

CMS-Microphone Capsules



CK1



CK1S



CK2



CK5

CK9



CK 1^{*)}

Stable condenser capsule with cardioid polar pattern.

Recommended applications: in conjunction with FET-pre-amplifier for all general-purpose applications requiring a high-quality cardioid microphone.

CK 1 S: same as CK 1, but with presence boost at approx. 10 000 Hz of about 6 dB.
Recommended applications: in conjunction with FET-pre-amplifier mainly for speech and vocal recordings.

^{*)} Also available in dull-black finish.

CK 8



CK 2^{*)}

Stable condenser capsule with omnidirectional polar pattern.

Recommended applications: in conjunction with FET-pre-amplifier for top-quality studio recordings.

CK 5

Condenser microphone capsule with cardioid pattern. Elastically suspended

system with built-in windscreen guarantees great insensitivity to mechanical and structure-borne vibrations and wind noise. In conjunction with FET-pre-amplifier ideally suited as soloist microphone.

CK 8

Short shotgun capsule with highly frequency independent lobar (hypercardioid) characteristic and therefore narrow-angle pick-up. Recommended applications: in conjunction with FET-pre-amplifier for TV- and sound film recordings as well as for the stage, reporters and in-the-field recordings.

Included accessories: foam windscreen W 18.

CK 9

Shotgun condenser capsule with highly frequency-independent lobar pattern with particularly narrow pick-up angle.

Recommended applications: in conjunction with FET-pre-amplifier for TV- and sound film studio recordings, for reporters, and in-the-field recordings as well as on the stage.

CMS-Pre-Amplifiers

For further details see AKG leaflet KBLA 116.



C 451

FET-pre-amplifier for universal-phantom-powering (9–52 V). Power consumption (dependent on source resistance and operating voltage): ≤ 5.5 mA.

C 451 comb

Cardioid condenser microphone consisting of cardioid condenser capsule CK 1 and FET-pre-amplifier C 451.

Included accessories: SA 15/1, wind-screen W 3.

C 451 B*: same as C 451, but with built-in two-position bass-cut switch (-7 , -20 dB at 50 Hz, at cut-off frequencies of 75 and 150 Hz).

C 452 EB*: same as 451 B, but adapted for 48 V phantom power supply.

*** Also available in dull-black finish.**

AKG's range of advanced, miniature condenser microphone capsules are based on a gold-vaporized ceramic electrode with a permanently fixed diaphragm. Both materials have the same

expansion co-efficient, making the capsules impervious to a wide temperature range (-20°C ... $+60^{\circ}\text{C}$) and humidity fluctuations (99% at 20°C and 95% at 60°C).

They are free of deterioration and hysteresis. The ceramic electrode is provided with an insulating coating, preventing short circuit of electrode and diaphragm.

FET-PREAMPLIFIERS



C 451CB

As C 451C but incorporates a 3-position switch to give:

- Flat response as C 451 standard version
- "Roll-off" -7 dB at 50 Hz (starting at 75 Hz)
- "Roll-off" -20 dB at 50 Hz (starting at 150 Hz)

Weight net: 65 g, gross: 360 g
Dimensions (L x ϕ): 130 x 18 [mm]



C 451EB*)

As above but with XLR 3-pin connector (E)
Weight net: 65 g, gross: 360 g
Dimensions (L x ϕ): 140 x 18 [mm]



C 452EB*)

As above but with 3-pin-XLR connector (E)
Weight net: 65 g, gross: 360 g
Dimensions (L x ϕ): 140 x 18 [mm]

MICROPHONE CABLES



MK 1/5

5 m long, 3-core audio cable (from N 46C to amplifier), with DIN-plug PC 1/2 on one side, other cable ends free
Weight net/gross: 130 g



MK 9/10 MK 9/20

Microphone cable (MK 9/10: length 10 m; MK 9/20: length 20 m) for connection of E-type preamplifier with E-type power supply units, on one side 3-pin-XLR plug male and on the other side 3-pin-XLR-plug female
Weight net/gross: MK 9/10: 380 g; MK 9/20: 630 g



