E: 160/535 g (5.6/18.8 oz.).

Item Numbers

GN 15 E	2765Z0002
GN 30 E	2765Z0004
GN 50 E	2765Z0009

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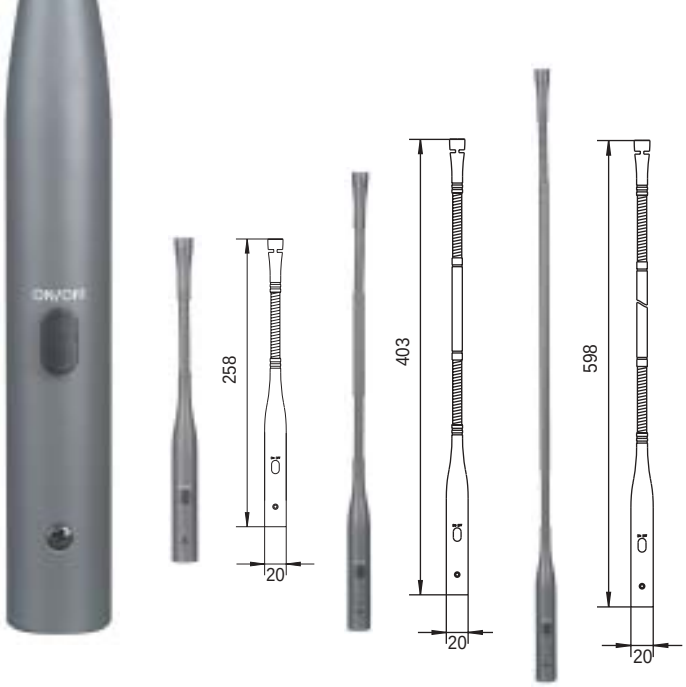
GN ES SERIES

Gooseneck Modules

discreet acoustics



On/off switch GN 15 ES GN 30 ES GN 50 ES

Gooseneck Modules **for quick setup and takedown, with integrated low-noise on/off switch**. The switch will default to "off" as the sound system is powered up and needs to be pressed to activate the microphone. An LED ring indicates whether the microphone is on or off. GN ES Series goosenecks are available in three different lengths. GN 15 ES: approx. 26 cm (10.2 in.); GN 30 ES: approx. 40 cm (15.7 in.); GN 50 ES: approx. 57 cm (22.4 in.). GN ES Series goosenecks feature a jumper selectable, 250 Hz bass rolloff and an LED on/off jumper.

- **Gooseneck modules with integrated XLR connector and noiseless on/off switch**
- **Integrated LED ring status indicator**
- **Choice of five different Capsule Modules**
- **Integrated, jumper selectable bass rolloff**

Architect's and Engineer's Specifications

The gooseneck module shall be 258/403/598 mm long and allow quick setup and takedown. The gooseneck shall be fitted with a low-noise on/off switch that shall be programmed such that the microphone will be off upon system power-up and may only be activated by manually actuating the switch. An LED ring shall indicate the microphone's current operating status (on or off). The gooseneck module shall include a bass rolloff filter at 250 Hz. The net/shipping weight of the installation module shall be: GN 15 ES: 72/400 g (2.5/14.1 oz.); GN 30 ES: 110/522 g (3.9/18.4 oz.); GN 50 ES: 120/495 g (4.2/17.5 oz.).

SPECIFICATIONS

Bass rolloff filter:	250 Hz, –10 dB at 50 Hz
Electrical impedance:	≤600 ohms
Recommended load impedance:	≥2,000 ohms
Power requirement:	9 to 52 V phantom power to DIN/IEC
Current Consumption:	≤3 mA
Connector:	3-pin male XLR
Finish:	matte dark grey
Size:	max. dia.: 20 mm (0.8 in.), length: 258/403/598 mm (10.2/15.7/22.4 in.)
Net/shipping weight:	72/400 g (2.5/14.1 oz.), 110/522 g (3.9/18.4 oz.), 120/495 g (4.2/17.5 oz.)
Standard accessories:	DPA phantom power adapter (integrated), screw set with rubber bush, PS 3 F-lock
Optional accessories:	B 18, H 500, H 600, MF-DA installation flange, MK 9/10, N 62 E, N 66 E, SA 60, ST 45

Item Numbers

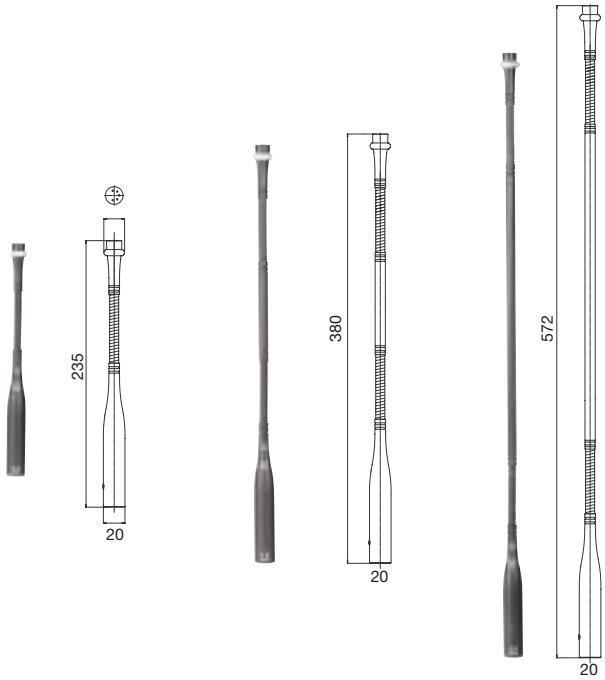
GN 15 ES	2765Z0011
GN 30 ES	2765Z0012
GN 50 ES	2765Z0013

AKG®

GN E 5PIN

Gooseneck Modules

discreet acoustics



GN 15 E 5PIN GN 30 E 5PIN GN 50 E 5PIN

Similar to the GN E Modules, the GN E 5Pin Modules come with an integrated connector with phantom power adapter. One special feature is the 5-pin XLR connector, which ensures that the extra-large LED ring can be activated and deactivated using a separate power supply, e.g., a Logic out from the AS 16 x 12 automatic mixer. The LED ring is extra large for enhanced visibility. Of course the GN E 5Pin also has the same features as all Discreet Acoustics Modular Series installation modules, such as a gold-plated thread for screwing on the capsule, integrated switchable bass cut, and extremely strong joints that will withstand the toughest kind of usage.

- **Gooseneck with 5-pin XLR connector**
- **Extra large controllable LED ring**
- **Highly reliable contacts for capsule modules**
- **Integrated switchable bass cut**

Architect's and Engineer's Specifications

The gooseneck module shall be 235/380/572 mm long and provide a rugged threaded connection and self-cleaning, large gold plated contacts mating with all Discreet Acoustics Modular capsule modules. The module shall contain an integrated LED ring operating off conventional phantom power or an external power supply. The module shall be finished in dark-gray, low-glare multilayer enamel. The GN 15 (30/50) E shall provide a 5-pin XLR connector configured for independent LED ring control and a (DPA) phantom power adapter. Jumpers inside the phantom power adapter shall allow the highpass filter and LED ring to be switched in and out of circuit. The net/shipping weight of the GN 15 E 5pin shall be 112/396 grams; of the GN 30 E 5pin 160/530 grams; and of the GN 50 E 5pin 160/535 grams.

SPECIFICATIONS

Bass cut filter:	250 Hz, –10 dB at 50 Hz
Impedance:	≤600 Ohm
Recommended load impedance:	≥2.000 Ohm
Power requirement:	9 to 52 V phantom power to DIN 45596
Current consumption:	≤3 mA
Connector:	5-pin male XLR
Finish:	matte dark grey
Dimensions:	20 Ø x 235/380/572 mm (0.8 Ø x 9/14.9/22.4 in.)
Net/shipping weight:	112/396 g (3.9/13.9 oz.) 160/530 g (5.6/18.7 oz.) 160/535 g (5.6/18.8 oz.)
Optional accessories:	H 500, H 600

5-pin male XLR

Item Numbers

GN 15 E 5PIN	2765Z0039
GN 30 E 5PIN	2765Z0040
GN 50 E 5PIN	2765Z0041

GN E + GN ES SERIES: INSTALLATION

PS 3 F-LOCK

Classic lockable mounting accessory, for easy, material-friendly installation.
Required mounting hole: 17 mm (0.7 in.)

ST 45 + SA 60

For easiest installation and takedown of mobile sound systems, the ST 45 table stand can be teamed up with the SA 60 stand adapter for use with the Discreet Acoustics Compact Series. The massive base plate and shock-absorbing rubber feet eliminate footfall noise.

H 600

The H 600 offers optimum attenuation of structure-borne noise, high flexibility, and a theft-proof lock.
Required mounting hole: 53 mm (2.1 in.)

H 500

The H 500 is the most cost efficient solution for easy installation and takedown of sound systems.
Required mounting hole: 50 mm (2 in.)

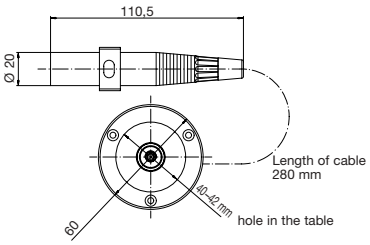
ST 1 + SA 60

The ST 1 table stand can be teamed up with the SA 60 stand adapter for use with the Discreet Acoustics Compact Series. It is especially useful for uneven surfaces where the ST 45 base plate cannot be used.

GN Minijack

Gooseneck Modules

discreet acoustics



DPA HCS

GN 30 CS GN 50 CS

The GN Minijack System makes installing and taking down goosenecks even quicker than before. The HCS mounting flange is built into the table. The permanently soldered phantom power adapter can be fastened to the underside of the tabletop by means of a clamp. The entire wiring remains invisible. The goosenecks can be mounted and taken down quite easily as required, while the integrated mini jack ensures perfect contact reliability.
The LED ring can be powered directly. Depending on the microphone status, it an be activated and deactivated by a logic circuit (e.g., the logic out on an AS 16 x 12 automatic mixer), showing clearly which of the microphones are active.

- **Gooseneck with screw thread and mini jack**
- **Installation module with permanently soldered remote phantom power adapter**
- **Extra large LED ring**
- **Highly reliable contacts for capsule modules**
- **Integrated switchable bass cut**

SPECIFICATIONS

Bass cut filter:	250 Hz, –10 dB at 50 Hz
Impedance:	≤600 Ohm
Recommended load impedance:	≥2.000 Ohm
Power requirement:	9 to 52 V phantom power to DIN 45596
Current consumption:	≤3 mA
Connector:	3-pin male XLR
Finish:	matte dark grey
Dimensions:	20 Ø x 305/500 mm (0.8 Ø x 12/20 in.)
Net/shipping weight:	110/522 g (3.9/18.4 oz.) 120/495 g (4.2/17.5 oz-)
Standard accessories:	DPA phantom power adapter, HCS
Optional accessories:	MK 9/10, N 62 E, N 66 E, SA 60, ST 45

Architect's and Engineer's Specifications

The installation module shall comprise a gooseneck module and a fixture for permanent installation in a tabletop. The module shall provide a gold plated, screw-locking mini jack for audio connection as well as separate control and audio wiring for the LED ring and the microphone capsule. The module shall include a switchable bass rolloff filter at 250 Hz to –10 dB at 50 Hz and its electrical impedance shall be <600 ohms for 9 to 52 V phantom power, a 30 cm cable, and 3-pin XLR connector. The size of the module shall be 20 x 305 (500) mm, its net weight 110 (120) grams and shipping weight 495 (522) grams.

Item Numbers

GN 30 Minijack	2765Z0036
GN 50 Minijack	2765Z0037

AKG®

GN 15 HT

Gooseneck Modules

discreet acoustics

The **GN 15 HT** lets you convert an HT 4000 handheld transmitter into a mobile gooseneck microphone. This setup provides easily accessible controls and easy battery replacement. Thanks to the sensitive condenser capsules, working distances can be much greater than with dynamic wireless microphones. The LED ring illuminates to indicate the transmitter is ON. The GN 15 HT can be combined with all Discreet Acoustics Capsule Modules. Battery life is 15 % less than stated for the HT due to the current drain of the LED ring. The gooseneck is suited for any application where a sound system with wireless microphones need to be set up quickly, e.g., at press conferences, panel discussions, etc.

- **Gooseneck for wireless microphone applications**
- **For use with five different capsule modules**
- **Rugged all-metal construction**
- **Compatible with SR 400 and SR 4000 stationary receiver**

Architect's and Engineer's Specifications

The installation module shall be a 190 mm long gooseneck module for attachment to a handheld wireless transmitter. An LED ring shall indicate the operating status (on or off) of the transmitter. The installation module shall be fitted with a screw thread for attaching various capsule modules and finished with several layers of matte black/matte grey enamel. The net/shipping weight of the installation module shall be 143/345 g (5/12.2 oz.).

SPECIFICATIONS

Connector:	compatibel to HT 4000
Finish:	matte dark grey
Dimension:	34,5 Ø x 190 mm (1.4 Ø x 7.6 in.)
Net/shipping weight:	143/345 g (5/12.2 oz.)
Optional accessories:	ST 45, SA 63, Discreet Acoustics Modular Capsule Modules

Item Number

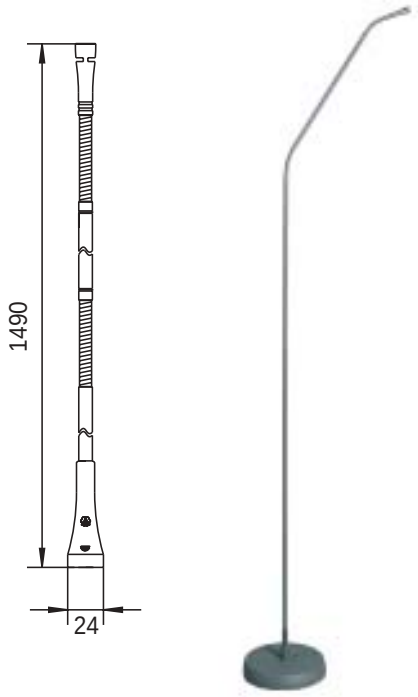
GN 15 HT 2765Z0017

AKG®

GN 155 Set

Gooseneck Modules

discreet acoustics



Elegant **Gooseneck Module with heavy, shock mounted floor stand** in matte grey finish for use with all Discreet Acoustics Capsule Modules. Integrated LED ring status indicator. The GN 155 Set is suited for stand-alone use on stage or in front of a lectern. Two integrated flexible gooseneck sections allow **optimum alignment with talkers of different heights**. A supplied **screw-on extension tube** can be used to place the microphone higher for tall talkers. The supplied 10 m (33 ft.) cable with XLR phantom power adapter is long enough to **reach the edge of most stages with no extension cable**.

- **Elegant, inconspicuous floor stand**
- **Integrated LED ring status indicator**
- **For use with five different Capsule Modules**
- **Rugged all-metal construction with low-glare, matte grey finish**
- **Screw-on extension tube**

Architect's and Engineer's Specifications

The installation module shall consist of a 1490 mm long gooseneck module and a heavy-duty stand with shock isolation pad for connection to various capsule modules. Two integrated gooseneck sections shall provide for optimal microphone alignment with talkers of various heights or with specific sound source positions. The installation module shall be finished in multilayer dark gray enamel. A screw-on extension stub shall be included with the installation module. Net/shipping weight: 3.6/4.8 kg (8/10.6 lbs.).

SPECIFICATIONS

Bass rolloff filter:	250 Hz, –10 dB at 50 Hz
Electrical impedance:	≤600 ohms
Recommended load impedance:	≥2,000 ohms
Power requirement:	9 to 52 V phantom power to DIN/IEC
Current Consumption:	≤3 mA
Connector:	3-pin male XLR
Cable length:	10 m (33 ft.)
Finish:	matte dark grey
Size:	180 x 1,490 mm (7.1 in. x 4 ft. 11 in.)
Net/shipping weight:	3.6/4.8 kg (8/10.6 lbs.)
Standard accessories:	ST 305, extension tube
Optional accessories:	B 18, MK 9/10, N 62 E, N 66 E

Item Number

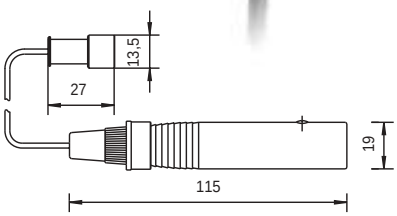
GN155 Set	2765Z0018

AKG®

LM 3

Lavalier Module

discreet acoustics



Only 3 cm (1.2 in.) long, the **LM 3** will keep a very low profile in every speech reinforcement situation. **In conjunction with a CK 31 cardioid, CK 32 omnidirectional, or CK 33 hypercardioid Capsule Module**, the LM 3 will do an excellent job in the most difficult of miking situations.The standard version comes with a phantom power adapter for hardwire systems while the **LM 3 L** can be used with all AKG WMS wireless systems. The **clamp** on the LM 3 has been designed to **hold the microphone** in **either a horizontal or vertical position** so the LM 3 can be clipped on the talker's clothes or on the stage decoration.

- **Versatile lavalier module**
- **For use with omni, cardioid, or hypercardioid Capsule Modules**
- **H 31 microphone clamp for alignment in four 90° increments**
- **Integrated LED ring status indicator for phantom or external powering**

SPECIFICATIONS

Bass rolloff filter:	250 Hz, –10 dB at 50 Hz
Electrical impedance:	≤600 ohms
Recommended load impedance:	≥2,000 ohms
Power requirement:	LM 3: 9 to 52 V phantom power to DIN/IEC LM 3 L: 1.5 to 10 V
Current Consumption:	≤2 mA
Connector:	LM 3: 3-pin XLR; LM 3 L: 3-pin mini XLR
Cable length:	1.5 m (5 ft.)
Finish:	matte dark grey
Size:	13.5 dia x 27 mm (0.5 dia. x 1.1 in.)
Net/shipping weight:	LM 3: 5/157 g (0.18/5.5 oz.) LM 3 L: 5/96 g (0.18/3.4 oz.)
Standard accessories:	H 31, H 39
Optional accessories:	LM 3: B 18, MK 9/10, N 62 E, N 66 E LM 3 L: B 29 L, MPA III L

Architect's and Engineer's Specifications

LM 3
Lavalier module shall have a rugged connecting thread and large, self-cleaning gold plated contacts for use with all Discreet Acoustics Modular Capsule Modules. It shall have a multi layer, anti-glare, dark gray enamel finish and a 1.5 m (5 ft.) cable with in-line XLR phantom power adapter (DPA). Jumper selectable bass roll off filter shall be located inside the phantom power adapter. The standard accessory shall include a clamp with four microphone positions in 90° increments. The length shall be 27 mm (1.1 in.) with a net weight of not more than 5 g (0.18 oz.).

LM 3 L
Lavalier module shall have a rugged connecting thread and large, self-cleaning gold plated contacts for use with all Discreet Acoustics Modular Capsule Modules. It shall have a multi layer, anti-glare, dark gray enamel finish and a 1.5 m (5 ft.) cable with mini XLR connector for connecting to AKG body pack transmitters. The standard accessory shall include a clamp with four microphone positions in 90° increments. The length shall be 27 mm (1.1 in.) with a net/shipping weight of not more than 5/96 g (0.18/3.4 oz.).

Item Numbers

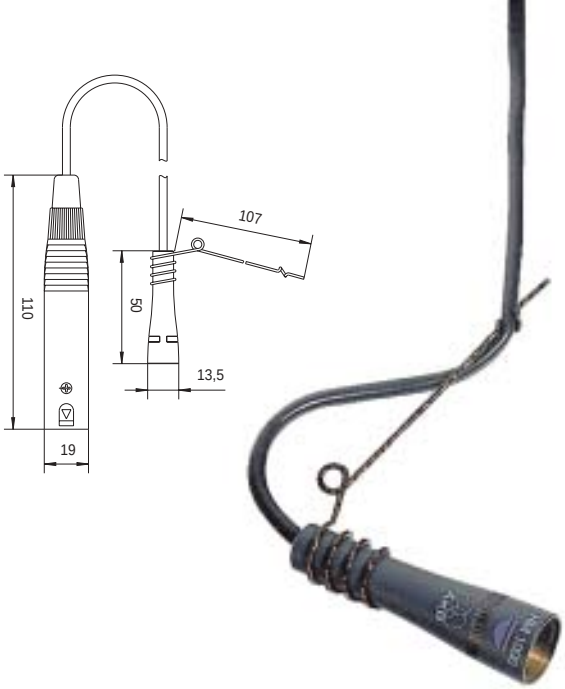
LM 3	2765Z0015
LM 3 L	2765Z0016

AKG®

HM 1000

Hanging Module

discreet acoustics



Using microphones flown from the ceiling to record music or speech in places of worship, conference rooms, or on theater stages is becoming more and more popular. A **10 m (33 ft.) special cable that is treated specially to reduce twisting to a minimum even if the temperature varies** and a **spring steel hanging clamp** for precise microphone alignment will **keep the microphone securely in its position**.
A switchable LED ring helps the sound engineer to check system function during the soundcheck.

- **Hanging module with rugged thread connection and self-cleaning, gold plated contacts**
- **For use with five different Capsule Modules**
- **Integrated switchable LED ring**
- **Integrated bass rolloff filter**
- **Rugged all-metal construction**
- **Non-reflective anthracite finish**

SPECIFICATIONS

Bass rolloff filter:	250 Hz, –10 dB at 50 Hz
Electrical impedance:	≤600 ohms
Recommended load impedance:	≥2,000 ohms
Power requirement:	9 to 52 V phantom power to DIN/IEC
Current Consumption:	≤2 mA
Connector:	3-pin male XLR
Cable length:	10 m (33 ft.)
Finish:	matte dark grey
Size:	13.5 dia. x 50 mm (0.5 dia. x 2.0 in.)
Net/shipping weight:	400/600 g (14.1 oz./1.3 lbs.)
Standard accessories:	spring steel hanging clamp
Optional accessories:	B 18, MK 9/10, N 62 E, N 66 E

Architect's and Engineer's Specifications

The microphone hanging module shall have a cable no less than 33 ft. (10 meters) length and shall accommodate the family of miniature microphone capsules in the AKG Discreet Acoustic Modular series. The cable length shall be 10 m (33 ft.). The power module shall operate on phantom powering from 9 to 52 volts dc. The power module shall have a jumper actuated low frequency rolloff. The hanging cable shall be black, and the capsule assembly shall be grey.

Item Number

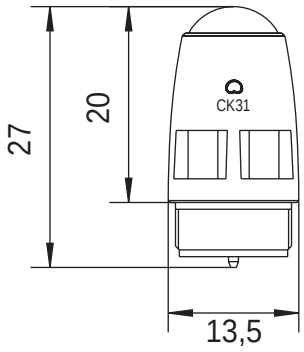
HM 1000	2765Z0010

AKG®

CK 31

Capsule Module

discreet acoustics



Discreet Acoustics Capsule Modules have been designed for a **wide range of applications** in fixed or temporary sound systems and provide excellent audio as well as high gain before feedback. These rugged capsules provide a choice of polar patterns and can be combined as needed to obtain the optimum solution for every application. The **CK 31** is the perfect choice for any application where **more than one person would use the microphone** or the user would talk into the microphone **from widely varying angles**.

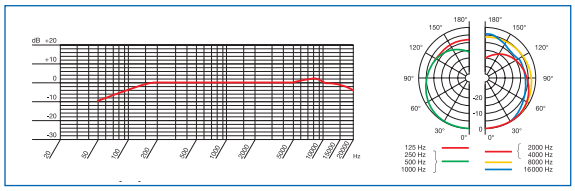
- **Screw-on Capsule Module**
- **Cardioid polar pattern**
- **Wide pickup angle**
- **Highly efficient windscreen**
- **Wide frequency range**

SPECIFICATIONS

Polar pattern:	cardioid
Frequency range:	50 to 20,000 Hz
Sensitivity:	20 mV/Pa (–34 dBV)
Max. SPL for 1 % THD:	125 dB
Equivalent noise level:	21 dB-A
Signal/noise ratio (A-weighted):	73 dB
Electrical impedance:	≤600 ohms
Recommended load impedance:	≥2,000 ohms
Power requirement:	9 to 52 V phantom power, requires DPA adapter (supplied with most Installation Modules)
Current Consumption:	≤3 mA
Connector:	Discreet Acoustics Modular standard
Finish:	matte dark grey
Size:	13.5 dia. x 20 mm (0.5 dia. x 0.8 in.)
Net/shipping weight:	5/88 g (0.17/3.1 oz.)
Standard accessories:	W 30 windscreen

Architect's and Engineer's Specifications

The microphone shall be a screw-on cardioid capsule that mates with the AKG Discreet Acoustics Modular Series. The microphone shall accept phantom powering over the universal range from 9 to 52 volts dc. The response shall be flat on-axis from 150 Hz to 6 kHz (±2 dB), with a low frequency rolloff below 150 Hz that reaches –10 dB at 50 Hz, and response at 20 kHz that is no more than –4 dB, relative to the midband response. The microphone shall have a sensitivity no less than 20 mV/Pa (–34 dBV), and the total harmonic distortion (THD) at an operating acoustical level of 125 dB shall be no greater than 1%. The electrical impedance shall be no greater than 600 ohms. Electrical mating contacts for mounting the microphone shall be gold plated for positive, trouble free operation over long periods. The microphone shall be the AKG CK 31. Net/shipping weight: 5/88 g (0.17/3.1 oz.).



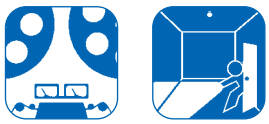
Item Number

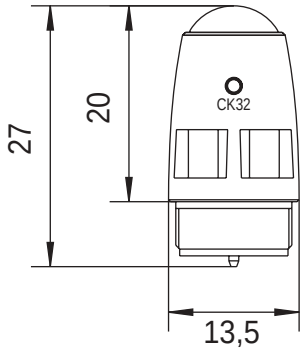
CK 31	2765Z0020

CK 32

Capsule Module

discreet acoustics





The **CK 32** is used primarily for **recording or surveillance** applications.
Discreet Acoustics Capsule Modules have been designed for a **wide range of applications** in fixed or temporary sound systems and provide excellent audio.
These rugged capsules provide a choice of polar patterns and can be combined as needed to obtain the optimum solution for every application.

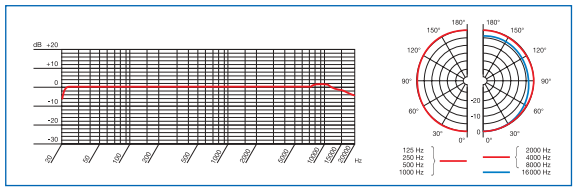
- **Screw-on Capsule Module**
- **Omnidirectional polar pattern**
- **Suited for recording or surveillance use**
- **Highly efficient windscreen**
- **Wide frequency range**

SPECIFICATIONS

Polar pattern:	omnidirectional
Frequency range:	20 to 20,000 Hz
Sensitivity:	14 mV/Pa (–34 dBV)
Max. SPL for 1 % THD:	125 dB
Equivalent noise level:	20 dB-A
Signal/noise ratio (A-weighted):	74 dB
Electrical impedance:	≤600 ohms
Recommended load impedance:	≥2,000 ohms
Power requirement:	9 to 52 V phantom power, requires DPA adapter (supplied with most Installation Modules)
Current Consumption:	≤3 mA
Connector:	Discreet Acoustics Modular standard
Finish:	matte dark grey
Size:	13.5 dia. x 20 mm (0.5 dia. x 0.8 in.)
Net/shipping weight:	5/88 g (0.17/3.1 oz.)
Standard accessories:	W 30 windscreen

Architect's and Engineer's Specifications

The microphone shall be a screw-on omnidirectional capsule that mates with the AKG Discreet Acoustics Modular Series. The microphone shall accept phantom powering over the universal range from 9 to 52 volts dc. The response of the microphone shall be flat on-axis from 20 Hz to 8 kHz, with response at 20 kHz that is no more than –4 dB, relative to the midband response. The microphone shall have a sensitivity no less than 14 mV/Pa (–34 dBV), and the total harmonic distortion (THD) at an operating acoustical level of 125 dB shall be no greater than 1 %. The electrical impedance of the microphone shall be no greater than 600 ohms. Electricalmating contacts for mounting the microphone shall be gold plated for positive, trouble free operation over long periods. The microphone shall be the AKG CK 32.



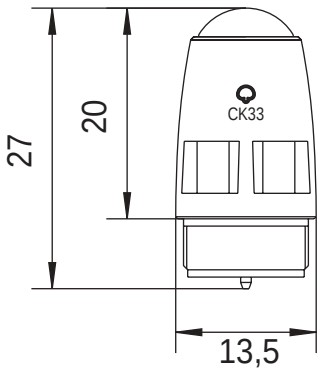
Item Number

CK 32	2765Z0021

CK 33

Capsule Module

discreet acoustics



The **CK 33** has been designed primarily for **use in acoustically critical rooms/situations**.
Discreet Acoustics Capsule Modules have been designed for a **wide range of applications** in fixed or temporary sound systems and provide excellent audio as well as high gain before feedback.
These rugged capsules provide a choice of polar patterns and can be combined as needed to obtain the optimum solution for every application.

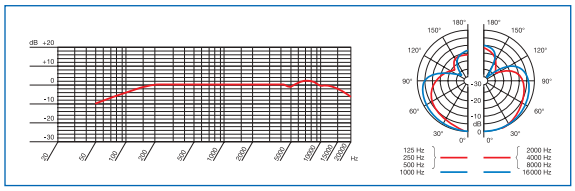
- **Screw-on Capsule Module**
- **Hypercardioid polar pattern**
- **Suited for use in acoustically critical rooms/situations**
- **Highly efficient windscreen**
- **Wide frequency range**

SPECIFICATIONS

Polar pattern:	hypercardioid
Frequency range:	50 to 20,000 Hz
Sensitivity:	20 mV/Pa (–34 dBV)
Max. SPL for 1 % THD:	125 dB
Equivalent noise level:	21 dB-A
Signal/noise ratio (A-weighted):	73 dB
Electrical impedance:	≤600 ohms
Recommended load impedance:	≥2,000 ohms
Power requirement:	9 to 52 V phantom power, requires DPA adapter (supplied with most Installation Modules)
Current Consumption:	≤3 mA
Connector:	Discreet Acoustics Modular standard
Finish:	matte dark grey
Size:	13.5 dia. x 20 mm (0.5 dia. x 0.8 in.)
Net/shipping weight:	5/88 g (0.17/3.1 oz.)
Standard accessories:	W 30 windscreen

Architect's and Engineer's Specifications

The microphone shall be a screw-on hypercardioid capsule that mates with the AKG Discreet Acoustics Modular Series. The microphone shall accept phantom powering over the universal range from 9 to 52 volts dc. The response of the microphone shall be flat on-axis from 50 Hz to 20 kHz, with a 6 dB/octave rolloff below 200 Hz and response at 20 kHz that is no more than –6 dB, relative to the midband response. The microphone shall have a sensitivity no less than 20 mV/Pa (–34 dBV), and the total harmonic distortion (THD) at an operating acoustical level of 125 dB shall be no greater than 1 %. The electrical impedance of the microphone shall be no greater than 600 ohms. Electrical mating contacts for mounting the microphone shall be gold plated for positive, trouble free operation over long periods. Net/shipping weight: 5/88 g (0.17/3.1 oz.).



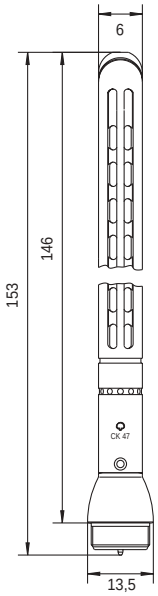
Item Number

CK 33	2765Z0022

CK 47

Capsule Module

discreet acoustics



The **CK 47** combines an **80° pickup angle, studio quality audio**, and clean off-axis response.
It is an ideal tool wherever **studio-standard sound quality** is required or for inexperienced talkers. The CK 47 comes complete with a W 70 windscreen.

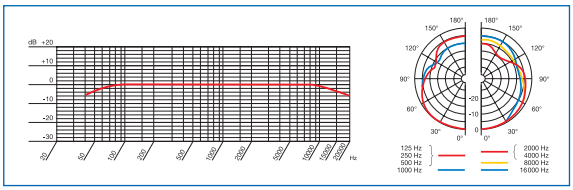
- **Screw-on Capsule Module**
- **Hypercardioid polar pattern**
- **Provides optimum audio for speech miking**
- **Studio quality directional design**
- **Wide frequency range**

SPECIFICATIONS

Polar pattern:	hypercardioid
Frequency range:	20 to 20,000 Hz
Sensitivity:	16.5 mV/Pa (–36 dBV)
Max. SPL for 1 % THD:	133 dB
Equivalent noise level:	20 dB-A
Signal/noise ratio (A-weighted):	74 dB
Electrical impedance:	≤600 ohms
Recommended load impedance:	≥2,000 ohms
Power requirement:	9 to 52 V phantom power, requires DPA adapter (supplied with most Installation Modules)
Current Consumption:	≤3 mA
Connector:	Discreet Acoustics Modular standard
Finish:	matte dark grey
Size:	13.5 dia. x 146 mm (0.5 dia. x 5.7 in.)
Net/shipping weight:	39/248 g (1.4/8.7 oz.)
Standard accessories:	W 70 windscreen

Architect's and Engineer's Specifications

The microphone shall be a screw-on hypercardioid capsule that mates with the AKG Discreet Acoustics Modular Series and shall have an interference tube section for enhanced directivity at high frequencies. The microphone shall accept phantom powering over the universal range from 9 to 52 volts dc. The response of the microphone shall be flat on-axis from 20 Hz to 20 kHz (±3 dB). The microphone shall have a sensitivity no less than 16.5 mV/Pa (–36 dBV), and the total harmonic distortion (THD) at an operating acoustical level of 133 dB shall be no greater than 1 %. The electrical impedance of the microphone shall be no greater than 600 ohms. Electrical mating contacts for mounting the microphone shall be gold plated for positive, trouble free operation over long periods. Net/shipping weight: 39/248 g (1.4/8.7 oz.).



