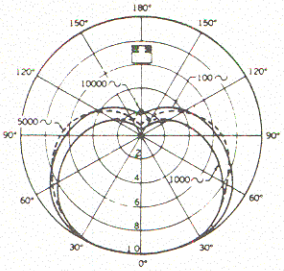
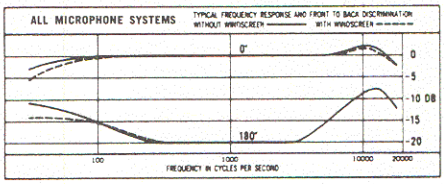
Solid State Condenser Microphone Systems

(BATTERY OR AC OPERATED)

M49
M50
M51
M52



POLAR CHARACTERISTIC
M49, M50 CARDIOID MICROPHONE



Features:

- Condenser Type Microphone
- Small Size
- Cardioid Type (20 dB discrimination)
- Omnidirectional Type
- 20-20,000 Hz Frequency Response
- Excellent Transient Response
- Battery Operated
- AC Operated
- Weight of Power Supply — 24 Ounces
- Weight of Microphone — 1.5 Ounces
- Solid State Base — 3 Ounces
- Solid State AC Power Supply
- Wind/Pop Screen Included

HIGHEST QUALITY PERFORMANCE FOR:
STUDIOS — BROADCASTING — TELEVISION — MOTION PICTURES
'LIVE' STAGE PRODUCTIONS — PUBLIC ADDRESS
PROFESSIONAL RECORDING STUDIOS

The Altec Solid State Condenser Microphone Systems excel in extremely wide and smooth frequency response, low noise level and rugged construction, providing the highest quality performance attainable with the latest developments in the electronic field. The outstanding achievements of the 29B cardioid and 28A omnidirectional microphones are fully complemented by the light weight 539A and 540A power supplies, making the Altec Solid State Condenser Microphone Systems the most advanced on the market today.

The Altec Solid State Condenser Microphone Systems are available in four models; the M49, M50, M51 and M52. Each system consists of a microphone, base, power supply, holder, cable set and wind/pop screen. Models M49 and M50 use cardioid microphones and Models M51 and M52 use omnidirectional microphones. Each pickup pattern is made with either ac or dc power supplies. The ac models, the solid state M49 and M51 Systems, require access to an ac source while the dc models, the M50 and M52 Systems, are powered internally with two mercury batteries. The operation from these batteries is about 2500 hours or approximately one year of normal service. Battery drain is eliminated either by disconnecting the 195A Base from the power supply or by means of a recessed switch on the power supply housing. An additional feature of the dc models is a meter which shows the battery condition when the base is connected and turned on.

The 29B microphone used in the M49 and M50 Microphone Systems is a single diaphragm directional (cardioid) type. The diaphragm of minimum size, has superior high frequency smoothness and its small size and low mass permit excellent transient response. The cardioid characteristic is obtained by controlling the relative phase of sound pressure reaching the back side of the diaphragm. This method provides the greatest front-to-back discrimination over a wide frequency range.

The 28A microphone used in the M51 or M52 Microphone Systems is similar to the 29B except that it has an omnidirectional pickup pattern. The cardioid or omnidirectional microphones may be interchanged simply by removing one type from the base and replacing it with the other.

The 195A Base contains solid state circuitry, which includes a field-effect transistor, and also houses a standard three-pin XLR-12 connector. No RF or balanced bridge arrangements critical of adjustment are used. The field-effect transistor converts the extremely high impedance of the microphone to a level suitable for connection to a standard two-conductor, shielded microphone cable. It will be noted that the 195A Base does not include the batteries necessary to power the system. This reduces the combined weight of the base and microphone to 4.5 ounces, making an extremely light weight hand held microphone-base unit measuring only 0.75" in diameter by 3.5" in length.

The 194A Cable Set provided with each microphone system, consists of a 25-foot length of two-wire shielded, jacketed microphone cable equipped with one XLR3-12 and one XLR3-11C connector which may be used between the base and the power supply, the power supply and the amplifier or, in multiples as extensions.

Both the ac and dc power supplies are identical in size, measuring $1\frac{5}{16}$ x $3\frac{1}{8}$ x $3\frac{15}{16}$". The die-cast housing is equipped with three-pin XLR male and female connectors to allow its insertion at any point in the microphone line. The small compact size of these power supplies eliminates the cumbersome and unwieldy power supply boxes usually associated with condenser microphones.