MK 4/5

5 m long, 3-core audio cable (from N 46E and N 66E to amplifier), on one side with 3-pin XLR female plug, other side cable ends free
Weight net/gross: 130 g

BATTERY AND POWER SUPPLY UNITS

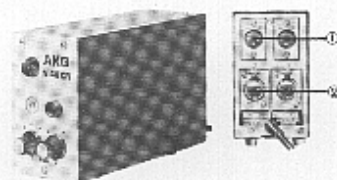
B 46C

Battery unit for one C 451C or C 451CB. Sturdy, all metal construction. On-off switch, with 3 pin DIN connector T 3263 and 1.5 m/3' long audio cable, cable ends free.
Slide-in unit for 9 V batteries (IEC (40 operating hrs.) or Mallory TR 146X (220 operating hrs.)). Weight net: 410 g, gross: 480 g
Dimensions: 116 x 35 x 35 [mm]



N 46C1

Dual D.C. power supply with control unit (2 adjustable bass cut filters -7 dB at 50 Hz and -30 dB at 30 Hz), automatic adaptation to the mains voltage either 110 or 220 V A.C., for 2 preamplifiers C 451C, C 451CB.
Weight net: 1400 g, gross: 1800 g
Dimensions: 196 x 65 x 107 [mm]



① Output (to amplifier)
② Input (from microphone)

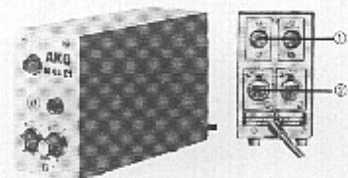
B 46E

Battery unit for one C 451E, C 451EB or C 414EB. As B 46C but with 3-pin XLR-plug.
Weight net: 410 g, gross: 480 g
Dimensions: 146 x 35 x 35 [mm]



N 46E1

As N 46C but for 2 preamplifiers C 451E, C 451EB or C 414EB.



① Output (to amplifier)
② Input (from microphone)

N 66E

6-channel power supply unit for feeding up to six CMS-microphones or C 414EB. May be internally reconfigured for 110 or 220 V mains voltage.
Weight net: 285 g



SA 15/1*)

Swivel stand adapter made of transparent plastic with metal base for C 451 or C 452
Weight net: 40 g, gross: 70 g



SA 18/1*) SA 18/3*)

All metal swivel stand adapter with securing lock
Weight net: 140 g, gross: 160 g



H 15

Elastic microphone suspension which also acts as stand adapter. For C 451 and C 452 with CK 1 or CK 15 or CK 2
Weight net: 150 g, gross: 250 g



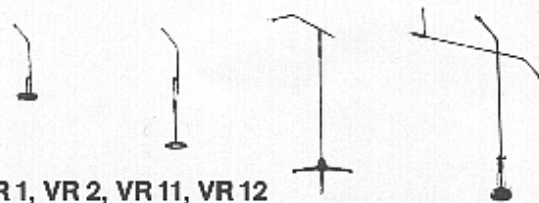
H 60

Elastic microphone suspension for C 451 and C 452 with all CMS capsules
Weight net: 80 g, gross: 110 g