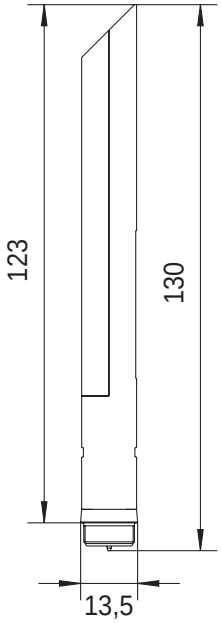
Item Number

CK 47	2765Z0023

CK 80

Capsule Module

discreet acoustics



An 80° pickup angle and **speech optimized frequency response** provide **excellent intelligibility in acoustically critical environments** at a surprisingly **attractive price/performance** ratio.
Complete with W 80 windscreen.

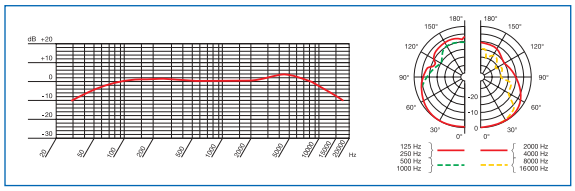
- **Screw-on Capsule Module**
- **Hypercardioid polar pattern**
- **Provides excellent intelligibility in acoustically difficult environments**
- **Directional design**
- **Speech optimized frequency response**

SPECIFICATIONS

Polar pattern:	hypercardioid
Frequency range:	60 to 15,000 Hz
Sensitivity:	30 mV/Pa (–30 dBV)
Max. SPL for 1 % THD:	125 dB
Equivalent noise level:	17 dB-A
Signal/noise ratio (A-weighted):	77 dB
Electrical impedance:	≤600 ohms
Recommended load impedance:	≥2,000 ohms
Power requirement:	9 to 52 V phantom power, requires DPA adapter (supplied with most Installation Modules)
Current Consumption:	≤3 mA
Connector:	Discreet Acoustics Modular standard
Finish:	matte dark grey
Size:	13.5 dia. x 123 mm (0.5 dia. x 4.8 in.)
Net/shipping weight:	15/208 g (0.5/7.3 oz.)
Standard accessories:	W 80 windscreen

Architect's and Engineer's Specifications

The microphone shall be a screw-on hypercardioid capsule that mates with the AKG Discreet Acoustics Modular Series and shall have an interference tube section for enhanced directivity at high frequencies. The microphone shall accept phantom powering over the universal range from 9 to 52 volts dc. The response shall have a gentle rise from low to high frequencies such that the total frequency response from 60–15,000 Hz rises uniformly over an 18 dB range. The microphone shall have a sensitivity no less than 30 mV/Pa (–30 dBV), and the total harmonic distortion (THD) at an operating acoustical level of 125 dB shall be no greater than 1 %. The electrical impedance shall be no greater than 600 ohms. Electrical mating contacts for mounting the microphone shall be gold plated for positive, trouble free operation over long periods. Net/shipping weight: 15/208 g (0.5/7.3 oz.).



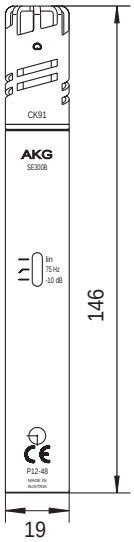
Item Number

CK 80	2765Z0024

C 391 B

Microphone Combination

AKG Blue Line



Versatile cardioid **condenser microphone** comprising an SE 300 B powering/output module and CK 91 cardioid capsule.
Foam windscreen and stand adapter included.

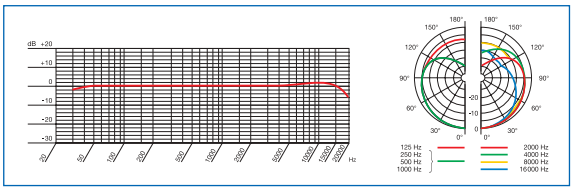
- **AKG Blue Line cardioid microphone**
- **Switchable bass cut filter and 10-dB preattenuation pad**
- **Insensitive to handling noise**
- **High resistance to RF interference**
- **Capsule mounts directly on SE 300 B powering unit or connects via 10 ft. (3 m) cable**

SPECIFICATIONS

Polar pattern:	cardioid
Frequency range:	20 to 20,000 Hz
Sensitivity:	10 mV/Pa (–40 dBV)
Max. SPL for 1% THD:	132/142 dB
Equivalent noise level (CCIR 468-3):	28 dB
Equivalent noise level:	17 dB-A
Signal/noise ratio (A-weighted):	77 dB
Preattenuation pad:	10 dB, switchable
Bass cut filter:	12 dB/octave at 75 Hz
Impedance:	≤200 ohms
Recommended load impedance:	≥1000 ohms
Powering:	9 to 52 V phantom power to DIN 45596
Current consumption:	≤2 mA
Connector:	3-pin XLR
Finish:	dark grey
Dimensions:	19 dia. x 146 mm (0.7 dia. x 5.7 in.)
Net/shipping weight:	115 g (4 oz.) / 420 g (14.8 oz.)
Standard accessories:	SA 60, W 90
Optional accessories:	A 91, B 15, B 18, H 30, H 38, H 50, H 300, KA 38, MK 90/3+H 98, MK 9/10, N 62 E, N 66 E, PF 80, SA 18/1B, SA 26, SA 38/H, ST 1, ST 5/3, ST 12, ST 45, ST 102 A, ST 200, ST 305, VR 91, VR 92, W 95

Architect's and Engineer's Specifications

Modular studio condenser microphone system including a cardioid capsule. Its application range shall include lecterns, places of worship, live recording, instrument miking, and recording. Frequency range: 20–20,000 Hz; sensitivity at 1 kHz: 10 mV/Pa; electrical impedance: 200 ohms; maximum SPL: 132/142 dB SPL for 1% T.H.D.; signal-to-noise ratio: 77 dB-A; switchable preattenuation pad: 10 dB; switchable filter: 12 dB/octave below 75 Hz. The microphone shall be capable of operating on phantom power at any voltage between 9 and 52 V, drawing a current of 2 mA. The case shall be 19 mm in diameter and 146 mm long. The surface shall be matte gray and the maximum net weight of the microphone system shall be 115 g (4 oz.).



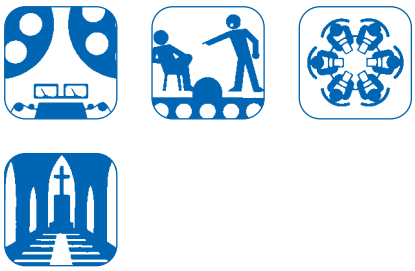
Item Number

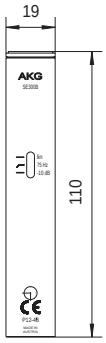
C 391 B 2442Z0001

SE 300 B

Powering Module

AKG Blue Line





The **SE 300 B** operates from any 9 to 52 V phantom power supply. It incorporates a **switchable 12 dB/octave bass cut filter** at 75 Hz to eliminate footfall noise and a switchable **10 dB preattenuation pad** for high-SPL sound sources. A **transformerless output stage** ensures pristine full-range audio and prevents low-frequency distortion. Stand adapter included.
AKG Blue Line capsules: CK 91, CK 92, CK 93, CK 94, CK 97-O, CK 97-C, CK 97-CVR, CK 98

- **Powering module for AKG Blue Line capsules**
- **Extremely compact, reliable circuitry**
- **Switchable bass cut filter**
- **Switchable 10 dB preattenuation pad**
- **Unique bayonet mount for capsules**
- **Universal phantom powering**

Architect's and Engineer's Specifications

Microphone power supply module for the AKG Blue Line modular condenser microphone system. The power supply module shall be fitted with a bayonet mount for attaching eight different capsules with different polar patterns. Specifications: Electrical impedance: 200 ohms; switchable preattenuation pad: 10 dB; switchable bass cut filter: 12 dB/octave below 75 Hz. The microphone shall be capable of operating on phantom power to DIN 45596 at any voltage between 9 and 52 V. The case shall be 19 mm in diameter and 110 mm long. The maximum net weight of the module shall be 80 g (2.8 oz.).

SPECIFICATIONS

Frequency range:	20 to 20,000 Hz
Preattenuation pad:	10 dB, switchable
Bass cut filter:	12 dB/octave at 75 Hz
Impedance:	≤200 ohms
Recommended load impedance:	≥1000 ohms
Powering:	9 to 52 V phantom power to DIN 45596
Current consumption:	≤2 mA
Connector:	3-pin XLR
Finish:	dark grey
Dimensions:	19 dia. x 110 mm (0.7 dia. x 4.3 in.)
Net/shipping weight:	80 g (2.8 oz.) / 375 g (13.3 oz.)
Standard accessories:	SA 60
Optional accessories:	A 91, B 15, B 18, H 30, H 38, H 50, H 300, KA 38, MK 90/3+H 98, MK 9/10, N 62 E, N 66 E, SA 18/1B, SA 26, SA 38/H, ST 1, ST 5/3, ST 12, ST 45, ST 102 A, ST 200, ST 305, VR 91, VR 92

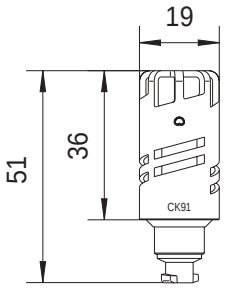
Item Number

SE 300 B	2439Z0005

CK 91

Capsule Module

AKG Blue Line



Flat frequency response and a consistent cardioid polar pattern make the **CK 91** an ideal tool for applications where **good off-axis rejection** is required.
Foam windscreen included.

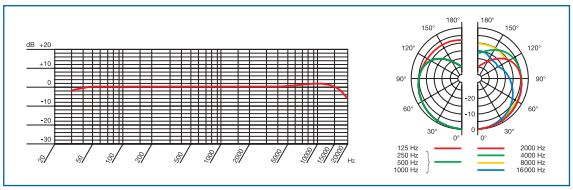
- **Consistent cardioid polar pattern**
- **Frequency independent 180° off-axis rejection**
- **For a wide range of applications**
- **Mounts directly on SE 300 B powering unit or connects via 10 ft. (3 m) cable**

Architect's and Engineer's Specifications

Cardioid microphone capsule for the AKG BLUE LINE modular studio condenser microphone system. When attached to the SE 300 B power supply module, the capsule shall perform to the following specifications: Frequency range: 20–20,000 Hz; sensitivity at 1 kHz: 10 mV/Pa; maximum SPL: 132/142 dB SPL for 1 % T.H.D.; equivalent noise level: 17 dB-A. The capsule shall be provided with an extremely rugged bayonet mount for attaching to the SE 300 B power supply module. The case shall be no larger than 19 mm in diameter and 36 mm long. The maximum net weight of the capsule shall be 35 g (1.2. oz.).

SPECIFICATIONS (measured with SE 300 B)

Polar pattern:	cardioid
Frequency range:	20 to 20,000 Hz
Sensitivity:	10 mV/Pa (–40 dBV)
Max. SPL for 1% THD:	132/142 dB
Equivalent noise level (CCIR 468-3):	28 dB
Equivalent noise level:	17 dB-A
Signal/noise ratio (A-weighted):	77 dB
Powering:	through SE 300 B
Current consumption:	through SE 300 B
Connector:	bayonet mount
Finish:	dark grey
Dimensions:	19 dia. x 36/51 mm (0.7 dia. x 1.4/2 in.)
Net/shipping weight:	35/200 g (1.2/7.1 oz.)
Standard accessories:	W 90
Optional accessories:	H 50, MK 90/3+H 98, PF 80, W 95



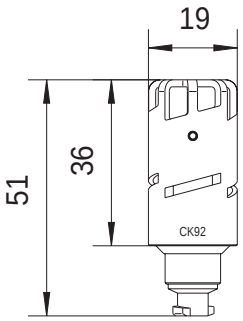
Item Number

CK 91	2439Z0001

CK 92

Capsule Module

AKG Blue Line



Since the frequency of omnidirectional microphones does not change with the distance from the sound source for physical reasons, the **CK 92** omni capsule has no proximity effect. Instead, it offers exceptionally **neutral presentation** of a source in its ambient sound field, providing **consistent results** regardless of the distance between microphone and source.
Includes foam windscreen.

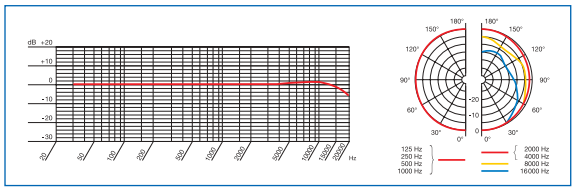
- **Omni capsule with very well-balanced sound**
- **No proximity effect**
- **Perfect choice for reporting, choir, or solo vocals**
- **Mounts directly on SE 300 B powering unit or connects via 10 ft. (3 m) cable**

Architect's and Engineer's Specifications

Omnidirectional microphone capsule for the AKG BLUE LINE modular studio condenser microphone system. When attached to the SE 300 B power supply module, the capsule shall perform to the following specifications: Frequency range: 20–20,000 Hz; sensitivity at 1 kHz: 10 mV/Pa; maximum SPL: 132/142 dB SPL for 1 % T.H.D.; equivalent noise level: 17 dB-A. The capsule shall be provided with an extremely rugged bayonet mount for attaching to the SE 300 B power supply module. The case shall be no larger than 19 mm in diameter and 36 mm long. The maximum net weight of the capsule shall be 35 g (1.2 oz.).

SPECIFICATIONS

Polar pattern:	omnidirectional
Frequency range:	20 to 20,000 Hz
Sensitivity:	10 mV/Pa (-40 dBV)
Max. SPL for 1% THD:	132/142 dB
Equivalent noise level (CCIR 468-3):	28 dB
Equivalent noise level:	17 dB-A
Signal/noise ratio (A-weighted):	77 dB
Powering:	through SE 300 B
Current consumption:	through SE 300 B
Connector:	bayonet mount
Finish:	dark grey
Dimensions:	19 dia. x 36/51 mm (0.7 dia. x 1.4/2 in.)
Net/shipping weight:	35/200 g (1.2/7.1 oz.)
Standard accessories:	W 90
Optional accessories:	MK 90/3+H 98, W 95



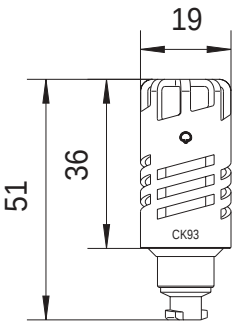
Item Number

CK 92	2439Z0002

CK 93

Capsule Module

AKG Blue Line



Similar to the CK 91, the **CK 93** features a **consistent hypercardioid polar pattern**. A hypercardioid provides a much **higher ratio of direct to ambient sound** than a cardioid does. With this high separation, the CK 93 is an **excellent choice for multitrack recording**. High gain before feedback makes the CK 93 a very useful tool in live sound applications, too.
Includes foam windscreen.

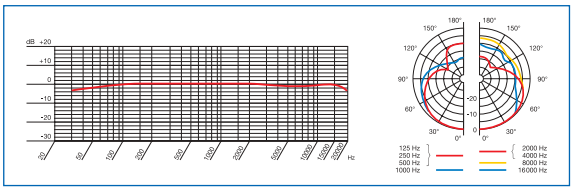
- **Consistent hypercardioid polar pattern**
- **High gain before feedback**
- **Mounts directly on SE 300 B powering unit or connects via 10 ft. (3 m) cable**

Architect's and Engineer's Specifications

Hypercardioid microphone capsule for the AKG BLUE LINE modular studio condenser microphone system. When attached to the SE 300 B power supply module, the capsule shall perform to the following specifications: Frequency range: 20–20,000 Hz; sensitivity at 1 kHz: 10 mV/Pa; maximum SPL: 132/142 dB SPL for 1 % T.H.D.; equivalent noise level: 17 dB-A. The capsule shall be provided with an extremely rugged bayonet mount for attaching to the SE 300 B power supply module. The case shall be no larger than 19 mm in diameter and 36 mm long. The maximum net weight of the capsule shall be 35 g (1.2.oz.).

SPECIFICATIONS (measured with SE 300 B)

Polar pattern:	hypercardioid
Frequency range:	20 to 20,000 Hz
Sensitivity:	10 mV/Pa (–40 dBV)
Max. SPL for 1% THD:	132/142 dB
Equivalent noise level (CCIR 468-3):	28 dB
Equivalent noise level:	17 dB-A
Signal/noise ratio (A-weighted):	77 dB
Powering:	through SE 300 B
Current consumption:	through SE 300 B
Connector:	bayonet mount
Finish:	dark grey
Dimensions:	19 dia. x 36/51 mm (0.7 dia. x 1.4/2 in.)
Net/shipping weight:	35/200 g (1.2/7.1 oz.)
Standard accessories:	W 90
Optional accessories:	H 50, MK 90/3+H 98, PF 80, W 95



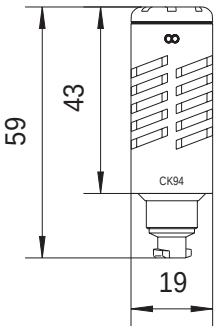
Item Number

CK 93	2439Z0003

CK 94

Capsule Module

AKG Blue Line



This figure-eight capsule prefers sound arriving from opposite directions and **efficiently suppresses off-axis sounds**. The **CK 94** is a perfect tool for **situations where sound sources face each other**. Recommended applications include interviewing, choir miking, drum overheads as well as M/S stereo techniques in combination with a cardioid or hypercardioid microphone.
Includes foam windscreen.

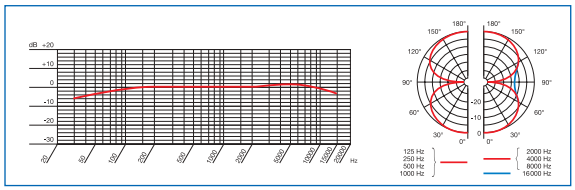
- **Highly accurate figure-eight capsule for use in dialog situations or as an S microphone in M/S stereo recording**
- **Mounts directly on SE 300 B powering unit or connects via 10 ft. (3 m) cable**
- **Quick-lock bayonet mount for easy connection to powering unit**

SPECIFICATIONS (measured with SE 300 B)

Polar pattern:	figure-eight
Frequency range:	20 to 20,000 Hz
Sensitivity:	10 mV/Pa (-40 dBV)
Max. SPL for 1% THD:	132/142 dB
Equivalent noise level (CCIR 468-3):	33 dB
Equivalent noise level:	22 dB-A
Signal/noise ratio (A-weighted):	72 dB
Powering:	through SE 300 B
Current consumption:	through SE 300 B
Connector:	bayonet mount
Finish:	dark grey
Dimensions:	19 dia. x 43/59 mm (0.7 dia. x 1.7/2.3 in.)
Net/shipping weight:	45/200 g (1.9/7.1 oz.)
Standard accessories:	W 90
Optional accessories:	MK 90/3+H 98

Architect's and Engineer's Specifications

Figure 8 microphone capsule for the AKG BLUE LINE modular studio condenser microphone system. When attached to the SE 300 B power supply module, the capsule shall perform to the following specifications: Frequency range: 20–20,000 Hz; sensitivity at 1 kHz: 10 mV/Pa; maximum SPL: 132/142 dB SPL for 1 % T.H.D.; equivalent noise level: 22 dB-A. The capsule shall be provided with an extremely rugged bayonet mount for attaching to the SE 300 B power supply module. The case shall be no larger than 19 mm in diameter and 43 mm long. The maximum net weight of the capsule shall be 45 g (1.9 oz.).



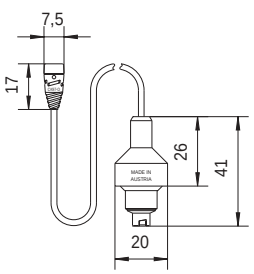
Item Number

CK 94	2439Z0006

CK 97-O

Lavalier Capsule

AKG Blue Line



This **tiny lavalier capsule** features flat bass and midrange response, while a gentle rise around 8 kHz crisply **accentuates voices**. Omnidirectional pattern allows **natural sound reproduction with no proximity effect**. **High sensitivity** and **low self-noise** combine for exceptional performance.
Foam windscreen, tie clip and tiepin included.

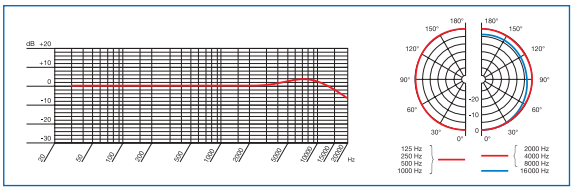
- **Accurate miniature omni capsule for general clip-on miking**
- **Quick-lock bayonet mount for easy connection to powering unit**

SPECIFICATIONS (measured with SE 300 B)

Polar pattern:	omnidirectional
Frequency range:	20 to 18,000 Hz
Sensitivity:	10 mV/Pa (–40 dBV)
Max. SPL for 1% THD:	120/130 dB
Equivalent noise level (CCIR 468-3):	35 dB
Equivalent noise level:	24 dB-A
Signal/noise ratio (A-weighted):	70 dB
Powering:	through SE 300 B
Current consumption:	through SE 300 B
Connector:	bayonet mount
Cable:	3 m (10 ft.)
Finish:	dark grey
Dimensions:	7.5 dia. x 17 mm (0.3 dia. x 0.7 in.)
Net/shipping weight:	3/200 g (0.1/7.1 oz.)
Standard accessories:	H 40/1, H 41, W 97/1

Architect's and Engineer's Specifications

Miniature omnidirectional microphone capsule for the AKG BLUE LINE modular studio condenser microphone system. When attached to the SE 300 B power supply module, the capsule shall perform to the following specifications: Frequency range: 20–18,000 Hz; sensitivity at 1 kHz: 10 mV/Pa; maximum SPL: 120/130 dB SPL for 1 % T.H.D.; equivalent noise level: 24 dB-A. The capsule shall be provided with an extremely rugged bayonet mount for attaching to the SE 300 B power supply module. The case shall be no larger than 7.5 mm in diameter and 17 mm long. The maximum net weight of the capsule shall be 3 g (0.1 oz.).



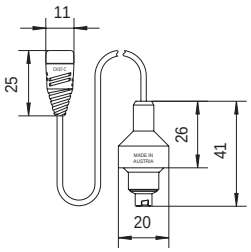
Item Number

CK 97-O	2497Z0001

CK 97-C

Lavalier Capsule

AKG Blue Line



The **CK 97-C** is perfectly suited for **"invisible" miking**. A consistent cardioid pattern ensures **good separation**, minimum ambience pickup and **high gain before feedback** in live sound applications. It comes complete with a windscreen, tiepin, hanger adapter and lavalier clip. The **CK 97-C/3** is a special version for use with wireless systems. It provides stripped-and-tinned leads you can solder to the appropriate connector for your transmitter. The **CK 97-C/L** features a mini XLR connector matching the audio input on AKG wireless bodypack transmitters

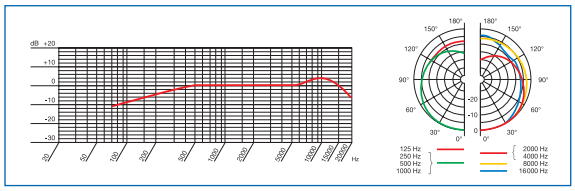
- **Miniature cardioid capsule for minimum ambience pickup**
- **Quick-lock bayonet mount for easy connection to powering unit**

Architect's and Engineer's Specifications

Miniature cardioid microphone capsule for the AKG BLUE LINE modular studio condenser microphone system. When attached to the SE 300 B power supply module, the capsule shall perform to the following specifications: Frequency range: 150–18,000 Hz; sensitivity at 1 kHz: 12 mV/Pa; maximum SPL: 120/130 dB SPL for 1 % T.H.D.; equivalent noise level: 26 dB-A. The capsule shall be provided with an extremely rugged bayonet mount for attaching to the SE 300 B power supply module. The case shall be no larger than 11 mm (0.4 in.) in diameter and 25 mm (1 in.) long. The maximum net weight of the capsule shall be 6 g (0.2 oz.).

SPECIFICATIONS (measured with SE 300 B)

Polar pattern:	cardioid
Frequency range:	150 to 18,000 Hz
Sensitivity:	12 mV/Pa (-38 dBV)
Max. SPL for 1% THD:	120/130 dB
Equivalent noise level (CCIR 468-3):	37 dB
Equivalent noise level:	26 dB-A
Signal/noise ratio (A-weighted):	68 dB
Powering:	through SE 300 B
Current consumption:	through SE 300 B
Connector:	bayonet mount
Cable:	3 m (10 ft.)
Finish:	dark grey
Dimensions:	11 dia. x 25 mm (0.4 dia. x 1 in.)
Net/shipping weight:	6/200 g (0.2/7.1 oz.)
Standard accessories:	H 31, H 41, H 97/15, W 97



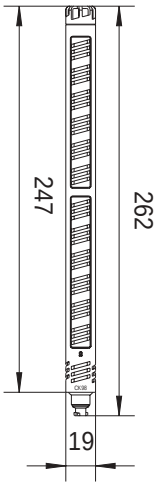
Item Numbers

CK 97-C	2497Z0002
CK 97-C/3	2497Z0004
CK 97-C/L	2497Z0008

CK 98

Short Shotgun

AKG Blue Line



The **CK 98** combines **high sensitivity and controlled directivity**. It offers excellent reach, thanks to a very tight polar pattern and exceptionally low self noise. Small size and low weight make the CK 98 ideal for **boom applications**. The smooth, wideband frequency response makes it a superb choice for e**dge-of-stage and ceiling placement** in theaters.
Includes foam windscreen.

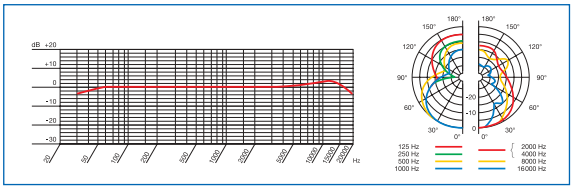
- **Short shotgun for use in noisy environments**
- **Mounts directly on SE 300 B powering unit or connects via 10 ft. (3 m) cable**
- **Quick-lock bayonet mount for easy connection to powering unit**

Architect's and Engineer's Specifications

Miniature shotgun microphone capsule for the AKG BLUE LINE modular studio condenser microphone system. When attached to the SE 300 B power supply module, the capsule shall perform to the following specifications: Frequency range: 20–20,000 Hz; sensitivity at 1 kHz: 25 mV/Pa; maximum SPL: 124/134 dB SPL for 1 % T.H.D.; equivalent noise level: 17 dB-A. The capsule shall be provided with an extremely rugged bayonet mount for attaching to the SE 300 B power supply module. The case shall be no larger than 19 mm in diameter and 247 mm long. The maximum net weight of the capsule shall be 80 g (2.8 oz.).

SPECIFICATIONS (measured with SE 300 B)

Polar pattern:	hypercardioid/directional
Frequency range:	20 to 20,000 Hz
Sensitivity:	25 mV/Pa (-32 dBV)
Max. SPL for 1% THD:	124/134 dB
Equivalent noise level (CCIR 468-3):	28 dB
Equivalent noise level:	17 dB-A
Signal/noise ratio (A-weighted):	77 dB
Powering:	through SE 300 B
Current consumption:	through SE 300 B
Connector:	bayonet mount
Finish:	dark grey
Dimensions:	19 dia. x 247/262 mm (0.7 dia. x 9.7/10.3 in.)
Net/shipping weight:	80/500 g (2.8 oz./1.1 lb.)
Standard accessories:	W 98
Optional accessories:	H 30, H 38, KA 38, MK 90/3+H 98, SA 38/H



Item Number

CK 98	2439Z0004

AKG BLUE LINE ACCESSORIES

A 91
Swivel adapter for SE 300 B powering unit
Item number
2491Z0001

B 18
Battery power supply using two 9 V batteries
Item number
2198Z0002

H 38
Shock mount
Item number
2338Z0001

H 39
Belt clip for SE 300 B powering unit and CK 97 miniature microphones
Item number
2096Z0002

H 50
Stereo bar
Item number
6000H0571

H 97/15
Hanger adapter for CK 97-C
Item number
2498Z0001

H 300
Stereo clamp
Item number
2595Z0001

KA 38
Camera adapter for mounting the H 38 on the accessory shoe of a video camera
Item number
2438Z0001

MK 90/3 + H 98
Extension cable for connecting all AKG Blue Line capsules to the SE 300 B
Item number
2186Z0006

SA 18/1 B
Stand adapter for SE 300 B powering unit
Item number
1818Z0056

SA 38/H
Stand adapter with shock mount
Item number
2339Z0002

SA 60
Stand adapter supplied with SE 300 B
Item number
6000H6001

VR 91
14-inch (35-cm) extension tube
Item number
2492Z0001

VR 92
4-foot (120-cm) extension tube with short gooseneck section
Item number
2492Z0002

W 90
Windscreen supplied with CK 91, CK 92, CK 93, CK 94
Item number
2496Z0001

W 95
Wire-mesh windscreen for CK 91, CK 92, CK 93
Item number
2495Z0001

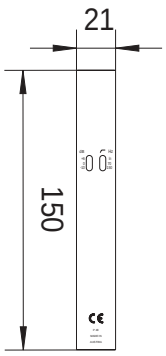
W 97 / W 97/1
Windscreens supplied with CK 97-C and CK 97-CVR/ CK 97-O
Item numbers
2297Z0001 /
2366Z0601

W 98
Windscreen supplied with CK 98
Item number
2439Z3001

C 480 B-ULS

Powering Module

Ultra Linear Series



The **C 480 B** is part of a system designed specifically for **excellent audio quality** and maximum flexibility. Its electronic circuitry coupled to a **transformerless output stage assures completely linear transfer characteristics** across the **entire audio bandwidth**, while achieving self-noise figures close to the theoretical minimum. This, in combination with a typical **SPL handling capability of 140 dB** broadband means a **dynamic range exceeding 125 dB**, making the system suitable for the most critical digital recording applications. Gold plated switch and connector contacts guarantee consistent performance. **A specially designed output stage** drives difficult loads (e.g. excessively long cables) with **no signal degradation**. Two sets of switches offer a two-step highpass filter and two gain manipulation stages of either –10 dB or +6 dB.

- **Ultra low-noise preamplifier**
- **Three selectable gain settings: 0, +6, –10 dB**
- **High headroom**

Architect's and Engineer's Specifications

Microphone preamplifier for the ULS modular studio condenser microphone system from AKG. All electrical parameters of the preamplifier shall be maximally linear and its gain shall be switchable on the microphone to +6, 0, or –10 dB. Frequency range: 10–30,000 Hz; electrical impedance: <150 ohms.; switchable bass cut filter: 12 dB/octave at 70 or 150 Hz. The microphone shall be capable of operating on phantom power at 48 V to DIN 45596. The case shall be no larger than 21 mm (0.8 in.) in diameter and 150 mm (6 in.) long. The maximum net weight of the preamplifier shall be 115 g (4 oz.).

SPECIFICATIONS

Frequency range:	10 to 30,000 Hz
Gain:	+6, 0, –10 dB, selectable
Bass cut filter:	12 dB/octave at 70 or 150 Hz
Impedance:	≤150 ohms
Recommended load impedance:	≥2000 ohms//1000 pF
Powering:	48 V phantom power to DIN 45596
Current consumption:	≤2 mA
Connector:	3-pin XLR
Finish:	matte black
Dimensions:	21 dia. x 150 mm (0.8 dia. x 5.9 in.)
Net/shipping weight:	115/450 g (4 oz./1 lb.)
Standard accessories:	SA 60
Optional accessories:	A 61, B 18+A 48 V, H 30, H 38, H 50, H 300, KA 38, MK 9/10, N 62 E, N 66 E, SA 18/2B, SA 26, SA 38/H, ST 1, ST 5/3, ST 12, ST 45, ST 102 A, ST 200, ST 305, VR 61, VR 62

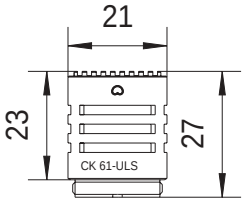
Item Number

C 480 B-ULS 2180Z0015

CK 61-ULS

Capsule Module

Ultra Linear Series



The ruler-flat frequency response and consistent polar pattern of the **CK 61-ULS** make it ideal for critical recording and live sound applications where **consistent suppression of off-axis sound** is an important requirement. Includes foam windscreen.

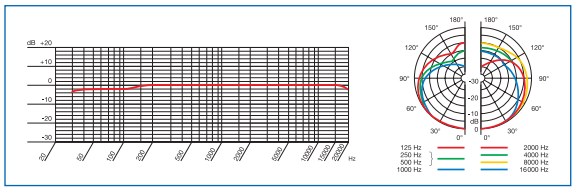
- **High quality cardioid capsule with exceptionally flat on-axis frequency response**
- **High temperature stability, reliable construction**
- **Gold plated, self-cleaning connector pins for high resistance to humidity**

SPECIFICATIONS (measured with C 480 B)

Polar pattern:	cardioid
Frequency range:	20 to 20,000 Hz
Sensitivity:	40/20/6.3 mV/Pa (–28/–34/–44 dBV)
Max. SPL for 0.5% THD:	134/140/144 dB
Equivalent noise level (CCIR 468-3):	23/21/28 dB
Equivalent noise level:	13/11/17 dB-A
Signal/noise ratio (A-weighted):	81/83/77 dB
Preamp gain:	+6/0/–10 dB, selectable
Powering:	through C 480 B
Current consumption:	through C 480 B
Finish:	matte black
Dimensions:	21 dia. x 23/27 mm (0.8 dia. x 0.9/1.1 in.)
Net/shipping weight:	25/150 g (0.9/5.3 oz.)
Standard accessories:	W 32
Optional accessories:	A 61, VR 61, VR 62, W 46

Architect's and Engineer's Specifications

Cardioid microphone capsule for the ULS modular studio condenser microphone system from AKG. All acoustical parameters shall be highly linear. The capsule shall provide an excellent front-to-back ratio throughout a wide frequency range. The capsule shall be temperature stable and highly reliable, with a gold plated contact-pin for connection to the C 480 B preamplifier. When attached to the C 480 B power supply module, the capsule shall perform to the following specifications: Frequency range: 20–20,000 Hz; sensitivity at 1 kHz: 40/20/6.3 mV/Pa selectable; maximum SPL: 134/140/144 dB SPL for 0.5 % T.H.D.; equivalent noise level: 13/11/17 dB-A. The case shall be no larger than 21 mm (0.8 in.) in diameter and 23 mm (0.9 in.) long inclusive of the contact pin. The maximum net weight of the capsule shall be 25 g (0.9 oz.).



