

PHILIPS



**RIBBON-
MICROPHONES**
9522 en 9536

RIBBON MICROPHONE 9522

The microphone type 9522 is a modern ribbon microphone for the reproduction of music and speech. It affords very high quality of reproduction and has a directional effect that is practically the same for all frequencies.

Due to its particularly favourable response this microphone is very suitable for connection to any preamplifier or amplifier with a linear frequency characteristic, with an input sensitivity of at least 2.5 mV and an input impedance corresponding to or higher than the impedance of the microphone itself.

Construction

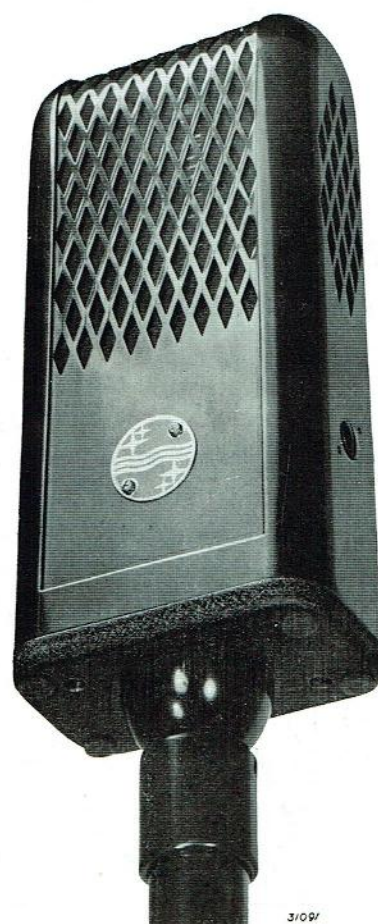
The construction and finish of the ribbon microphone 9522 satisfy the highest requirements. The microphone is provided with a small aluminium ribbon which is equally sensitive to the whole frequency range.

The ribbon is .0002 of an inch thick and $\frac{5}{16}$ " wide. The magnet between which the ribbon moves is made of the latest kind of special steel developed by Philips, which ensures great sensitivity. The whole electro-dynamic part is resiliently suspended in rubber, which makes this microphone insensitive to shocks.

Assembly

The microphone is of elegant shape and the dull-finish bronze metal cap gives it a tasteful appearance.

The ribbon microphone type 9522/27 may be used as a table model or as a stand microphone. Normally this microphone can be screwed on to a floor stand type 9583/00. To special order a suspension bracket can also be supplied (type 9522/29); moreover, this model can be mounted on a floor stand 9583/05. In both cases the microphone can under all circumstances be turned to the most favourable position with respect to the impinging sound, which is of great importance during studio recording. A loose brace with accessories can also be supplied to order so that the type 9522/27 can immediately be transformed into type 9522/29.



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Quality of reproduction

The quality of reproduction of the ribbon microphone 9522 is exceptionally good. From low to high frequencies reproduction is evenly clear, which is of great importance for speech as well as for music. The directional effect remains constant for all frequencies and only commences to show a slight, negligible deviation at 9000 c/s.

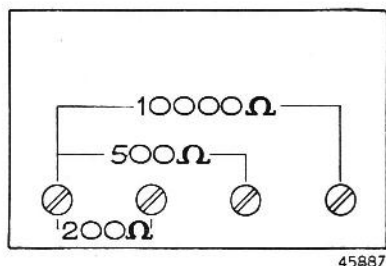


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Ribbon microphone with bracket, type 9522/29.

Matching

The ribbon microphone 9522 is supplied with three matching alternatives, viz. for 200, 500 and 10,000 ohms. For this purpose four terminals marked accordingly are provided under the microphone on the connecting plate of the built-in matching transformer, as shown in the illustration below.



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The terminals are accessible after removing the bottom of the microphone by loosening four screws.

Sensitivity

At a sound-pressure of 1 bar (1 dyn-sq.cm), which is about equal to the normal voice intensity at a distance of 3 feet from the microphone, the voltage produced on the open secondary terminals of the microphone matching transformer is: -15 mV at the 200-ohm matching, -24 mV at the 500-ohm matching, 1 mV at the 10,000-ohm matching.

Directional effect

The ribbon microphone has the familiar 8-shaped directional characteristic. The sensitivity is at a maximum perpendicular to the faces of the microphone and is practically zero on either side. The advantage of this is that the acoustic feed-back in the case of the ribbon microphone is much less than the feed-back of a microphone without directional effect, as the ribbon microphone picks up only one-third of the noises of the environment.

