



For well over a quarter century, Shure has made numerous significant contributions to the art of developing and manufacturing acoustical-electrical products and transducers. Indeed, there are parts of the world where imitations and copies of Shure microphones are referred to as "Shure Type" microphones—a quality designation in itself. In fact, there are more Shure Unidyne microphones used in quality public address systems than any other microphone . . . it is truly the microphone that needs no name to be identified. In the field of communications Shure mobile and fixed-station microphones dominate to such a vast degree that they actually outnumber all other brand microphones combined. Many Shure contributions to the field of microphone design rank among the significant engineering "break-throughs." For instance:

"UNIPHASE" NETWORK—made possible the first, and still most effective, single element unidirectional microphone. Refinements over the years have been incorporated to permit more compact design and to apply the network to a number of Shure dynamic, ribbon, crystal and ceramic microphones.

"CONTROLLED MAGNETIC" MICROPHONE CARTRIDGES—the "workhorse" of World War II, now the quality standard in mobile communications. Provides high speech intelligibility, ruggedness and stability under prolonged, severe field operating conditions.

"ARMO-DUR" HOUSINGS—a revolutionary new plastic that actually outlasts steel and die-cast cases. Rust-proof, corrosion-free, chip-proof, practically unbreakable, always comfortable to the touch in hot or cold weather, no shock hazard. It is undeniably one of the most durable and practical materials ever used for hand-held microphones.

EFFECTIVE NOISE-CANCELLING MICROPHONES—the Shure SONO-BAR provides intelligible communications under severe noise conditions that previously made "readable" transmission impossible. Transmits the voice clearly even where ambient noise is so great the speaker cannot hear himself!

MINIATURE MICROPHONES—some no larger than a paperclip, yet giving excellent performance under extreme temperature and humidity conditions.

"DURACOUSTIC" NON-METALLIC DIAPHRAGMS—do away with all the problems caused by metal microphone diaphragms and the instability inherent in many non-metallic diaphragms. Shure's "Duracoustic" diaphragms provide optimum microphone performance combined with maximum dependability and consistency.

STYLING—Shure strives to design microphones so that they "look as good as they sound." Shure design, incorporating all necessary acoustical considerations and the ultimate in utility and convenience, is the result of constant awareness of current trends in industrial design and the constantly changing standards of microphone users and the requirements of different applications. Consequently, Shure microphones enhance the appearance of any setting and system in which they are used.



SHURE SERVICE

Most Shure microphones have been designed for convenient replacement of the microphone element in the field. These microphone cartridges are found on page 36 of this catalog. Replacement coiled cords for hand-held communications microphones, are found on page 34. Additional service may be obtained through your Shure distributor or directly from the factory. Damaged microphones returned to the factory will be put into "like-new" operating condition, meeting the original performance characteristics, and returned. The service is extremely fast (usually within 48 hours) and costs are low. The fact is, Shure microphones are built to withstand severe operating conditions and seldom require servicing.

The prime purpose in the design of every Shure microphone is faithful sound reproduction. All are painstakingly designed, developed, manufactured and tested for flawless performance coupled with longest possible trouble-free service. Regardless of price, they will perform according to specifications and will operate for

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specifications and will operate for years without deviation from their original standards.

SHURE SPECIFICATIONS AND WHAT THEY MEAN

Shure specifications are not "laboratory standards" or mere theoretical figures. They are accurate measurements of performance you can expect from actual production models. They are, insofar as is practical, complete and detailed, to enable you to specify Shure-knowing exactly the performance you will get in every important respect.

The example shown below is typical of Shure Audio Specialist specifications for the sound installer and P.A. system specialist.

pickup pattern at many frequencies—often as many as six frequencies.

In addition, on all appropriate Shure microphones, there is a "Shure Architect's Specifications" section to provide architects and their consultants a quick and easy reference for specifying "Shure or equivalent" in specifications and bids.

