



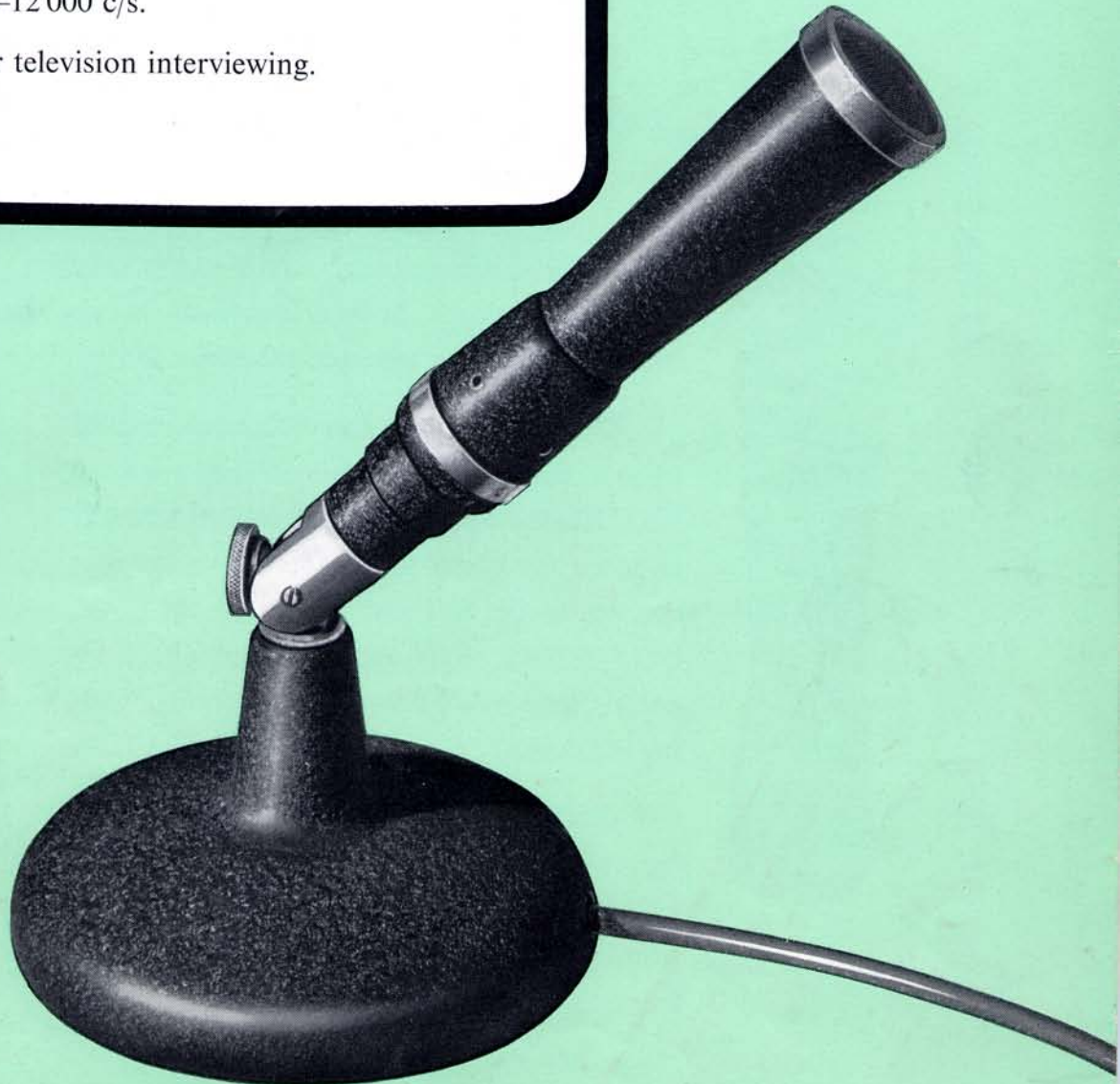
## SOUND REPRODUCTION EQUIPMENT

### Principal Features

- ★ Neat and unobtrusive appearance.
- ★ Omnidirectional response.
- ★ Frequency response sensibly flat from 30–12 000 c/s.
- ★ Ideal for television interviewing.