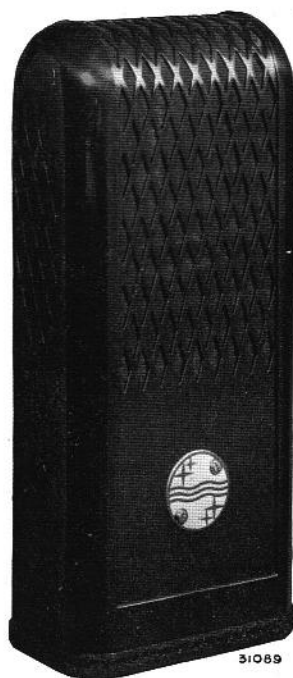
The directional effect is practically constant for frequencies between 50 and 10,000 c/s (vide characteristic).

Table model type 9536

A very attractive assembly of the ribbon microphone is the table model type 9536.

This elegant, small model, with dull-finish bronzed metal cap, has been specially designed for exceptionally good reproduction of speech and is intended for use in cases where a stand is unnecessary or even undesirable. For theatrical performances this model can also very conveniently be placed behind the footlights, completely screened from the public. As regards connecting possibilities, sensitivity and directional effect, the qualities of the table model type 9536 are quite equal to those of the ribbon microphone type 9522.

Normally the ribbon microphone 9536 is supplied with an output impedance of 10,000 ohms (type 9536/00). However, to special order this microphone can also be supplied with an output

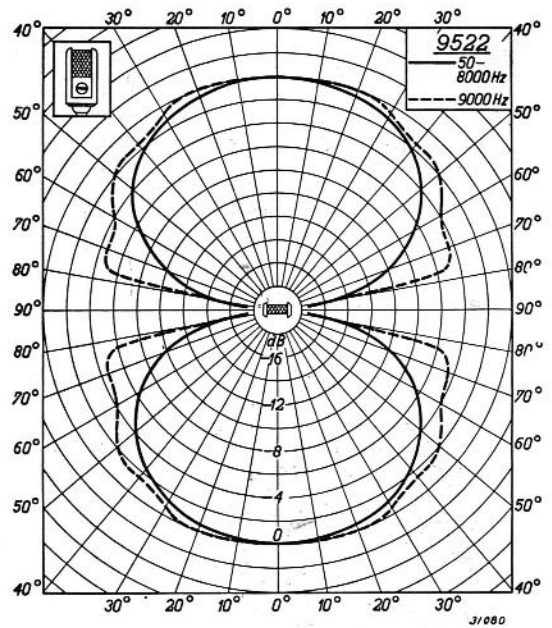


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Table model of the ribbon microphone type 9522/27.



Table model type 9536.

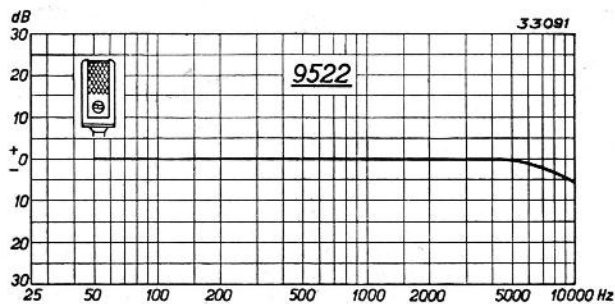


Directional characteristic of microphone 9522.

impedance of 500 ohms (type 9536/03). For sensitivities see "Sensitivity" of the ribbon microphone 9522.

Microphone cable and plugs

Both types of microphones are supplied with 15 feet of two-core, screened low-capacity cable



Frequency response of ribbon microphone 9522.

No. 33 998 80. The capacity between the leads amounts to 75 pF per yard only.

Longer cables would cause a loss of top response for 10,000 ohms matching and too large voltage drops for 200 and 500 ohms matchings.

All cables are provided with a three-pole female locking-type plug, no. E2 555 46, which can be connected to any modern Philips amplifier as well as to type 7365/03 wall sockets for fixed microphone leads.

For type 9536 ribbon microphone the cable is equipped with two plugs no. E2 555 46.

When using ribbon microphones with output impedances of 200 or 500 ohms, the cable may be lengthened to about 300 yards. For this purpose screened, low-resistance cable no. 33 984 77 or adequate lead-covered cable must be used.

Dimensions and weights

	Type 9522	Type 9536
Dimensions	{ without bracket, type 9522/27 $7\frac{5}{8}" \times 3\frac{5}{8}" \times 2\frac{1}{8}"$ with bracket, type 9522/29 $9\frac{7}{8}" \times 5\frac{3}{8}" \times 3\frac{1}{8}"$	length $5\frac{11}{16}"$; width $3\frac{7}{8}"$; height $4\frac{1}{4}"$
Weights (with cable and plugs)	{ without bracket, type 9522/27 about 6 lb. 1 oz; with bracket, type 9522/29 about 7 lb. 3 oz	5 lb. 14 oz. net



(February 1947)