(Note: typical set of Shure Audio Specialist specs-for Model 545S—together with response curve and polar patterns is shown here. Following copy explains each point in the specs:)

> LIST PRICE: \$89.95 **TYPE:** Dynamic

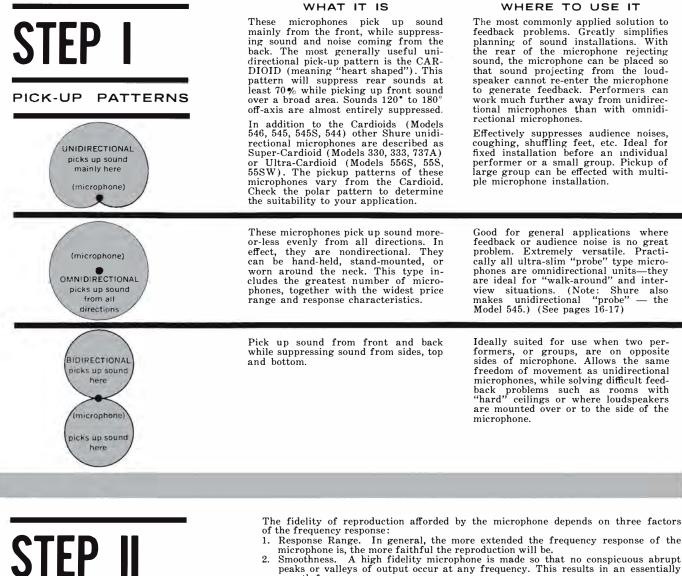
FREQUENCY RESPONSE: 50-15,000 cps. TYPE: You may choose from six different type Shure microphones: ribbon, OUTPUT LEVEL: Low: -57 db (0 db dynamic, "Controlled Magnetic," ceramic, crystal and carbon (see page 5 for =1 milliwatt per 10 microbars) .141 detailed explanation of types). millivolts/microbar High: -55 db (0 db=1 volt per microbar) FREQUENCY RESPONSE: Indicates the useful practical range. We suggest volts/microbar IMPEDANCE: Dual. Choice of 50-250 you refer to the frequency response diagram for a more specific representation ohms or High of the particular microphone's capabilities. -**DIAPHRAGM:** Shure Duracoustic POLAR PATTERN: Cardioid. (Uniform with frequency, symmetrical OUTPUT LEVEL: Note that Shure includes a base reference level (for low about axis) impedance: 0 db = 1 milliwatt per 10 microbars; for high impedance: 0 db = 1MAGNETIC CIRCUIT: uses Alnico V volt per microbar). In addition, output is expressed in millivolts per microbar magnet (which specifies the actual voltage output for a given sound level).-CASE: Die cast zinc and "Armo-Dur". FINISH: Satin chrome and black SWIVEL: New improved self-adjusting "positive action" lifetime swivel per-IMPEDANCE: Impedances are shown as a guide to properly matching the mits tilting of the head through 180° microphone to the amplifier. Most generally impedances are classified as low so that the microphone can be aimed (L) or high (H). The rated impedance or recommended loads are shown, inat the source of sound cluding the resistance of the supplied cable. Longer cable runs with high imped-CABLE CONNECTOR: Equivalent to ance microphones will result in loss of about 3 db output for each additional Amphenol MC4M plug 25 feet of cable added. Use low impedance units for long cable runs to eliminate CABLE: 18 ft., 3-conductor shielded this problem. Many Shure microphones are multi-impedance and can be set STAND THREAD: %"-27 thread for high or low impedance use. DIMENSIONS (not including swivel): 11⁵/₆₄" diameter, 5⁷/₁₆" length NET WEIGHT (less cable): 3/4 lb., OPTIONAL ACCESSORIES: General information on other Shure products packaged weight 2% lbs. which will extend the usefulness and/or versatility of the microphone. Many OPTIONAL ACCESSORIES: Model units also list "Supplied Accessories" such as lavalier assemblies, switches, A86A Cable Type Transformer. Model S36A Desk Stand. Model 539A Vibrastands, etc. tion-Isolation Stand. FREQUENCY RESPONSE CURVE: The frequency response curve shown for each Shure microphone provides an accurate picture of the microphone's range and response. Note that the frequency scale is truly logarithmic, the voltage scale is uniform, and the scales are in the proportion recommended by the E.I.A. Where important, Shure charts show normal response, response at closer distances, and response off-axis. (Example: See pages 16-17 for the FREQUENCY IN CYCLES PER SECOND complete, useful data on the Unidyne III Series of microphones.)-DIRECTIONAL PATTERN CHARTS: These show the microphone's pick-up pattern [unidirectional (cardioid), omnidirectional, bidirectional—see the next page for detailed explanations of these functions]. Note particularly that because directional characteristics may be affected by frequency, Shure shows the



TYPICAL DIRECTIONAL PATTERN

1.760 milli-

SELECTING THE CORRECT SHURE



- Response Range. In general, the more extended the frequency response of the microphone is, the more faithful the reproduction will be.
 Smoothness. A high fidelity microphone is made so that no conspicuous abrupt peaks or valleys of output occur at any frequency. This results in an essentially
- smooth frequency response curve.
- Flatness. A flat frequency response curve is one showing output remaining at approximately the same level throughout the frequency range. This means that 3. Flatness. the microphone responds equally well at any frequency, an essential of high fidelity reproduction.

