MICROPHONE
639B
Western Electric

CARDIOID
6-WAY—MICROPHONE

for
SOUND SYSTEMS
and
RADIO BROADCASTING

WESTERN ELECTRIC presents a new cardioid microphone — the 639B "6-way." In addition to the three performance patterns that are making the 639A so popular among public address and broadcast users, the 639B offers three additional directivity patterns which make this microphone particularly suited for use in difficult applications.

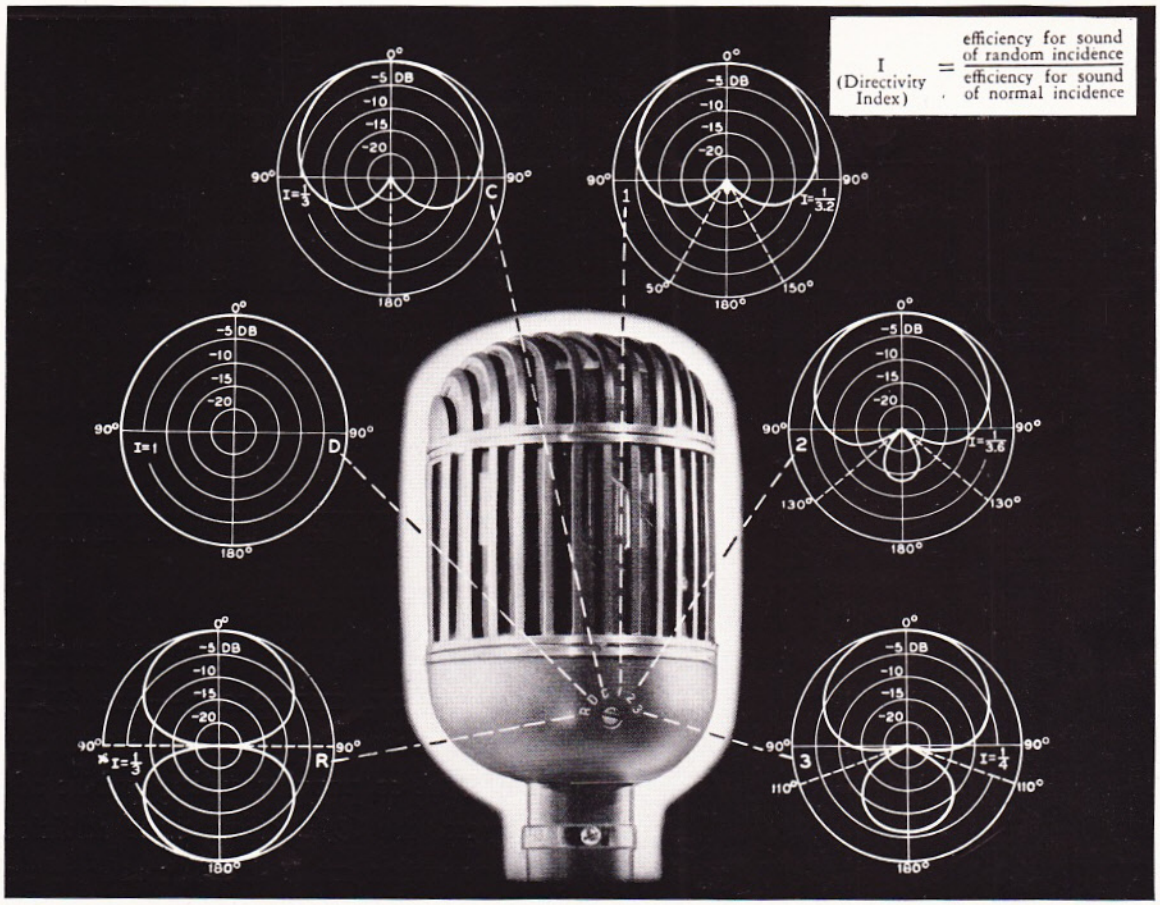
The 639B microphone is a combination of a dynamic moving coil type pressure element and an improved ribbon type velocity element enclosed in an attractive housing which serves not only as a protective guard, but also as a wind screen. The outputs of these two elements when combined in various proportions yield patterns C, 1, 2 or 3, and when used alone, patterns D or R, illustrated on page 2. The added patterns 1, 2 and 3 reduce effects of reverberation to an even greater degree than the already famous 639A cardioid, and are of particular value to sound engineers.

Difficult conditions, such as the following, can either be improved or overcome by the use of the 639B with its directivity patterns, selectible by means of a simple screw driver operated switch.

In the Studio—where sound treatment is not fully effective and further reduction in reverberation is desired.

In the Playhouse or Night Club—where there is an excess of audience noise or where it is desired to give the artist the freedom of working at a greater distance from the microphone.

In Public Address Installations—where "singing" takes places before a satisfactory reinforcement level can be reached.



ARCHITECTS' AND ENGINEERS' SPECIFICATIONS

The microphone shall be the Western Electric 639B Cardioid Microphone or equivalent.

The microphone shall consist of a dynamic moving coil type pressure element and an improved ribbon type velocity element, assembled in a streamlined housing, arranged so that their outputs can either be used independently or combined in such a way as to offer four additional performance patterns having minimum sensitivities at 180°, 150°, 130° and 110° for positions C, 1, 2 and 3, respectively. The directivity patterns so provided shall be selectible through a screw driver operated switch mounted flush on the surface of the housing.

At the angle of minimum response, the average discrimination with respect to the 0° response of the microphone shall be 20 db over the range 40 to 10,000 cycles per second. In the range from 70 to 7000 cycles, the minimum discrimination at any frequency shall be 15 db for the 'C' position and 10 db for the 1, 2 and 3 positions.

The microphone shall have a smooth response and shall not deviate from the average more than ± 4 db over the range from 40 to 10,000 cycles. The average impedance throughout this range shall be in the order of 35 ohms.

The sensitivity shall be — open circuit terminal voltage 84 db below one volt/dyne/sq. cm. which is equivalent to 64 db below one volt/10 dynes/sq. cm. — when terminated by resistance of 35 ohms, the power output level shall be −76 vu (0 level calibration one milliwatt).

The microphone shall have a height of 7½" including the plug terminal, a length of 4-7/16", a width of 3-7/16", and a weight of 3¼ lbs.

The microphone shall be suitable for mounting either on a Western Electric 24A Table Stand or 22A Floor Stand, equipped with a 442A Jack and 712A Adapter, or equivalents, together with at least 10 ft. of KS-7133 two conductor shielded rubber covered cable or equivalent.