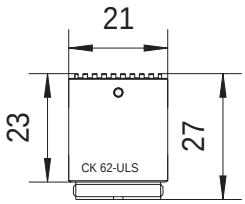
Item Number

CK 61-ULS 2231Z0021

CK 62-ULS

Capsule Module

Ultra Linear Series



Identical to CK 61-ULS, except for omnidirectional polar pattern.
For **more reverberant sounding recordings**.

Includes foam windscreen.

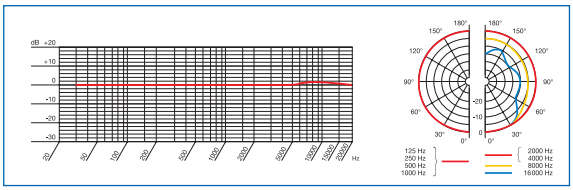
- **High quality omnidirectional capsule with exceptionally flat on-axis frequency response**
- **High temperature stability, reliable construction**
- **Gold plated, self-cleaning connector pins for high resistance to humidity**

SPECIFICATIONS (measured with C 480 B)

Polar pattern:	omnidirectional
Frequency range:	20 to 20,000 Hz
Sensitivity:	40/20/6.3 mV/Pa (–28/–34/–44 dBV)
Max. SPL for 0.5% THD:	134/140/144 dB
Equivalent noise level (CCIR 468-3):	23/21/28 dB
Equivalent noise level:	13/11/17 dB-A
Signal/noise ratio (A-weighted):	81/83/77 dB
Preamp gain:	+6/0/–10 dB, selectable
Powering:	through C 480 B
Current consumption:	C 480 B
Finish:	matte black
Dimensions:	21 dia. x 23/27 mm (0.8 dia. x 0.9/1.1 in.)
Net/shipping weight:	25/150 g (0.9/5.3 oz.)
Standard accessories:	W 32
Optional accessories:	A 61, VR 61, VR 62, W 46

Architect's and Engineer's Specifications

Omnidirectional microphone capsule for the ULS modularstudio condenser microphone system from AKG. All acoustical parameters shall be highly linear. The capsule shall provide a consistent polar pattern throughout a wide frequency range. The capsule shall be temperature stable and highly reliable, with a gold plated contact pin for connection to the C 480 B preamplifier. When attached to the C 480 B power supply module, the capsule shall perform to the following specifications: Frequency range: 20–20,000 Hz; sensitivity at 1 kHz: 40/20/6.3 mV/Pa selectable; maximum SPL: 134/140/144 dB SPL for 0.5 % T.H.D.; equivalent noise level: 13/11/17 dB-A. The case shall be no larger than 21 mm (0.8 in.) in diameter and 23 mm (0.9 in.) long inclusive of the contact pin. The maximum net weight of the capsule shall be 25 g (0.9 oz.).



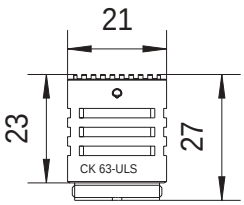
Item Number

CK 62-ULS 2231Z0022

CK 63-ULS

Capsule Module

Ultra Linear Series



Identical to CK 61-ULS, except for hypercardioid polar pattern. Better off-axis rejection provides **better channel separation and higher gain-before-feedback**.

Includes foam windscreen.

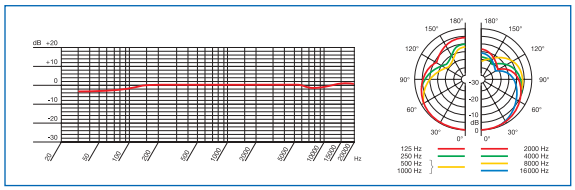
- **High quality hypercardioid capsule with exceptionally flat on-axis frequency response**
- **High temperature stability, reliable construction**
- **Gold plated, self-cleaning connector pins for high resistance to humidity**

SPECIFICATIONS (measured with C 480 B)

Polar pattern:	hypercardioid
Frequency range:	20 to 20,000 Hz
Sensitivity:	40/20/6.3 mV/Pa (–28/–34/–44 dBV)
Max. SPL for 0.5% THD:	134/140/144 dB
Equivalent noise level (CCIR 468-3):	23/21/28 dB
Equivalent noise level:	13/11/17 dB-A
Signal/noise ratio (A-weighted):	81/83/77 dB
Preamp gain:	+6/0/–10 dB, selectable
Powering:	through C 480 B
Current consumption:	through C 480 B
Finish:	matte black
Dimensions:	21 dia. x 23/27 mm (0.8 dia. x 0.9/1.1 in.)
Net/shipping weight:	25/150 g (0.9/5.3 oz.)
Standard accessories:	W 32
Optional accessories:	A 61, VR 61, VR 62, W 46

Architect's and Engineer's Specifications

Hypercardioid microphone capsule for the ULS modular studio condenser microphone system from AKG. All acoustical parameters shall be highly linear. The capsule shall provide an excellent front-to-back ratio throughout a wide frequency range. The capsule shall be temperature stable and highly reliable, with a gold plated contact pin for connection to the C 480 B preamplifier. When attached to the C 480 B power supply module, the capsule shall perform to the following specifications: Frequency range: 20–20,000 Hz; sensitivity at 1 kHz: 40/20/6.3 mV/Pa selectable; maximum SPL: 134/140/144 dB SPL for 0.5 % T.H.D.; equivalent noise level: 13/11/17 dB-A. The case shall be no larger than 21 mm (0.8 in.) in diameter and 23 mm (0.9 in.) long inclusive of the contact pin. The maximum net weight of the capsule shall be 25 g (0.9 oz.).



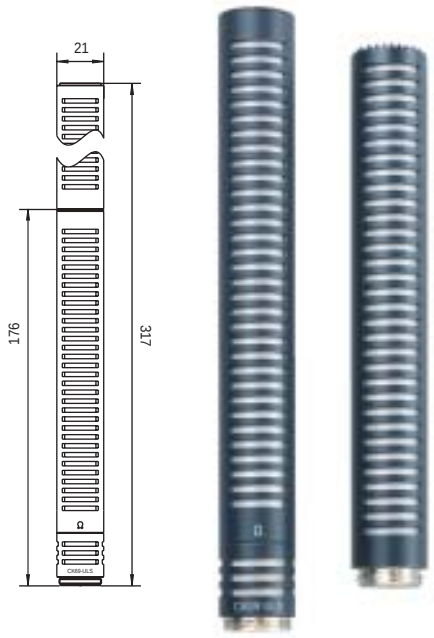
Item Number

CK 63-ULS 2231Z0025

CK 69-ULS

Shotgun Capsule

Ultra Linear Series



Two shotgun capsules in one, with quick and easy conversion from long to short shotgun applications, from hypercardioid to directional polar patterns. In its long shotgun configuration, the **CK 69-ULS** will deliver **perfect results for film/TV outdoor applications** or **indoor front of stage recording** from approximately 20 to 24 feet (6 to 8 m). If you unscrew the front half of the interference tube, the same capsule becomes a short shotgun for use in TV, film and video close-up work. Additionally, the short shotgun mode is ideal for **interviews in noisy environments**. The CK 69-ULS operates flawlessly in **high humidity environments** and windscreens are provided for both long and short configurations. Windscreens for long and short shotgun configurations.

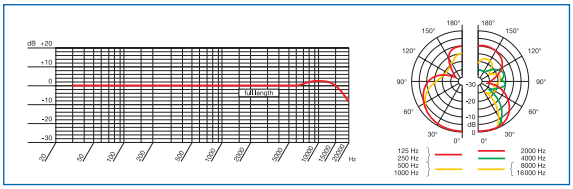
- **Two shotgun capsules in one, using two-part interference tube**
- **Ultra-low noise**
- **Long shotgun for recording from medium distances**
- **Short shotgun for close-up video recording**

SPECIFICATIONS (measured with C 480 B)

Polar pattern:	hypercardioid/directional
Frequency range:	20 to 18,000 Hz
Sensitivity:	54/27/8.5 mV/Pa (–25/–31/–41 dBV)
Max. SPL for 0.5% THD:	134/140/142 dB
Equivalent noise level (CCIR 468-3):	21/20/26 dB
Equivalent noise level:	11/9/15 dB-A
Signal/noise ratio (A-weighted):	83/85/79 dB
Preamp gain:	+6/0/–10 dB, selectable
Powering:	through C 480 B
Current consumption:	through C 480 B
Finish:	matte black
Dimensions:	21 dia. x 176/317 mm (0.8 dia. x 6.9/12.5 in.)
Net/shipping weight:	70/500 g (2.5 oz./5.3 lbs.)
Standard accessories:	W 48, W 49
Optional accessories:	A 61, H 30, H 38, KA 38, SA 38/H, VR 61, VR 62

Architect's and Engineer's Specifications

Shotgun microphone capsule for the ULS modular studio condenser microphone system from AKG. The capsule shall comprise a two-part interference tube to provide a choice of two different shotgun capsules in one. The capsule shall be temperature stable and highly reliable, with a gold plated contact pin for connection to the C 480 B preamplifier. When attached to the C 480 B power supply module, the capsule shall perform to the following specifications: Frequency range: 20–18,000 Hz; sensitivity at 1 kHz: 54/27/8.5 mV/Pa selectable; maximum SPL: 134/140/142 dB SPL for 0.5 % T.H.D.; equivalent noise level: 11/9/15 dB-A. The case shall be no larger than 21 mm (0.8 in.) in diameter and 176/317 mm (6.9/12.5 in.) long inclusive of the contact pin. The maximum net weight of the microphone system shall be 70 g (2.5 oz.).



Item Number

CK 69-ULS	2669Z0001

ULS ACCESSORIES

A 61
Detented 180° swivel joint for C 480 B and ULS capsules
Item number
2363Z0001

SA 38/H
Stand adapter with shock mount
Item number
2339Z002

B 18 + A 48 V
Battery power supply and adapter raising B 18 output voltage to 48 V
Item number
B 18: 2198Z0002
A 48 V: 2318Z0001

SA 60
Stand adapter supplied with C 480 B
Item number
6000H6001

H 38
Shock mount
Item number
2338Z0001

VR 61
1-foot (30 cm) extension tube for C 480 B and ULS capsules
Item number
2362Z0001

H 50
Stereo bar
Item number
6000H0571

VR 62
3-foot (90 cm) extension tube for C 480 B and ULS capsules
Item number
2362Z0002

H 300
Stereo clamp
Item number
2595Z0001

W 46
Wire-mesh windscreen for CK 61-ULS, CK 62-ULS, and CK 63-ULS
Item number
2346Z0001

SA 18/2 B
Stand adapter for C 480 B preamplifier
Item number
1818Z0058

W 48 / W 49
Windscreens supplied with CK 69-ULS
Item numbers
W 48: 2569Z4001
W 49: 2569Z4101

CONDENSER MICROPHONES: APPLICATIONS

Inaugurations of new heads of state are among the most difficult jobs for any sound company. Every moment of the ceremony is broadcast worldwide and the microphones must provide absolutely perfect speech reproduction under difficult conditions. AKG microphones were chosen for the inauguration of the current President of Slovakia, Rudolf Schuster, and did their job with perfect political and audio correctness.

"We felt honored by the request to provide the sound system for this event. We chose the microphones with utmost care and were highly praised for the result. Everything worked perfectly."

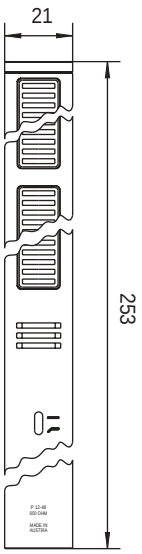
Bohumil Tonkovic,
Media Tech

Three WMS 300 wireless microphone systems along with Discreet Acoustics CK 80, C 747 comb, and CK 77 microphones were used for the inauguration, speeches, and various other ceremonies. AKG C 747 comb shotgun microphones were used to ensure the best possible intelligibility because they provide very high gain before feedback and maximum accuracy even in outdoor use. The military band was miked up with C 4000 B, D 112, and C 419 microphones. "The sound was excellent and reflected the significance of the event", Bohumil reminisced radiantly.

WMS 300 microfon system	3 off
Discreet Acoustics CK 80	3 off
C 747 comb	3 off
D 112	3 off
C 419	3 off

C 568 B

Condenser Microphone



High directivity and **wide frequency response** in a relatively short shotgun make this microphone a perfect tool for **theater, sound reinforcement, and film/TV** applications. Due to its compact and lightweight design, the **C 568 B** is ideal for **camera mount applications**.
Below 500 Hz it functions as a hypercardioid microphone; above 500 Hz the acoustic interference tube introduces increasing directivity. A switchable 12 dB/octave 120 Hz bass rolloff filter effectively suppresses impact and wind noise. The rugged, all-metal body contains the built-in preamp. Phantom powering (9–52 V) required; foam windscreen and stand adapter included.

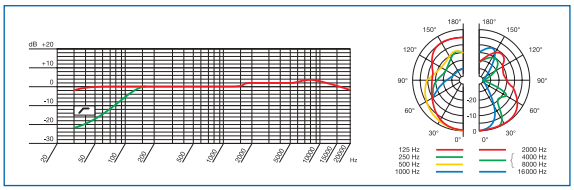
- **Compact, short shotgun microphone**
- **Integrated, switchable bass rolloff filter minimizes mechanical noise**
- **Ideal for theater, sound reinforcement, film, and TV applications**
- **Suitable for camera-mounted use**

Architect's and Engineer's Specifications

Hypercardioid/directional microphone. Applications: Lectern, places of worship, live and studio recording, theater, stage miking. Frequency range: 20–20,000 Hz; sensitivity at 1 kHz: 11 mV/Pa; impedance: 600 ohms; switchable bass cut filter: 12 dB/octave, 120 Hz. Dimensions: 21 mm (0.8 in.) dia.; 253 mm (10 in.) long. Net/shipping weight: 160/715 g (5.6/1.6 lbs.).

SPECIFICATIONS

Polar pattern:	hypercardioid/directional
Frequency range:	20 to 20,000 Hz
Sensitivity:	11 mV/Pa (–39 dBV)
SPL capability:	128 dB
Equivalent noise level (CCIR 468-3):	29 dB
Equivalent noise level:	18 dB-A
Signal/noise ratio (A-weighted):	76 dB
Bass rolloff filter:	12 dB/octave at 120 Hz
Impedance:	≤600 ohms
Recommended load impedance:	≥2000 ohms
Powering:	9 to 52 V phantom power to DIN 45596
Current consumption:	≤2 mA
Connector:	3-pin XLR
Finish:	dark grey
Dimensions:	21 dia. x 253 mm (0.8 dia. x 10 in.)
Net/shipping weight:	160/715 g (5.6 oz./1.6 lbs.)
Standard accessories:	SA 60, W 68
Optional accessories:	B 15, B 18, H 30, H 38, KA 38, MK 9/10, N 62 E, N 66 E, SA 38/H, ST 1, ST 5/3, ST 12, ST 45, ST 102 A, ST 200, ST 305

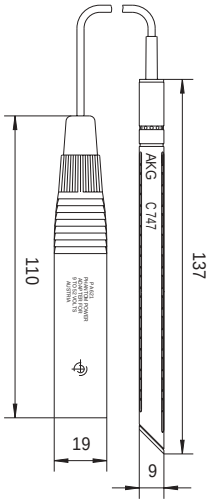


Item number

C 568 B 2168Z0003

C 747

Condenser Microphone



The **C 747** is a **tiny directional microphone** designed for **exacting orchestral, choir, podium, and boardroom applications**. Flat, extended frequency response makes it suitable for high quality **live music recording**, while the frequency-independent pattern provides consistent off-axis rejection to control ambient noise and feedback in acoustically difficult environments. With its hypercardioid pickup pattern, the C 747 is an excellent microphone for noisy discussion groups or reverberant pulpits while it is forgiving enough to clearly pick up talkers moving around in front of the microphone. A switchable LF cutoff filter suppresses mechanical noise. The low-impedance transformerless preamp operates off 9 to 52 V phantom power. Standard accessories include a shock mount/adapter, windscreen, mini gooseneck, stand adapter, mounting clamp, and thread link.

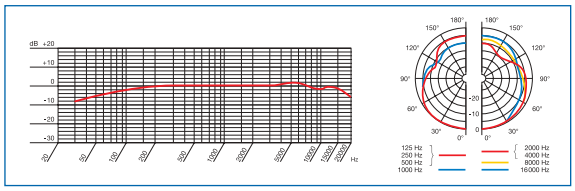
- **Slim, high quality directional microphone**
- **Extended bass and high-end response**
- **Hypercardioid polar pattern**
- **High SPL capability**
- **Ideal choice for difficult miking jobs such as choirs, orchestras, theater, and conferencing**

SPECIFICATIONS

Polar pattern:	hypercardioid
Frequency range:	30 to 18,000 Hz
Sensitivity:	8.5 mV/Pa (–42 dBV)
SPL capability:	133 dB
Equivalent noise level (CCIR 468-3):	32 dB
Equivalent noise level:	21 dB-A
Signal/noise ratio (A-weighted):	73 dB
Bass rolloff filter:	12 dB/octave at 150 Hz
Impedance:	≤400 ohms
Recommended load impedance:	≥1500 ohms
Powering:	9 to 52 V phantom power to DIN 45596
Current consumption:	≤2 mA
Connector:	3-pin XLR
Cable:	3 m (10 ft.)
Finish:	dark grey
Dimensions:	9 dia. x 137 mm (0.35 dia. x 5.4 in.)
Net/shipping weight:	25/750 g (0.9 oz./1.7 lbs.)
Standard accessories:	H 47, MSH 70, SA 47, SA 80, SHZ 80, W 70
Optional accessories:	B 15, B 18, KA 38, MK 9/10, MSH 80, N 62 E, N 66 E, ST 1, ST 45, ST 46, ST 102 A, ST 200, ST 305

Architect's and Engineer's Specifications

Hypercardioid condenser microphone. Applications: Lectern, places of worship, theater, stage miking, conference. Frequency range: 30–18,000 Hz; sensitivity at 1 kHz: 8.5 mV/Pa; impedance: 400 ohms; maximum SPL: 133 dB SPL, S/N: 73 dB (A). Switchable bass cut filter: 12 dB/octave, 150 Hz. Dimensions: 9 mm (0.35 in.) dia.; 137 mm (5.4 in.) long. Weight excluding accessories, cable and connector: 25 g (0.9 oz.).

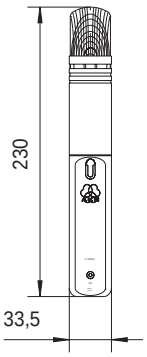


Item number

C 747	2226Z0010

C 1000 S

Condenser Microphone



The versatility of the **C 1000 S** makes this an extremely popular model, and one ideally suited for all kinds of recording and live sound applications. If no phantom power is available, the mic can be powered by a standard 9 V battery, making it perfect for mobile use. With its new battery monitoring electronics, the C 1000 S now features a reliable LED warning light. The red LED above the the microphone switch lights up when the remaining battery life falls below 45 minutes. The polar pattern can quickly be switched from cardioid to hypercardioid simply by attaching the PPC 1000 Polar Pattern Converter provided to the microphone capsule. The PB 1000 Presence Boost Adapter also supplied with the C 1000 S adds 3 to 5 dB of high-end enhancement between 5 and 9 kHz, improving clarity of speech and adding definition to instrument sounds.

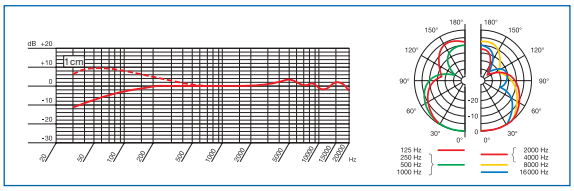
- **The "Swiss army knife" among microphones**
- **Battery status LED for reliable monitoring of remaining battery life**
- **Can be powered by internal 9 V battery or by phantom power (9–52 V DC)**
- **PPC 1000 allows the microphone to be switched from cardioid to hypercardioid pickup pattern**
- **Presence Boost Adapter PB 1000 is included for high-end enhancement**

SPECIFICATIONS

Polar pattern:	cardioid, hypercardioid (with PPC 1000 mounted)
Frequency range:	50 to 20,000 Hz
Sensitivity:	6 mV/Pa (–44 dBV)
Max. SPL for 1% THD:	137 dB
Equivalent noise level (CCIR 468-3):	32 dB
Equivalent noise level:	21 dB-A
Signal/noise ratio (A-weighted):	73 dB
Impedance:	≤200 ohms
Recommended load impedance:	≥2000 ohms
Powering:	9 to 52 V phantom power to DIN 45596 or internal 9 V battery
Current consumption:	approx. 2 mA
Connector:	3-pin XLR
Finish:	matte silver enamel
Dimensions:	34 dia. x 220 mm (1.4 dia. x 8.7 in.)
Net/shipping weight:	320/650 g (11.3 oz./1.4 lbs.)
Standard accessories:	carrying case, PB 1000, PPC 1000, SA 63, W 1000,
Optional accessories:	H 30, MK 9/10, N 62 E, N 66 E, PF 80, ST 102 A, ST 200, ST 305

Architect's and Engineer's Specifications

The microphone shall be a condenser pressure gradient microphone with a cardioid polar pattern. An acoustic attachment for converting the polar pattern to hypercardioid and another attachment boosting the frequencies between 5 kHz and 9 kHz shall be included as standard accessories. The maximum diameter of the microphone shall be 33.5 mm (1.4 in.), and the body shall be finished in matte silver enamel. The microphone shall provide a battery status LED. The on-axis frequency response measured at 1 m (3 ft. 4 in.) may not deviate from flat by more than +4 dB between 200 Hz and 20 kHz and shall roll off below 200 Hz at a rate of 6 dB/octave. The microphone's sensitivity at 1 kHz shall be 6 mV/Pa or higher, its A-weighted equivalent noise level no higher than 20 dB, and its THD may not exceed 1.0 % at a sound pressure level of 137 dB SPL. The microphone shall offer 9-V battery and 9 to 52 V phantom powering options. The microphone's electrical impedance shall be 200 ohms, its net/shipping weight 320 grams/650 grams (11.3 oz./1.4 lbs.).



Item number

C 1000 S 2331Z0007

HANDHELD MICROPHONES

Only One Lasts Forever. AKG.


Jacques C.


Prince C.


Jacques D.


Evita P.


Fidel C.


Leonid B.


Eduardo F.


Carlos M.


Kim Y.

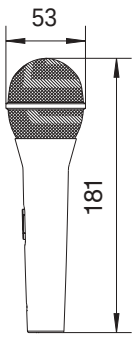

Mikhail G.


Muammar al-G.


Ronald R.

D 660 S

Handheld-Microphone



The **D 660 S** dynamic microphone has been specifically designed for **speech, vocal and instrument miking on stage** as well as Karaoke and home recording applications. The transducer element of the D 660 S has been designed for both sound reinforcement use and recording on cassette or home studio recorders.
Neutral low and mid frequency response and a 6 dB presence boost between 4 kHz and 8 kHz provide a **natural sound and excellent intelligibility**.

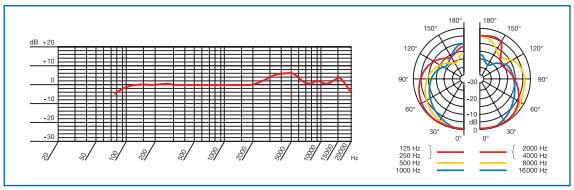
- **Vocal microphone with all-round qualities**
- **High-output neodymium transducer**
- **Rugged wire-mesh cap with internal protective basket**
- **On/off switch**
- **Extremely rugged body**

SPECIFICATIONS

Polar pattern:	hypercardioid
Frequency range:	70 to 20,000 Hz
Sensitivity:	2 mV/Pa (-54 dBV)
Max. SPL for 1% / 3% THD:	140/150 dB
Equivalent noise level:	20 dB-A
Impedance:	≤500 ohms
Recommended load impedance:	≥1200 ohms
Connector:	3-pin XLR
Finish:	matte black
Dimensions:	50 dia. x 181 mm (2 x 7.1 in.)
Net/shipping weight:	240/423 g (8.5 oz./0.9 lbs.)
Standard accessories:	microphone bag, SA 44
Optional accessories:	H 30, MK 9/10, SA 61, ST 1, ST 12, ST 45, ST 102 A, ST 200, ST 305, W 23, W 880

Architect's and Engineer's Specifications

The microphone shall be a unidirectional dynamic microphone with a neodymium magnet. It shall be provided with a detachable cap for easy cleaning of the windscreen, an on/off switch, and a transducer shock mount for suppression of cable and footfall noise. The frequency response of the microphone shall be designed for generic miking. The microphone shall have a frequency range from 70 to 20,000 Hz; sensitivity at 1 kHz of 2.0 mV/Pa; electrical impedance of 500 ohms. Its diameter shall be 50 mm (2 in.), its length 181 mm (7.1 in.). The microphone shall have a net/shipping weight of 240/423 g (8.5 oz./0.9 lbs.) and matte black finish. The microphone shall be the AKG D 660 S.

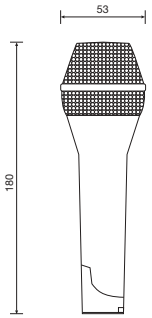


Item number

D 660 S 2696Z0004

D 770

Handheld-Microphone



Dynamic microphone for miking instruments and backing vocals in tough night-after-night onstage use. The **D 770** features a cardioid polar pattern that is virtually the same for all frequencies (**"frequency independent"**) and uses a patented AKG Varimotion diaphragm. The D 770 is fitted with a shock absorbing steel wire-mesh inner grill to protect the transducer from damage, and further protection is provided by the rugged die-cast housing and a wire-mesh outer grill. The **outer grill** and a **layer of special fabric** beneath it form a very effective **windscreen** that will **suppress pop and breath noise** as well as sibilance. The extended frequency response of the D 770 slightly emphasizes the mid and treble ranges to ensure good intelligibility.

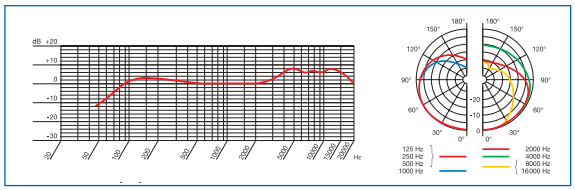
- **Extremely rugged instrument/vocal microphone**
- **Highly efficient windscreen**
- **Frequency response optimized for intelligibility**
- **High performance Varimotion diaphragm (AKG patent)**

SPECIFICATIONS

Polar pattern:	cardioid
Frequency range:	60 to 20,000 Hz at 1 cm (0.4 in.): 20 to 20,000 Hz
Sensitivity:	1.8 mV/Pa (–75 dBV)
Max. SPL for 1% / 3% THD:	147/156 dB
Equivalent noise level:	22 dB-A
Impedance:	≤600 ohms
Recommended load impedance:	≥2000 ohms
Connector:	3-pin XLR
Finish:	matte black
Dimensions:	50 dia. x 181 mm (2 x 7.1 in.)
Net/shipping weight:	290/650 g (10.4 oz./1.4 lbs.)
Standard accessories:	microphone bag, SA 44
Optional accessories:	H 30, MK 9/10, SA 61, ST 1, ST 12, ST 45, ST 102 A, ST 200, ST 305, W 23, W 880

Architect's and Engineer's Specifications

The microphone shall be a unidirectional dynamic microphone with a neodymium magnet. It shall be provided with a detachable cap for easy cleaning of the windscreen, and a transducer shock mount for suppression of cable and footfall noise. The frequency response of the microphone shall be designed for general miking use. The microphone shall have a frequency range from 60 to 20,000 Hz; sensitivity at 1 kHz of 1.8 mV/Pa; electrical impedance of 600 ohms. Its length shall be 181 mm (7.1 in.), its maximum diameter 50 mm (2 in.). The microphone shall have a net/shipping weight of 290/650 g (10.4 oz./1.4 lbs.) and matte black finish. The microphone shall be the AKG D 770.



Item number

D 770	2696Z0001

D 880M /S

Handheld-Microphone

TM 40 D 880M

With its interchangeable XLR and transmitter modules, the D 880M dynamic vocal microphone is the new **standard for lead and backing vocals**. The frequency independent supercardioid polar pattern ensures high gain before feedback. The D 880M delivers a **crisp sound that cuts through every mix**. The VARIMOTION diaphragm is the first microphone diaphragm ever made whose thickness varies across its diameter. This allows the diaphragm itself to be tuned to the desired resonance frequency for a quantum leap in audio performance. The **dual shock mount** eliminates any kind of mechanical noise for trouble-free live use. The audience will hear the pristine sound of your voice!

Available with: **XLR connector module** for use with a standard microphone cable; **XLR/S connector module** with on/off switch; **TM 40 transmitter module** for wireless use.

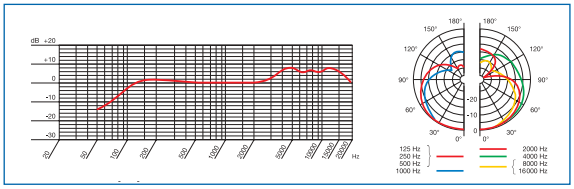
- **Extremely rugged vocal microphone**
- **Choice of three output modules**
- **Double-diaphragm shock mount**
- **Spring steel wire-mesh grill**

SPECIFICATIONS

Polar pattern:	supercardioid
Frequency range:	60 to 20,000 Hz at 1 cm (0.4 in.): 20 to 20,000 Hz
Sensitivity:	2.2 mV/Pa (-53 dBV)
Max. SPL for 1% / 3% THD:	147/156 dB
Equivalent noise level:	22 dB-A
Impedance:	≤600 ohms
Recommended load impedance:	≥2000 ohms
Connector:	3-pin XLR
Finish:	matte black
Dimensions:	50 dia. x 181 mm (2.0 x 7.1 in.)
Net/shipping weight:	290/650 g (10.4 oz./1.4 lbs.)
Standard accessories:	microphone bag, SA 61
Optional accessories:	H 30, MK 9/10, SA 26, ST 1, ST 12, ST 45, ST 102 A, ST 200, ST 305, W 23, W 880, W 3001

Architect's and Engineer's Specifications

The microphone shall be a highly sensitive, unidirectional dynamic microphone with a neodymium magnet. It shall be provided with a detachable cap for easy cleaning of the windscreen, and a transducer shock mount for suppression of cable and footfall noise. The microphone shall provide a plug-in XLR connector module or XLR/S connector module with on/of switch that can be replaced with a TM 40 transmitter module. The frequency response of the microphone shall be designed for vocal use. The microphone shall have a frequency range from 60 Hz to 20.000 kHz; sensitivity at 1 kHz of 2.2 mV/Pa (–53 dBV re 1 V/Pa); electrical impedance of 600 ohms. Its length shall be 181 mm, its maximum diameter 50 mm. The microphone shall have a net/shipping weight of 295/650 g and matte black finish.

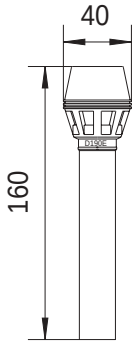


Item numbers

D 880M	2696Z0006
D 880M S	2696Z0007
D 880 WL 1	2782Z0011
TM 40	7615H0701
D 880M Mic Set	2696Z0026
D 880M S Mic Set	2696Z0023
XLR-Module	2705Z0010
XLR/S-Module	2705Z0011

D 190 E /ES

Handheld-Microphone



Cardioid dynamic microphone with a **rugged sintered bronze cap** that doubles as a windscreen. Recommended for many applications, proven for decades. The cardioid pattern **controls feedback** in live sound applications and **rejects unwanted noise** in recording use. Its smooth frequency response makes the **D 190 E/ES** equally suitable for general purpose speech or instrument applications. Complete with SA 60 stand adapter for mounting on floor or table stands. Rugged construction, shock mounted transducer capsule, frequency response optimized for intelligibility of speech.
The model **D 190 ES** incorporates a noiseless on/off switch.

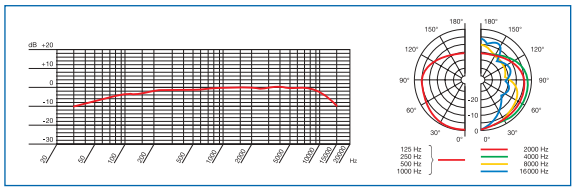
- **Cardioid dynamic microphone**
- **Excellent general-purpose microphone**
- **Complete with stand adapter**
- **Rugged construction**
- **Shock mounted transducer**
- **Frequency response optimized for intelligibility**

SPECIFICATIONS

Polar pattern:	cardioid
Frequency range:	30 to 16,000 Hz
Sensitivity:	1.6 mV/Pa (-56 dBV)
Impedance:	≤280 ohms
Recommended load impedance:	≥500 ohms
Connector:	3-pin XLR
Finish:	satin nickel
Dimensions:	40 dia. x 160 mm (1.6 dia. x 6.3 in.)
Net/shipping weight:	180/520 g (6.4 oz./1.2 lbs.)
Standard accessories:	SA 60
Optional accessories:	GNS 36, H 50, MK 9/10, ST 1, ST 5/3, ST 12, ST 45, ST 102 A, ST 200, ST 305, W 23, W 31

Architect's and Engineer's Specifications

D 190 E/D 190 ES
Cardioid dynamic microphone. Applications: Lectern, conference. Frequency range: 30–16,000 Hz; sensitivity at 1 kHz: 1.6 mV/Pa; impedance: 280 ohms. Dimensions: 40 mm (1.6 in.) max. head dia.; 160 mm (6.3 in.) long. Net/shipping weight: 180/520 g (6.4/1.2 lbs.).
D190 ES with on/off switch.