The power supplies also contain a transformer which provides a balanced output for standard 150/250 Ohm microphone preamplifier inputs.

The proven performance of the Altec Condenser Microphone has been further enhanced by the addition of the Solid State Microphone Systems, translating the present theoretical State of the Art into a practical, highly professional system.

ALTEC LANSING®

A Division of LTV Ling Altec, Inc.

1515 S. Manchester Ave., Anaheim, Calif. 92803

New York

ALTEC M49, M50, M51, M52

SPECIFICATIONS

Model M49, M50, M51, M52

Type	Condenser
Frequency Response	20 to 20,000 Hz
Output Level	−53 dBm re 10 dynes/cm²
Output Configuration	2-wire shielded. Balanced from the Power Supply
Loaded Impedance	150/250 Ohms
Circuitry	Solid State
Operating Temperature	55°C maximum
Connector	XLR3-12 on Base XLR3-11C and XLR3-12 on Power Supply
Pin Connection	1 - shield 2 - signal 3 - signal
Size	0.75" diameter by 3.5" long (195A Base with 29B microphone)
Finish	Base: Non-reflective electroless nickel Power Supply: Chrome
Weight	Base: 2.2 ounces Power Supply: 24 ounces
Cable	194A Cable Set, 25' cable with connectors attached. One XLR3-11C furnished
Windscreen	Model 192A Wind/Pop Screen supplied with microphone
Holder	Model 193A Holder supplied with each microphone
Accessories	179A Shockmount (Includes 41076-1 Cable Clip)

Model M49, M51

Power Supply	Ac (117V ac) Model 539A

Model M50, M52

Power Supply	Dc (battery operated) Model 540A
Repl. Batteries	40935 (8.4V) 1 req. 40936 (63V) 1 req.
Discrimination	20 dB (see curve)
Battery Indicator	Meter shows battery condition
Battery Disconnect	Recessed switch on power supply, or by removing the 195A Base

Ordering Information*

Order by System Number

	AC Power Supply	DC Power Supply
Cardioid Microphone	M49 System	M50 System
Omnidirectional Microphone	M51 System	M52 System

*A 194A Cable Set, Model 192A Wind/Pop Screen, Model 193A Holder and one XLR-3-11C connector is furnished with each system ordered. 179A shockmount must be ordered separately.

ARCHITECTS AND ENGINEERS SPECIFICATIONS

The microphone system shall be of the condenser type and have a frequency response uniform from 20 to 20,000 Hz and shall be free from "peaks" and "valleys", permitting high gain without feedback. The system output shall be balanced and the output level shall be −53 dBm re 10 dyne/cm². The system shall provide a balanced output for standard 150/250 Ohm microphone preamplifier inputs. All circuitry used in any microphone system described in this specification shall be solid state and shall be capable of operating in temperatures up to 55°C.

The pickup pattern of the microphone shall be: (select one)

(a) Cardioid Altec type 29B and shall have an average front-to-back discrimination of 20 dB.

(b) Omnidirectional type 28A.

The microphone shall be coupled to the base by screw threads and built-in connector facilities.

The microphone element shall measure not more than ¾" in diameter and ⅞" in height (not including base).

The power supply for the microphone system shall be: (select one)

(a) Altec type 540A. DC operated from mercury batteries as furnished and the batteries shall be capable of operating the microphone system for 2500 hours or approximately one year of normal service. The batteries shall be field replaceable without the need of special tools or skills. The dc power supply shall be so designed that battery drain is suspended either by means of a recessed on-off switch on the power supply housing or by disconnecting the base from the microphone. The power supply shall also contain a meter to indicate battery condition at all times while in operation.

(b) Altec type 539A. For operation 117V ac 50/60 Hz source.

The power supply housing shall be of die cast metal, shall measure no more than 3⅛" wide by 3 15/16" high by 1 5/16" deep whether the AC or DC type and shall weigh no more than 24 ounces.

The microphone system shall consist of a microphone element, a base type 195A (housing the solid state circuit), a power supply, a type 193A slip-on holder (for attachment to a floor or desk stand or other microphone support), a wind/pop screen type 192A, a 25' cable assembly type 194A complete with a three-pin male and a three-pin female connector. An additional three-pin connector only (female) shall be furnished with the power supply.

Any condenser microphone system not meeting the above specifications shall be deemed unacceptable under this specification.

The microphone system shall be (select one) Altec Lansing M49, M50, M51, or M52.

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.

LITHO IN U.S.A. CP-48-2.5K