

MICROPHONES AND MICROPHONES

The Reasons for the Existence of Various Types and Their Uses



Type 44-B De Luxe Velocity Microphone

IT IS a far cry from the strange assortment of microphones used in the early days of broadcasting to the present group, carefully designed both from the standpoint of appearance and performance. In the September, 1935, issue of Broadcast News, an article by Joseph D'Agostino of NBC on Microphone Progress emphasizes this advance most forcibly.

But new designs were brought about not merely to improve appearance and performance. The rapid growth of the industry created very definite problems which it was imperative to solve. Large groups of artists in place of the lone performer, on-the-spot broadcasts, pick-ups from remote points; plus the increased critical attitude of the listening audience, created a demand for special microphones for special purposes.

De Luxe Velocity Microphone —44-B

The first and probably the most important is the new Type 44-B

Velocity Microphone, for use wherever the finest obtainable reproductive fidelity is required. It provides a number of improvements including: higher output, adjustable frequency response and a more modern appearance. It is unquestionably the outstanding broadcast microphone developed to date from viewpoints of performance, convenience and reliability. It is well suited to practically all types of studio pickups and especially adapted for various special types of pickups which are difficult or impossible with other microphones. It can be used with any existing speech input system and does not require a closely linked pre-amplifier. It is completely fool-proof and is able to stand more hard usage than any other microphone. A quality microphone for quality stations, the 44-B is designed with emphasis on fidelity rather than cost. Nevertheless, because of the huge production facilities of RCA, it costs but little more than far less satisfactory types.

This type is a modification and improvement of the well known Type 44-A Velocity Microphone. While the principal of operation and directional characteristic remain unchanged, the magnetic circuit has been redesigned to increase the sensitivity 6 DB. This increase in sensitivity allows much greater freedom from hum and thermal agitation noises. Also means have been provided for shifting the low frequency characteristic from flat to one which will give flat response when the microphone is placed one foot from a point source of sound. The change is made by shifting a link on the terminal board of the microphone. The position of the link may be noted through a small hole in the cover of the transformer housing.

The Type 44-B Velocity Microphone is intended for general studio use. It is unsurpassed in smoothness of response, extent of response and constancy of directional characteristic regardless of

frequency. Its bi-directional characteristic lends itself to control over adverse studio conditions.

The Junior Velocity Microphone —74-A

The 74-A, a modification of the 44-B, solves an entirely different problem. For many pickups outside of the studio, particularly at banquets and for similar occasions, microphone size is of importance not only because of considerations of portability, but also because it is undesirable to obstruct the speaker's view with an unnecessarily large microphone. The Type 74-A Microphone offers advantage in this respect, in that it is somewhat smaller than the deluxe model—the overall dimensions being 7 $\frac{5}{8}$ " high, 4" wide and 2 $\frac{1}{2}$ " deep.

Directional Characteristic

The directional characteristic of the Type 74-A Junior Microphone is of the now well-known bi-directional pattern, and is practically the same as that of the Deluxe Type 44-B Microphone. This pickup configuration has been found



Type 74-A Junior Velocity Microphone