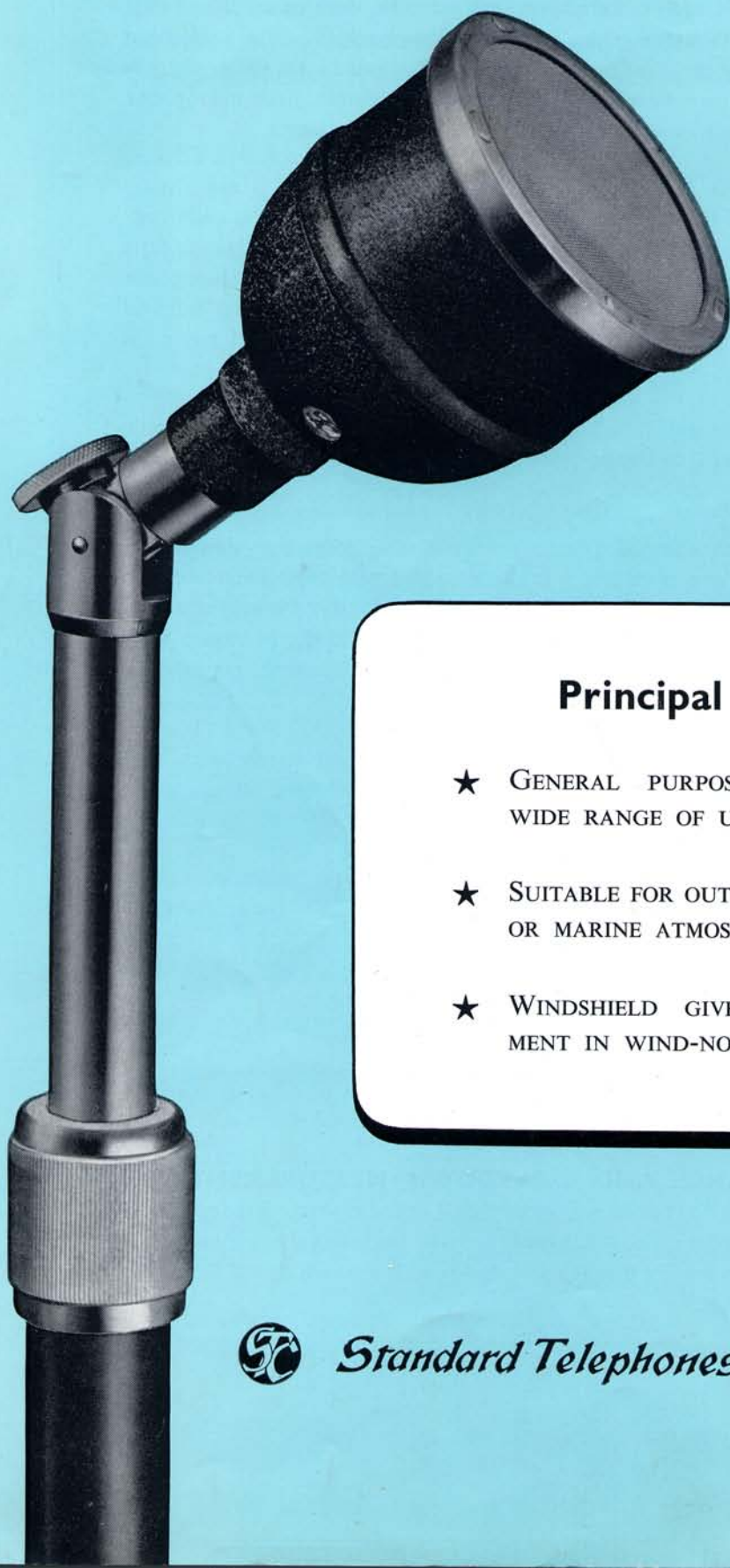




SOUND REPRODUCTION EQUIPMENT



4035

MICROPHONE

Principal Features

- ★ GENERAL PURPOSE MICROPHONE WITH WIDE RANGE OF USES.
- ★ SUITABLE FOR OUT-DOOR USE IN TROPICAL OR MARINE ATMOSPHERES.
- ★ WINDSHIELD GIVES FURTHER IMPROVEMENT IN WIND-NOISE LEVEL.



Standard Telephones and Cables Limited

DESCRIPTION

The 4035 microphone is a pressure operated electro-dynamic or moving coil instrument designed for a wide range of uses such as studio work or outdoor Public Address installation. Although a general purpose microphone, it is also a precision instrument incorporating the latest materials and techniques and is the result of many years' experience in the manufacture of high quality microphones. Each microphone is tested in free-field conditions to stringent performance requirements.