Item numbers

D 190 E	1869Z0058
D 190 ES	1869Z0060

D 3700M /S

Handheld-Microphone

TM 40 D 3700M

The D 3700M provides **revolutionary versatility** for a new way of performing. It is available with one of three output modules: **XLR connector module** with gold plated contacts, for use with a standard microphone cable. **XLR/S connector module** with on/off switch. **TM 40 transmitter module** for complete mobility. **Easy changeover from hardwire to wireless operation** does not only increase your range of action but also ensures perfect mobility. The ergonomically optimized triangular shape of Tri-Power Series bodies is easy to grip and keeps the microphones from rolling away on an inclined surface.

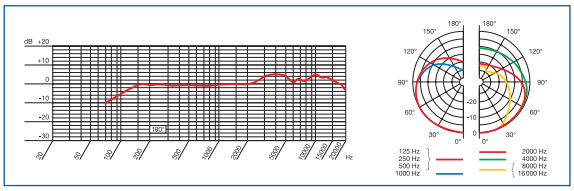
- **Dynamic vocal microphone**
- **Choice of three output modules**
- **Varimotion diaphragm**
- **Spring steel wire-mesh grill**
- **Ergonomically optimized triangular body**
- **Double-action shock mount**

SPECIFICATIONS

Polar pattern:	cardioid
Frequency range:	70 to 20,000 Hz
at 1 cm (0.4 in.):	20 to 18,000 Hz
Sensitivity:	2.5 mV/Pa (–52 dBV)
Max. SPL for 1% / 3% THD:	147/156 dB
Equivalent noise level:	19 dB-A
Impedance:	≤600 ohms
Recommended load impedance:	≥2000 ohms
Connector:	3-pin XLR
Finish:	matte black
Dimensions:	50 max. dia. x 186 mm (2.0 x 7.3 in.)
Net/shipping weight:	290/970 g (10.4 oz./2.1 lbs.)
Standard accessories:	Sound Tool Case, SA 61
Optional accessories:	H 30, MK 9/10, SA 26, ST 1, ST 12, ST 45, ST 102 A, ST 200, ST 305, W 23, W 880, W 3001

Architect's and Engineer's Specifications

The microphone shall be a dynamic design with a hypercardioid polar pattern. It shall be optimized for lectern and vocal use. The microphone shall provide a plug-in XLR connector module or XLR/S connector module with on/of switch that can be replaced with a TM 40 transmitter module. The microphone shall meet the following specifications: frequency range: 50 Hz to 20.000 Hz; sensitivity at 1 kHz: 2.5 mV/Pa (–52 dBV); electrical impedance: 800 ohms; on/off switch; size: 50 mm in dia., 186 mm long. The microphone shall be finished in matte black ad have a net/shipping weight of 290/970 g (10.4 oz./2.1 lbs.).



Item numbers

D 3700M	2705Z0001
D 3700M S	2705Z0002
D 3700 WL 1	2982Z0001
TM 40	7615H0701
XLR-Module	2705Z0010
XLR/S-Module	2705Z0011

D 3800M /S

Handheld-Microphone

TM 40 D 3800M

The D 3800M is the best dynamic vocal microphone, which is but one of many good reasons for this microphone to take center stage. The VARIMOTION diaphragm is the first microphone diaphragm ever made whose thickness varies across its diameter. This allows the diaphragm itself to be tuned to the desired resonance frequency for a quantum leap in audio performance.
Available with: **XLR connector module** with gold plated contacts, for use with a standard microphone cable. **XLR/S connector module** with on/off switch. **TM 40 transmitter module** for complete mobility. **Easy changeover from hardwire to wireless operation** does not only increase your range of action but also ensures perfect mobility.

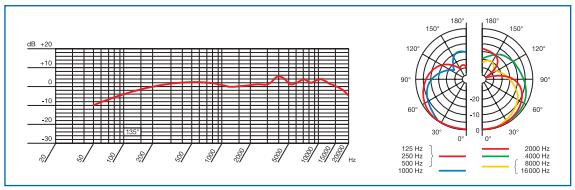
- **Dynamic vocal microphone**
- **Choice of three output modules**
- **Hum compensation coil**
- **Spring steel wire-mesh grill for extreme ruggedness and reliable control of pop and wind noise**
- **Double-diaphragm shock mount for handling noise suppression**

SPECIFICATIONS

Polar pattern:	supercardioid
Frequency range:	50 to 20,000 Hz
Sensitivity:	2.5 mV/Pa (–52 dBV)
Max. SPL for 1% / 3% THD:	147/156 dB
Equivalent noise level:	18 dB-A
Impedance:	≤600 ohms
Recommended load impedance:	≥2000 ohms
Connector:	3-pin XLR
Finish:	matte black
Dimensions:	50 max. dia. x 186 mm (2.0 dia. x 7.3 in.)
Net/shipping weight:	290/970 g (10.4 oz./2.1 lbs.)
Standard accessories:	Sound Tool Case, SA 61
Optional accessories:	H 30, MK 9/10, SA 26, ST 1, ST 12, ST 45, ST 102 A, ST 200, ST 305, W 23, W 880, W 3001

Architect's and Engineer's Specifications

The microphone shall be a dynamic design with a hypercardioid polar pattern. It shall be optimized for lectern and vocal use. The microphone shall provide a plug-in XLR connector module or XLR/S connector module with on/of switch that can be replaced with a TM 40 transmitter module. The microphone shall meet the following specifications: frequency range: 50 Hz to 20.000 Hz; sensitivity at 1 kHz: 2.5 mV/Pa (–52 dBV); electrical impedance: 800 ohms; on/off switch; size: 50 mm in dia., 186 mm long. The microphone shall be finished in matte black ad have a net/shipping weight of 290/970 g (10.4 oz./2.1 lbs.).



Item numbers

D 3800M	2705Z0004
D 3800M S	2705Z0005
D 3800 WL 1	2982Z0002
TM 40	7615H0701
XLR-Module	2705Z0010
XLR/S-Module	2705Z0011

LAVALIER MICROPHONES: APPLICATIONS

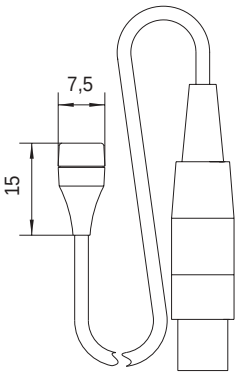
Small and inconspicuous, lavalier microphones usually catch nobody's eyes. Hidden in the stage set or performers' makeup, they must often take rather tough handling yet deliver excellent audio.

The AKG CK 77 proved its worth once again in a production of Turandot in Beijing, China. Carefully hidden and almost invisible in the makeup of the singers, it was only noticed for its ruler-flat response, its reliability, and insensitivity to cable noise. The capsule uses two vertical diaphragms that are mounted back to back and connected out of phase. As a result, mechanical, cable, and impact noise is canceled out. Absence of unwanted noise is of paramount importance in such demanding applications as opera sound or radio or TV broadcasting.

Also, many TV stations use lavalier microphones for their newsreaders or moderators. Until recently, these microphones were in colors that would disappear against the talent's clothing. Today, however, loud colors are becoming increasingly popular to suggest that the talent is actually being miked up live. It goes without saying that all AKG lavalier microphones are compatible to all popular wireless microphone systems.

C 417

Lavalier Microphone



Affordable **professional miniature condenser microphone**. Its broadband, flat audio reproduction in an omnidirectional format is ideal for all types of broadcast and theatrical applications. The sound is extremely open and natural, making it ideal for wireless or hardwire **multi-mic situations**. An attachment clip, tiepin and windscreen are supplied with each C 417. The C 417 is also available in flesh-tone finish. **C 417 PP**: For hardwire applications, with standard XLR connector for phantom powering. **C 417 L**: With mini XLR connector for use with B 29 L battery operated power supply, MPA III L external phantom power adapter, or AKG WMS bodypack transmitters.

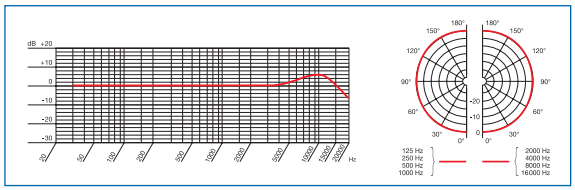
- **Extremely light, inconspicuous lavalier microphone**
- **Two color versions for almost invisible use on artist's skin**

SPECIFICATIONS

Polar pattern:	omnidirectional
Frequency range:	20 to 20,000 Hz
Sensitivity:	10 mV/Pa (–40 dBV)
Max. SPL for 1% / 3% THD:	118/126 dB-A
Equivalent noise level:	34 dB-A
Signal/noise ratio (A-weighted):	60 dB
Impedance:	≤200 ohms
Recommended load impedance:	≥1000 ohms
Powering:	9 to 52 V phantom power to DIN 45596 or battery powering from B 29 L or AKG bodypack transmitter
Current consumption:	≤2 mA
Connector:	C 417 PP: 3-pin XLR, C 417 L: 3-pin mini XLR
Cable:	C 417 PP: 3 m (10 ft.), C 417 L: 1.5 m (5 ft.)
Finish:	matte black
Dimensions:	7.5 dia. x 15 mm (0.3 x 0.6 in.)
Net/shipping weight:	C 417 PP: 68/220 g (2.5/8.1 oz.) C 417 L: 8/160 g (0.3/5.9 oz.)
Standard accessories:	H 40/1, H 41, microphone bag, W 407
Optional accessories:	B 15, B 18, MK 9/10, N 62 E, N 66 E, für C 417 L: B 29 L, MPA III L

Architect's and Engineer's Specifications

C 417 PP (C 417 L):
Lavalier condenser microphone with omnidirectional polar pattern, applications: clip-on microphone for lecturers ("handsfree"), theatre, stage miking. Bandwidth 20–20,000 Hz, sensitivity at 1 kHz: 10 mV/Pa, electrical impedance 200 ohms, dimensions: 7.5 mm (0.3 in.) Ø, length: 15 mm (0.6 in.), cable length: 3 m (10 ft.) (1,5 m (5 ft.)), XLR plug with phantom powering adapter (3-pin mini XLR), phantom powering: 9–52 V, supply current approx. 2 mA, matte black finish, net (without cable)/shipping weight: 68/220g (2.5/8.1 oz.) (8/160 g (0.3/5.9 oz.)). Including accessories: windscreen, fixing material.

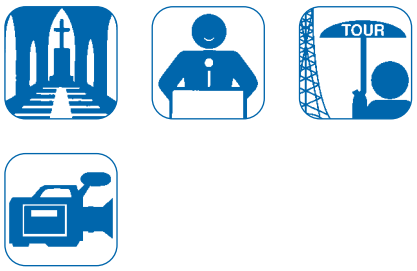


Item numbers

C 417 PP	2577Z0012
C 417 L	2577Z0008
C 417 L/P	2577Z0009

CK 55 L

Lavalier Microphone



Low-profile, cost efficient clip-on microphone for applications including houses of worship, lecturers, etc. Connects to AKG bodypack transmitters.
The **CK 55 L** provides a **natural sound**, with a s**light rise above 10 kHz** for **added clarity**. Its cardioid polar pattern and bass rolloff combine to **suppress unwanted ambient noise**.

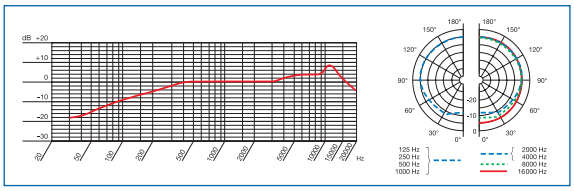
- **Inconspicuous clip-on microphone**
- **Natural, airy sound**
- **High ambient noise rejection**

Architect's and Engineer's Specifications

The microphone shall be a cardioid condenser clipon microphone for handsfree use by lecturers, preachers, tour guides, video production personnel, etc. The microphone shall perform to the following specifications: frequency range: 15 to 18,000 Hz; sensitivity at 1 kHz: 8.8 mV/Pa; electrical impedance: 200 ohms. The microphone shall measure 8 mm (0.3 in.) in diameter and 23 mm (0.9 in.) in length, the microphone cable shall be 1.6 m (5 ft. 4 in.) long. The microphone shall weigh 2.5 g (0.08 oz.) and be finished in matte black.

SPECIFICATIONS

Polar pattern:	cardioid
Frequency range:	15 to 18,000 Hz
Sensitivity:	8.8 mV/Pa (–41 dBV)
Max. SPL for 1% THD:	118 dB
Equivalent noise level:	34 dB-A
Signal/noise ratio (A-weighted):	60 dB
Impedance:	≤200 ohms
Recommended load impedance:	≥2,000 ohms
Supply voltage:	1.5 to 10 VDC or 9 to 52 V phantom power to DIN/IEC using MPA III L
Current consumption:	≤2 mA
Connector:	3-pin mini XLR
Cable:	1.6 m (5 ft. 4 in.)
Finish:	matte black
Dimensions:	dia.: 8 x 23 mm (0.3 x 0.9 in.)
Net/shipping weight:	2.5/115 g (0.08/4 oz.)
Standard accessories:	W 55, clip
Optional accessories:	B 29 L, MPA III L

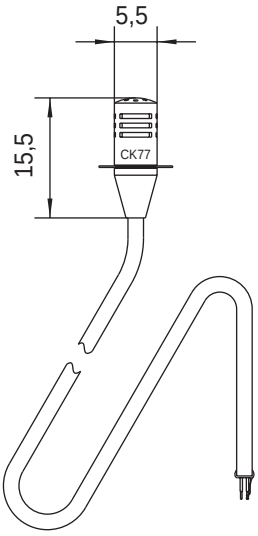


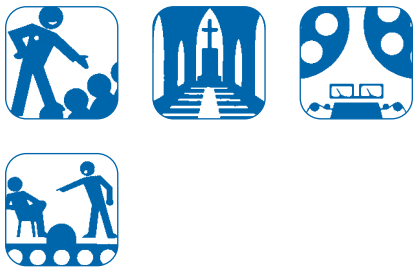
Item number

CK 55 L 6000H1720

CK 77 WR/C 577 WR

Lavalier Microphone





Extremely small omnidirectional lavalier microphone. The **patented dual-diaphragm capsule** has been designed specifically to **protect** the transducer **from moisture and perspiration**.
The capsule uses two vertical diaphragms mounted back to back and connected out of phase to cancel out **mechanical and cable noise**, etc..

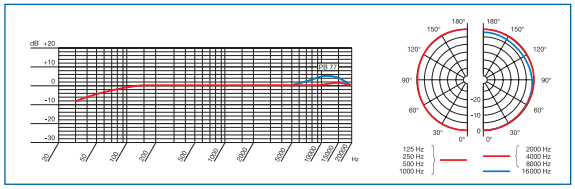
- **Excellent tool for recording and broadcast applications**
- **Resistant to moisture, perspiration, and salts**
- **Dual-diaphragm transducer for suppression of cable noise**
- **Superior sound, compatible to all popular wireless transmitters**

SPECIFICATIONS

Polar pattern:	omnidirectional
Frequency range:	20 to 20,000 Hz
Sensitivity:	8 mV/Pa (-42 dBV)
Max. SPL for 1% THD:	133 dB
Equivalent noise level (CCIR 468-3):	37 dB
Equivalent noise level:	26 dB-A
Signal/noise ratio (A-weighted):	68 dB
Impedance CK 77 WR (C 577 WR):	≤3,500 (400) ohms
Recommended load impedance:	CK 77 WR: ≥10,000 ohms C 577 WR: ≥2,000 ohms
Powering:	CK 77 WR: 1.5 V to 12 V C 577 WR: 9 V to 52 V to DIN/IEC
Current consumption:	≤0.6 mA
Connector:	see Architect's and Engineer's Specifications
Cable:	1.5 m (5 ft.)
Finish:	various matte colors
Dimensions:	5.5 dia. x 14 mm (0.2 dia. x 0.55 in.)
Net/shipping weight:	CK 77 WR: 0.4/85 g (0.014/3 oz.) C 577 WR: 0.4/146 g (0.014/5.2 oz.)
Standard accessories:	CK 77 WR: adhesive compound, H 40/1, H 41, moisture shield, PB 77, W 77; C 577 WR: adhesive compound, H 39, H 40/1, H 41, moisture shield, PB 77, W 77
Optional accessories:	W 77 M, W 77 M/P, W 77 Set

Architect's and Engineer's Specifications

CK 77 WR (C 577 WR)
The microphone shall be an extremely small condenser clip-on design with an omnidirectional polar pattern and dual-diaphragm transducer. A special design and a moisture shield shall prevent water from penetrating into the capsule. The microphone shall have a practically flat frequency response from 20 Hz to 20 kHz. Sensitivity: 8 mV/Pa (–42 dBV); electrical impedance: ≤3500 (400) ohms; power requirement: 1.5 to 12 V DC; cable length: 1.5 m (5 ft.); net/shipping weight: 0.4/85 g / 0.014/3 oz (0.4/146 g / 0.014/5.2 oz.); size: 5.5 mm (0.2 in.) in dia., 14 mm (0.55 in.) long. Standard accessories shall include a windscreen, moisture shield, and adhesive putty. The microphone shall be available in the following versions: CK 77 WR L with 3-pin mini XLR connector, black; CK 77 WR L/P with 3-pin mini XLR connector, flesh-ton; CK 77 WR OC with stripped and tinned leads, black; CK 77 WR OC/W with stripped and tinned leads, white. The C 577 shall be identical to the CK 77 except that it shall operate on 9 to 52 V phantom power and be finished in black. The C 577 shall include a phantom power adapter and 3 m (10 ft.) cable.



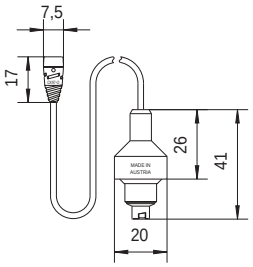
Item numbers

C 577 WR	2441Z0031
CK 77 WR OC	2441Z0042
CK 77 WR OC/P	2441Z0045
CK 77 WR L	2441Z0039
CK 77 WR L/P	2441Z0040
CK 77 WR OC/W	2441Z0052

CK 97-O

Lavalier Capsule

AKG Blue Line



This **tiny lavalier capsule** features flat bass and midrange response, while a gentle rise around 8 kHz crisply **accentuates voices**. Omnidirectional pattern allows **natural sound reproduction with no proximity effect**. **High sensitivity** and **low self-noise** combine for exceptional performance.
Foam windscreen, tie clip and tiepin included.

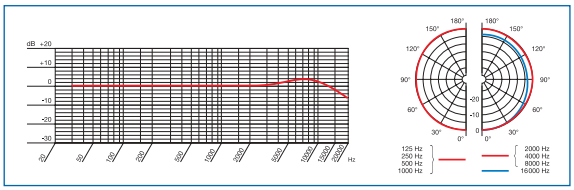
- **Accurate miniature omni capsule for general clip-on miking**
- **Quick-lock bayonet mount for easy connection to powering unit**

SPECIFICATIONS (measured with SE 300 B)

Polar pattern:	omnidirectional
Frequency range:	20 to 18,000 Hz
Sensitivity:	10 mV/Pa (–40 dBV)
Max. SPL for 1% THD:	120/130 dB
Equivalent noise level (CCIR 468-3):	35 dB
Equivalent noise level:	24 dB-A
Signal/noise ratio (A-weighted):	70 dB
Powering:	through SE 300 B
Current consumption:	through SE 300 B
Connector:	bayonet mount
Cable:	3 m (10 ft.)
Finish:	dark grey
Dimensions:	7.5 dia. x 17 mm (0.3 dia. x 0.7 in.)
Net/shipping weight:	3/200 g (0.1/7.1 oz.)
Standard accessories:	H 40/1, H 41, W 97/1

Architect's and Engineer's Specifications

Miniature omnidirectional microphone capsule for the AKG BLUE LINE modular studio condenser microphone system. When attached to the SE 300 B power supply module, the capsule shall perform to the following specifications: Frequency range: 20–18,000 Hz; sensitivity at 1 kHz: 10 mV/Pa; maximum SPL: 120/130 dB SPL for 1 % T.H.D.; equivalent noise level: 24 dB-A. The capsule shall be provided with an extremely rugged bayonet mount for attaching to the SE 300 B power supply module. The case shall be no larger than 7.5 mm in diameter and 17 mm long. The maximum net weight of the capsule shall be 3 g (0.1 oz.).



Item Number

CK 97-O 2497Z0001

CK 97-C

Lavalier Capsule

AKG Blue Line

The **CK 97-C** is perfectly suited for **"invisible" miking**. A consistent cardioid pattern ensures **good separation**, minimum ambience pickup and **high gain before feedback** in live sound applications. It comes complete with a windscreen, tiepin, hanger adapter and lavalier clip.
The **CK 97-C/3** is a special version for use with wireless systems. It provides stripped-and-tinned leads you can solder to the appropriate connector for your transmitter.

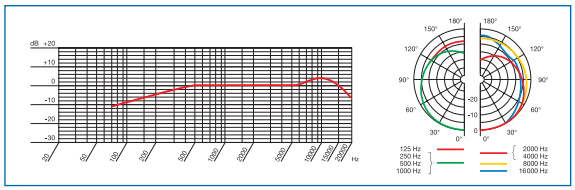
- **Miniature cardioid capsule for minimum ambience pickup**
- **Quick-lock bayonet mount for easy connection to powering unit**

Architect's and Engineer's Specifications

Miniature cardioid microphone capsule for the AKG BLUE LINE modular studio condenser microphone system. When attached to the SE 300 B power supply module, the capsule shall perform to the following specifications: Frequency range: 150–18,000 Hz; sensitivity at 1 kHz: 12 mV/Pa; maximum SPL: 120/130 dB SPL for 1 % T.H.D.; equivalent noise level: 26 dB-A. The capsule shall be provided with an extremely rugged bayonet mount for attaching to the SE 300 B power supply module. The case shall be no larger than 11 mm (0.4 in.) in diameter and 25 mm (1 in.) long. The maximum net weight of the capsule shall be 6 g (0.2 oz.).

SPECIFICATIONS (measured with SE 300 B)

Polar pattern:	cardioid
Frequency range:	150 to 18,000 Hz
Sensitivity:	12 mV/Pa (-38 dBV)
Max. SPL for 1% THD:	120/130 dB
Equivalent noise level (CCIR 468-3):	37 dB
Equivalent noise level:	26 dB-A
Signal/noise ratio (A-weighted):	68 dB
Powering:	through SE 300 B
Current consumption:	through SE 300 B
Connector:	bayonet mount
Cable:	3 m (10 ft.)
Finish:	dark grey
Dimensions:	11 dia. x 25 mm (0.4 dia. x 1 in.)
Net/shipping weight:	6/200 g (0.2/7.1 oz.)
Standard accessories:	H 31, H 41, H 97/15, W 97



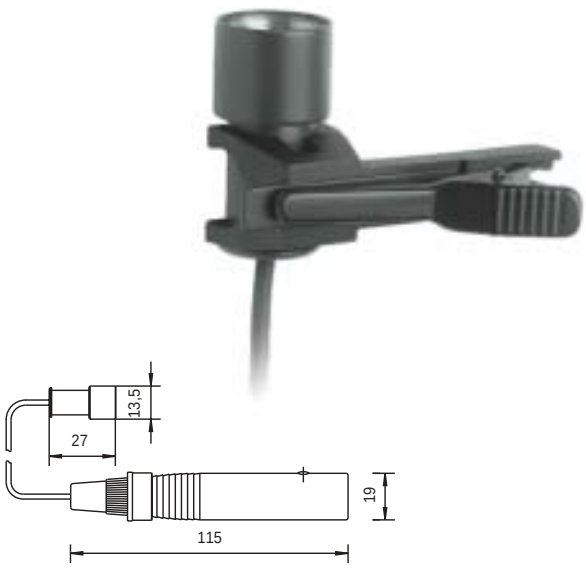
Item Numbers

CK 97-C	2497Z0002
CK 97-C/3	2497Z0004
CK 97-C/L	2497Z0008

LM 3

Lavalier Module

discreet acoustics



Only 3 cm (1.2 in.) long, the **LM 3** will keep a very low profile in every speech reinforcement situation. **In conjunction with a CK 31 cardioid, CK 32 omnidirectional, or CK 33 hypercardioid Capsule Module**, the LM 3 will do an excellent job in the most difficult of miking situations.The standard version comes with a phantom power adapter for hardwire systems while the **LM 3 L** can be used with all AKG WMS wireless systems. The **clamp** on the LM 3 has been designed to **hold the microphone** in **either a horizontal or vertical position** so the LM 3 can be clipped on the talker's clothes or on the stage decoration.

- **Versatile lavalier module**
- **For use with omni, cardioid, or hypercardioid Capsule Modules**
- **H 31 microphone clamp for alignment in four 90° increments**
- **Integrated LED ring status indicator for phantom or external powering**

SPECIFICATIONS

Bass rolloff filter:	250 Hz, –10 dB at 50 Hz
Electrical impedance:	≤600 ohms
Recommended load impedance:	≥2,000 ohms
Power requirement:	LM 3: 9 to 52 V phantom power to DIN/IEC LM 3 L: 1.5 to 10 V
Current Consumption:	≤2 mA
Connector:	LM 3: 3-pin XLR; LM 3 L: 3-pin mini XLR
Cable length:	1.5 m (5 ft.)
Finish:	matte dark grey
Size:	13.5 dia x 27 mm (0.5 dia. x 1.1 in.)
Net/shipping weight:	LM 3: 5/157 g (0.18/5.5 oz.) LM 3 L: 5/96 g (0.18/3.4 oz.)
Standard accessories:	H 31, H 39
Optional accessories:	LM 3: B 18, MK 9/10, N 62 E, N 66 E LM 3 L: B 29 L, MPA III L

Architect's and Engineer's Specifications

LM 3
Lavalier module shall have a rugged connecting thread and large, self-cleaning gold plated contacts for use with all D.A.M. Capsule Modules. It shall have a multi layer, anti-glare, dark gray enamel finish and a 1.5 m (5 ft.) cable with in-line XLR phantom power adapter (DPA). Jumper selectable bass roll off filter shall be located inside the phantom power adapter. The standard accessory shall include a clamp with four microphone positions in 90° increments. The length shall be 27 mm (1.1 in.) with a net weight of not more than 5 g (0.18 oz.).

LM 3 L
Lavalier module shall have a rugged connecting thread and large, self-cleaning gold plated contacts for use with all D.A.M. Capsule Modules. It shall have a multi layer, anti-glare, dark gray enamel finish and a 1.5 m (5 ft.) cable with mini XLR connector for connecting to PT 80/81 body pack transmitters. The standard accessory shall include a clamp with four microphone positions in 90° increments. The length shall be 27 mm (1.1 in.) with a net weight of not more than 5 g (0.18 oz.).

Item Numbers

LM 3	2765Z0015
LM 3 L	2765Z0016

AKG®

HEAD-WORN MICROPHONES: APPLICATIONS

More than 200,000 spectators from many different countries saw the production of Verdi's opera "Un ballo in maschera" at the lakeshore open-air stage in Bregenz, Austria in the summer of 2000. It was also a successful premiere under extremely tough conditions for the C 477 WR, an inconspicuous head-worn microphone that is immune to moisture, perspiration, and salts.

"I was surprised at how watertight the head-worn microphones were. Even pouring rain did not affect their function. We could make the mics fit securely by bending the headbands. The replaceable transducer capsule is another advantage."

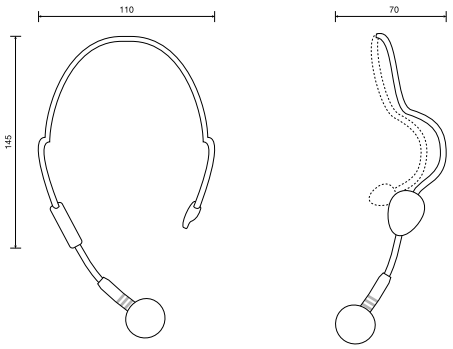
Chief Sound Engineer, Prof. Ing. Wolfgang Fritz

The management of the Bregenz lakeshore stage had contacted AKG about a microphone that was absolutely immune to moisture, for miking up the soloists on the roofless lakeshore stage. The microphone was to be a head-worn type and as light and inconspicuous as possible. Another natural requirement was absolutely flat frequency response. The C 477 WR was the result of a joint effort by AKG and Bregenz engineers to design a microphone specifically for roofless open-air stages. The C 477 WR uses a special transducer with a passive auxiliary diaphragm for barometric pressure compensation that makes the microphone watertight.
During rehearsals, one of the mics was unexpectedly put to an extremely severe endurance test and passed it with flying colors.
The stage floor was inclined by 16 degrees and slippery from the rain. One of the soloists suddenly slipped and fell into the rather cold lake, microphone and all. The sound engineers were astonished to hear perfectly clean bubbling sounds on the monitors for several seconds before the bodypack transmitter failed. After they had been rescued and dried, both the soloist and the microphone were ready to resume the rehearsal.

C 477 WR head-worn microphone	26 off
C 414 B-ULS	12 off
C 460 + CK 1 X	4 off
AKG Blue Line	div.

C 444

Head-worn Microphone



The new **C 444** head-worn microphone from AKG is rugged, extremely easy to use and offers outstanding price/performance. Resting securely and comfortably on the head, the C 444 is the ideal microphone for any **handsfree application** including gymnastics instruction, presentations, or onstage performances. With its new **cheek pads**, the C 444 will stay in place even if you turn your head abruptly – and a capsule shock mount reduces handling noise to a minimum. A frequency response rise at 10 kHz and rolloff below 800 Hz ensure **optimum audio and intelligibility** even in noisy environments. The **new moisture shield** prevents perspiration from penetrating into the transducer element, ensuring consistent audio throughout the hottest workout. **C 444 PP**: For hardwire applications, with standard XLR connector for phantom powering. **C 444 L**: With mini XLR connector for use with B 29 L battery operated power supply, MPA III L external phantom power adapter, or AKG WMS bodypack transmitters.

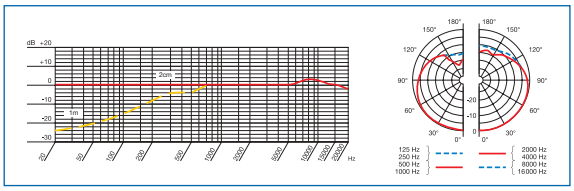
- **Head-worn microphone with ergonomically optimized behind-the-neck headband**
- **Moisture shield**
- **Optimum audio and intelligibility even at high ambient noise levels**
- **External shock mount for high mechanical-noise rejection**

SPECIFICATIONS

Polar pattern:	cardioid
Frequency range:	20 to 20,000 Hz
Sensitivity:	40 mV/Pa (–28 dBV)
Max. SPL for 1% THD:	126 dB
Equivalent noise level:	22 dB-A
Signal/noise ratio (A-weighted):	72 dB
Impedance:	≤200 ohms
Recommended load impedance:	≥2000 ohms
Powering:	9 to 52 V phantom power to DIN 45596 or battery powering from B 29 L or AKG bodypack transmitters
Current consumption:	≤2 mA
Connector:	C 444 PP: 3-pin male XLR, C 444 L: 3-pin mini XLR
Cable:	1.5 m (5 ft.)
Finish:	matte black
Dimensions:	145 x 110 x 70 mm / 5.7 x 4.3 x 2.8 in.
Net/shipping weight:	C 444 PP: 30/261 g (1.1/9.2 oz.) C 444 L: 30/200 g (1.1/7.1 oz.)
Standard accessories:	W 444
Optional accessories:	B 15, B 18, MK 9/10, N 62 E, N 66 E; C 444 L: B 29 L, MPA III L

Architect's and Engineer's Specifications

The head worn microphone shall be extremely light weight and rugged. The capsule shall be protected against sweat and water by a drip ring. Presence boost and low cut shall improve intelligibility and environmental noise protection. In working distance the frequency response shall be linear at the low end. The microphone shall accept from 1 to 10 VDC. The response of the microphone shall be 20–20,000 Hz. The microphone shall have a sensitivity no less than 40 mV/Pa (–28 dBV), and the total harmonic distortion (THD) at an operating acoustical level of 126 dB shall be no greater than 1 %. The electrical impedance of the microphone shall be no greater than 200 ohms. The net/shipping weigth shall be 30/200 g (1.1/7.1 oz.). A windscreen shall be included. The microphone shall be the AKG C 444 L.

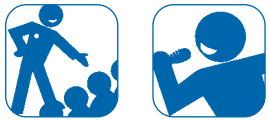


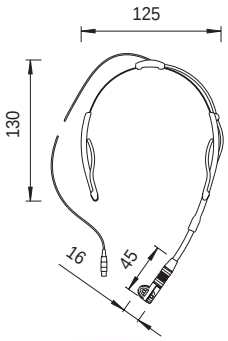
Item numbers

C 444 PP	2793Z0002
C 444 L	2793Z0001

C 420

Head-worn Microphone





Head-worn condenser microphone with wide dynamic range for perfect vocal sound. The cardioid **C 420** provides a **full frequency response bandwidth** and is ideal for solo vocalists, singing keyboardists, drummers, guitarists and dancers. The C 420 has a **fully adjustable** behind-the neck steel **headband** and **adjustable ear pieces** for comfortable and secure fit, with the **cable exiting from the rear of the headband**. When you require handsfree performance capabilities, the C 420 headset is your perfect choice. **C 420 PP**: For hardwire applications, with standard XLR connector for phantom powering. **C 420 L**: With mini XLR connector for use with B 29 L battery operated power supply, MPA III L external phantom power adapter, or AKG WMS bodypack transmitters.

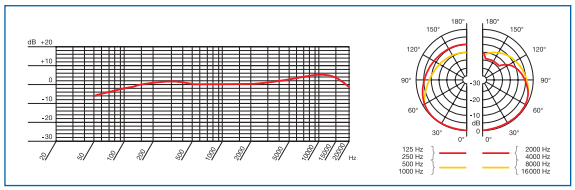
- **Head-worn microphone with behind-the-neck headband**
- **External shock mount for high mechanical-noise rejection**
- **Miniature gooseneck for precise positioning near the user's mouth**

Architect's and Engineer's Specifications

The microphone shall be a condenser type in a headset configuration for handsfree use. The microphone's frequency range shall extend from 20–20,000 Hz. Sensitivity: 7 mV/Pa; impedance: 200 ohms. The diameter of the headband shall be approx. 130 mm (5.1 in.). Finish: matte black. Net/shipping weight: 30/540 g (1.1 oz./1.2 lbs.). A windscreen and cable clip shall be included as standard accessories. The headset type miniature condenser microphone shall be the AKG model C 420.