# 4037

**MOVING COIL  
MICROPHONE**



## DESCRIPTION

The 4037 microphone is a moving coil instrument which has been designed to meet the needs of sound reinforcement and television authorities requiring an instrument with an unobtrusive appearance.

As shown in the illustrations the microphone has a tapered tubular shape with a mean diameter of approximately 1 in. Electrically both models are similar except that the short model is slightly less sensitive at the low frequencies.

Referring to Figure 1 it will be seen that the response curve is sensibly flat from 30 c/s to 12 000 c/s for sound incidence within a solid angle of  $30^\circ$ .

The response of the microphone to wind effects is reasonably low. In severe wind conditions a PAS45/39 windshield is recommended. The use of this windshield may well allow speech reproduction in conditions which would otherwise be impossible. Under extreme conditions of wind disturbance it is generally possible to obtain further improvement by means of judicious bass attenuation.

The finish is black shrivel enamel relieved by satin chrome. The outlet of the microphone is a shrouded 3-pin connector. A 4069A Jack is required for connection. The two outer pins connect to the coil and the centre pin to the body of the microphone. The microphone incorporates a locking device to prevent it becoming accidentally detached from the 4069A Jack.

Owing to the microphone's slim shape and light weight it is particularly suitable for use in television studios as it does not cause distraction by obscuring the artist when seen in the transmitted picture.



4037C  
Short Model. Length  
overall  $5\frac{3}{8}$  in (13,6  
cm).



4037A  
Long Model. Length  
overall  $8\frac{3}{8}$  in (21,3  
cm).



## SPECIFICATION

## 4037-A & C (Typical Values)

### MEAN SENSITIVITY

Open circuit voltage per dyne/cm <sup>2</sup> (micro-bar)	..	..	..	..	..	0.064 mV
Open circuit voltage level per micro-bar, reference 1 volt	..	..	..	..	..	- 84 db
Power delivered into 30 ohms for 1 micro-bar, reference 1 mW	..	..	..	..	..	- 76 db
American ASA rating, reference 1 mW	..	..	..	..	..	- 150 db

### ELECTRICAL RESISTANCE

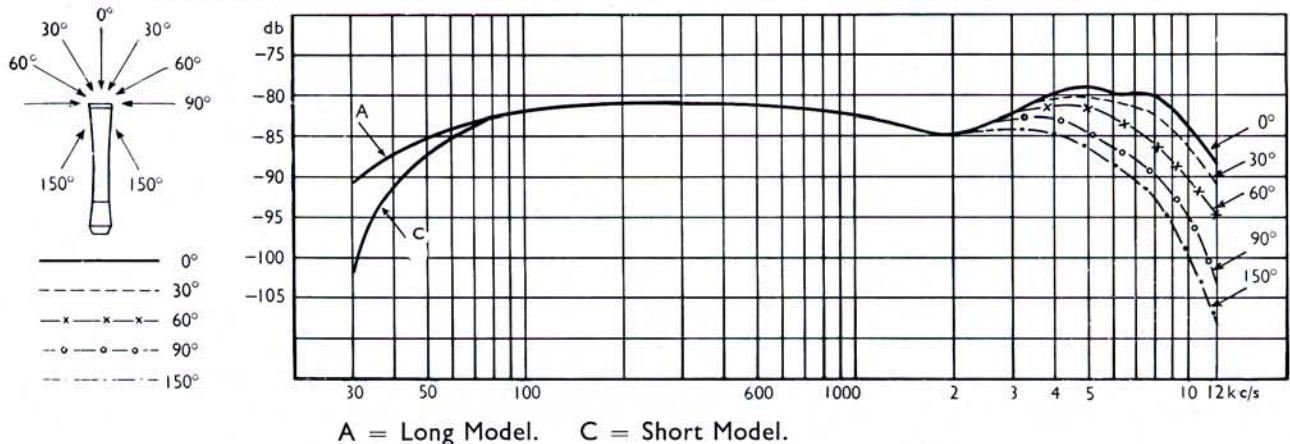
Resistance	..	..	..	..	..	20 ohms
Nominal Impedance	..	..	..	..	..	30 ohms

**NOTE:** The microphone is normally operated into an impedance which is high compared to 30 ohms. It may, however, be terminated by a resistance as low as 50 ohms without appreciably impairing the frequency response, though there will be some loss of sensitivity and a reduction of the signal-to-noise ratio.