VR 1, VR 2, VR 11, VR 12 ST 12, ST 102A, ST 200

VR 1 Extension tube, length approx. 30 cm, for insertion between capsule and preamplifier C 451 or C 452.
Weight net: 70 g, gross: 260 g
VR 2 Extension tube (stage version), length approx. 130 cm, hinged and balanced. For insertion between capsule and preamplifier C 451 or C 452. Weight net: 2130 g, gross: 2700 g
VR 11 Same as VR 1, but straight.
VR 12 Same as VR 2, but straight.
ST 12 Massive cast iron base stand with telescopic tube (adjustable between 35 and 55 cm [approx. 14 to 21']) and circular base (ϕ 18 cm [approx. 7"]) for universal use.
Weight net/gross: 2350 g
ST 102A Studio boom-stand, telescopic upright (adjustable between 91 and 163 cm [approx. 36 to 64']) with 70 cm (approx. 27") boom arm and screw-mounted legs (tripod radius 37 cm [approx. 14']).
Weight net: 4900 g, gross: 5500 g
ST 200 Telescopic upright stand (adjustable between 110 and 180 cm [approx. 44 to 70']) with collapsible legs (tripod radius 29 cm [approx. 11']). incorporated shock absorbers.
Weight net: 3550 g, gross: 4200 g

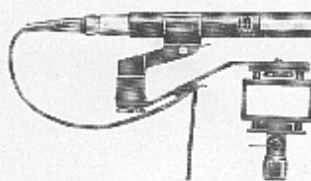


Note: The C 452EB versions must not be connected to the feeding units B 46 and N 46. The operating voltage of 48 V should be available via a stationary power supply unit. All other modules and accessories can be used in conjunction with C 452EB versions. The same characteristics as with C 451 series preamplifiers will be achieved.

A choice of capsules, each with a different type of pick-up pattern and response characteristic may be used on the C 451 series preamplifiers.

A complete selection of components and accessories such as extension tubes, swivel adapters, attenuation pads, suspensions,

windcreens etc. further illustrates the broad flexibility of the CMS.