The 4035 microphone is intended to face the sound source and is not strictly omnidirectional at high frequencies. The sensitivity, however, is substantially constant over a solid angle of 120° round the front axis. Over this angle there is little change of frequency response with incident direction, but outside it the response falls at the higher frequencies as shown by the curves of Figure 1. This effect helps to reduce high frequency 'singing' and background noises in many sound reinforcement applications.

Distortion is practically nil in all normal sound fields. The total harmonic content is of the order of $\frac{1}{2}$ to 1% at sound intensities approaching the threshold of pain.

As the 4035 microphone is intended for use out-of-doors, it has been designed to reduce wind noise to a minimum and it is also provided with protective screens to avoid ingress of rain. In severe wind conditions a 4001A windshield is recommended which will give an effective reduction in wind noise of some 15 db. In violent wind conditions it may also be necessary to introduce some bass cut into the reproducing circuit.

The microphone is suitable for use in tropical and marine atmospheres. The standard finish is a black shrivel enamel relieved by satin-chrome fittings and a stainless steel front mesh.

The outlet is a 3-pin connector inside the microphone body and connection thereto is made by a 4069A jack. The two outer pins connect to the coil and the centre pin to the body of the microphone.

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 breakdown to case, the voltage should not exceed 80 volts applied through a protective resistance which will limit the current to 1 mA.

SPECIFICATION

4035-D

(TYPICAL VALUES)

Open circuit voltage per dyne/cm ² (micro-bar)	0.128 mV
Open circuit voltage level per micro-bar, reference 1 volt	-78 db
Power delivered into 30 ohms for 1 micro-bar, reference 1 mW	-69 db
American ASA rating, reference 1 mW	-144 db

ELECTRICAL RESISTANCE

Resistance	20 ohms
Nominal Impedance	30 ohms

NOTE. The microphone is normally operated into an impedance which is high compared with 30 ohms. It may, however, be terminated by a resistance as low as 50 ohms without appreciably impairing the frequency response, although there will be some loss of sensitivity and a worsening 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

Typical Free Field Frequency Response (0db = 1V/dyne/cm²—open circuit).

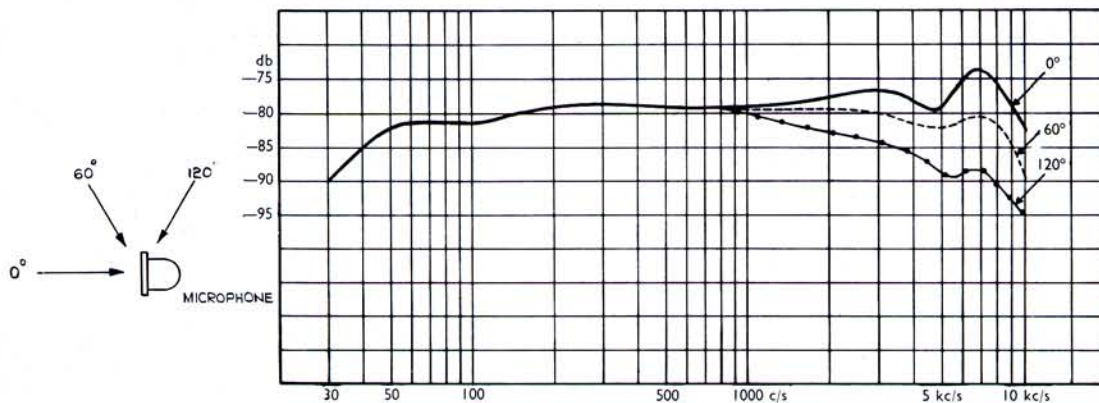


Fig. 1

DISTORTION The total harmonic content is less than 0.5% for a sound intensity level of 125 db, reference 0.0002 dynes/square centimetre (20 micro-Newtons per square metre) at 500 c/s.

DIMENSIONS 2½ in diameter × 2½ in (6,3 × 6,3 cm)

WEIGHT ¾ lb (350 g)

ACCESSORIES

4069A Jack. LCR.1113 Twin Screened Cable (order in yards as required).

4001A Windshield (optional). PAS 45/45 Wooden Transit Box (optional).

For other accessories, stands etc., see Accessories List.

STC SUPPLY AND INSTALL SOUND REPRODUCTION SYSTEMS ENGINEERED AND DESIGNED TO MEET INDIVIDUAL REQUIREMENTS

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