SPECIFICATIONS

Polar pattern:	cardioid
Frequency range:	20 to 20,000 Hz
Sensitivity:	7 mV/Pa (-43 dBV)
Max. SPL for 1% / 3% THD:	126 / 130 dB
Equivalent noise level:	33 dB-A
Signal/noise ratio (A-weighted):	61 dB
Impedance:	≤200 ohms
Recommended load impedance:	≥1000 ohms
Powering:	9 to 52 V phantom power to DIN 45596 or battery powering from B 29 L or AKG bodypack transmitters
Current consumption:	≤2 mA
Connector:	C 420 PP: 3-pin XLR, C 420 L: 3-pin mini XLR
Cable:	C 420 PP: 3 m (10 ft.), C 420 L: 1.5 m (5 ft.)
Finish:	matte black
Dimensions:	130 mm / 5.1 in. in diameter
Net/shipping weight:	C 420 PP: 30/540 g (1.1/1.2 lbs.) C 420 L: 30/71 g (1.1 oz./1 lb.)
Standard accessories:	W 44
Optional accessories:	B 15, B 18, MK 9/10, N 62 E, N 66 E; C 420 L: B 29 L, MPA III L

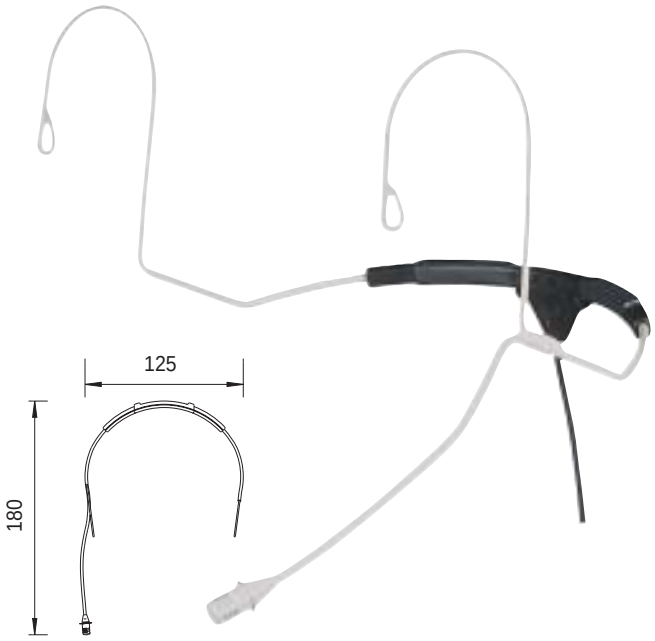


Item numbers

C 420 PP	2580Z0008
C 420 L	2580Z0006

C 477 WR

Head-worn Microphone



The new AKG **C 477 WR** has been designed for performers working hard in the **heat of the spotlights**. Owing to its small size it is the perfect choice for "hidden" use on stage or on camera, **where absolute mobility** and **excellent audio** are required. Extremely small omnidirectional lavalier microphone. The **patented dual-diaphragm capsule** has been designed specifically to **protect** the transducer **from moisture and perspiration**. The capsule uses two vertical diaphragms mounted back to back and connected out of phase to cancel out **mechanical and cable noise**, etc. The C 477 WR uses a sturdy metal headband that ensures an exceptionally stable fit and provides increased output level as it allows the microphone to be placed very close to the user's mouth.

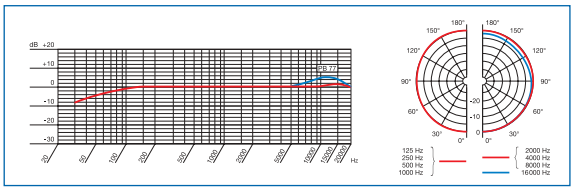
- **Resistant to moisture, perspiration, and salts**
- **Ruler-flat frequency response**
- **Dual-diaphragm transducer for suppression of cable noise**
- **Compatible to all popular wireless transmitters**

SPECIFICATIONS

Polar pattern:	omnidirectional
Frequency range:	20 to 20,000 Hz
Sensitivity:	8 mV/Pa (–42 dBV)
Max. SPL for 1% THD:	133 dB
Equivalent noise level:	26 dB-A
Signal/noise ratio (A-weighted):	68 dB
Impedance:	≤3,500 ohms
Recommended load impedance:	≥10,000 ohms
Supply voltage:	1.5 to 12 V
Current consumption:	≤0.6 mA
Connector:	OC: stripped and tinned leads L: 3-pin mini XLR SH: Lemo connector
Cable:	1.5 m (5 ft.)
Finish:	various matte colors
Dimensions:	180 x 130 x 85 mm (7.1 x 5.2 x 3.3 in.)
Net/shipping weight:	15/325 g (0.5/11.5 oz.)
Standard accessories:	W 77, PB 77
Optional accessories:	B 15, B 18, MK 9/10, MPA III L, N 62 E, N 66 E, W 77 M, W 77 M/P, W 77 Set

Architect's and Engineer's Specifications

The microphone shall be an extremely light head-worn design. The microphone shall use a dual-diaphragm transducer with a frequency-independent omnidirectional polar pattern. The transducer element shall be protected from penetrating water. An additional moisture shield shall protect the transducer element from perspiration and makeup flowing along the microphone arm. The microphone shall be available in matte skin-color or black finishes and meet the following performance criteria: frequency response: 20 to 20,000 Hz, sensitivity: 8 mV/Pa, electrical impedance: <3k5 ohms, power requirement: 1.5 to 12 VDC. The microphone shall be fitted with a 1.5 m (5 ft.) cable and its net (exclusive of the cable)/shipping weight shall be 15/325 grams (0.5/11.5 oz.).



Item numbers

C 477 WR OC	2741Z0001
C 477 WR L	2741Z0002
C 477 WR L/P	2741Z0012
C 477 WR OC/P	2741Z0011
C 477 WR OC/P/R (microphone arm on the right)	2741Z0013
C 477 WR SH/P	2741Z0021

AKG CS 2
CONFERENCE SYSTEM

In designing a conference sound system, our AKG partners are often faced with the following requirements:

- **Automatic conference control**
- **Absolute reliability**
- **Modular system with intuitive controls**
- **No need for prolonged training periods**
- **Excellent intelligibility**
- **Absolute immunity to tapping**

AKG conference systems meet all of these requirements to the absolute satisfaction of installers worldwide.

AKG CS 2
CONFERENCE SYSTEMS

AKG Conference Systems are fully modular and therefore highly flexible, allowing users to create a custom system for any conference application. From microphone capsules to power supplies, designers will find exactly the right components for every type of conference system.

AKG Conference Systems use standard single-cable wiring for quick and easy setup and takedown of mobile systems. In addition, single-cable wiring will save time and money in fixed installations, too.

Control options include analog control by the Base Station (CS 2) and digital control from a notebook or PC using a USB interface and dedicated software.

SYSTEM COMPONENTS:

CK 31 CK 32 CK 33 CK 47 CK 80

1. Capsules

Choice of five
Discreet Acoustics Modular Series
microphone capsules

GN 50 CS

GN 30 CS

2. Goosenecks

Two goosenecks
in different lengths

CS 2 DU CS 2 CU CS 2 DU Fix CS 2 CU Fix

3. Microphone Stations

Chair and Delegate Microphone
Stations for permanent installation
or mobile use.

4. Connecting Cables

Cable lengths:
1.25 m (4 ft.) to 20 m (66 ft.)

5. Base Station

Central control unit for up to
200 Microphone Stations

CS PS 20 CS PS 100

6. Power Supplies

Power supplies
(w/o IEC power cord)
for 20 to 200 Microphone Stations

CS 2 DU

CS 2 Delegate Station

CS 2 Conference System

CS 2 DU
flush mount version*

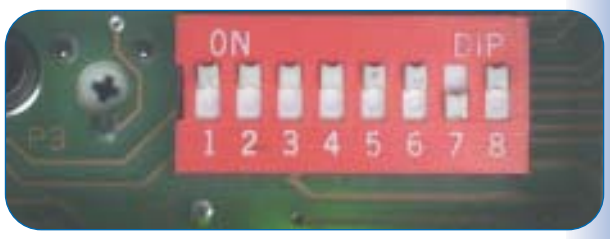
CS 2 DU desktop version*

* w/o gooseneck and microphone capsule

The **CS 2** is the ideal solution for venues where a sound engineer is not available for every discussion, such as meeting rooms, town halls, etc. The central Base Station controls microphone channels and a priority button allows one or more chairpersons to calm down the discussion. Two types of Microphone Stations are available, each with two loudspeakers and two headphones outputs: the **Chair Station with a priority button** (any number of Chair Stations can be used in a system) and the **Delegate Station**. Each Microphone Station is available in a version **for mobile use or for permanent flush mounting** in a tabletop. Providing a "Voice Zoom" function, each version can be used by two persons.

Bottom panel dip switches and pots on each Microphone Station allow many functions to be adjusted individually:

- Voice Activation threshold
- Voice Activation hold time
- Microphone automute after user stops talking
- Enable/disable NOM limitation
- Voice Activation ON/OFF
- Priority level
- Loudspeaker/headphones level reset or last setting
- Adjustable compression



Bottom panel dip switches

The CS 2 uses the famous Discreet Acoustics microphone capsules that connect to the Microphone Stations via a GN 30 CS (approx. 30 cm/12 in.) or GN 50 CS (approx. 50 cm/20 in.) gooseneck. A rugged, threaded TRS mini jack with gold plated contacts ensures a firm, wobble-free mechanical joint and excellent electrical contact.

Five different ready-to-use cables in standard lengths between 1.25 m (4 ft.) and 20 m (66 ft.) are available for connecting the individual Microphone Stations together. With its wide variety of options, the CS 2 is more flexible than many "fully digital" systems.

- **Quick setup and takedown even of large systems**
- **No operator training required**
- **Superior audio quality**
- **Voice activation or manual PTT control**
- **Ease of use, high reliability**

AKG®

CS 2 CU

CS 2 Delegate Station

CS 2 Conference System

CS 2 DU
flush mount version*

CS 2 DU desktop version*

* w/o gooseneck and microphone capsule

SPECIFICATIONS CS 2 DU/CU

Compatible microphones:	GN 30 CS or GN 50 CS with CK 31, CK 32, CK 33, CK 47, or CK 80
Input	
Type:	unbalanced, with DC supply voltage
Impedance:	1.5 kohms
Supply voltage for microphone capsule:	5.5 VDC
Max. input level for 1% THD, Vout <+3 dB:	25 dB
Outputs:	Line
Connectors:	2 x male 15-pin D-sub HD
Type:	transformer balanced, floating
Nominal level:	+10 dBu
Audio bandwidth:	55 Hz to 35 kHz
S/N ratio (22 Hz to 22 kHz, QPK):	81 dB
System compatibility:	compatible to CS 1
THD&N at 1 kHz:	0.25%
Equivalent input noise, noise gate on, 22 Hz to 22 kHz, QPK:	–105 dBu
Headphones and Loudspeaker	
Headphone outputs:	2 TS mini jacks
Output power for <1% THD&N:	0.48 watts (loudspeaker)
Min. headphone load impedance:	>8 ohms
Audio bandwidth:	30 Hz to 45 kHz
S/N ratio (22 Hz to 22 kHz, QPK):	81 dB
THD&N at 1 kHz:	0.25%
Equivalent input noise, noise gate on, 22 Hz to 22 kHz, QPK:	–92 dBu
Digital pot attenuation:	32 increments from 0 to –42 dB, last step: –82 dB
System	
Adjustable functions:	Voice Activation threshold Voice Activation hold time Mic Automute NOM Limitation Voice Activation on/off Priority level Compression on/off Voice Zoom on/off Loudspeaker/headphones level reset on power-up or last setting Compression ratio
Operating voltage:	20 to 36 VDC
Current consumption:	35 to 63 mA
Max. power requirement:	1.9 watts
Size:	257 x 153 x 74 mm (10 x 6 x 3 in.) L x W x H, desktop version
Net/shipping weight:	950 g/1.5 kg (2.1/3.3 lbs.)
Color:	AKG Blue Line grey / matte black
Package contents:	Microphone Station without cable and microphone

Architect's and Engineer's Specifications

The conference system shall be a single-cable system for quick installation. A base station shall control up to 200 microphone stations and provide expansion ports for setting up systems with more than 200 microphone stations. The system shall be compatible with most current types of signal sources, recording devices, sound systems, teleconferencing systems, etc. The system shall include a chairperson station with a priority button. Both the chairperson station and the delegate station shall be available in a desktop version for mobile systems and a table mount version for fixed installation. Goosenecks in two different lengths (approx. 30 cm/12 in. and approx. 50 cm/20 in.) and five different microphone capsules for optimum voice pick-up shall also be available. All types of microphone stations shall provide a "Voice Zoom" function and other individually adjustable functions including voice activation, automatic mute after prolonged pauses, noise gate, etc. The system shall be the AKG CS 2.

Item numbers

CS 2 CU	2770Z0001
CS 2 DU	2770Z0002
CS 2 CU fix	2770Z0003
CS 2 DU fix	2770Z0004

CS 2 BU

CS 2 Base Station

CS 2 Conference System

The Base Station – the Heart of the CS

The Base Station controls up to 200 Microphone Stations and takes up only 1U of rack space. Base Stations can be „daisy-chained“ to add as many Microphone Stations to the system as required – there is virtually no limit.
Depending on the size of the system, the Base Station requires an appropriate power supply, either a CS PS 20 for up to 40 talkers, two CS PS 20s for up to 80 talkers, or one CS PS 100 for up to 200 talkers. The CS PS 100 with its higher power rating uses a 1 U rack mount case.
The Base Station provides all the inputs and outputs usually needed for a conference system, plus some more including an effects insert, headphones jacks, etc.

The CS 2 Base Station provides automatic NOM (Number of Open Microphones) attenuation. System gain will decrease by approx. 2 dB every time the number of open microphone doubles, even if the microphones are connected to different units in a multiple Base Station setup. The result is a substantially lower risk of feedback even if the number of open microphones varies constantly.

A selectable **Voice Activation** function turns the microphones on automatically as soon as they are talked into.

The **NOM Limitation** function allows the number of simultaneously open microphones to be limited to one, two, three, four, or five. This function can be locally disabled on each Microphone Station so a specific microphone, e.g., one mounted on a lectern, will come on every time, no matter how many mics may be open already.

- **Base Station for up to 200 Microphone Stations**
- **Intuitive controls**
- **Superior audio quality**
- **Voice activation and NOM limitation**
- **Standard ins and outs for external equipment**

AKG®

CS PS

CS 2 Power Supplies

CS 2 Conference System

CS PS 20

CS PS 100

The CS PS 20 and CS PS 100 – Dedicated Power Supplies for the CS 2 Conference System

Two power supplies are available for powering the system, the CS PS 20 for up to 40 talkers (two can be used for up to 80 talkers) and the CS PS 100 for larger systems for up to 200 talkers. The CS PS 100 with its higher power rating uses a 1U rack mount case. Power supply options to match system size are another unique CS 2 benefit that reduces overall system cost.

If you daisy-chain several CS 2 BU Base Stations for a system with more than 200 Microphone stations, you can use several CS PS 100s (IEC power cords are optional).

SPECIFICATIONS CS 2 BU

INPUTS	
Connectors:	4 x male 15-pin D-Sub HD
Nominal input level:	+10 dBu
Type:	electronically balanced
Max. input level for <1% THD&N:	+13 dBu
LINE INPUT	
Connector:	3-pin female XLR
Nominal input level:	±0 dBu
Type:	transformer balanced
Input impedance at 1 kHz:	30 kohms
Max. input level for <1% THD&N:	+17 dBu
AUX IN	
Connectors:	2 x female RCA
Nominal input level:	–10 dBu
Type:	unbalanced
Input impedance at 1 kHz:	33 kohms
Max. input level for <1% THD&N:	+15 dBu
Outputs	
REC OUT	
Connectors:	2 x female RCA
Nominal output level:	±0 dBu
Max. output level at 1% THD&N:	+17 dBu
Audio bandwidth:	15 Hz to 50 kHz
Min. load impedance:	500 ohms
THD & N at 1 kHz:	0.01%
S/N ratio (22 Hz to 22 kHz, QPK):	88 dB

LINE OUTPUT	
Connector:	3-pin male XLR
Nominal output level:	±0 dBu
Max. output level at 1% THD&N:	+10 dBu
Audio bandwidth:	20 Hz to 40 kHz
Min. load impedance:	300 ohms
THD & N at 1 kHz:	0.02%
S/N ratio (22 Hz to 22 kHz, QPK):	88 dB0
System:	
Operating voltage:	23 to 36 VDC
Current consumption:	170 to 200 mA
Max. power requirement:	7.2 watts
Net/shipping weight:	2.5 kg (6.2 lbs.) / 3.2 kg (7.1 lbs.)
Package contents:	Base Unit without power supply

Item numbers

CS 2 BU	6000H3400
CS PS 20	6000H3600
CS PS 100	6000H3601

AKG

ACCESSORIES FOR THE CS 2 CONFERENCE SYSTEM

CK 31
Discreet Acoustics Series microphone capsule
(see page 52)
Item number
2765Z0020

CK 32
Discreet Acoustics Series microphone capsule
(see page 53)
Item number
2765Z0021

CK 33
Discreet Acoustics Series microphone capsule
(see page 54)
Item number
2765Z0022

CK 47
Discreet Acoustics Series microphone capsule
(see page 55)
Item number
2765Z0023

CK 80
Discreet Acoustics Series microphone capsule
(see page 56)
Item number
2765Z0024

K 10/K 11
Conference headphones
(see page 8/9)
Item number
K 10: 2246Z0013
K 11: 2724Z0011

CS MK 1.25 fm	Connecting cable, 1.25 m (4 ft.)	2770Z0011
CS MK 2.5 fm	Connecting cable, 2.5 m (8 ft. 3 in.)	2770Z0012
CS MK 5 fm	Connecting cable, 5 m (16 ft. 5 in.)	2770Z0013
CS MK 10 fm	Connecting cable, 10 m (33 ft.)	2770Z0014
CS MK 20 fm	Connecting cable, 20 m (66 ft.)	2770Z0015
GN 30 CS	Gooseneck, approx. 30 cm (12 in.) long	2765Z0027
GN 50 CS	Gooseneck, appox. 50 cm (20 in.) long	2765Z0028
CS MK 100 oc/fi	100 m (328 ft.), 9.5 mm (0.4 in.) dia. cable for permanent installation	6000H3610
CS MK 100 oc/mob	100 m (328 ft.), 6.5 mm (0.26 in.) dia. cable for mobile installation	6000H3611
CS CON fm/fi	Female D-sub connector for permanent installation	6000H3620
CS CON m/fi	Male D-sub connector for permanent installation	6000H3621
CS CON fm/mob	Female D-sub connector for mobile installation	6000H3622
CS CON m/mob	Male D-sub connector for mobile installation	6000H3623
CS CON floor/m/fi	Male D-sub floor connector	6000H3624
CS CON split2/m/mob	Male/male D-sub adapter	6000H3625
CS CON split4/m/mob	4 x male D-sub splitter	6000H3626
CS MK AC-EU	EU power cable	6000H3602
CS MK AC-US	US power cable	6000H3603
CS MK AC-UK	UK power cable	6000H3604

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AS 4 + 3

Automatic Mixer

Automatic mixer with four gated microphone inputs and three line level inputs. The microphone inputs provide switchable 24 V phantom power and an integrated, adjustable compressor/leveler that compensates for variations in level due to variations in working distance. The microphone inputs and line output are on balanced 3-pin XLR connectors, the line inputs and recording output on unbalanced RCA connectors. A switchable ducking function will attenuate all other channels when signal is present at the MIC 1 input. Bass and treble controls in the master output section allow the sound of the main output signal to be matched to individual requirements. The AS 4 + 3 can be daisy-chained if more than four microphone inputs are needed.

- **Automatic mixer with four automatic microphone inputs, three line level inputs**
- **Integrated compressor/leveler**
- **Ducking function**
- **Expandable**

SPECIFICATIONS

Microphone Inputs	
Type:	balanced and RF filtered
Impedance:	>2.5 kohms at any level
Nominal level:	–50 to –10 dBu adjustable via rotary pot and range switch
S/N ratio:	75 dB (20 Hz to 22 kHz, rms)
Max. input level:	+5 dBu
Turn-on threshold:	-40 to 0 dB
Compression ratio:	adjustable from linear to 2:1
Audio bandwidth:	20 Hz to 35 kHz
NOM attenuation:	approx. 3 dB as number of open microphones doubles
Phantom power:	24 V, switchable on each channel (Ri = 2.2 kohms)
Line Inputs	
Type:	unbalanced and RF filtered
Impedance:	>35 kohms
Nominal level:	-10 dBu
S/N ratio:	85 dB (20 Hz to 22 kHz, rms)
Audio bandwidth:	20 Hz to 45 kHz
Max. input level:	+5 dBu
System	
Max. gain:	55 dB (input to main output)
Ducking attenuation:	12 dB
THD:	<0.1%; at any level setting
IM distortion:	<0.1%; at any level setting
Power requirement:	5 W max. at 12 V AC
Size:	483 x 44 x 203 mm (19.0 x 1.7 x 8.0 in.)
Weight:	1.5 kg (3.3 lbs.)
Standard accessory:	AC adapter
Optional accessory:	IC AS 8

Architect's and Engineer's Specifications

The analog automatic mixer shall have four microphone and three line level inputs in a 1-U, 19" rack mount case. The microphone inputs and the master output shall be balanced, RF-filtered, and provide 3-pin XLR connectors. Each channel shall have switchable +24 V phantom power for condenser microphones. The line level inputs and recording outputs shall be unbalanced, RF-filtered, and provide RCA jacks. The automatic mixer shall use gating to achieve automatic mixing. Each channel shall have a user adjustable "Voice Zoom" compressor/leveler function to compensate for level variations due to variations in the distance between talker and microphone. Microphone channel no. 1 shall have a switchable priority mode. Signal present in this channel shall automatically cause all other channels to be attenuated by 12 dB. The master output shall have a two-band shelving (bass and treble) equalizer. The automatic mixer shall be capable of being daisy-chained.

Item numbers

AS 4 + 3 (230 V)	6000H1893
AS 4 + 3/115 (115 V)	6000H1896

AS 8/AS 8 TC

Automatic Mixer

Adaptive Proportional Gain Algorithm
The AS 8 employs a unique and very effective proportional gain algorithm to allocate gain among the system microphones. The microphones with the highest signal levels receive proportionally higher gain than inactive microphones. The level at each channel is compared to an overall reference level which is generated by the sum of all channels. Each channel is then attenuated by the difference between the individual channel level and the reference level. NOM (number of open microphones) attenuation and an adaptive threshold are inherent in the algorithm.

Adaptive Skewing
The microprocessor control also provides an “intelligence” that keeps track of which channel has been the loudest and in use the longest and skews a “priority” toward it. This skewing keeps non-speech sounds (coughs, bumps, clicks and pops) from affecting the automatic mixing functions and reduces the gain sharing that occurs in a conventional gain proportional algorithm. The net result is seamless automatic mixing and a greater reduction in comb filtering and recirculation of sound through inactive microphones.

Remote Level Control Connections
Remote control is easily accomplished through the DB-15 connector on the rear panel. This provides a direct connection to the VCA level controller on each channel and the main output for external volume control pots, switches (or both) to be added.

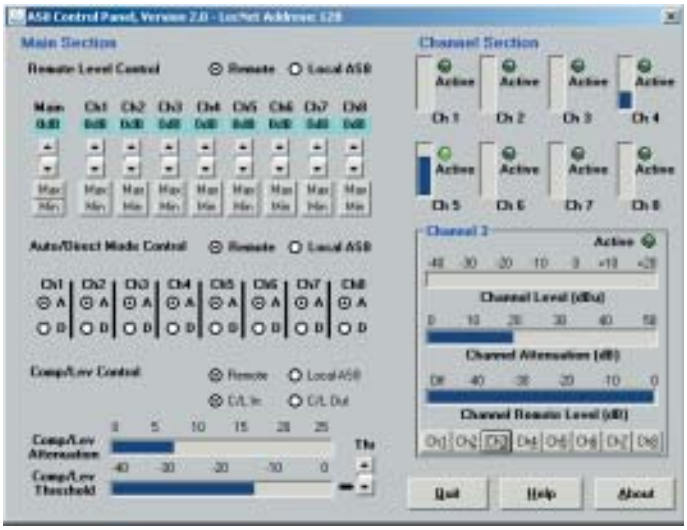
“Daisy Chain” Multiple AS 8 Mixers
Two or more AS 8 mixers can be inter-connected in a “master/slave” configuration for larger systems needing more than eight inputs. In this configuration, all automatic mixing functions are combined among the mixers, with the “master” unit providing the reference signals and control over the gain allocation and skewing.

Built-in Compressor/Leveler
A compressor/leveler is included in the algorithm to compensate for level differences between loud and soft talkers. Maintaining uniform sound levels provides a significant improvement in sound quality.

Two Versions Available
The AS 8 is the basic version. The AS 8 TC provides additional, separate bass and treble controls for each channel.

- **Automatic mixer with patented mixing algorithm**
- **Requires no manual threshold setting even in noisy or changing environments**
- **Remote control via RS 232 or analog interface**
- **Several units can be daisy-chained**

AS 8/AS 8 TC



SPECIFICATIONS

Mic/Line input type:	balanced and RF filtered
Impedance:	>2.5 kohms at any level
Input gain:	0 dB, +30 dB, + 50 dB, switchable
EIN (20 Hz to 20 kHz):	-126 dBu (+50 dB gain)
Max. input level:	+20 dBu at 0 dB gain +10 dBu at +30 dB gain
Remote level control range:	6 dB/V: 0 to 2.5 V 18 dB/V: 2.5 to 5 V
Maximum system gain:	75 dB (input to main out)
Compressor/leveler threshold:	-40 dBu to 0 dBu
Maximum gain reduction:	20 dB
THD:	<0.1%; +10 dBu out at any gain setting
IMD:	<0.1%; +10 dBu out at any gain setting
Phantom power:	+15 V (selectable per channel)
Power consumption:	10 watts max. at 20 VAC
Weight:	1.5 kg (3.3 lbs.)
Size:	483 x 44 x 203 mm (19.0 x 1.75 x 8.0 in.)

Architect's and Engineer's Specifications

AS 8
Automatic eight channel microprocessor controlled Mixer. "Adaptive Proportional-Gain"-algorithm allocates gain among the system microphones. NOM (number of open microphones) attenuation and adaptive threshold are inherent in the algorithm. Inputs are symmetrical as well as main output. Channel outputs are assymetrical. Each channel has switchable input gain (Mic-low/Mic-high/Linelevel), switchable phantompower and switchable automatic function. LED controlls for activated channels are situated on front panel. Integrated adjustable compressor/leveler. Possibility of analoge remote control of channel and main levels. Possibility of remote control via RS 232 for PC, Creston™ AMX® and other control systems. Required software (LecNet) included. Power consumption max. 10 W at 230 V with inline 20 VAC AC adapter. Size: 483 x 44 x 203 mm (B x H x T) = 19"x1.75"x8" – 1 HE. Weight 1.5 kg (3 lbs, 4 oz.).

AS 8 TC
Automatic eight channel microprocessor controlled Mixer with high and low frequency control for each channel. "Adaptive Proportional-Gain"-algorithm allocates gain among the system microphones. NOM (number of open microphones) attenuation and adaptive threshold are inherent in tthe algorithm. Inputs are symmetrical as well as main output. Channel outputs are assymetrical. Each channel has switchable input gain (Mic-low/Mic-high/Linelevel), switchable phantompower and switchable automatic function. LED controlls for activated channels are situated on front panel. Integrated adjustable compressor/leveler. Possibility of analoge remote control of channel and main levels. Possibility of remote control via RS 232 for PC, Creston™ AMX® and other control systems. Required software (LecNet) included. Power consumption max. 10 W at 230 V with inline 20 VAC AC adapter. Size: 483 x 44 x 203 mm (B x H x T) = 19" x 1.75" x 8" – 1 HE. Weight 1.5 kg (3 lbs. 4 oz.).

Item numbers

AS 8	6000H1883
AS 8 TC	6000H1886

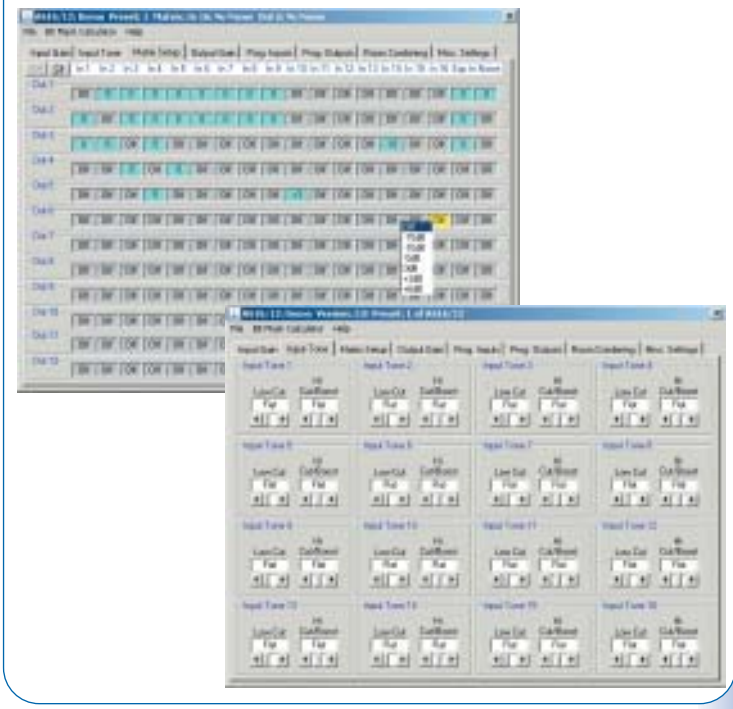
AS 16 x 12

Automatic Mixer

The high quality AS 16 x 12 combines a 16-channel mic/line automatic mixer and freely programmable 16x12 matrix in a 2-U 19" case. The AS 16 x 12 provides up to eight independent subgroups. Programmable logic inputs and outputs and the supplied LecNet™ software make programming, integration in media and/or hardware control systems, and day-to-day operation easy and intuitive. The AS 16 x 12 is the perfect choice wherever professional NOM attenuation, speaker zoning, and/or signal distribution to several rooms are required. The Adaptive Proportional Gain mixing algorithm uses no gating and thus will never clip a syllable, provides inaudible gain control, and dramatically improves sound quality and gain before feedback.
“Mix minus” sound reinforcement, multi-channel recording and separate media feeds can all be accomplished simultaneously with a single AS 16 x 12 mixer. The AS 16 x 12 can be daisy-chained and provides a special expansion input for connecting an AS 8 to add more input channels. The AS 16 x 12 is ideal for courtrooms, boardrooms, learning centers, conference centers, auditoriums, worship centers and many other applications.

- **16-channel automatic mixer plus freely programmable 16x12 matrix**
- **17 programmable inputs, 19 programmable logic outputs for controlling special functions**
- **Accepts analog (contact closure, potentiometer) and RS-232 (Windows, AMX®, Crestron™) control signals**

AS 16 x 12



SPECIFICATIONS

Mic/Line input type:	16, balanced and RF filtered
Impedance:	>2.5 kohms at any level
Input level range:	–63 dB to +15 dB, plus Mute
Input gain settings:	0 dB. +30 dB, +50 dB, switchable
EIN (20 Hz to 20 kHz):	–126 dBu (+50 dB gain)
Max. input level:	+20 dBu at 0 dB gain, –10 dBu at +30 dB gain, –30 dBu at +50 dB gain
Phantom power:	+15 V (permanently on)
Tone controls:	HIGH: shelving; turnover freq.: 1 kHz; 3 dB, 6 dB, 8 dB cut or boost at 10 kHz
LO-CUT:	6 dB/octave at 75 Hz, 90 Hz, 110 Hz, 130 Hz, 190 Hz, 280 Hz, 600 Hz
Outputs	
Line output type:	12, balanced and RF filtered
Output level range:	–68 dB to +10 dB in 1-dB increments, plus Mute
Maximum output level:	LINE: +20 dBu; MIC: –20 dBu
Output impedance:	1–8: 200 ohms balanced, 100 ohms unbalanced 9–12 (LINE mode): 520 ohms balanced or 260 ohms unbalanced, 9–12 (MIC mode): 125 ohms balanced or unbalanced
MIC mode attenuation:	40 dB
System	
Matrix node level settings:	–15 dB, –10 dB, –5 dB, 0 dB, +3 dB, +6 dB, OFF
Remote level control voltage:	0 to 5 VDC
Analog control range:	–30 dB to 0 dB, plus OFF 156 mV/dB control sensitivity
Logic control:	active low
Programmable output:	active low
Max. sink current:	100 mA
Max. supply voltage:	40 VDC
Maximum system gain:	81 dB (input to main out)
System THD/MTHD:	0.1% (0 dB in, 0 dB out)
Power consumption:	25 watts max. at 16.5 VAC
Weight:	3 kg (6.7 lbs.)
Size:	483 x 88 x 203 mm (19.0 x 3.4 x 8.0 in.)

