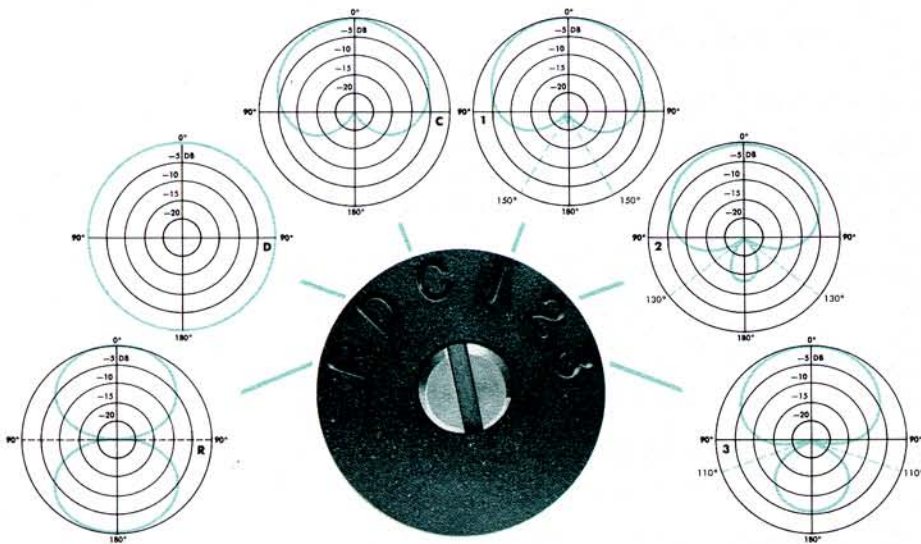


# 639 A/B Multi-Pattern Microphone

639



PATTERN SELECTOR (ON REAR OF 639B HOUSING)



## UNPARALLELED SUPERIORITY FOR USE BY: MOTION PICTURE AND TELEVISION SOUND STAGES PROFESSIONAL RECORDING STUDIOS 'LIVE' AM & FM RADIO BROADCASTING

### Features

Proven Broadcast & Recording Quality

2 Microphone Elements in a Single Housing

Up to 6 Directivity Patterns

Exceptional Versatility

Uniform Frequency Range

Extremely Sensitive

Low Noise Level

Minimizes Feedback (used as cardioid)

Built-in Windscreen

Designed by the Bell Telephone Laboratories and originally manufactured by the Western Electric Company, the Altec 639A and 639B Multi-Pattern Cardioid Microphones have, for years, enjoyed an unprecedented acceptance by all phases of the audio industry. Indeed, it may be stated that the majority of all wide-range sound recording — from its initial appearance on motion picture soundtracks to the present achievement of magnetic tape — has employed one or more Altec 639 Microphones in virtually all phases of production. The immediate selection of pickup patterns provides the professional engineer with as many as six varying directional characteristics; the built-in two-stage windscreen, rugged protective housing, and numerous attachment and mounting accessories make the Altec 639 ideal for any application.

Unlike competitive units, which employ only a single ribbon and which vary the directional pattern by mechano-acoustic means, the Altec 639 is actually two independent transducer elements within a single housing. The electrical signals from these elements (one, a dynamic moving-coil; the other, a velocity-sensitive ribbon) are used singly or in combination to produce the different pickup patterns at the top of the page. Because no mechanical means are used, the Altec 639 provides increased durability, performance quality, and trouble-free operation — yet the 639's versatility of application meets or exceeds that of all other multi-pattern units currently available.

Both the 639A and 639B provide the broadcast, recording, and public address engineer with performance of professional standards; the difference between the two models is found only in the amount of readily-selected pickup patterns. The 639A provides the three most widely used characteristics of cardioid, bi-directional, and omni-directional pickup; the 639B furnishes three additional directional characteristics, each having full *frontal* sensitivity, but with varying degrees of *rear* sensitivity. These additional front-to-back ratios make the Altec 639B an outstanding choice for applications wherein two distinct sound sources, having equal intensities, must be handled with utmost clarity and separation (e.g., 'on stage' versus audience pickup; dominant speech versus a more quiet manner of speaking, on each side of the microphone).