WINDSHIELDS	CONDENSER CAPSULES FOR USE WITH C 451, C 452 SERIES PREAMPLIFIERS	ACCESSORIES	FET-PREAMPLIFIERS												
 W 3 Foam windscreen Weight net: 5 g, gross: 30 g  W 17A*) All metal wire mesh windscreen with foam rubber lining Weight net: 40 g, gross: 60 g	CK 1*) Cardioid flat response. Recommended for music recordings. Frequency Range: 20 ... 20 000 Hz Directional characteristic: frequency independent cardioid, wide front-to-back discrimination (180° discrimination >20 dB) Sensitivity at 1000 Hz: 0.95 mV/ubar (-60.5 dBV) Weight net: 20 g, gross: 60 g Dimensions (L x ø): 28.3 x 18 [mm] CK 1S As CK 1 but with rising response at 10 000 Hz producing added presence "sharp" cardioid effect. Recommended for stage use. Frequency Range: 20 ... 20 000 Hz Directional characteristic: frequency independent cardioid; wide front-to-back discrimination (180° discrimination >20 dB) Sensitivity at 1000 Hz: 0.95 mV/ubar (-60.5 dBV) Weight net: 20 g, gross: 60 g Dimensions (L x ø): 28.3 x 18 [mm] CK 2*) As CK 1 but omni-directional. Recommended for vocalists with C 451EB (CB) or C 452EB preamplifiers. Frequency Range: 20 ... 20 000 Hz Directional characteristic: omni-directional Sensitivity at 1000 Hz: 0.8 mV/ubar (-62 dBV) Weight net: 20 g, gross: 60 g Dimensions (L x ø): 28.5 x 18 [mm] CK 5 The CK 1 cardioid capsule permanently and elastically mounted in wire mesh windscreen. The frequency response is slightly different from the CK 1. Frequency Range: 20 ... 20 000 Hz Directional characteristic: frequency independent cardioid, wide front-to-back discrimination (180° discrimination >20 dB) Sensitivity at 1000 Hz: 0.95 mV/ubar (-60.5 dBV) Weight net: 100 g, gross: 200 g Dimensions (L x ø): 72 x 49 [mm] CK 8 Hypercardioid short shotgun capsule. Recommended for film sound (in conjunction with C 451EB or CB and C 452EB amplifiers only) and music recordings where an exceptionally high degree of separation is required. Frequency Range: 30 ... 20 000 Hz Directional characteristic: lobar directivity Sensitivity at 1000 Hz: 1.5 mV/ubar (-57 dBV) Weight net: 75 g, gross: 330 g Dimensions (L x ø): 215 x 18 [mm] CK 9 Long shotgun capsule. Recommended for film sound or stage use (in conjunction with C 451EB or CB and C 452EB amplifiers only) wherever higher directivity and off-axis rejection over normal cardioid pattern is required. Frequency Range: 30 ... 18 000 Hz Directional characteristic: lobar directivity Sensitivity at 1000 Hz: 1.1 mV/ubar (-59 dBV) Weight net: 480 g, gross: 950 g Dimensions (L x ø): 610 x 23 [mm]	A 50/10*) A 50/20*) Attenuation pad for applications with extremely high sound pressure levels. For insertion between capsule and preamplifier. Attenuation over the entire frequency range. A 50/10 ... -10 dB A 50/20 ... -20 dB Combining a number of pads the following attenuation may be achieved: <table><tr><td>A 50/10</td><td>-10 dB</td></tr><tr><td>A 50/20</td><td>-20 dB</td></tr><tr><td>A 50/10+</td><td>-22 dB</td></tr><tr><td>A 50/20</td><td>-24 dB</td></tr><tr><td>2 x A 50/20</td><td>-24 dB</td></tr><tr><td>3 x A 50/20</td><td>-28 dB</td></tr></table> Weight net: 15 g, gross: 25 g A 51*) Swivel joint enables capsules to be angled on a C 451 series preamplifier (range ±90°). Also for use with stereo cross bar H 10 for AB or XY stereo application with two condenser microphones Weight net: 50 g, gross: 60 g	A 50/10	-10 dB	A 50/20	-20 dB	A 50/10+	-22 dB	A 50/20	-24 dB	2 x A 50/20	-24 dB	3 x A 50/20	-28 dB	C 451C FET preamplifier in universal phantom circuitry with built-in 3-pin DIN connector (C). No-load amplification: 0.47±0.5 dB (feeding via 27 pF condenser and load of studio amplifier RL ≈ 3 kohms) Impedance (20 ... 20 000 Hz): 3200 ohms Operating voltage: 9 V D.C. Universal phantom powering: 9-52 V D.C. (within the range of 7.5 to 9 V D.C. with proportionally decreased sensitivity) Current consumption: ≤ 5 mA (DIN 45 596) Weight net: 75 g, gross: 370 g Dimensions (L x ø): 114 x 18 [mm] C 451E As above but with 3-pin XLR connector (E) Technical data as C 451C Weight net: 85 g, gross: 360 g Dimensions (L x ø): 124 x 18 [mm]
A 50/10	-10 dB														
A 50/20	-20 dB														
A 50/10+	-22 dB														
A 50/20	-24 dB														
2 x A 50/20	-24 dB														
3 x A 50/20	-28 dB														
 W 18 Foam windscreen for CK 8, wind-noise attenuation >15 dB Weight net: 5 g, gross: 80 g  W 19 Foam windscreen for CK 9, length 55 cm, wind-noise attenuation >20 dB Weight net: 90 g, gross: 550 g															
 SA 70/3 All metal swivel stand adapter with securing lock to be used in conjunction with H 70 or H 7 pistol grip for CK 9 gun microphone. Weight net: 260 g, gross: 350 g	 H 70 Elastic suspension to be used in conjunction with SA 70/3 (or with SA 70/9) for gun microphone CK 9 (or D 900). Weight (net/gross): 180 g  H 7 Pistol grip made out of rubber for SA 70/3 with CK 9 (or SA 70/9 with D 900). Weight net: 230 g, gross: 280 g	 H 10 Metal stereo crossbar with two knurled screws 3/8". Weight net: 240 g, gross: 300 g H 9 Device for suspending CMS microphones e.g. on ceiling or for attaching H 10 Weight net: 45 g, gross: 70 g													

*) Also available in dull-black finish