The input transformer used to step up the signal to the grid of a valve should preferably present a high impedance to the microphone to meet the above condition, but must be designed to face a source impedance of 20 to 50 ohms.

### FREQUENCY RESPONSE

Figure 1: Typical free field frequency response curve (0 db = 1 volt/dyne/cm<sup>2</sup> open circuit)



### DISTORTION

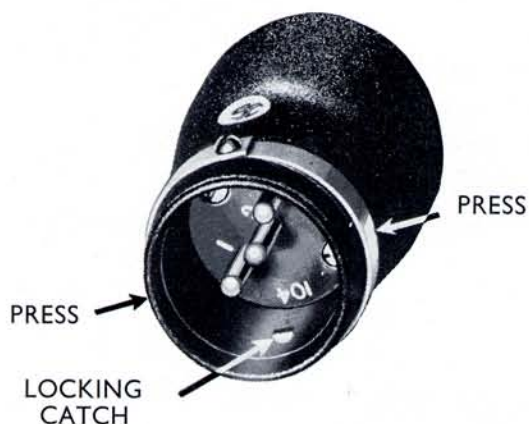
Less than 0.5% for a sound intensity level of 125 db above 0.0002 dynes/cm<sup>2</sup> (20 micro-Newtons per square metre) at 500 c/s.

### DIMENSIONS

Long model:	Length 8 <sup>3</sup> / <sub>8</sub> in (21,3 cm)
	Mean diameter 1 in (2,54 cm)
	Weight 9.2 oz (260 g)
Short model:	Length 5 <sup>3</sup> / <sub>8</sub> in (13,6 cm)
	Mean diameter 1 in (2,54 cm)
	Weight 7 oz (198 g)

## CAUTION

The four radial holes in the base of the microphone communicate with the low frequency equalising tube. While grasping the instrument in the hand has little effect on the frequency response, it is not advisable to mount the instrument in such a way that these holes are covered.



Microphone locking device. To release press the chrome ring at the arrowed positions.

## IMPORTANT

### COIL RESISTANCE AND BREAKDOWN MEASUREMENTS

Care must be exercised not to pass more than 1 mA d.c. through the coil, and if it should be desired to check the breakdown to case, the voltage should not exceed 80 volts applied through a protective resistance which will limit the current to 1 mA.

## ACCESSORIES

4069A Jack.  
PAS45/39 Windshield (optional).

### Wooden Transit Boxes (optional)

PAS45/46 (long model).  
PAS45/47 (short model).  
LCR.1113 Twin screened cable (order in yards as required).  
For other accessories, stands, etc., refer to the Accessories Leaflet (C/PA26).



# Standard Telephones and Cables Limited

(Registered Office: Connaught House, Aldwych, London, W.C.2)

## PUBLIC ADDRESS DEPARTMENT

ESTERBROOKE STREET · LONDON, S.W.1

Telephone: VICTORIA 7741

Telegrams: Relay, London W.C.2

Enquiries concerning Public Address equipment may be made at any of the following Branch Offices of the Private Communications Equipment Division

### BRANCH OFFICES

#### PRIVATE COMMUNICATIONS EQUIPMENT DIVISION

FOOTSCRAY · SIDCUP · KENT

Telephone: FOOTscray 3333

#### BIRMINGHAM

DEVONSHIRE HOUSE, GREAT CHARLES STREET,  
BIRMINGHAM 3. Telephone: Central 3042

#### MANCHESTER

CORONATION HOUSE, 69-71 MARKET STREET,  
MANCHESTER 1. Telephone: Deansgate 3245

#### LEEDS

NORWICH UNION BUILDINGS, CITY SQUARE,  
LEEDS 1. Telephone: Leeds 27227

#### BRISTOL

51 BROAD STREET, BRISTOL 1.  
Telephone: Bristol 20613

#### GLASGOW

49 QUEEN STREET, GLASGOW C.1.  
Telephone: Glasgow Central 6193

#### BELFAST

14 ADELAIDE STREET, BELFAST 2.  
Telephone: Belfast 24900