Each directional pattern of the 639A and 639B Microphones may be easily selected with a screwdriver or similar tool, in accordance with the indicator markings on the rear of the microphone housing.

The low output impedance (30/50Ω) permits the use of the 639 Microphones at a great distance from the associated amplifying equipment without danger of increased noise, hum pickup, or deterioration in the quality of the transmitted signal. Each 639 Microphone is supplied with a zippered plastic bag which covers and protects the microphone when not in use.



A Division of  Ling Altec, Inc.

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RECORDING &

BROADCASTING

EQUIPMENT

## SPECIFICATIONS:

<b>Type:</b>	Dynamic (Moving-Coil) & Ribbon (Velocity)
<b>Pickup Pattern:</b>	639A: Cardioid, Bi-directional, and Omni-directional 639B: Cardioid, Bi-Directional, Omni-directional, plus three additional characteristics, each having full frontal sensitivity but with varying degrees of rear sensitivity.
<b>Frequency Response:</b>	Uniform, 40 - 10,000 cycles
<b>Output Impedance:</b>	30/50Ω
<b>Sensitivity:</b>	-52 dbm/10 dynes/cm <sup>2</sup>
<b>Hum:</b>	-120 db (Ref: 10 <sup>-3</sup> Gauss)
<b>Protection:</b>	2-stage windscreen (built into housing)
<b>Housing:</b>	Die-Cast Aluminum
<b>Dimensions:</b>	Height: 7½" (incl. plug) Width: 3⅞" Depth: 4⅞"
<b>Weight:</b>	3.25 lbs.
<b>Finish:</b>	Dark Gray
<b>Accessories:</b>	See 'Microphone Accessories' sheet for special suspension, floor or desk stand mountings, adapters, and other microphone accessories.

## ARCHITECTS' AND ENGINEERS' SPECIFICATIONS

The microphone shall be of the multi-pattern type, utilizing two independent transducer elements (dynamic moving-coil and velocity ribbon), housed within a single case. The output signals generated by these two elements shall be able to be used singly or in combination by means of an electrical switching circuit, instantly variable by the user, to the desired pattern. Microphones utilizing mechanical switching devices, in conjunction with a single transducer element, shall be unacceptable under this specification.

The microphone shall have a total of (SELECT ONE):

- (a): 3 distinct pickup patterns; cardioid, bi-directional, and omni-directional
- (b): 6 distinct pickup patterns; cardioid, bi-directional, and omni-directional, plus three added directional characteristics which shall provide full frontal sensitivity with varying degrees of rear sensitivity.

Each directional pattern may easily be selected by means of a switch, flush-mounted on the rear of the microphone housing.

The average discrimination between the front and rear of the microphone (when the cardioid pattern is selected) shall be an average of 20 db over the range of 40 to 10,000 cycles. The microphone shall have an exceptionally uniform response over this range. The output level shall be -52 dbm/10 dynes/cm<sup>2</sup>; hum level shall not exceed -120 db (Ref.: 10<sup>-3</sup> Gauss). The output impedance shall be 30/50Ω.

The microphone shall incorporate a 2-stage windscreen, mounted in a heavy, die-cast aluminum housing for maximum protection. The housing shall measure no more than 7½" high (including plug); 3⅞" wide, and 4⅞" deep; weight shall be on the order of 3.25 pounds; finish shall be dark gray. The microphone shall be adaptable to all forms of mounting, whether by free or fixed suspension, boom, wand, or stand. Accessories shall be provided for this purpose where necessary.

Any microphone not meeting all the foregoing requirements shall be unacceptable under this specification.

The microphone shall be (SELECT ONE):

- Altec Lansing Model 639A (3 directional patterns)
- Altec Lansing Model 639B (6 directional patterns)

**NOTICE**  
We recommend that you obtain your Altec products from factory trained authorized Altec Sound Contractors and Distributors. This will assure you of proper installation, a continuing source of knowledgeable advice, service, and quick warranty protection.