

Premium head-worn microphone  
 Handfree use  
 Lead and backing vocals  
 Lectern  
 Intercom systems

- Cardioid polar pattern
- Differoid noise cancelling technologie
- Outstanding gain-before-feedback and isolation
- CM-311A has battery/phantom belt pack
- CM-311AE connects to most wireless transmitters



# CM-311A

# CM-311AE

Designed for touring and live-sound applications, the CM-311A is a rugged head-worn microphone with unequalled performance. It sounds like the best handheld microphones—full, clear, and distortion-free, even with the loudest singers.

The CM-311A is the latest version of the Crown's® proprietary Differoid technology. "Differoid" stands for differential cardioid. A differential microphone is a noise-cancelling mic, which cancels sounds beyond a few inches away—such as floor monitors, instruments on stage, and crowd noise. And a cardioid microphone rejects sounds behind the microphone—such as floor monitor speakers. Controlled field tests showed that the Differoid provides up to 12 dB more gain before feedback than conventional cardioid microphones. Many users of the Differoid say that their house mix is better because the mic's isolation is nearly complete. The microphone was also designed to reject sound behind the microphone, for example, from a floor monitor speaker. Not only does this prevent feedback, it also reduces the sonic coloration caused by monitor sound leaking into the vocal microphone. This results in the CM-311A having outstanding gain-before-feedback and isolation.

Lightweight and comfortable, the mic's headband and boom adjust to fit any singer. An included pop filter greatly reduces breath noise and pops. Because of the boom's unique behind-the-ear design, it does not cover up the singer's face.

Two models are available: CM-311A and CM-311AE. The CM-311A is powered by a 9V battery or phantom power. It has a battery belt pack with an on/off switch, a programmable mic on/off switch, and a "Mic On" LED. The CM-311AE is a pig-tail version allowing you to connect it to most wireless transmitters.

AKG SOUNDS BETTER



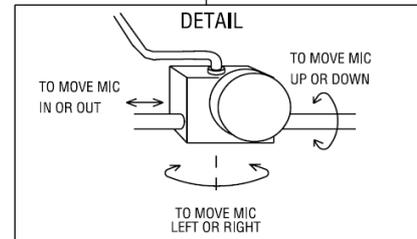
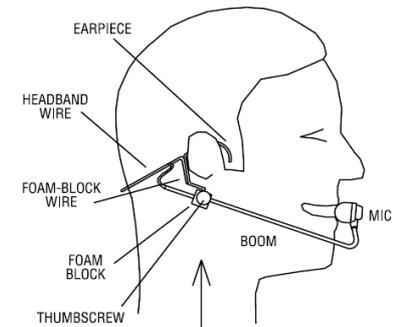
# Boundary Layer Microphones

## How to adjust for best fit and to prevent boom bounce

Note: To get the maximum performance out of this microphone, take the time to adjust it to fit correctly.

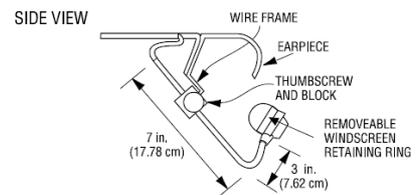
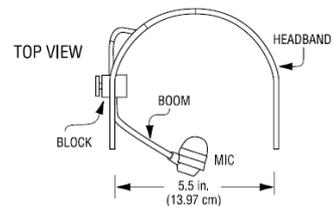
For best results, the CM-311A MUST be custom fitted to a single user's head. This simple procedure takes only a few minutes.

1. If the microphone is for yourself, we suggest that you use a mirror to double check the fit as you make adjustments.
2. Loosen (just a little) the thumbscrew located on the outside of the foam block, part way back on the boom. This allows the boom to slide in and out, and to rotate left and right.
3. Now bend the headband wire to fit your head. Put the foam-block wire behind your ear. Then you can bend the earpieces to fit snugly around your ears. The back of the headband should fit firmly against the back of your neck.
4. Next, adjust the foam pad snug against your head or neck. To do this, bend the wire that goes into the foam block. CAUTION! Do not bend the boom itself—just the foam-block wire. A snug fit of the foam pad prevents boom bounce when you move around.
5. Be sure that the thumbscrew is still loosened a little. Move the boom in or out, and left or right, to center the mic directly in front of your lips. The foam pop filter should press firmly against the lips. This is necessary because the mic cancels sounds that are not close to it. Also, it keeps the boom from bouncing. Tighten the thumbscrew and you're done. Once you've adjusted the headset, it should remain in that position -- no further adjustments are needed. You can still swing the mic up or down, away from your lips, if you don't want to be heard on the P.A.



## Architects' and Engineers' Specifications

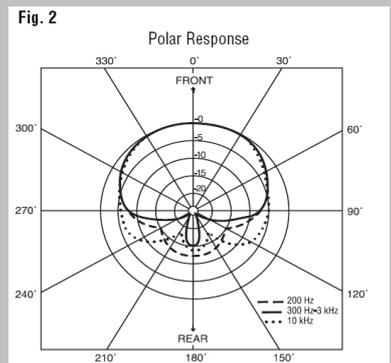
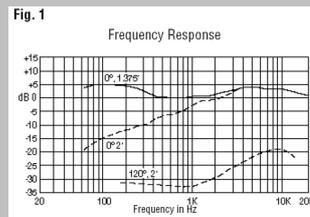
The microphone shall be the Crown Model CM-311A or CM-311AE or equivalent. The microphone shall be a head-worn, noise-cancelling, cardioid type of electret-condenser design. The microphone shall exhibit excellent off-axis response and gain-before-feedback. The microphone shall have an adjustable headband, adjustable boom with locking thumbscrew, and foam pop filter. Model CM-311A shall include a battery belt pack. Model CM-311AE shall be the head-worn micro-connect the microphone to the belt pack. The belt pack shall include a 3-pin pro audio (XLR type) connector. In the CM-311AE, a 42-inch, permanently attached, two-conductor shielded cable can be connected to a transmitter. Model CM-311A shall be powered by a 9V battery in the belt pack, or by 18 to 48V phantom power. The belt pack shall have a battery on/off switch, a programmable mic on/off switch, and a "Mic On" LED. Model CM-311AE shall be powered by 3-9V DC from a transmitter. Nominal open-circuit sensitivity shall be 4 or 1.25 mV/Pa. Maximum SPL shall be 148 dB SPL for 3% THD. Equivalent noise shall be 27 dBA nominal. Frequency response shall be 50 Hz to 17,000 Hz with a uniform off-axis response, over 20 dB down at the rear null. The Crown models CM-311A and CM-311AE are specified.



## Specifications:

<b>Polar pattern:</b>	cardioid
<b>Frequency response:</b>	50 to 17,000 Hz
<b>Impedance:</b>	CM-311A: 75 ohms balanced CM-311AE: 6 kohms unbalanced
<b>Equivalent noise level:</b>	26 dB-A
<b>Maximum SPL:</b>	148 dB
<b>Powering:</b>	18 to 48 V phantom power to DIN/IEC
<b>Cable:</b>	106 cm (42 in.)
<b>Finish:</b>	satın black
<b>Net weight:</b>	Head-worn mic, 61g (2.1 oz). CM-311A belt back and battery, 173g (6.1 oz)

<b>Item number:</b>	CM-311A 6000H50180
	CM-311 AE 6000H50190



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