



# Coles

4104  
COMMENTATOR'S  
RIBBON MICROPHONE

- ★ Better than 30 dB average discrimination between voice and background noise.
- ★ Provides speech of broadcast quality completely free from breath noises.
- ★ Flat frequency response at the controlled talking distance.

The 4104 Commentator's Noise Cancelling Ribbon Microphone is of British Broadcasting (BBC) design and used for reproducing high quality commentary speech from noisy surroundings by cancelling out a considerable degree of background noise.

The 4104 has a proven reliable performance capability, being since its introduction used by such broadcasting networks as the BBC, IBA, CBS and ABC.

The 4104 is not unduly affected by wind noise and can be used in air stream velocities up to 20 mph (32 km) without notable difference in speech quality. With the use of a simple windshield attachment good quality speech reproduction can also be achieved in winds ranging up to 40 mph (64 km) or more.

Importantly the polar response is effectively bi-directional allowing one or more commentators to make clear individual commentary close side by side without interference from mutual cross over talk.

#### MODEL 4104 NOISE CANCELLING

Pressure gradient transducer ribbon microphone.

#### RIBBON

Corrugated aluminium ribbon protected by fine woven nylon gauze.

#### POLAR RESPONSE

Bi-directional.



Effective noise cancellation

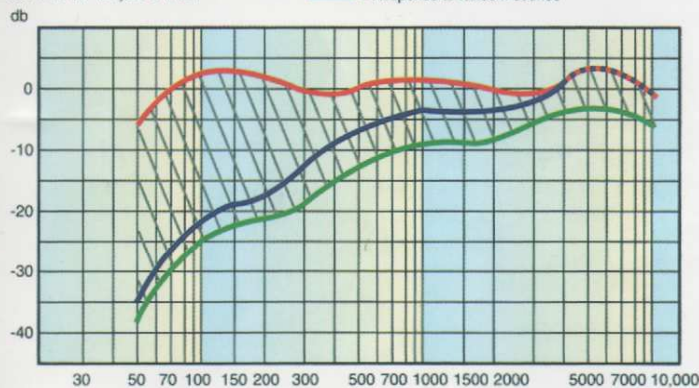
— = Response to Voice (close talking)

#### FREQUENCY RESPONSE

60 Hz to 12,000 Hz.

— = Response to distant sounds on microphone axis

— = Response to random sounds



All microphones factory tested in free field conditions.

#### IMPEDANCE

300 OHM.

#### SENSITIVITY

-50 dB W.R.T. IV/Pa.

#### EQUIVALENT ELECTRO-MAGNETIC HUM PICK UP

Less than 0.0002 dynes/cm<sup>2</sup> equivalent acoustic input for 1 milligauss at 50 c/s.

#### DISTORTION

Less than 1% at 120 dB SPL.

#### BODY HOUSING

Brass perforated case with stainless nose and mouth screens, pvc covered handle designed to provide a natural holding position for long periods.

#### CONNECTION

By means of an XLR 3 pin plug – Pin 1 screen – Pin 2 positive – Pin 3 negative.

#### DIMENSIONS

8" (200 mm) long x 2 1/4" (57 mm) wide x 3" (76 mm) deep.

#### WEIGHT

10 OZ. (283 g).

#### FINISH

Body brown enamel paint with brown pvc covered handle.

#### PACKAGING

Each microphone comes in a foam lined rigid plastic carrying case for safe keeping.

#### ACCESSORY

Replacement washable plastic hygiene screen, packed in 10's.  
Foam lined rigid plastic carrying case.

#### OPTIONAL

Press to talk button.

- ★ Light in weight, robust in construction.

- ★ Ideal for commentating and reporting purposes where background noise level is high.

- ★ Good discrimination between unwanted and wanted sounds.

## Coles Electroacoustics Ltd.

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- ★ Balanced response coming from mouth and nose for clear natural speech reproduction.

- ★ Suppresses disturbing noise from lips and nostrils.

- ★ Clear individual commentary without mutual cross over talk.