Architect's and Engineer's Specifications

The automatic matrix mixer shall have sixteen input channels, twelve outputs, and a full 16 x 12 crosspoint matrix between the inputs and outputs. The mixer shall have 17 programmable inputs and 19 programmable outputs. Each input shall be balanced and RF filtered, and have three gain settings: +50 dB, +30 dB, and 0 dB (line level). Input trim may be controlled from front panel controls, rear panel controls, and software based controls. Each channel shall have switchable +15-V phantom power for condenser microphones. Each of the 16 inputs shall have a variable low-cut filter and a shelving high frequency tone control. A Direct/Auto mode function shall be provided for each input. The automatic mixer shall use an adaptive level proportional mixing (APG) algorithm and a compressor/leveler to apportion channel gain on a continuous and dynamic basis. This shall insure that the wanted signal will be higher in level than ambient noise at all times. Automatic mixers using a fixed threshold and/or abrupt gain switching shall not be acceptable. The mixer shall have 8 NOM busses, to which any input or combination of inputs may be assigned. The NOM busses provide up to eight independent subgroups. Each output shall be balanced and RF filtered. Outputs 1 – 8 shall be line level only, and outputs 9 – 12 shall be switchable between mic and line level. Output level may be controlled from front panel controls, rear panel controls, and software based controls. Matrix crosspoints shall have six gain levels in addition to off, and these shall be –15 dB, –10 dB, –5 dB, 0 dB, +3 dB, and +6 dB. A filtered white noise source shall be included as one input to the matrix. The automatic mixer shall have an EXPANSION input (matrix input 18) for connecting an AS 8 or AS 8 TC. The automatic mixer shall be capable of being daisy-chained. Analog remote control of one or more input levels and and one or more output levels shall be provided via programmable inputs. A 10 K linear potentiometer or 0–5-VDC control voltage may be used to implement remote level control. In addition, contact closure control of one or more input levels and one or more output levels shall also be provided via programmable inputs. The mixer shall have 15 memory presets which may be recalled via the programmable inputs. The mixer shall implement room combining for up to four rooms, with combine switching and room volume control implemented via programmable inputs. The mixer shall include an RS-232 serial port. All aspects of mixer operation shall be controllable through the serial port using a PC host, an AMX® or Crestron™ control system, or any control device with a RS-232 compatible serial port.

Item number

AS 16 x 12	6000H1892

DFM 4 x 4

Multichannel DSP

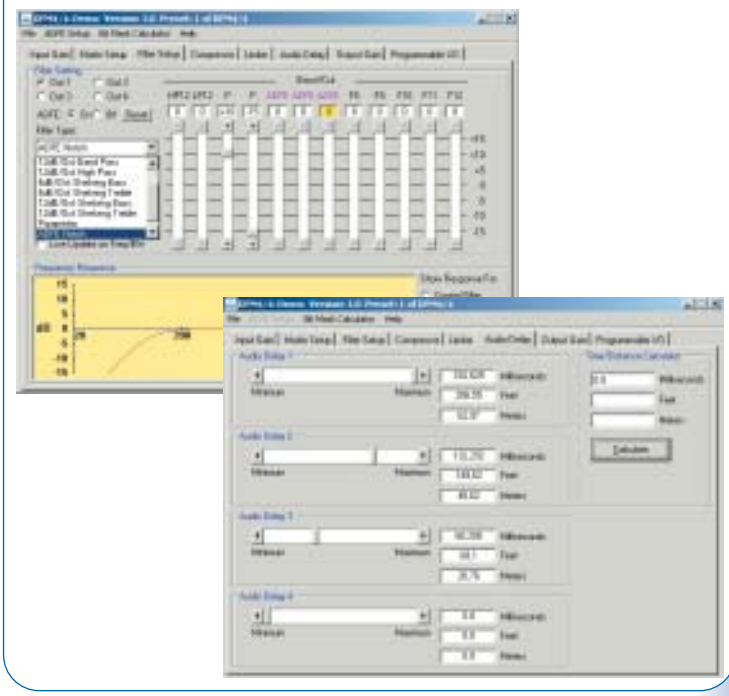
The DFM 4 X 4 is a sophisticated DSP based multi-channel audio signal processing device. Based on a state-of-the-art 32-bit floating point digital signal processor, internal calculations are carried out with greater than 1600-dB dynamic range. 24-bit A/D and D/A conversion guarantees superior audio signal quality.

The DFM 4 x 4 acts as a feedback eliminator with up to 12 user adjustable filters on each channel, automatic notch filters, and several other types of EQs (parametric, shelving, highpass, etc.). In addition, the DFM 4 x 4 provides a four-channel compressor, four-channel limiter, and four-channel delay.

A complete 4 x 4 matrix on the input makes the DFM 4 x 4 an uncommonly versatile processor for feedback elimination, speaker zoning, delay control, and complete system control.

- **Digital four-channel signal processor with feedback eliminator**
- **Up to 12 user adjustable filters on each channel**
- **Compressor, limiter, and audio delay on each channel**
- **RS-232 serial port for control by PC, AMX®, or Crestron™ – 8 preset memories**

DFM 4 X 4



SPECIFICATIONS

User adjustable filters:	1st order high and lowpass, 2nd order high, band, and lowpass, 1st order shelving bass and treble, 2nd order shelving bass and treble parametric
Feedback eliminator (ADFE) **Filter type:**	1/5 octave notch with 1/10 octave accuracy
Filter attenuation:	–6 dB, –12 dB
Filter range:	100 Hz to 5.6 kHz
Compressor **Attack time:**	0.5 msecs. to 128 msecs. in 0.5 msec. increments
Release time:	10 msecs. to 2.55 secs. in 10 msec. increments
Threshold:	–40 dBu to +20 dBu in 1-dB increments
Digital delay **Delay time:**	182.625 msecs. max., in 20.83 µsec. increments
Programmable inputs/outputs **Remote level control voltage:**	0 to 5 VDC
Analog control range:	–30 dB to 0 dB, plus OFF 156 mV/dB control sensitivity
Logic control:	active low
Programmable outputs:	active low, Serial port, Default LecNet™ address: 143
Serial port parameters:	RS 232, 9600 baud, 8 data bits, no parity, 1 stop bit
System THD:	<0.05% (+20 dBu in, +20 dBu out)
System IMD:	<0.05%
Connectors:	AUDIO: 5-pin Phoenix PROGRAMMABLE I/O: 15-pin D-sub
Power requirement:	10 watts max. at 16.5 VAC
Size:	483 x 44 x 203 mm (19 x 1.7 x 8 in.)
Weight:	1.4 kg (3.1 lbs.)

Architect's and Engineer's Specifications

The digital audio processor shall include an Automatic Digital Feedback Eliminator and four input channels, four outputs, and a full 4x4 crosspoint matrix in a 1-U, 19" rack mount case. The processor shall use 24-bit A/D and D/A conversion and 32-bit floating point signal processing to guarantee superior audio signal quality. Each line level input shall be balanced and RF filtered. Input trim may be controlled from software based controls. Matrix crosspoints shall have 30 gain levels in addition to off, and these shall include +10 dB to –20 dB in 1-dB increments. Each channel shall include an automatic digital feedback eliminator (ADFE) which shall detect audio feedback and place a 1/5-octave notch filter at the detected feedback frequency. The notch filter shall be either 6 dB or 12 dB as determined by the ADFE system. Each channel shall have 12 filters which may be assigned in any combination between ADFE notch filters and user adjustable filters. User adjustable filter types include 6-dB/octave highpass and lowpass filters, 12 dB/octave highpass, bandpass, and lowpass, first order shelving bass and treble, second order shelving bass and treble, and second order parametric filters. Each channel shall have a compressor for dynamic range control. User adjustments on the compressor shall be attack time, release time, compression ratio, and compression threshold. Each channel shall have a limiter. User adjustments on the limiter shall be attack time, release time, and limiter threshold. Each channel shall have a user adjustable audio delay of up to 183 msecs., in 20.83-µsec. increments. The processor shall have 13 programmable inputs and 8 programmable outputs. Analog remote control of one or more input levels and one or more output levels shall be provided via programmable inputs. A 10 kW linear potentiometer or 0 – 5-VDC control voltage may be used to implement remote level control. In addition, contact closure control of one or more input levels and one or more output levels shall also be provided via programmable inputs. The digital audio processor shall have 8 memory presets which may be recalled via the programmable inputs. The digital audio processor shall include an RS-232 serial port. All aspects of mixer operation shall be controllable through the serial port using a PC host, an AMX® or Crestron™ control system, or any control device with a RS-232 compatible serial port. The mixer shall include Windows 96/NT 4.0-based control software for use with PC hosted systems.

Item number

DFM 4 x 4 6000H1894

WMS WIRELESS MICROPHONE SYSTEMS

A professional wireless solution for every application.

The WMS line from AKG comprises several wireless microphone systems for the most diverse application areas. Depending on the available budget and the number of wireless channels needed, it is easy to put together the right WMS 40, WMS 400, or WMS 4000 for your application.

For a simple plug-and-play solution, use a WMS 40. This line has been designed for vocal, speech, or instrument use. WMS 40 systems are extremely easy to use, provide outstanding price/performance, and are a very good choice for applications with only a small number of wireless channels. WMS 40 systems are suited for many applications ranging from jazz clubs to lecture halls to gyms.

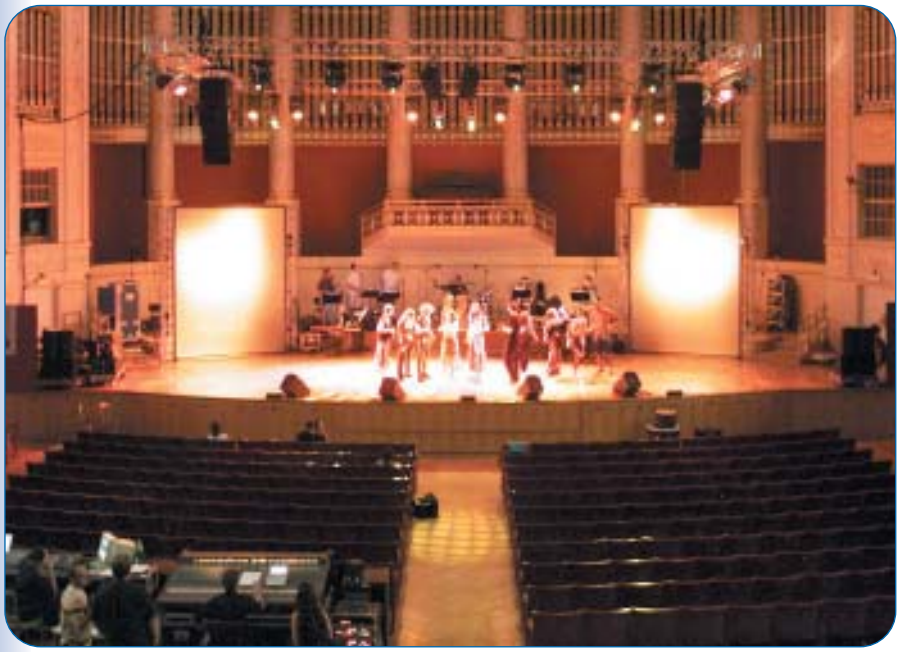
The AKG WMS 400 is your best choice for any application calling for a solution that is more flexible than a simple plug-and-play system yet easy to set up and operate. The WMS 400 provides cost-efficient, high-performance solutions for situations where several radio mics will be used simultaneously, including gigs at small clubs, small stages, or regional events. Using several single-channel systems has its limitations and may simply be too much for the available radio band.

The WMS 4000 is probably the most advanced and innovative professional wireless system available today. It is based on intensive R&D and has been thoroughly tested under real-life conditions before being released for production. The result is a number of useful features including an advanced backlit display on the transmitters and the receiver, remaining battery life readout, silent mode, pilot tone status data transmission, environment scan and rehearsal functions, Auto Setup frequency search, and may other functions that make the WMS 4000 extremely user-friendly. The new WMS 4000 had already stirred speculations and discussions even before it was launched.

WMS WIRELESS MICROPHONE SYSTEM APPLICATIONS

Gala musical “Couples” at the Vienna Konzerthaus in August 2003

Along with the Vienna State Opera and the Golden Musikverein Hall, the Konzerthaus is certainly the best known venue in Vienna. The Konzerthaus also hosts many non-classical productions ranging from musicals to rock concerts. For many years, AKG has helped resident and visiting sound engineers achieve optimum sound for the most diverse kinds of performances.



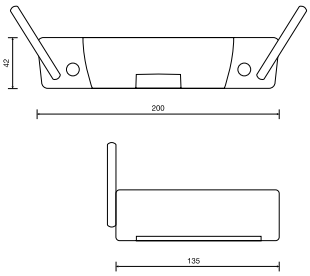
AKG Acoustics provided both expert advice and a WMS 4000 wireless microphone system for the musical gala at the Konzerthaus. This was the first time a WMS 4000 system comprising of 20 SR 4000 receivers, a PSU 4000 central power supply, and a PS 4000 antenna splitter was tested for multichannel performance under real-life conditions. Ten HT 4000 handheld transmitters with proven D 880 microphone elements for the soloists and eight PT 4000 bodypack transmitters with C 477 WR head-worn microphones completed the system.

Having run a quick automatic Environment Scan to find unwanted frequencies in the bands used, the system worked flawlessly, making the first job for a WMS 4000 in Austria a complete success. The sound engineers, singers, and performers were all full of praise.

SR 40 diversity

Wireless System

WMS 40 UHF



The **SR 40 diversity** is a **stationary receiver for all WMS 40 and microtools Series transmitters**. Operating in the 710 MHz to 865 MHz UHF range, the SR 40 diversity is perfectly suited for small stages, clubs, small touring systems, places of worship, hotels, gyms, etc. The **plug & play** concept and fixed preset frequencies let you set up and operate the system quickly and efficiently even if you are not a trained sound engineer. Professional outputs include a balanced XLR and unbalanced TS 1/4" jack for connecting to every kind of equipment. An **output level control** allows you to match the SR 40 diversity's output signal to the input stage of the subsequent device. The rugged half-rack case gives you the choice of using the receiver free-standing or mounting it in a 19" rack.

- **Stationary diversity receiver**
- **Digital Four Level Diversity system for interference-free reception**
- **Full metering for easy status monitoring**
- **Professional XLR and 1/4" outputs**
- **Rugged metal case**

SPECIFICATIONS

Carrier frequency range:	710 MHz to 865 MHz
Modulation:	FM
Audio bandwidth:	40 to 20,000 Hz
THD:	0.8% typ.
Signal/noise ratio:	103 dB (A) typ.
Power requirement:	120/230 V AC, 50/60 Hz, 95 ±15 mA
Audio outputs:	balanced XLR and unbalanced TS 1/4" jack, adjustable from mic to line level, 2 V rms max.
Dimensions:	approx. 200 x 135 x 42 mm (7.8 x 5.3 x 1.6 in.)
Weight:	470 g (1 lb.)
Standard accessories:	12 V power supply
Optional accessories:	CH 40 carrying case, MK 9/10, RMU 60 rack mount unit

Architect's and Engineer's Specifications

UHF diversity receiver with one fixed frequency within the 710 to 865 MHz band. The audio output level shall be adjustable from microphone to line level on the front panel. The receiver shall be provided with RF and power indicators. The receiver shall have an audio bandwidth between 40 and 20,000 Hz and THD of max. 0,8 % (at 1 kHz). It shall have an A-weighted S/N Ratio of more than 108 dB. For easy rack mounting the receiver shall come in a 1/2 19" metal housing. The wireless receiver shall be the AKG model SR 40.

Item numbers

SR 40 diversity US	7615H0601
SR 40 diversity EU	7615H0602
SR 40 diversity UK	7615H0603

Complete systems comprising a transmitter and receiver available on request. For details on which systems are available in which countries contact your dealer.

HT 40/PT 40

Wireless System

WMS 40 UHF

If your first wireless system must provide excellent sound although your budget is limited, consider the professional WMS 40. It is perfectly suited for small stages, clubs, touring, places of worship, hotels, fitness centers, etc. The WMS 40 operates in the UHF (Ultra-high Frequency) band and uses highly selective filters and advanced circuitry to ensure interference-free operation and perfect audio even under difficult conditions. Each WMS 40 operates on a fixed frequency* and is so easy to set up and use you don't even have to study the manual first.

*The maximum number of channels you may use depends on local frequency plans.

- **Operates for more than 35 hours off the same set of batteries.**
- **Lowest operating cost in its class.**
- **HT 40: D 880 microphone element for brilliant voice reproduction.**
- **PT 40: Professional mini XLR connector.**

SPECIFICATIONS

Carrier frequency range:	710 to 865 MHz
Modulation:	FM
Audio bandwidth:	40 to 20,000 Hz
T.H.D. at 1 kHz:	typ. <0.8%
Signal/noise ratio:	typ. >103 dB(A)
Handheld Transmitter	
RF output:	10 mW (ERP)
Battery life:	>35 hours (2 x 1.5 V AA size batteries)
Size:	approx. 40 dia. x 258 mm (1.6 dia x 10.1 in.)
Bodypack Transmitter	
RF output:	10 mW (ERP)
Battery life:	>35 hours (2 x 1.5 V AA size batteries)
Size:	approx. 96 x 64 x 22 mm (3.8 x 2.5 x 0.9 in.)
Standard accessories:	HT 40: 2 AA size batteries, black colorcode clip, stand adapter PT 40: 2 AA size batteries, belt clip
Optional accessories:	HT 40: W 880; PT40: CB 40 neoprene bag

Architect's and Engineer's Specifications

HT 40 Handheld Transmitter
The transmitter shall be a UHF handheld radio transmitter tuned to one fixed carrier frequency within the 710 to 865 MHz band. The transmitter shall be provided with an integrated antenna for optimized RF radiation. Controls shall include on/off and mute switches and a low battery indicator. The transmitter shall have an audio bandwidth between 40 and 20,000 Hz and THD of max. 0.8 % (1 kHz). A D 880 microphone element shall be integrated to ensure optimum sound for any application. The transmitter shall operate on 2 x AA sized batteries for at least 30 hours. A stand adapter shall be supplied with the transmitter.

PT 40 Bodypack Transmitter
The handheld wireless microphone transmitter shall be the AKG HT 40 PT 40 Bodypack Transmitter. The transmitter shall be a UHF bodypack radio transmitter tuned to one fixed carrier frequency within the 710 to 865 MHz band. Controls shall include on/off and mute switches and a low battery indicator. The transmitter shall have an audio bandwidth between 40 and 20,000 Hz and THD of max. 0.8 % (1 kHz). It shall have a miniature XLR connector for connecting interchangeable microphones. The transmitter shall operate on 2 x AA sized batteries for at least 30 hours. The bodypack wireless microphone transmitter shall be the AKG PT 40.

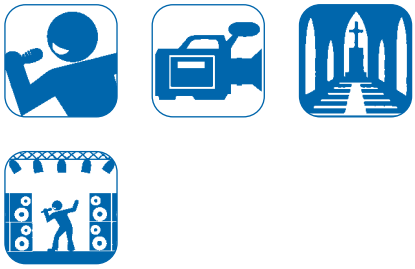
Item numbers

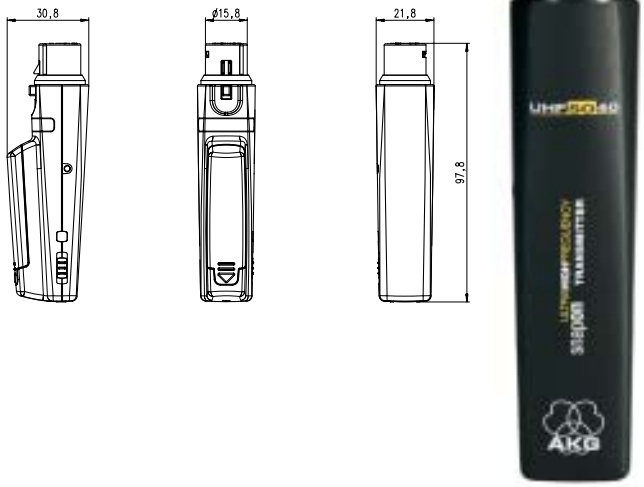
HT 40	7600X0001
PT 40	7600X0002

SO 40 snapon transmitter

Wireless System

WMS 40 UHF





The **SO 40 snapon transmitter** is probably the **most cost-efficient** way to upgrade a hardwire microphone for wireless use. All you have to do is disconnect the microphone cable and plug the snapon transmitter into the XLR connector on the microphone. The snapon transmitter with its **small** and **light** glass fiber reinforced case will add less weight to the microphone than the cable did.
An input gain control lets you match the SO 40 snapon transmitter to the microphone output level. A **noiseless on/off switch** allows you to mute any microphone with no on/off switch. Integrated charging contacts and the optional CU 40 charging unit make recharging batteries easier than ever. Frequencies are **color coded** for easy identification in a professional setup using several WMS 40 systems simultaneously.

- **Professional XLR connector matching all dynamic microphones**
- **Ultra-light, glass fiber reinforced miniature case**
- **Integrated charging contacts**
- **Extremely low operating cost**

SPECIFICATIONS

Carrier frequency range:	710 MHz to 865 MHz
Modulation:	FM
Audio bandwidth:	40 to 20,000 Hz
THD:	0.8% typ.
Signal/noise ratio:	103 dB (A) typ.
Power requirement:	single 1.5 V AAA size battery
RF output:	5 mW typ. (ERP)
Battery life:	>10 hours (dry batteries) >5 hours (rechargeable batteries)
Dimensions:	approx. 22 x 30 x 98 mm (0.9 x 1.2 x 3.9 in.)
Weight:	36 g (1.3 oz.)
Standard accessories:	1 AAA size battery, black replacement battery compartment cover
Optional accessories:	CU 40 charging unit

Item number

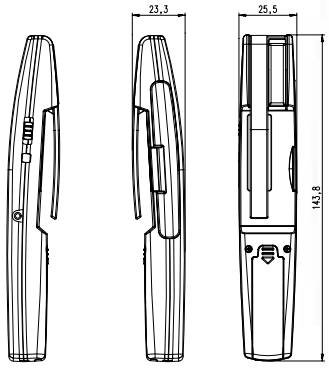
Microtools SO 40
snapon transmitter 7615H0201

Complete systems comprising a transmitter and receiver available on request. For details on which systems are available in which countries contact your dealer.

MP 40 micropen

Wireless System

WMS 40 UHF



The **WMS 40 Series MP 40 micropen** is an **incredibly versatile** wireless microphone. Hardly any bigger than a ball-point pen, the MP 40 micropen is **incredibly easy to use**: just put it in your breast pocket and switch it on. You can even remove the tiny lavalier microphone from the transmitter body and use the lavalier clamp to fix the microphone closer to your mouth. The cable is long enough to allow you to hide the transmitter in a pocket. The MP 40 micropen is also an excellent **handheld microphone** for interviews and other ENG applications. The high-sensitivity C 407 omnidirectional lavalier microphone has been specifically designed for speech pickup. The MP 40 micropen features a noiseless on/mute/off switch and input gain control for **ease of use**. Integrated charging contacts allow you to charge the battery quickly and easily on the optional CU 40 charging unit, without having to remove the battery. Frequencies are **color coded** for easy identification in a professional setup using several WMS 40 systems simultaneously.

- **Integrated, detachable C 407 lavalier microphone with cable and lavalier clip**
- **Microphone is easy to remove and attach to user's clothing**
- **Integrated charging contacts**
- **Optional CU 40 charging unit for reduced operating cost**

SPECIFICATIONS

Carrier frequency range:	710 MHz to 865 MHz
Modulation:	FM
Audio bandwidth:	40 to 20,000 Hz
THD:	0.8% typ.
Signal/noise ratio:	103 dB (A) typ.
Power requirement:	single 1.5 V AAA size battery
RF output:	5 mW typ. (ERP)
Battery life:	>10 hours (dry batteries), >5 hours (rechargeable batteries)
Dimensions:	approx. 20 x 25 x 145 mm (0.8 x 1.0 x 5.7 in.)
Weight:	36 g (1.3 oz.)
Standard accessories:	1 AAA size battery, black replacement clip, necklace cord
Optional accessories:	CU 40 charging unit

Item number

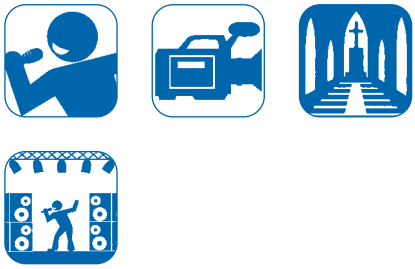
Microtools MP 40 micropen	7615X0301

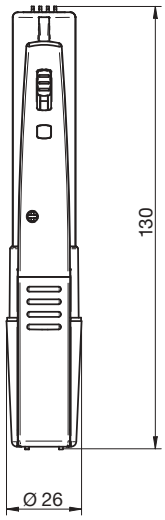
Complete systems comprising a transmitter and receiver available on request. For details on which systems are available in which countries contact your dealer.

TM 40

Wireless System

WMS 40 UHF





The **TM 40 transmitter module** livens up your act in a previously impossible way. No more need to watch out for cables entangling your feet. This new, unique addition to the **AKG Microtools Series** provides the kind of **wireless mobility** that will set all your creativity free on stage.
Each **AKG EMOTION/TRIPOWER Series** model is two microphones in one. You can use them in wireless mode or replace the TM 40 with an XLR connector module for hardwire use. The D 880M, D 3700M, and D 3800M dynamic microphones can also be used with the XLR/S module with an on/off switch.

- **Transmitter module for EMOTION/TRIPOWER Series microphones**
- **Integrated charging contacts for easy use of rechargeable batteries**
- **ON/MUTE/OFF switch**
- **Input gain control for optimum audio**
- **Battery status LED**

SPECIFICATIONS

Carrier frequency range:	710 MHz to 865 MHz
Modulation:	FM
Audio bandwidth:	40 to 20,000 Hz
THD:	0.8% typ.
Signal/noise ratio:	103 dB (A) typ.
Powering:	1 x 1.5 V, AAA size batteries
RF output:	5 mW typ. (ERP)
Battery life:	10 hours (dry batteries); 6 hours (rechargeable batteries)
Finish:	graphite grey enamel
Dimensions:	26 dia. x 130 mm (1.0 in. dia x 5.1 in.)
Weight:	30 g ()
Standard accessories:	1 x 1,5 V battery (AAA), colored battery compartment cover, screwdriver
Optional accessories:	CU 40 charging unit

Architect's and Engineer's Specifications

The transmitter shall be a plug-in module for AKG Emotion/Tripower Series microphones. It shall be fitted with an integrated on/mute/off switch, battery status LED, and input gain control. The transmitter module shall provide charging contacts for dry or rechargeable battery powering options. The transmitter module's audio bandwidth shall be 40 Hz to 20 kHz; carrier frequency range 710 MHz to 865 MHz; length 125 mm; diameter 26 mm; net weight 30 g exclusive of battery; RF output 5 mW (ERP). The transmitter module shall be finished in graphite grey.

Item number

TM 40	7615H0701

Complete systems comprising a transmitter and receiver available on request. For details on which systems are available in which countries contact your dealer.

AKG ACOUSTICS

What you always wanted to know about wireless:

You will find it in a unique guide entitled “Using Wireless Microphone Systems”. This volume contains lots of useful information about wireless microphone technology.

Starting from the innovative AKG WMS wireless products, this guide uses clear illustrations and real-life examples to answer most of the questions that users at all levels of proficiency may have. Topics include

- the WMS 40 modular system
- the WMS 400 modular system
- the WMS 4000 modular system
- how wireless transmission works
- multichannel technology
- frequency management
- interference and viable solutions
- troubleshooting
- professional multichannel technology
- intermodulation
- how to use and place antennas
- realistic multichannel system examples

To download “Wireless Microphone Systems”, visit
www.akg.com/wmscatalog

or order your hard copy from
advertising@akg.com

AKG®

www.akg.com

A Harman International Company

PR 40 diversity

Drahtlos-system

WMS 40 UHF

The **PR 40 diversity portable receiver** has been designed specifically for **ENG and mobile video recording use**. In conjunction with a wireless microphone, the PR 40 will solve any sound problem that may come up on location.

Place the wireless microphone and transmitter (e.g., C 417 + PT 40) near the sound source and mount the PR 40 on the camera. This puts both the microphone and receiver right where the action is, with full mobility and no cables getting in the way.

- **Extremely light, rugged portable receiver**
- **Two folding antennas**
- **Four Level Diversity system for reliable reception**
- **On/off switch with battery/ status LED**

SPECIFICATIONS

Carrier frequency range:	710 MHz to 865 MHz
Modulation:	FM
Audio bandwidth:	40 to 20,000 Hz
THD:	0.8% typ.
Signal/noise ratio:	103 dB (A) typ.
Powering:	2 x 1.5 V, AAA size batteries
Battery life:	>8 hours (dry batteries); >6 hours (rechargeable batteries)
Audio outputs:	unbal. line (tip): +6 dBm (10 kohms) headphones (ring): 18 mW (15 mW), 13 mW typ. (100 ohms)
Dimensions:	approx. 77 x 55 x 15 mm (3.0 x 2.1 x 0.6 in.)
Weight:	60 g (2.1 oz.)
Standard accessories:	2 AAA size batteries, audio connecting cable, belt clip, Velcro strips for camera mounting,
Optional accessories:	CU 40 charging unit PA 40 powering adapter

Item number

PR 40 diversity 7615H0401

Complete systems comprising a transmitter and receiver available on request. For details on which systems are available in which countries contact your dealer.

PR 40 diversity APPLICATIONS

Application Example No. 1: Portable Camera

At last, no more cables. A wireless microphone picks up the moderator's voice and transmits the signal to the PR 40 diversity which feeds it to the microphone input on the camera. This setup ensures maximum flexibility and needs no cable hands.

Application Example No. 2: Tour Guide System

The PR 40 diversity is an ideal receiver for museums and all other places where guided tours are offered. Each visitor gets a PR 40 diversity and pair of headphones to listen to what the guide has to say or to a recorded soundtrack without disturbing other visitors or having to worry about cables.

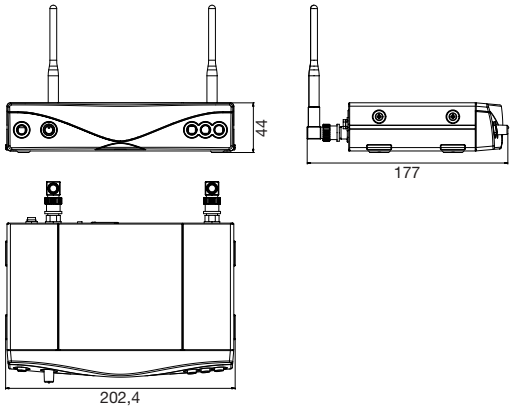
Application Example No. 3: Interpretation Systems

Interpretation systems are used on many occasions including TV shows with guests speaking different languages. Using a PR 40 diversity and headphones, each guest can listen to "their" interpreter without being limited in their mobility during the show. In addition, the PR 40 diversity is small enough not to detract from the guests' appearance and comfort.

SR 400

Wireless System

WMS 400 UHF



The **SR 400 true diversity receiver** is your best choice for **cost-efficient, high-performance multichannel systems**. Up to 12 channels can be used simultaneously within the same subband and even large systems will work smoothly in environments hostile to RF transmission. Being compatible with professional WMS 4000 antenna splitters, power supplies, and high quality antennas, the WMS 400 enables you to set up highly complex wireless systems. In Auto Setup mode, the receiver will scan the available bands, find an interference-free channel, and transmit the related frequency data to the assigned transmitter via infrared. This technique significantly reduces the time it takes to set up a multichannel system.
A Rehearsal function identifying dead spots, a programmable display clearly indicating all important system parameters, two-color display backlighting warning the user of critical conditions from a distance, and a transmitter battery status display on the receiver enhance reliability and add to ease of use.

- **Integrated frequency scanner with frequency management database**
- **Up to 12 channels can be used simultaneously in each subband**
- **Infrared data transmission link**
- **Rehearsal function for finding dead spots**
- **Programmable warning functions using two-color display backlighting**

SPECIFICATIONS

RF carrier frequency ranges:	650 to 680, 680 to 710, 720 to 750, 760 to 790, 790 to 820, 835 to 863 MHz
Modulation:	FM
Audio bandwidth:	35 to 20,000 Hz
THD at 1 kHz:	<0.3%
Signal-to-noise:	120 dB(A)
Audio outputs:	balanced XLR and unbalanced TS 1/4" jack, balanced level switchable to –30 or 0 dBm
Dimensions:	approx. 200 x 44 x 190 mm (7.8 x 1.7 x 7.4 in.)
Weight:	972 g (2.2 lbs.)
Standard accessories:	2 antennas, power supply, RMU 400 rack mounting kit

Architect's and Engineer's Specifications

The receiver shall be a stationary diversity design with 1200 carrier frequencies that can be programmed within a 30 MHz wide subband and a rugged half-rack case with backlit liquid crystal color display. The receiver shall provide indicators for audio and RF levels; diversity mode (A/B); transmitter battery status; name, frequency, frequency group, and preset (country) name. The color of the backlighting shall change between green and red to indicate normal operation or display user-selectable warning messages (low battery capacity, audio level, RF level, etc.). The receiver shall select intermodulation-free frequencies automatically from an integrated frequency database arranged by local frequency allocations and provide an automatic function for finding dead spots. An infrared radiator shall transmit setup parameter data to the transmitter. Rear panel BNC sockets shall allow either the supplied antennas or a complex antenna network to be connected to the receiver. The squelch threshold shall be adjustable between –70 and –100 dBm. The receiver's audio bandwidth shall be 35 Hz to 20 kHz; S/N 120 dB(A); THD <0.3% at 1 kHz. Audio outputs shall comprise a balanced 3-pin XLR output switchable to –30 dB or 0 dB and an unbalanced 1/4" TS jack. The receiver shall provide a lockable DC input for the supplied 12 V DC power supply. The receiver shall measure 200 x 44 x 190 mm (W x D x H) and weigh 972 g. The receiver shall be the AKG SR 400.

Item number

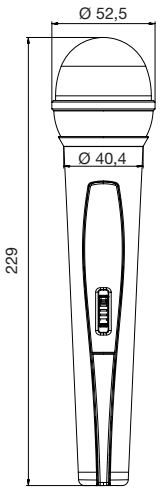
SR 400:
Item numbers depend on frequency band and power supply type.

Complete systems comprising a transmitter and receiver available on request. For details on which systems are available in which countries contact your dealer.