Identy reproduction. While the microphone with the widest range, smoothest and flattest frequency re-sponse curve will give the highest fidelity, it is not necessarily the best microphone for every application. [For example, a shaped (peaked) response is often devised to achieve added "presence" for microphones used in paging and communications sys-tems.] Frequency response required for various applications is summarized below:

RESPONSE REQUIREMENTS

Use	Response Range	Response Character	Possible Microphones
Recording, broadcasting, highest quality public address for music and voice	50-15,000 cps	Flat Smooth	Ribbon Dynamic
High quality public address for voice and music	70-10,000 cps	Flat or slightly rising No prominent peaks	Ribbon Dynamic Some crystals or ceramics
Indoor paging systems and public-address systems for voice use	200-5,000 cps	Slightly rising No prominent peaks	above plus Some Controlled Magnetics
Outdoor paging systems or systems in noisy locations. Ham radio and professional mobile and fixed station communications. Maximum intelligibility required.	300-3,500 cps	Rising A peak in the 2000 to 3500 cps region is often desirable	Controlled Magnetic Dynamic Carbon Some Ceramics

FREQUENCY

RESPONSE

MICROPHONE FOR THE APPLICATION

STEP III TYPES OF MICROPHONES

SHURE SERIES NO. 100	TYPE Carbon	WHAT IT IS Very high output units recommended for mobile communications where intelligibility requires limited frequency response. Needs external power supply. Low impedance.	WHERE TO USE IT Mobile communications. Not recommended for public address. Very good over extremely wide temperature and humidity conditions, or where rough handling is encountered.
200 😨	CERAMIC	Similar to crystal microphone in design but uses man-made ceramic element. Economical, superior to crystal for outdoor use. Unaffected by severe temperature and humidity changes. High impedance.	Wherever price is an important factor. Shure makes omnidirectional <i>and</i> unidirectional ce- ramic microphones—all are economical, rugged, attractively styled.
300	RIBBON	Virtually uniform frequency response. Defi- nitely among the very best available. Fairly high priced. Extremely rugged for normal use indoors. Adjustable impedance.	Wherever quality of response is the first con- sideration in broadcasting, professional record- ing, or public address, look to Shure Ribbon microphones (unidirectional and bidirectional). Excellent for music. Not recommended for out- door use.
400	CONTROLLED Magnetic	Balanced armature rugged, stable, high output. Originally developed for the military to combine the advantages of the carbon and dynamic microphone with none of the disadvantages—such as the need for external power supply in a carbon. Has the ability to directly supply any impedance, without trans- former. Modestly priced, extremely dependable performance.	Highly recommended for the best possible per- formance in Mobile Communications—truly the Field-Proved Standard in Mobile Communica- tions. Indoors, outdoors — wherever rugged perform- ance must be coupled with modest price and suitable response. Ideal for paging, language labs, portable P.A. systems. Omnidirectional only.
500	DYNAMIC	Moving-coil microphone, available in a wide range of prices and types. The better dynamic units are among the very best microphones for frequency response. Smooth response (up to 20,000 cps).	The dependable unit where exceptional per- formance, ruggedness and reliability are re- quired, such as broadcasting and better quality Public Address. Superior in frequency response to ceramic, crystal, carbon, and Controlled Magnetic units. Unidirectional, omnidirec- tional.
700	CRYSTAL	Excellent quality at a low price. Response is somewhat limited (normally about 10,000 cps maximum). Special sealed crystals used in Shure units mean you can use them where humidity is high or outdoors (except in direct sun over prolonged periods). High Impedance.	Crystal units are primarily used where price is a limiting factor. Very high in output.



While Shure microphones range in price from a few dollars to well over one hundred dollars, it is well to keep in mind that they are *the lowest cost single item* in the average P.A. system — and that their function is critical! In truth, the P.A. system can be no better than the microphone that originally converts the sound waves into electrical impulses. In general, unidirectional cardioid microphones are the most expensive (as a category); however, some fine quality omnidirectional and bidirectional microphones can cost as much as unidirectionals. Where economy is the major factor, we suggest that you look to crystal, ceramic or "Controlled Magnetic" units. Where quality is first and foremost, we recommend ribbons or dynamics.