HT 400

Wireless System

WMS 400 UHF



The **HT 400** is a high-performance, rugged **handheld transmitter** for a host of applications. Many innovative features enhance both system **reliability and user friendliness**. An LC display indicates all important system data at a glance, including the selected frequency in MHz or as a Preset subchannel, available battery capacity in hours, a warning when battery capacity is low, as well as the current transmission mode. Once you have set a frequency on the receiver, an infrared transmission link will feed the related data to the assigned transmitter within seconds, making the setting up of large multichannel systems child's play. The HT 400 handheld transmitter is available with a dynamic or a condenser microphone element. A noiseless ON-MUTE/PRG-OFF switch and status LED add to the transmitter's user-friendliness.

- **Available with D 880 or C 900 microphone element**
- **Infrared data download link for quick setup**
- **Battery status display and data transmission**
- **Integrated charging contacts**
- **Rugged body**

SPECIFICATIONS

Carrier frequency ranges:	650 to 680, 680 to 710, 720 to 750, 760 to 790, 790 to 820, 835 to 863 MHz
Modulation:	FM
Audio bandwidth:	35 to 20,000 Hz
THD:	<0.7% typical at rated deviation/1 kHz
S/N Ratio (A-weighted)	120 dB(A)
RF output:	50 mW max. (ERP)
Battery life:	1.5 V AA size dry battery: 6 hours; 1.2 V NiMH, 2100 mAh AA size rechargeable battery: 8 hrs.
Size:	229 x 52.5 mm max. dia. (9 x 2 in.)
Weight:	220 g (7.8 oz.)
Standard accessories:	AA size dry battery, SA 63 stand adapter

Architect's and Engineer's Specifications

The handheld transmitter shall be housed in a miniature body and provide 1200 carrier frequencies that can be programmed via infrared within a 30 MHz wide subband. An LC display shall indicate the transmitter battery capacity in hours; as well as the frequency, frequency group, and preset name. An outside infrared sensor shall allow the frequency and input gain setting to be programmed, and a silent mode shall permit the transmitter to be used legally in R&TTE countries. The transmitter shall transmit low battery capacity and muting information to the receiver and use an integrated dipole transmitting antenna. The transmitter shall be available with an RF output of 10 mW, 20 mW, or 50 mW (ERP). The transmitter shall provide a central on/mute/off switch with IR programming and silent mode functions. Charging contacts on the bottom panel shall allow the easy charging of a rechargeable battery inside the transmitter. The audio bandwidth of the transmitter shall be 35 Hz to 20 kHz; S/N 120 dB(A); THD at 1 kHz <0.3%. The transmitter shall operate off one AA size dry battery for >6 hours, up to 8 hours off one AA size NiMH rechargeable battery. A means of color coding the handheld transmitter shall be included. The handheld transmitter shall measure 229 mm long x 52.5 mm max. dia. and weigh 220 g. An SA 63 stand adapter shall be included as a standard accessory. The handheld transmitter shall be the AKG HT 400.

Item number

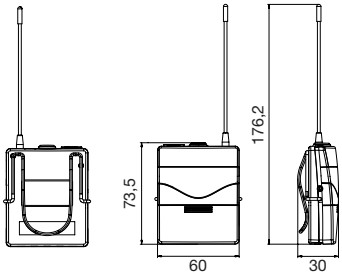
HT 400:
Item numbers depend on frequency band and RF output.

Complete systems comprising a transmitter and receiver available on request. For details on which systems are available in which countries contact your dealer.

PT 400

Wireless System

WMS 400 UHF



The **PT 400** is a high-performance, compact **bodypack transmitter** for a host of applications. Many innovative features enhance both system reliability and user friendliness. An LC display indicates all important system data at a glance, including the selected frequency in MHz or as a Preset subchannel, available battery capacity in hours, a warning when battery capacity is low, as well as the current transmission mode. Once you have set a frequency on the receiver, an infrared transmission link will feed the related data to the assigned transmitter within seconds, making the setting up of large multichannel systems child's play.
The PT 400 uses a rugged case, and the mini XLR input allows you to connect a wide selection of microphones and instruments. A special jack lets you connect an optional external mute switch enabling the user to mute the audio signal even if the transmitter is hidden in the clothes.

- **Infrared data download link for quick setup**
- **Battery status display and data transmission**
- **Connector for external mute switch**
- **Integrated charging contacts**
- **Extremely compact case**
- **Professional mini XLR audio input**

SPECIFICATIONS

Carrier frequency ranges:	650 to 680, 680 to 710, 720 to 750, 760 to 790, 790 to 820, 835 to 863 MHz
Modulation:	FM
Audio bandwidth:	35 to 20,000 Hz
THD:	<0.7% typical at rated deviation/1 kHz
S/N ratio (A-weighted):	120 dB(A) typical
RF output:	50 mW max. (ERP)
Battery life:	1.5 V AA size dry battery: 6 hours; 1.2 V NiMH, 2100 mAh AA size rechargeable battery: 8 hrs.
Size:	approx. 60 x 73,5 x 30 mm (2.4 x 2.9 x 1.2 in.)
Net weight:	90 g (3.2 oz.)
Standard accessories:	AA size battery, belt clip
Optional accessories:	external mute switch

Architect's and Engineer's Specifications

The bodypack transmitter shall be housed in a miniature body and provide 1200 carrier frequencies that can be programmed via infrared within a 30 MHz wide subband. An LC display shall indicate the transmitter battery capacity in hours; as well as the frequency, frequency group, and preset name. An outside infrared sensor shall allow the frequency and input gain setting to be programmed, and a silent mode shall permit the transmitter to be used legally in R&TTE countries. The transmitter shall transmit low battery capacity and muting information to the receiver and use an integrated dipole transmitting antenna. The transmitter shall be available with an RF output of 10 mW, 20 mW, or 50 mW (ERP). The transmitter shall provide a lockable on/mute/off switch with IR programming and silent mode functions. Charging contacts on the bottom panel shall allow the easy charging of a rechargeable battery inside the transmitter and a 2.5 mm jack shall allow an external mute switch to be connected. The audio bandwidth of the transmitter shall be 35 Hz to 20 kHz; S/N 120 dB(A); THD at 1 kHz <0.3%. The input gain shall be adjustable by means of a special tool integrated in the battery compartment cover. The transmitter shall operate off one AA size dry battery for >6 hours, up to 8 hours off one AA size NiMH rechargeable battery. A means of color coding the bodypack transmitter shall be included. The bodypack transmitter shall measure 60 x 73.5 x 30 mm and weigh 90 g. The bodypack transmitter shall be the AKG PT 400.

Item number

PT 400:
Item numbers depend on frequency band and RF output.

Complete systems comprising a transmitter and receiver available on request. For details on which systems are available in which countries contact your dealer.

WMS 400 ACCESSORIES

RA 4000 B
Omnidirectional wideband booster antenna for indoor or outdoor use
Item number:
2632Z0030

PS 4000
220 MHz bandwidth antenna splitter with all-metal case and expansion outputs
Item number:
2996Z008

ASU 4000
Remote power supply with water-resistant case and status LED
Item number:
3009Z0010

PSU 4000
Central power supply for powering up to twelve SR 400 receivers via three PS 4000 antenna splitters, or three CU 400 chargers
Item number:
2997Z0004

CU 400
Charger with two universal charging slots, gentle quick-charge function, and status LEDs

AB 4000 – Antenna Booster
High-performance antenna booster for inserting into long antenna cables. BNC or N input and output, DC input, status LED, water-resistant case
Item number:
3009Z0002

HPA 4000
Headphone amplifier for monitoring up to eight receivers
Item number:
2998Z0004

SRA 1
Passive, wideband directional antenna for indoor or outdoor use, specifically, for setting up long-range radio links
Item number:
2455Z0060

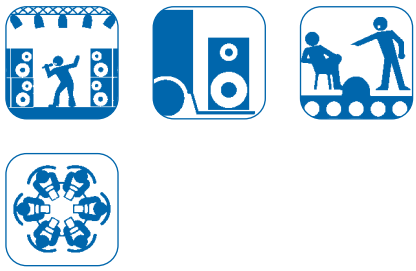
ZAPD 21
Antenna combiner for indoor and outdoor use, specifically, for near-field antenna setups with no preferred direction
Item number:
SERVSON 76

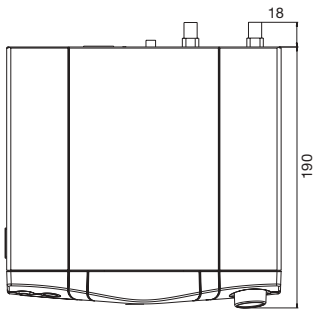
SRA 2 B
Active, wideband directional antenna recommended for setting up long-range radio links up to 300 m (1000 feet)
Item number:
3009Z0001

SR 4000

Wireless System

WMS 4000 UHF





The new **SR 4000 state-of-the-art true diversity receiver** provides maximum ease of use and the **most useful functions** in its class. Many features of the SR 4000 were never before available or limited to extremely expensive systems.

The **accurate battery life readout** is an invaluable advantage in live sound applications.

The transmitter uses a **pilot tone** to transmit battery status data to the receiver that displays the remaining battery capacity in hours. The **pilot tone decoder** also allows the detection and display of other important information including the current position of the transmitter MUTE switch.

The integrated software does not only permit **automatic setup and frequency scanning but remote control and monitoring** from a PC via a dedicated interface as well. Optional **MCS 4000 Mission Control Software** makes setting up and monitoring highly complex systems incredibly easy. A **logic output** allows remote control of specific functions on an external device, e.g., an automatic microphone mixer.

Naturally, the **SR 4000** operates in an extremely wide **UHF band (30 MHz)** and each frequency preset provides **up to 24 intermodulation-free subchannels***. The maximum number of **selectable frequencies** is **1200**.

The large, backlit color display and a jog wheel make the SR 4000 **easy to use** and a programmable LED ring gives a **quick indication** of important system parameters. Housed in a half-rack, all-metal case, the SR 4000 is the **most compact, reliable, and powerful UHF receiver in its price bracket**.

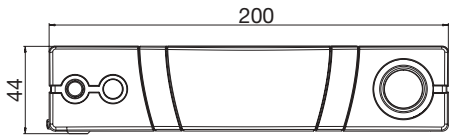
* The actual number of channels that can be used simultaneously depends on local frequency plans.

- **True diversity receiver with all-metal case**
- **30 MHz wide UHF band with up to 1200 selectable frequencies**
- **Pilot tone system for battery status monitoring and tone code squelch**
- **Auto Setup, Environment Scan, and Rehearsal functions for easy setup**
- **Backlit, programmable color display and jog wheel for ease of use**
- **PC interface for remote control and status monitoring; logic output for controlling external devices**

SR 4000

Wireless System

WMS 4000 UHF



SPECIFICATIONS

RF carrier frequency ranges:	650 to 680, 680 to 710, 720 to 750, 760 to 790, 790 to 820, 835 to 863 MHz
Modulation:	FM
Audio bandwidth:	35 to 20,000 Hz
THD:	>0.3% typical
Signal/noise ratio:	120 dB(A)
Audio outputs:	balanced 3-pin XLR; unbalanced TS 1/4" jack; output level adjustable to –30, 0, +6 dB
Dimensions:	200 x 44 x 190 mm (7.8 x 1.7 x 7.4 in.)
Weight:	972 g (2.2 lbs.)
Standard accessories:	Power supply, Color Coding Kit, 2 UHF antennas, RMU 4000 rack mounting kit
Optional accessories:	MK 9/10 microphone cable

Architect's and Engineer's Specifications

The wireless receiver shall operate over a 30 MHz UHF frequency range in one of 6 bands from 680 MHz to 863 MHz, with a wide range of possible frequency settings. The wireless microphone system shall incorporate factory-optimized sets of both sending and receiving frequency modules that are built into both transmitters and receivers. Each frequency set shall comprise a 30 MHz UHF band and offer up to 1,200 discrete operating frequencies within that band. The receiver shall operate on the true diversity principle, and the switching circuit shall be inaudible. Total harmonic distortion at 1 kHz for rated deviation shall be no greater than 0.3%. The receiver shall provide for a manual squelch adjustment as well as an automatic squelch option (tone code squelch) for optimum system operation. Audio output shall include a balanced XLR connector as well as an unbalanced 6.3 mm / 1/4-inch jack connectors. The output from the 3-pin XLR-type connector shall be adjustable in 3 steps (-30, 0, +6 dB). A data port for connecting a pc-controlled network and logic out connector shall be provided. The receiver shall be controlled by a jog wheel and shall provide a backlit color display as well as a programmable LED ring (red/green) showing the overall system status. The wireless receiver shall be the AKG Acoustics Model SR 4000.

Jog Control
with programmable status indication

Backlit color display

Item number

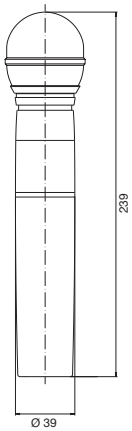
SR 4000
Item numbers depend on frequency band and power supply type.

Complete systems comprising a transmitter and receiver available on request. For details on which systems are available in which countries contact your dealer.

HT 4000

Wireless System

WMS 4000 UHF



The **HT 4000 is a professional handheld transmitter** with a rugged body and connects to a choice of **six different microphone elements** to cover a wide range of applications. Microphone elements include dynamic and condenser cardioid and hypercardioid models. The 30 MHz wide UHF band provides up to 1200 selectable frequencies and **several preset frequency banks for various countries** help you set up a multichannel system very quickly. A backlit display makes it very easy to tune the HT 4000 to the same frequency as the SR 4000 receiver. A **pilot tone** system continuously sends transmitter status data including MUTE switch position and remaining battery life to the receiver. Integrated charging contacts let you charge the optional BP 4000 battery pack without having to remove it from the transmitter. After only one hour, the battery pack will be fully charged and you can use the transmitter for 12 hours continuously.

- **Operates for up to 15 hours on dry batteries, 12 hours on optional BP 4000 battery pack and displays remaining battery life.**
- **30 MHz wide UHF band with up to 1200 selectable frequencies**
- **Backlit display and jog switch for ease of use**

SPECIFICATIONS

Carrier frequency ranges:	650 to 680, 680 to 710, 720 to 750, 760 to 790, 790 to 820, 835 to 863 MHz
Modulation:	FM
Audio bandwidth:	35 to 20,000 Hz
THD:	<0.3 % typical
S/N ratio:	120 dB(A)
RF output:	50 mW max. (ERP)
Battery life:	2 AA size dry batteries: 15 hours; BP 4000: 12 hours
Dimensions:	length: 239 mm (9.4 in.); diameter: 39 mm (1.5 in.)
Net weight:	320 g (11.3 oz.)
Standard accessories:	2 AA size dry batteries, Color Coding Kit, SA 63 stand adapter

Architect's and Engineer's Specifications

The wireless system shall operate over a 30 MHz UHF frequency range in one of 6 bands from 680 to 863 MHz, with a wide range of possible frequency settings. The wireless microphone system shall incorporate factory-optimized sets of both transmission and receiving frequency modules that are programmed into both transmitters and receivers. Each frequency set shall comprise a 30 MHz UHF band and offer up to 1,200 discrete operating frequencies within that band, with transmitter power not exceeding 50 milliwatts. Both handheld and bodypack type trans-mitters shall be provided. The bodypack transmitter shall accommodate both microphone and line level inputs. The transmitters shall operate with a companding system that is complemented by the receiver, providing an A-weighted system dynamic range in excess of 120 dB. The transmitters shall indicate input overload via an LED indicator and on a backlit display battery lifetime shall be displayed in hours as well as the transmitting frequency. Handheld transmitters shall have a maximum diameter of 39 mm and a length, including antenna, no greater that 239 mm. The wireless microphone system shall be the AKG Acoustics Model WMS 4000.

Item number

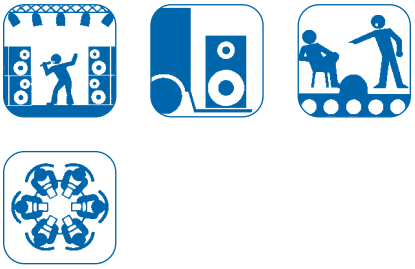
HT 4000:
Item numbers depend on frequency band and RF output.

Complete systems comprising a transmitter and receiver available on request. For details on which systems are available in which countries contact your dealer.

PT 4000

Wireless System

WMS 4000 UHF



Bodypack transmitter with rugged die-cast magnesium body. The **30 MHz wide UHF** band provides up to 1200 selectable frequencies and **several preset frequency banks for various countries** help you set up a multichannel system very quickly. A backlit display makes it very easy to tune the **PT 4000** to the same frequency as the SR 4000 receiver. A **pilot tone** system continuously sends transmitter status data including MUTE switch position and remaining battery life to the receiver. Integrated charging contacts let you charge the optional BP 4000 battery pack without having to remove it from the transmitter. After only one hour, the battery pack will be fully charged and you can use the transmitter for 12 hours continuously. The mini XLR input with adjustable gain accommodates both portable instruments and microphones, e.g. AKG MicroMics. An optional remote mute switch allows the user to mute the transmitter without having to fumble for the onboard mute switch.

- **UHF bodypack transmitter with magnesium body**
- **1200 selectable frequencies within 30 MHz wide UHF band**
- **Backlit display and jog switch for ease of use**
- **Up to 30 mW RF radiation for reliable transmission**
- **Optional remote mute switch**
- **Operates for up to 15 hours on dry batteries, 12 hours on optional BP 4000 battery pack and displays remaining battery life**

SPECIFICATIONS

Carrier frequency ranges:	650 to 680, 680 to 710, 720 to 750, 760 to 790, 790 to 820, 835 to 863 MHz
Modulation:	FM
Audio bandwidth:	35 to 20,000 Hz
THD:	<0.3 % typical
S/N ratio (A-weighted):	120 dB(A)
RF output:	50 mW max. (ERP)
Battery life:	2 AA size dry batteries: 15 hours typical; BP 4000 rechargeable battery pack: 12 hours typical
Dimensions:	70 x 90 x 25 mm (2.8 x 3.5 x 1.0 in.)
Net weight:	320 g (11.3 oz.)
Standard accessories:	2 AA size dry batteries, belt clip, Color Coding Kit
Optional accessories:	remote mute switch

Architect's and Engineer's Specifications

The wireless system shall operate over a 30 MHz UHF frequency range in one of 6 bands from 680 to 863 MHz, with a wide range of possible frequency settings. The wireless microphone system shall incorporate factory-optimized sets of both transmission and receiving frequency modules that are programmed into both transmitters and receivers. Each frequency set shall comprise a 30 MHz UHF band and offer up to 1,200 discrete operating frequencies within that band, with transmitter power not exceeding 50 milliwatts. Both handheld and bodypack type trans-mitters shall be provided. The bodypack transmitter shall accommodate both microphone and line level inputs. The transmitters shall operate with a companding system that is complemented by the receiver, providing an A-weighted system dynamic range in excess of 120 dB. The transmitters shall indicate input overload via an LED indicator and on a backlit display battery lifetime shall be displayed in hours as well as the transmitting frequency. Handheld transmitters shall have a maximum diameter of 39 mm and a length, including antenna, no greater that 239 mm. The wireless microphone system shall be the AKG Acoustics Model WMS 4000.

Item number

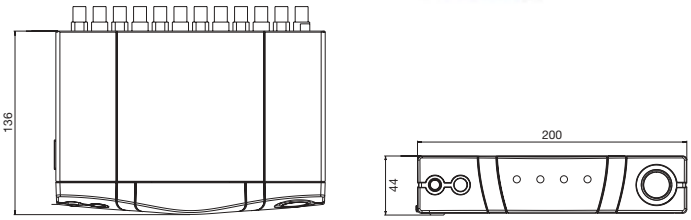
PT 4000:
Item numbers depend on frequency band and RF output.

Complete systems comprising a transmitter and receiver available on request. For details on which systems are available in which countries contact your dealer.

PS 4000

Wireless System

WMS 4000 UHF



One or several **PS 4000 antenna splitters** can be used to set up complex systems with long antenna cables, distributed antenna networks for room sharing applications, or to feed the signal from a single antenna pair to several receivers. The high quality amplification and distribution circuitry of the PS 4000 and dedicated optional antennas combine to ensure **maximum reliability of reception**. Highly visible channel LEDs provide a clear status indication even from a distance. A front panel selector allows you to match gain to cable length to obtain **optimum signal quality**.

The PS 4000 also **powers active antennas** through the antenna cables, eliminating the need for separate antenna power cables.

- **Antenna splitter with all-metal case for WMS 4000 systems**
- **220 MHz bandwidth for use with all WMS 4000 channels**
- **Adjustable cable length compensation**
- **2 BNC antenna inputs, 4 BNC diversity output pairs**
- **Expansion outputs for daisy-chaining antenna splitters for more than 50 receivers**

SPECIFICATIONS

Carrier frequency range:	650 to 870 MHz
Attenuation:	+2, 0 , –2, –4, –6, –8 dB, selectable
RF inputs:	2 BNC sockets, 50 ohms
RF outputs:	10 BNC sockets, 50 ohms
Operating voltage:	10 VDC
Dimensions:	approx. 200 x 190 x 44 mm (7.8 x 7.5 x 1.7 in.)
Weight:	970 g (2.2 lbs.)
Standard accessories:	power supply, RMU 4000 rack mounting kit
Optional accessories:	MK PS connecting cable

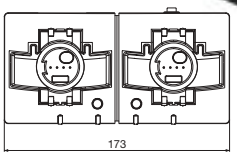
Architect's and Engineer's Specifications

The antenna splitter shall comprise a stackable, active wideband antenna booster and antenna distribution system within a half-rack metal case and include a rack mounting kit. The bandwidth of the antenna splitter shall be 220 MHz. The antenna splitter shall provide the following inputs, outputs, controls, and indicators: 2 x 50 ohm BNC antenna input sockets, 8 x 50 ohm BNC antenna output sockets, 2 stacking outputs for connecting one or more other antenna splitters or a fifth SR 4000 receiver. Blue and red status LEDs shall indicate correct or incorrect function of connected cables, signal amplifiers, and antennas. A front panel bank of 3 DIP switches shall allow for optimum matching to connected antenna cable lengths. The receivers or other active devices connected to the antenna splitter shall be powered via the appropriate antenna cable. Unused antenna outputs shall be automatically terminated with a 50 ohm terminal. A power supply for up to 3 antenna splitters and 12 SR 4000 receivers shall be available as an optional accessory. The antenna splitter shall operate in a carrier frequency range of 650 MHz to 870 MHz and provide an RF level attenuation pad adjustable in 8 increments: 0, –2, –4, –6, –8, –10, –12, and –14 dB. The antenna splitter shall operate from 12 VDC, measure 200 x 136 x 44 mm, and weigh 970 grams.

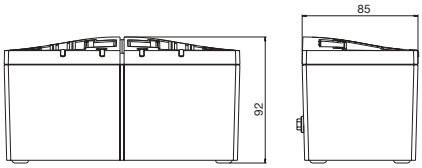
CU/BP 4000

Wireless System

WMS 4000 UHF



BP 4000



The **CU 4000 charging unit revolutionizes battery management** for wireless systems. The heart of the supply system is the BP 4000 rechargeable battery pack with **built-in active monitoring circuitry. An integrated microprocessor** continuously monitors battery status and accurately calculates the remaining battery life. This puts an end to the nightmare of batteries failing while you are using the transmitter. A **processor controlled pulse charging system** charges the battery pack quickly yet gently, and several **monitoring circuits** and a **temperature sensor** prevent the battery pack from being overcharged. A self-discharge counter does not only measure battery discharge during operation but also determines the charge level after prolonged storage periods. To **eliminate memory effect**, the CU 4000 charging unit automatically checks whether the battery pack needs servicing and automatically starts a recovery cycle when you press the RECOVER button. The charger provides two dedicated compartments for charging two HT 4000 or PT 4000 transmitters or two BP 4000 battery packs at the same time.

- **Intelligent battery supply system comprising CU 4000 charging unit and BP 4000 battery pack**
- **Microprocessor controlled charge/discharge monitoring function**
- **One-hour quick charging and Battery Recovery Management**
- **Charging compartment allows battery pack to be charged inside the transmitter**

SPECIFICATIONS

Charging current:	1.5 A
Operating voltage:	12 VDC, 1.3 A
Charging time:	1 hour typical
Recovery cycle:	approx. 8 hours
Dimensions:	approx. 92 x 173 x 85 mm (3.6 x 6.8 x 3.3 in.)
Weight:	580 g (20.5 oz.)
Standard accessories:	BP 4000 battery pack, power supply

Architect's and Engineer's Specifications

The intelligent charging system shall comprise a charger and two dedicated battery packs. The charger shall feature a rugged plastic case with two multifunctional charging receptacles for charging the WMS 4000 transmitters or the dedicated battery pack. Each charging receptacle shall accept either a handheld transmitter, a bodypack transmitter, or the dedicated battery pack and it shall be possible to charge any combination of these devices (e.g., an HT 4000 and a battery pack). The battery pack may remain inside the transmitter during charging. The charger shall use high-tech, microprocessor-controlled charging circuitry with trickle charging, automatic shut-off at the turning point, and 2-stage overcharging protection. The charger shall automatically check whether the transmitter is on, switch the transmitter off, and charge the battery pack. A bicolor LED shall indicate the charging status at any time, and the typical charging time shall be one hour. The dedicated battery pack shall use an internal RAM to communicate with the charger and control the exact amount of charging depending on the ambient temperature and evaluated data received from the integrated self-discharge counter. The charger shall automatically detect the need for a recovery cycle to minimize the memory effect of the battery pack. The charger shall provide a warning LED to indicate this situation and a key for manually starting the recovery cycle. The typical duration of a recovery cycle shall be 14 hours, the useful life of the battery pack approx. 1200 charging cycles, and the typical battery life per charging cycle 12 hours. The charging current shall be 1.2 A and the operating voltage and current 12 VDC, 1.3 A. The size of the charger shall be 92 x 173 x 85 mm, its weight 580 grams.The size of the battery pack shall be 30.2 x 57.5 x 18 mm, its weight 70 grams. The charging system shall comprise a charger and two dedicated battery packs. The charger shall be the AKG CU 4000, the battery pack the AKG BP 4000.

WMS 4000 ACCESSORIES

SRA 1 passive, wideband directional antenna

- For indoor or outdoor use, specifically, for setting up long-range radio links
- For use with antenna cables up to 5 m (16 feet) long
- Water-resistant case, BNC output

SPECIFICATIONS

Carrier frequency range:	680 to 945 MHz
Gain:	6 dB
Coverage angle:	70°
Front-to-back ratio (180°):	13 dB min.
Off-axis attenuation (90° to 110°):	25 dB
Dimensions: diameter/depth:	152/65 mm (5.98/2.5 in.)
Weight:	180 g (6.4 oz.)

Item number: 2455Z0060

SRA 2 B active, wideband directional antenna

- For indoor or outdoor use, specifically, for setting up radio links for distances up to 300 m (1000 feet)
- Integrated high-performance antenna booster for use with antenna cables up to 200 m (655 feet) long (RG 213, in conjunction with 2 x AB 4000)
- Water-resistant case, BNC output
- Status LED

SPECIFICATIONS

Carrier frequency range:	650 to 870 MHz
Antenna gain:	6 dB
Coverage angle:	70°
Booster gain:	17 dB
Dimensions:	230 x 240 x 26 mm (9 x 9.4 x 1.0 in.)
Weight:	250 g (8.8 oz.)

Item number: 3009Z0001

RA 4000 B omnidirectional wideband booster antenna

- For indoor or outdoor use, specifically, for near-field antenna setups with no preferred direction
- Integrated high-performance antenna booster for use with antenna cables up to 180 m (600 feet) long (RG 213, in conjunction with 2 x AB 4000)
- Remote powering option and status LED
- Rugged, water-resistant case, BNC output

SPECIFICATIONS

Carrier frequency range:	650 to 870 MHz
Gain:	17 dB
RF input:	1 BNC socket, 50 ohms
Operating voltage:	8 VDC from PS 4000 or ASU 4000 via connecting cable
Dimensions:	110 x 35 mm (4.3 x 1.4 in.)
Weight:	100 g (3.5 oz.)

Item number: 2632Z0030

WMS 4000 ACCESSORIES

ASU 4000
remote power supply

Remote power supply for complex antenna networks
- BNC or N input and output
- Locking DC input
- Status LED
- Water-resistant case

SPECIFICATIONS

Carrier frequency range:	650 to 870 MHz
RF input:	1 BNC or N socket, 50 ohms
RF output:	1 BNC or N socket, 50 ohms
Operating voltage:	12 VDC
Dimensions:	78 x 50 x 50 mm (3.1 x 2.0 x 2.0 in.)
Weight:	150 g (5.3 oz.)

Item number: 3009Z0010

AB 4000
Antenna booster

High-performance antenna booster for inserting into long antenna cables. One AB 4000 can compensate for approx. 17 dB of cable attenuation, allowing RG 213 cable runs to be extended by approx. 60 m (200 feet). Up to three AB 4000 boosters can be used in series for extremely long cable runs.
- BNC or N input and output
- DC input
- Status LED
- Water-resistant case

SPECIFICATIONS

Carrier frequency range:	650 to 870 MHz
Gain:	17, 15, 13,11, 9, 7 dB, selectable
RF input:	1 BNC or N socket, 50 ohms
RF output:	1 BNC or N socket, 50 ohms
Operating voltage:	8 VDC from PS 4000 or ASU 4000 via connecting cable
Dimensions:	78 x 50 x 50 mm (3.1 x 2.0 x 2.0 in.)
Weight:	150 g (5.3 oz.)

Item number: 3009Z0002

HPA 4000
Headphone amplifier with eight inputs for SR 4000 receivers and one headphone output.
Item number: 2998Z0004

MCS 4000
Remote control and remote monitoring software. The MCS 4000 displays all status readouts of a complete multichannel system on a single screen. The integrated spectrum analyzer and frequency management software can be updated through the Internet. MCS 4000 scans the UHF band, automatically calculates the optimum frequencies, and programs them into the receivers while you have a cup of coffee!