SEE CHART AT BACK OF BOOKLET FOR DETAILED MICROPHONE APPLICATIONS.

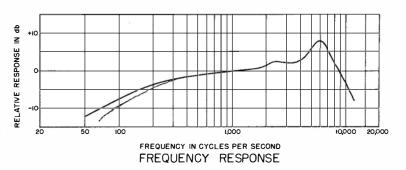


MODEL 570 LAVALIER MICROPHONE (¾" DIAMETER)

Miniature size Professional Quality dynamic microphone designed for lavalier use in television, for lectures, etc. Features special "shaped" response for superior lavalier performance. Reduces pickup of clothing and cable noise. Can be used on stand with Model A57S Swivel Adapter. Designed for inconspicuous use with "Flex-Grip" lavalier assembly—the most versatile available. "Flex-Grip" design holds microphone firmly, yet permits easy and quick removal. Lavalier clip opens right or left or can be removed. Lightweight, flexible 30 ft. microphone cable attached. Non-reflecting gray metal case with stainless steel grille.

Patent Pending

FINEST PERFORMING DYNAMIC LAVALIER MICROPHONE ----REGARDLESS OF PRICE!



AUDIO SPECIALIST'S SPECIFICATIONS

TYPICAL DIRECTIONAL PATTERN

LIST PRICE: \$95.00

ELEMENT TYPE: Dynamic

----- 400 C.P.S. ----- 1500 C.P.S. ----- 5000 C.P.S. ------ 12000 C.P.S

FREQUENCY RESPONSE: 50-12,000 cps, shaped for optimum lavalier performance, with rising response to 6,000 cps

OUTPUT: -59 db (0 db=1 milliwatt per 10 microbars); .095 millivolts/microbar

IMPEDANCE: 150 ohms (to match all low impedance input, 50 to 250 ohms)

DIAPHRAGM: Shure Duracoustic

POLAR PATTERN: Omnidirectional

MAGNETIC CIRCUIT: Uses Alnico V Magnet

CASE FINISH: Non-reflecting gray

CABLE: 30' two-conductor shielded

DIMENSIONS: ¾" diameter, 2½" overall length

NET WEIGHT: 2 ounces (less cable)

FURNISHED ACCESSORIES: Model A57L "Flex-Grip" lavalier cord, and belt clip for cable

OPTIONAL ACCESSORIES: Model A57S Swivel Adapter, Model A86A Transformer

ARCHITECT'S SPECIFICATIONS

SHURE MODEL 570

The microphone shall be Shure Model 570 or equivalent. It shall be a moving coil type microphone with a frequency range of 50 to 12,000 cps specifically designed for lavalier use. The unit shall have an omnidirectional polar characteristic. The microphone shall be a single impedance microphone having a nominal impedance of 150 ohms. The microphone output shall be: -59 db (0 db = 1 milliwatt per 10 microbars). The microphone rating Gm (sensitivity) at 1,000 cps shall be within ± 3 db of -152 db (EIA Standard SE-105, August 1949).

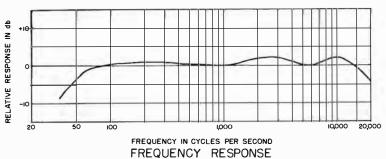
The microphone shall be provided with a lavalier cord and clip assembly for use as a wearable microphone. The microphone shall be provided with a 30' twoconductor shielded cable. The overall dimensions shall be $2^{10}32''$ (65.9 mm) in length, $2^{5}32''$ (19.8 mm) in diameter.

MODEL 576 OMNIDIRECTIONAL DYNAMIC MICROPHONE (3/4" DIAMETER PROBE)

A new, superb, dynamic probe microphone designed for television and radio broadcasting and super-critical public address applications. Proved superior for ruggedness and performance under typical broadcasting conditions in advance field tests. Strikingly modern in ultra-slim ¾-inch diameter that provides maximum view of performers for on-camera use. Features smooth, natural, wide-range response for authentic pickup of voice or music. Dual impedance, 50 and 150 ohms: change simply by moving pin jacks inside case. Comes complete with Model A57S slip-in swivel adapter that permits tilting the microphone 90° from vertical to horizontal. The 576 is an ideal hand-held microphone because of its unique "feel" and "balance" in the hand. Rugged steel case provides effective magnetic shielding as well as good looks. Finished in non-reflecting gray with stainless steel grille. Available in matched pairs for stereo, broadcasting and recording. (Matched to plus or minus 1 db in level and $1\frac{1}{2}$ db in frequency response.)