ZAPD 21
Antenna combiner for indoor and outdoor use, specifically, for near-field antenna setups with no preferred direction
Item number: SERVSON 76

PSU 4000
Central power supply for powering up to 12 SR 4000 receivers plus antennas via three PS 4000 antenna splitters, or three CU 4000 chargers. Also powers the HPA 4000 headphone amplifier and HUB 4000 network concentrator.
Item number: 2997Z0004

HUB 4000
Network concentrator for connecting up to eight SR 4000 receivers to an Ethernet network.
Item number: 2999Z0004

ACCESSORIES MATRIX

Product	Windscreens										Supports									Stand Adapters				
	W 23	W 30	W 32	W 46	W 62	W 70	W 80	W 90	W 95	W 97/W 97/1	H 30	H 38	H 39	H 40/1	H 41	H 50	H 300	H 500	H 600	SA 26	SA 38/H	SA 44	SA 60	SA 61
C 1000 S											•									•				
C 400 BL																								
C 417														•										
C 444																								
C 547																								
C 562 BL					•																			
C 562 CM																								
C 568 B											•	•									•			
C 680 BL																								
C 747						•																		
CK 55 L																								
CK 77 WR/C 577 WR														•	•									
CGN 321 (521) E																		•	•				•	
CGN 323 (523) E																		•	•				•	
CHM 21																								
CK 31		•																						
CK 32		•																						
CK 33		•																						
CK 47						•																		
CK 80							•																	
C 480 B-ULS											•	•				•	•			•	•			
CK 61			•	•																				
CK 62			•	•																				
CK 63			•	•																				
CK 69											•	•									•			
SE 300 B											•	•	•			•	•			•	•		•	
C 391									•		•	•				•	•			•	•			
CK 91								•	•							•								
CK 92								•	•															
CK 93								•	•							•								
CK 94										•														
CK 97-C										•			•	•	•									
CK 97-O													•	•										
CK 98																					•			
D 190 ES	•															•								
D 3700M / D 3700M S	•										•									•				•
D 3800M / D 3800M S	•										•									•				•
D 542																								
D 58			•																					
D 660 S	•										•									•		•		•
D 770	•										•									•		•		•
D 880M / D880M S	•										•									•		•		•

ACCESSORIES MATRIX

Product	Stands						Floor Stands		Phantom Power Adapters						Mikrophone cable		ULS & AKG Blue Line Accessories						Other Accessories	
	ST 1	ST 5/3	ST 12	ST 45	ST 46	ST 305	ST 102 A	ST 200	B 15	B 18	B 29 L	MPA III L	N 62 E	N 66 E	MK 9/10	MK 90/3 + H 98	A 61	A 91	VR 61	VR 62	VR 91	VR 92	KA 38	PS 3 F-Lock
C 1000 S						•	•	•					•	•	•									
C 400 BL									•	•			•	•	•									
C 417									•	•	•	•	•	•	•									
C 444									•	•	•	•	•	•	•									
C 547									•	•			•	•	•									
C 562 BL									•	•			•	•	•									
C 562 CM									•	•			•	•	•									
C 568 B	•	•	•	•		•	•	•	•	•			•	•	•								•	
C 680 BL									•	•			•	•	•									
C 747	•			•	•	•	•	•	•	•			•	•	•								•	
CK 55 L											•	•												
CK 77 WR/C 577 WR									•	•		•	•	•	•									
CGN 321 (521) E				•						•														•
CGN 323 (523) E				•						•														•
CHM 21										•														
CK 31																								
CK 32																								
CK 33																								
CK 47																								
CK 80																								
C 480 B-ULS	•	•	•	•		•	•	•		•			•	•	•		•		•	•			•	
CK 61																	•		•	•				
CK 62																	•		•	•				
CK 63																	•		•	•				
CK 69																	•		•	•			•	
SE 300 B	•	•	•	•		•	•	•	•	•			•	•	•	•		•			•	•	•	
C 391	•	•	•	•		•	•	•	•	•			•	•	•	•		•			•	•	•	
CK 91				•	•											•		•			•	•		
CK 92				•	•											•		•			•	•		
CK 93				•	•											•		•			•	•		
CK 94				•	•											•		•			•	•		
CK 97-C																								
CK 97-O																								
CK 98				•	•								•					•			•		•	
D 190 ES	•	•	•	•		•	•	•																
D 3700M / D 3700M S						•	•	•							•									
D 3800M / D 3800M S						•	•	•							•									
D 542		•																						•
D 58															•									
D 660 S	•	•	•	•		•	•	•							•									
D 770	•	•	•	•		•	•	•							•									
D 880M / D880M S	•	•	•	•		•	•	•							•									

ACCESSORIES
WINDSCREENS

W 23
For use with ball head microphones approx. 50 mm (2 in.) in diameter
Item number:
6000H0621

W 30
For use with CK 31, CK 32, and CK 33
Item number:
2765Z0030

W 31
For use with ball head microphones approx. 40 mm (1.6 in.) in diameter
Item number:
6000H0623

W 32
For use with micro-phones approx. 50 mm (2 in.) in diam-eter, e.g., CK 61-ULS
Item number:
6000H0624

W 40
For use with Q 34 and K 109 SB
Item number:
2249Z0201

W 44
For use with MicroMics, e.g. C 420
Item number:
2344Z0101

W 46
Wire mesh wind-screen for CK 61/62/63-ULS
Item number:
2346Z0001

W 48, W 49
For use with CK 69-ULS
Item numbers:
W 48: 2569Z4001
W 49: 2569Z4101

W 62
For use with C 562 BL
Item number:
2262Z1301

W 68
For use with C 568 B
Item number:
2168Z3001

W 70
For use with CK 47, C 747
Item number:
2421Z0101

W 77, W 77/P
Windscreens for use with CK 77 WR, C 477 WR, and C 577 WR
Item numbers:
black: 9999N0624
flesh-tone (/P): 9999N0625

ACCESSORIES
WINDSCREENS

W 77 M, W 77 M/P
Wire mesh windscreens for use with CK 77 WR, C 477 WR, and C 577 WR
Item numbers:
black: 6000H0576
flesh-tone (/P): 6000H0578

W 407, W 407/P
For use with C 417
Item numbers:
W 407: 2366Z0601
W 407/P (flesh-tone): 2366Z0602

W 90
For use with AKG Blue Line capsules CK 91/92/93/94
Item number:
2496Z0001

W 444
For use with C 444
Item number:
2656Z1001

W 95
Wire mesh windscreen for use with AKG Blue Line capsules CK 91/92/93
Item number:
2495Z0001

W 547
For use with C 547 BL
Item number:
2448Z0201

W 97
For use with CK 97-C
Item number:
2297Z0001

W 880
For use with ball head microphones approx. 40 to 50 mm (1.6 to 2 in.) in diam.
Item number:
6000H0580

W 97/1
For use with CK 97-O
Item number:
2366Z0601

W 1000
For use with C 1000 S
Item number:
2331Z1401

W 98
For use with CK 98
Item number:
2439Z3001

W 3001
For use with Tripower Series vocal microphones
Item number:
2630Z0001

ACCESSORIES
SUPPORTS

H 30
Universal shock mount
Item number:
2183Z0001

H 31
Clamp for use with CK 97-C and LM 3
Item number:
6001H0010

H 38
Shock mount for use with AKG Blue Line, ULS Series, and C 568 B mics
Item number:
2338Z0001

H 39
Belt clip for use with SE 300 B preamp, CK 97 miniature microphone, C 577 WR and LM 3
Item number:
2096Z0002

H 40/1
Tie clip for use with all lavalier micro-phones
Item number:
2544Z0003

H 41
Tie pin for use with all lavalier micro-phones
Item number:
2544Z0002

H 45
Cable clothing clip for use with head-sets and lavalier microphones
Item number:
2194M0102

H 47
Shock mount for use with C 747
Item number:
2423Z0101

H 50
Stereo bar for use with AKG Blue Line microphones, C 480 B, and C 747
Item number:
6000H0571

H 97/15
Hanging device for use with CK 97-C
Item number:
2498Z0001

H 100
Spider suspension
Item number:
2803Z0012

H 300
Clip for X/Y or MS configurations
Item number:
2595Z0001

SUPPORTS, STAND ADAPTERS

H 500
Shock mount for goosenecks with integrated XLR connector, e.g., CGN 321 E.
Item number:
6000H0190

H 600
Shock mount for all goosenecks 8 mm (0.3 in.) in diameter
Item number:
2426Z0004

SA 18/1 B
For use with AKG Blue Line micro-phones
Item number:
1818Z0056

SA 18/2 B
For use with ULS Series microphones
Item number:
1818Z0058

SA 26
General-purpose “clothespin” type adapter for use with mics 19 to 23 mm (0.7 to 0.9 in.) in dia.
Item number:
2639Z0002

SA 38/H
Stand adapter w/shock mount for use with AKG Blue Line, ULS Series, and C 568 B micro-phones
Item number:
2339Z0002

SA 44
For use with Emotion Series
Item number:
6001H0632

SA 47
For use with C 747
Item number:
2186Z0005

SA 60
For use with straight-shaft microphones
Item number:
6000H6001

SA 61
For use with conical-shaft microphones
Item number:
6000H6101

SA 63
For use with C 1000 S, and WMS handheld transmitters
Item number:
6000H6301

STANDS & PHANTOM POWER ADAPTERS

ST 1
Folding mini tripod
dia.: 260 mm (10 in.),
h: 85 mm (3.3 in.)
Item number:
6000H0420

ST 5/3
Keystone-base
universal stand
160 x 120 x 70 mm
(6.3 x 4.7 x 2.8 in.)
Item number:
6000H0186

ST 12
Telescoping stand
dia.: 170 mm
(6.7 in.), h: 350 mm
(13.8 in.)
Item number:
6000H0002

ST 45
Low-profile table
stand w/off-center
threaded stub dia.:
115 mm (4.5 in.)
Item number:
6000H0308

ST 46
Miniature stand for
small microphones
dia.: 70 mm (2.8 in.),
h: 45 mm (1.8 in.)
Item number:
6000H0306

ST 102 A
Telescoping floor
stand w/70-cm
(27 in.) boom and
screw-on legs
Item number:
6000H0004

ST 200
Telescoping floor
stand (w/o boom),
w/folding legs
Item number:
6000H0110

ST 305
Heavy-duty table
stand dia.: 170 mm
(6.7 in.), h: 95 mm
(3.7 in.)
Item number:
6000H0305

A 48 V
Modifies B 18 to
provide 48 V
phantom power
Item number:
2318Z0001

B 15
Inline battery
operated power
supply for one con-
denser microphone
Item number:
6000H0463

B 18
Battery operated
phantom power
supply for one con-
denser microphone
Item number:
2198Z0002

B 29 L
Battery operated
power supply and
mini mixer for one
or two micro-
phones with L-plug
Item number:
6000H0462

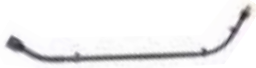
MPA III L
Phantom power
adapter with XLR
connector for
B-Lock and L type
microphones
Item number:
2397Z0013

N 62 E
AC phantom power
supply for two
condenser micro-
phones
Item number:
6000H0360

N 66 E
AC phantom power
supply for six
condenser micro-
phones
Item number:
6000H0361

OTHER ACCESSORIES

A 61
180° swivel joint for connecting C 480 B and capsule
Item number:
2363Z0001



MSH 80
390 mm (15.4 in.) gooseneck for use with C 747
Item number:
2418Z0001

A 91
Swivel adapter for connecting SE 300 B and capsule
Item number:
2491Z0001

PS 3 F-LOCK
Lockable panel-mount XLR connector for goosenecks with integrated 3-pin XLR connector, e.g., CGN 321 E.
Item number:
2425Z0001

GNS 36
360 mm (14 in.) gooseneck, black
Item number:
6000H0344

SHZ 80
Slotted screw link for use with C 747
Item number:
3416Z0102

KA 38
Hot shoe video camera adapter for use with H 38
Item number:
2438Z0001

VR 61
30 cm (12 in.) extension tube for use with ULS Series microphones
Item number:
2362Z0001

MK 9/10
10 m (33 ft.) microphone cable
Item number:
6000H0202

VR 62
90 cm (3 ft.) extension tube for use with ULS Series microphones
Item number:
2362Z0002

MK 90/3 + H 98
Microphone cable and adapter for AKG Blue Line
Item number:
2186Z0006

VR 91
35 cm (13.8 in.) extension tube
Item number:
2492Z0001

MF-DA
Mounting flange for use with GN …
Item number:
2647Z0001

VR 92
120 cm (4 ft.) extension tube
Item number:
2492Z0002

MSH 70
Short gooseneck for use with C 747
Item number:
2419M0102

GLOSSARY

Antenna Cable
Cable specifically designed for RF signals. Used for connecting a remote antenna to a receiver. Antenna cables are typically coaxial and symmetrical. Signal attenuation depends on the frequency band of the signal as well as the length and quality of the cable and is quoted for a 100-m run of cable.

Antenna Splitter
Electronic network specifically designed for RF signals. Distributes an antenna output signal to several receivers. Powered antenna splitters use an amplifier to compensate for cable attenuation while passive antenna splitters have no amplifier.

Balanced/Unbalanced Connections
Microphones can be connected to an amplifier with either balanced or unbalanced cables. In a balanced cable, the signal is carried by the two inner conductors and the shield is not part of the signal path. Even with long cable runs, any external interference signal (such as power line hum) would be induced equally in both conductors and thus be canceled. Unbalanced cables use only one center conductor as the "hot" wire, the shield being the ground ("cold"} lead. While this arrangement works well with cables up to 10 meters in length low-frequency, long-wave hum interference may be picked up by longer cables which act as a long-wave antenna.

BNC
Connector specifically designed for RF lines.
Booster
Amplifier for RF signals. Boosters are connected between a transmitter output and the antenna in order to increase radiated power (custom product).

Condenser Microphone
The transducer element consists of a vibrating diaphragm (metalized foil) only about a ten thousandth of an inch thick and a fixed metal electrode (back plate). The two electrodes make up a capacitor (condenser) charged by an externally applied DC voltage 1" polarizing voltage or carrying its own permanent charge. The sound waves driving the diaphragm will vary the capacitance of the capacitor and consequently the microphone output voltage will vary in step with the sound waves.

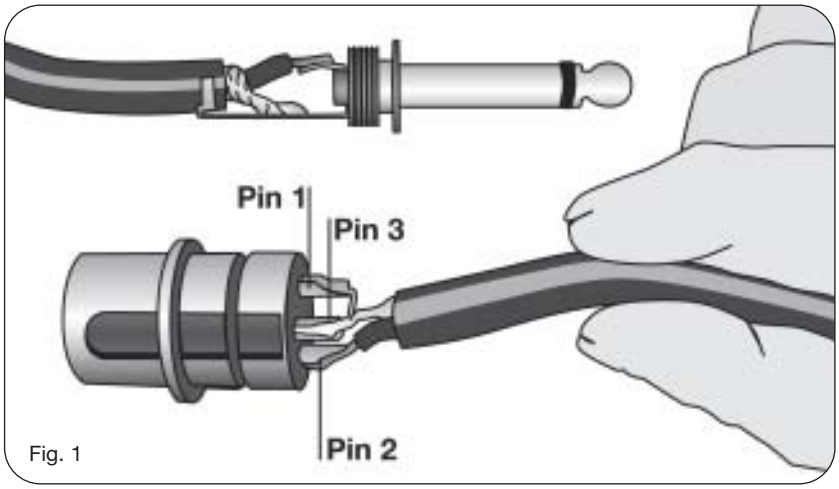


Fig. 1

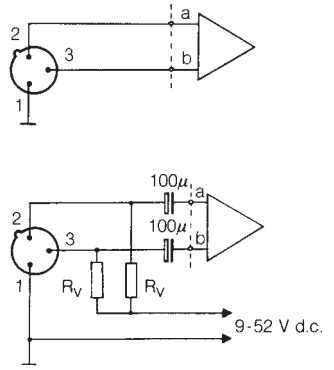
Condenser microphones, also called "capacitor microphones", need an impedance converter (preamplifier) to match the very-high-impedance condenser transducer to low-Z inputs. Condenser microphones usually have a flat frequency response, high sensitivity, and good transient response. They require a power supply. All AKG condenser microphones are designated by the letter(s) "C" or "CK" in front of the model number.

Connecting AKG Microphones
All handheld microphones listed in this catalog are low-impedance 1200 to 620 incorporating a balanced output on a 3-pin male XLR connector. Conforming to IEC 268-12, pin 1 is ground, pin 2 high, and pin 3 low. The output is compatible with all mixers, tape recorders, etc.

To connect an AKG microphone to an input jack, wire the microphone cable as follows: connect the sleeve of the jack plug (ground) to the cable shield and the shield to pins 1 and 3 on the XLR connector. The center ("hot") wire connects pin 2 to the jack plug tip (see fig. 1).

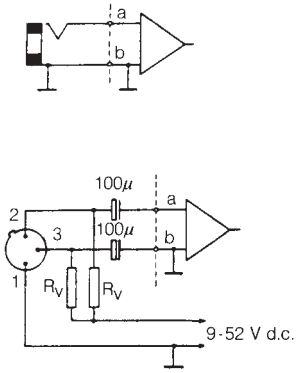
If your installation uses pin 3 as "high" or "hot", bridge pins 1 and 2 for unbalanced connections and make sure to follow the same convention for all

Balanced Input (XLR socket)



Modified Input (XLR) with phantom powering Fig. 2

Unbalanced Input jack



Modified Input with phantom powering Fig. 3

GLOSSARY

cables in order to avoid phase reversal problems.

Very old sound systems sometimes have high-impedance microphone inputs.
Should the signal of a low-impedance microphone be too weak, insert a 1:10 step-up transformer at the amplifier input. Long cable runs used with high-impedance equipment cause high-frequency loss. The same applies if you connect a microphone to a high-impedance guitar amplifier input.

Connecting Condenser Microphones
Condenser microphones – except for the battery powered C 1000 S – require an operating voltage that needs to be fed through the microphone cable (phantom powering). This can be done in several ways:

1. From a mixer with built-in phantom power (9 to 52 V).
2. By modifying the mixer or tape recorder to provide phantom power: find a regulated DC voltage between 9 and 52 V in the power supply. All modern AKG condenser microphones accept any voltage within this range. Wire the input(s) as shown. Current consumption of the phantom circuit is negligible (about 1 mA per mic) (see fig. 2). Replace the input jacks with XLR sockets if possible. While stereo jacks will work as well, there may be a risk of mistaking them for send/returns or the like (see fig. 3).
   Use the following standard resistances (IEC 26815) for Rv:

Voltage	Resistance	
12 V (±2 V)	680 ohms	+10%
24 V (±4 V)	1.2 kohms	±10%
48 V (±4 V)	6.8 kohms	±10%

   Make sure to use resistor pairs whose combined actual value is within 0.4 % of the specified value!
3. By inserting N 62 E or N 66 E AC power supplies between the mixer and microphones.
4. By using the B 18 battery power supply which is ideal for outdoor recording.

Crosstalk
The undesired coupling of signals from one channel to another channel.

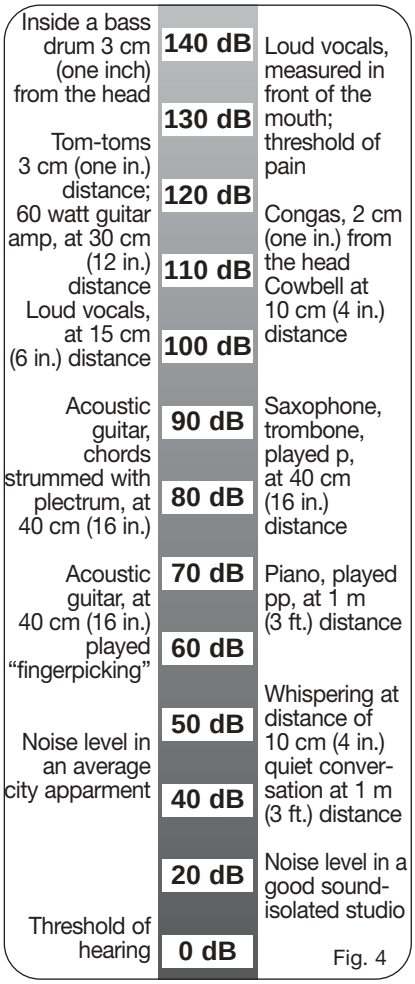


Fig. 4

dB SPL (fig. 4)
Decibel Sound Pressure Level. A measure of the sound level referenced to 20 µPa (the sound pressure corresponding to the threshold of human hearing). A 6-dB increase in SPL would sound about twice as loud.

Deep Fade
Massive decline of received signal strength due to cancellation of the carrier in multipath transmission situations.

Directivity Factor
The directivity of a microphone can be expressed in terms of the amount of sound energy it absorbs out of a diffuse sound field. The directivity factor indicates how much less sound energy is absorbed by a directional microphone than an omnidirectional microphone.

Distortion
Dynamic microphones virtually never distort the signal. To be precise, their distortions at very high sound pressure levels (<130 dB) cannot be measured because loudspeakers are incapable of reproducing such levels distortion free. For this reason, we state no maximum SPL for dynamic microphones.
However condenser microphones with their built-in preamplifier may overload at high sound levels. When close miking (from a few inches) loud instruments such as drums or trumpets the microphone sensitivity should be reduced. With the C 535, simply use the preattenuation switch.

Directional Antenna
Antenna whose sensitivity is highest within a limited angle in front of the antenna. Directional antennas are used mainly where standard receiving antennas cannot be mounted within the range of the transmitters so the transmitter signals must be picked up from greater distances (e.g., in open-air arenas).

Diversity
Reception technique that ensures clear reception even in difficult environments. Diversity receivers use several antennas for the same carrier frequency and some models use several receiving sections, too.

Downtime
Period of time during which a system is inoperative.

Dropout
Momentary loss of signal due to squelch operation or interference.

Dynamic Microphone
A coil attached to a diaphragm is driven by the sound waves and vibrates between the poles of a magnet. This movement induces in the coil a voltage which corresponds to the sound pressure. Dynamic microphones handle high sound levels without overloading and are very rugged. They require no operating voltage. Dynamic microphones from AKG are designated by

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the letter “N” in front of the model number. Also known as “moving coil microphone”.

Electret Condenser Microphone
Condenser microphone that needs no polarization voltage. Instead, a special metalized plastic “electret foil”, in which a permanent electrical charge has been stored by application of heat and a high polarizing voltage, is used either for the diaphragm or the fixed electrode. The latter type is called “back plate electret microphone”.

Electromagnetic Wave Spectrum
Range of frequencies of electromagnetic radiation.

Environment
Dynamic microphones will generally stand up to extreme environmental conditions such as temperatures from –5 °C to +70 °C and high humidity.

Condenser microphones, however, are susceptible to humidity and condensation. When an object is damp and colder than its environment, condensation water will form on its surface. Drops of condensation water inside the transducer or high-impedance preamplifier will cause crackling noises.

Storing condenser microphones:
1. Store the microphone in a dry and warm place. It should never be colder than its environment. If it has been transported in a cold car or van, allow it to warm up before use.
2. The supplied silica gel absorbs humidity. It will maintain this property as long as you keep it in the sealed package and may be regenerated in the oven if necessary.
3. Be sure to protect condenser microphones from rain when using them outdoors.

Equivalent Noise Level
Since condenser microphones incorporate a preamplifier, they introduce a low amount of self-noise which appears at the microphone output as an unwanted signal voltage. This noise voltage is measured using standard weighting filters and the result stated as the equivalent noise level in dB. An equivalent noise level of 20 dB, for instance, means that the self-noise of the microphone is as loud as a sound at 20 dB SPL (see dB SPL).

Noise level in quiet recording studio:
A low equivalent noise level means that the microphone's self-noise is low. The self-noise voltage is weighted either conforming to IEC 268-1 and DIN 45 405 using the filter according to CCIR 468-3 with the “quasi-peak” value being quoted, or in accordance with IEC 651 or DIN 45 412 using the A-weighting curve with the rms value being quoted. Studio engineers seem to prefer the CCIR weighting while A-weighting is still accepted as well.

ERP
Equivalent Radiated Power, a measure of a transmitter's RF output.

Far-Near Difference
The difference between the shortest and the longest distance between stage and antenna.

Feedback
When a microphone picks up amplified sound from a loudspeaker this signal will be reamplified, picked up again, etc., until the commonly known shrill howling (sometimes a lower midrange rumbling) sets in.

In small rooms, feedback is usually caused by reflections. In this case, acoustic treatment of the walls should help. On stages with correctly set up FOH speakers it is the monitor speakers that may cause feedback. A very good hypercardioid microphone (e.g. a D 3900) may sometimes provide a few extra dB's of gain-before-feedback. Place the monitors slightly off-axis (135-) where the microphone is least sensitive.

Frequency Management
Organization of frequency resources.

Frequency Modulation
A technology that alters (modulates) carrier frequencies to transmit information.

Frequency Range
The frequency range of a microphone is usually stated as the upper and lower frequency limits within which the microphone delivers a useful output signal.

Frequency Response
Microphones are not equally sensitive to all notes. The frequency response indicates the relationship between sensitivity and pitch. The 0-dB reference being the output voltage at 1 kHz, the frequency response is measured at constant sound pressure level, from about 20 Hz (lowest note) to 20 kHz (above the upper limit of human hearing).

Hum Sensitivity
Magnetic fields from amplifiers, long power cables, and lighting systems in particular may induce hum in microphones. A microphone's hum sensitivity gives an indication of how susceptible it is to this kind of interference. Values are 3 µV/5 µT for dynamic microphones with hum suppression coil, 30 µV/5 µT for dynamics with no suppression coil (D 90, D 95, D 190), and up to 10 µV/5 µT for condenser microphones. In practice, though, it is the microphone cables, most of all unbalanced ones, and mixer inputs, that are most likely to pick up hum.

Impedance
Frequency dependent AC resistance of a microphone. Always quoted at 1 kHz the actual impedance at other frequencies may differ slightly from this reference value. Also known as “source impedance”.

Intercept Point
The Intercept Point (IP) provides a measure for an amplifier's resistance to intermodulation distortion. IP 3, for example, is the reciprocal value of the third-order coefficient of an amplifier's nonlinear transmission polynomial.

Interference
Disturbance in transmission caused by extraneous signals.

Intermodulation
A nonlinear (multiplicative) combination of signals with different carrier frequencies that will produce completely new frequencies, called intermodulation products.

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Limiter
Electronic circuit that prevents subsequent circuits being overloaded by excessive signal levels that would also cause distortion.

Line Microphone
The directivity factor of conventional unidirectional microphones is limited by the laws of physics. This can be overcome by installing a slotted tube in front of the diaphragm ("interference tube"). Off-axis sounds are canceled through interference, which results in an ultradirectional polar pattern.

Matching
Microphones should operate in an open circuit. This is the case if the input impedance of the preamplifier or mixer is at least 2 to 5 times as high as the microphone's rated impedance. The appropriate value is quoted in the specifications of each microphone as "recommended load impedance".

Maximum SPL
The highest sound pressure level (loudness) a microphone can handle without introducing more than a specified amount of "Total Harmonic Distortion" (1 %), in other words, without distorting the signal. Usually measured at 1 kHz, except for the C 460 B ULS Series where it is quoted from 30 Hz to 20 kHz.

Mechanical Noise
See "Vibrational Noise".

Memory Effect
The loss of capacity which occurs in nickel-cadmium storage batteries if they are not completely discharged prior to recharging.

Modulation and Demodulation
A sine-wave carrier starting at a time of minus infinity and ending at a time of plus infinity contains no information. However, any change in amplitude or frequency at any time (e.g., a pulse-like change) adds information to the carrier. This process is called "modulation". The process by which a receiver detects and extracts this information from the carrier is called "demodulation".

Multichannel System
A wireless microphone system that allows several radio microphones to be operated simultaneously in the same room.

Noise Burst
Brief disruption of the desired signal by noise from a transient interference source (e.g., ignition spark).

Noise Skirt
An ideal carrier spectrum would be a line. As the carrier is modulated, the noise inherent in the switching signals makes the transients look ragged. This raggedness ultimately frequency-modulates the carrier with noise.
Once that happens, the carrier spectrum is no longer a line but a noise spectrum that tapers off to either side of the wanted frequency, which is why this part of the spectrum is called a "noise skirt".

Phantom Power
to IEC 2681 5/DIN 45596
Condenser microphones require an operating voltage. It can be fed to the microphone either by a-b powering or phantom powering. In a-b powering, the operating voltage is fed to the balanced audio wires without using the shield. a-b powering is incompatible with dynamic microphones since the operating voltage would flow through the moving coil and destroy it.

In phantom powering, the negative terminal is connected to the cable shield and the positive terminal is split via decoupling resistors to the balanced audio wires. Since both audio wires carry the same potential, no current will flow through the coil of a dynamic microphone so there is no risk of destroying it even if the phantom power is accidentally left on.

When adding phantom power to a single ended (grounded) input or an input with no front-end transformer, either capacitors or an optional transformer need to be wired into the audio lines as shown below, to prevent leakage currents from entering the input stage.

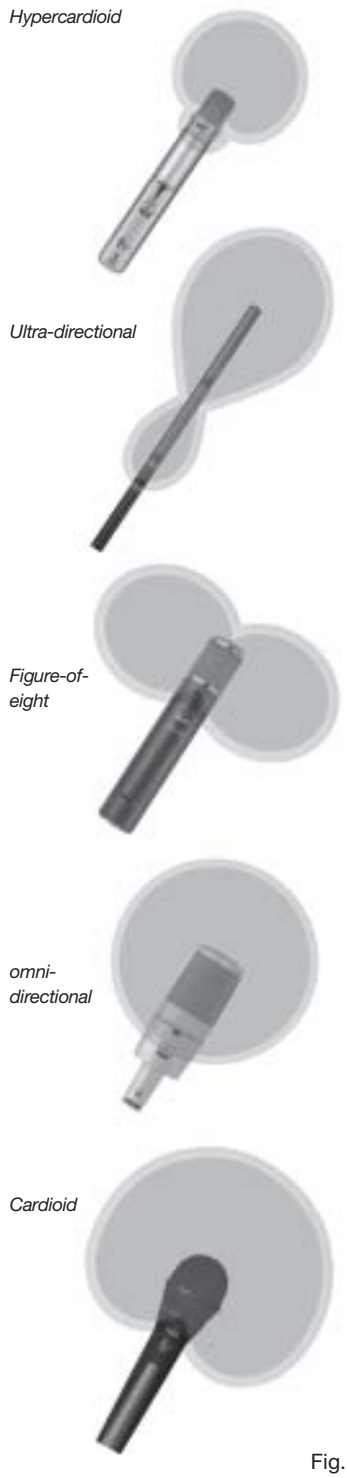
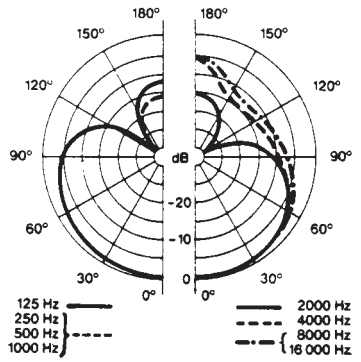


Fig. 5

GLOSSARY

Polarity
If you use more than one microphone for a recording, they should be of the same polarity. This means that if the diaphragms move in the same direction, the output voltages of all microphones should have the same polarity. If they don't there will be signal cancellation effects causing sound coloration – particularly in the bass range – as soon as you mix the microphone output signals together.

Polar Pattern
The "polar pattern" of a microphone indicates its sensitivity to sounds arriving from different directions. Omnidirectional microphones "hear" equally well in all directions while all others prefer sound from one (unidirectional) or two (bidirectional) directions. The polar diagram shows the three-dimensional "hearing performance" of a microphone as a single curve (see fig. 5). It is sufficient to plot only one half of the curve (0° through 180°) since the other half (180° through 360°) is symmetrical. In this way, the directivity can be shown (see fig. 6) for several different frequencies (broken, dotted, solid lines).



At 150° off-axis, the sensitivity is 17 dB down (referenced to 0°) at 125 Hz (solid line), and 10 dB down at 8 kHz (dashdotted line, right-hand half). 150° means 150° left, right, up, and down.
Fig. 6

Pop Noise
In order to avoid those unpopular pop noises on stage, remember the following:

- Talk across the microphone head.
- Interestingly, pop noises are worst about 2 in. from the mic. So move either closer or further away.
- Perhaps use an extra foam windscreen.

See "Accessories" section.

Pressure Gradient Microphone
If both the front and rear of a diaphragm are exposed to a sound field, then the force that vibrates the diaphragm results from the difference between the sound pressures in front and to the rear of the diaphragm (called the pressure gradient).

The magnitude of the driving force depends on the distance between the front and rear sound entries (see fig. 7), the frequency, and the angle of incidence and is therefore a directional variable which can be utilized to design directional microphones. Cardioid, figure eight, or hypercardioid polar patterns can be achieved by incorporating appropriate sound paths.

Pressure Microphone
If only one side (front) of a microphone diaphragm is exposed to a sound field and the other (rear) side sealed off by a soundproof case, the diaphragm will be vibrated by changes in sound pressure only. Sound pressure being a non-directional (scalar) variable, the microphone is equally sensitive in all directions. The resulting polar pattern is called omnidirectional 1.

Proximity Effect
In unidirectional microphones, as the working distance decreases, the output voltage rises more markedly at the low frequencies than throughout the rest of the frequency range. This is due to the fact that the diaphragm is vibrated by the pressure gradient between its front and rear surfaces and the pressure gradient is related to the curvature of the wave fronts.
This effect, known as "proximity effect", begins to become audible at a few hundred Hz and at extremely close working distances, the output level may be up to 15 dB higher at 50 Hz than at 1 kHz. This corresponds to about 6 times the normal output voltage.

Fig. 7

Reflection
When a signal wave hits an obstacle, it will be reflected, i.e., bounce off the obstacle's surface at an angle equal to the angle of incidence.

Remote Antenna
Antenna that is connected by a special antenna cable to the antenna input socket on a receiver rather than directly to the antenna input socket.

Room Radius
In a room within which a sound is generated, e.g. by a loudspeaker, every point is characterized by its own unique ratio of direct sound and sound reflected from the walls. The distance from the sound source at which the direct and reflected sound energies are equal is called the "room radius". Outside the room radius the overall sound pressure level is constant throughout the room in the form of a "diffuse sound field".

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Sensitivity
A microphone's output voltage at any given sound pressure level. A more sensitive microphone will sound louder at the same gain setting (the feedback risk being proportionately higher). High sensitivity (condenser microphones) is needed to drive the mixer adequately when far miking quiet sound sources.

Sensitivity is commonly given in mV/Pa or dBV (referenced to 1 V/Pa) and measured at 1 kHz.

Here are some examples:

D 58	0.7 mV/Pa (–63 dBV)
D 190	1.6 mV/Pa (–56 dBV)
C 1000 S	6.0 mV/Pa (–44 dBV)
C 535	7.0 mV/Pa (–43 dBV)
C 451 EB comb	9.5 mV/Pa (–40.5 dBV)
C 460 B comb ULS/61	10.0 mV/Pa (–40 dBV)
C 562 BL	20.0 mV/Pa (–34 dBV)

Shadow loss
Signal loss which occurs in wireless transmission if an obstacle blocks the line-of-sight transmission path between transmitter and receiver.

Signal Loss
Signal loss in a cable may be due to ohmic resistance, dielectric leakage or radiation loss.

Signal-to-noise (S/N) Ratio
The S/N ratio is the difference between the reference sound pressure level of 94 dB (1 Pa sound pressure) and the equivalent noise level. Contrary to the equivalent noise level, a lower S/N ratio means higher noise and therefore a narrower dynamic range.

Squelch
Electronic circuit that switches the receiver off when the received signal is too weak so the associated extraneous noise and the self-noise resulting from the receiver being switched off will be inaudible. The squelch threshold is usually user adjustable within a preset range.

Tone coded squelch, tone-code squelch, tone squelch
These terms denote a circuit that will open the audio path only when it detects a system specific tone within the demodulated signal. This tone is higher than 20 kHz, the upper end of the range of human hearing, and is added to the audio signal by the transmitter.

Total Harmonic Distortion (T.H.D.)
A measure of the non-linear distortion of a signal (e.g. a sine wave) that occurs when a microphone or input is overloaded producing harmonics (overtones) at multiples of the fundamental frequency.

Transient
Temporary change in voltage or current occurring as a voltage or current source is switched on or off, e.g., a transistor controlled by a pulse signal.

Transient Response
The ability of a microphone to follow sudden sound events immediately. Transient response depends on diaphragm mass, transducer damping factor, etc.

Types of Microphones
Microphones utilize different electroacoustical principles to convert sound energy to electrical energy:

1. Carbon Microphone A microphone using a flexible diaphragm which moves in response to sound waves and applies a varying pressure to a container filled with carbon granules, causing the resistance of the microphone to vary correspondingly

2. Piezoelectric microphone A microphone in which deformation of a piezoelectric bar by the action of sound waves generates an output voltage between the faces of the bar. Also known as “crystal microphone”.

3. Magnetic microphone A microphone employing a diaphragm acted upon by sound waves and connected to an armature which varies the reluctance in a magnetic field surrounded by a coil. Applications include miniature microphones for hearing aids and guitar pickups.

4. Dynamic microphone A conductor (coil attached to diaphragm, ribbon) flexibly suspended in the field of a fixed magnet is vibrated by sound waves. This induces in the conductor an AC voltage that varies in step with the sound waves.

5. Electrostatic microphone A flexible diaphragm and a fixed electrode together form a two-plate air capacitor whose capacitance varies in step with the sound waves that vibrate the diaphragm. Also known as “capacitor microphone” or “condenser microphone”. In electret microphones one of the electrodes carries a permanent charge.

UHF
Ultra High Frequency

VHF
Very High Frequency

Vibrational Noise
In addition to air-borne sound, microphones also pick up mechanical noise such as impact, footfall, handling, or cable noise. Such unwanted noise can be reduced by special design features (transducer shock mount, compensation systems, bass cut)

Vocal Microphone
A microphone specifically designed for vocal use on stage. It incorporates a pop screen, a transducer shock mount to reduce handling and impact noise, and is particularly rugged so it will survive the occasional drop from the stand.
Many vocal microphones have an upper midrange (3 to 8 kHz) peak to make the voice cut through. In the studio, vocals are ideally recorded from 30 cm (1 ft.) or even farther, usually with condenser microphones.

Wavelength
The distance between two consecutive peaks (or troughs) of a sine wave.

NOTES

AKG ACOUSTICS

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