3/4" DIAMETER 40% SMALLER DIAM. 60% SMALLER AREA

THAN POPULAR OMNIDIRECTIONAL DYNAMIC MICROPHONES



production uniformity guaranteed to within 21/2 db

AUDIO SPECIALIST'S SPECIFICATIONS

LIST PRICE: \$175.00

ELEMENT TYPE: Dynamic

FREQUENCY RESPONSE: 40-20,000 cps

OUTPUT: 50 ohms -60 db (0 db=1 milliwatt per 10 microbars): .050 millivolts/microbar 150 ohms -60 db (0 db = 1 milliwatt per 10 microbars); .095 millivolts/microbar

POLAR PATTERN: Omnidirectional

IMPEDANCE: Dual-50 and 150 ohms (to match all low impedance inputs, 50 to 250 ohms)

DIAPHRAGM: Shure Duracoustic

CASE FINISH: Non-reflecting gray

SWIVEL ADAPTER: Furnished with Model A57S Swivel Adapter having %"-27 thread

CABLE: 25' three-conductor shielded broadcast cable

DIMENSIONS: ¾" diameter, 8%" overall length

NET WEIGHT: 7 ounces (less cable)

OPTIONAL ACCESSORIES: Model S33B Desk Stand, Model A86A Transformer, Model S39A Vibration-Isolation Stand, Model A45 Quick Disconnect Isolation Unit

ARCHITECT'S SPECIFICATIONS

1.000 C.P.S.

----- 4,000 C.P.S.

----- 10.000 GPS

TYPICAL DIRECTIONAL PATTERN

150

180

0

The microphone shall be the Shure Model 576 or equivalent. The microphone shall be a moving-coil type with a frequency range of 40 to 20,000 cps. The unit shall have an omnidirectional horizontal polar characteristic. The microphone shall have available impedances of 50 ohms and 150 ohms.

The microphone output shall be:

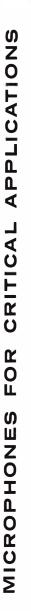
50 ohm impedance -60 db(0 db = 1 milliwatt per 10 microbars) 150 ohm impedance -60 db

(0 db = 1 milliwatt per 10 microbars)

The microphone rating Gm (sensitivity) at 1,000 cps shall be within 2 db of the following levels:

"Lo" Impedance -154.0 db "M" Impedance -154.0 db

EIA Standard SE-105 August 1949 The microphone shall be provided with a swivel adapter adjustable through 90° from vertical to horizontal and a 25' (7.6 m) three-conductor shielded cable. The microphone swivel adapter will mount on a stand having a 5%"-27 thread. The overall dimensions shall be $81\%_2$ " (213.6 mm) in length and 25/32" (19.8 mm) in diameter.

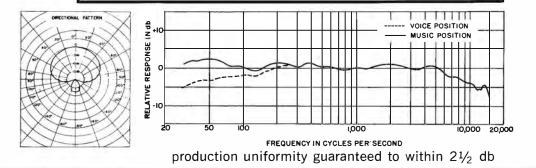


MODEL "333" SUPER-CARDIOID **RIBBON MICROPHONE**

A wide range, compact ribbon microphone that is an outstanding performer with super-cardioid unidirectional pickup pattern. Smooth response from 30 to 15,000 cps makes it particularly suited to broadcast, recording, and for sound reinforcement of theatrical and musical performances. A rugged unit incorporating the famous Shure "Uniphase" acoustical network system to provide optimum rejection of unwanted sounds. Complete with "Positive Action" lifetime swivel and live rubber shock mounting. Voice-Music Switch to adjust low frequency characteristics, and multi-impedance switch. Compact design in non-reflecting bronze-tone case with beige aluminum grille. Available in matched pairs for stereo broadcasting and recording at no additional cost. (Matched to ± 1 db in level and 1½ db in frequency response.)

SHURE RIBBON MICROPHONES

The characteristically wide-range response of the ribbon element has made it the most widely used type of microphone for broadcasting and professional recording. Shure engineers have designed remarkable ruggedness* into Shure ribbon microphones, making them an excellent choice for any indoor application where highest quality response is required. * Shure ribbon microphones actually have been used "to pound nails" and subjected to severe drop tests - without affecting the performance.



AUDIO SPECIALIST'S SPECIFICATIONS

LIST PRICE: \$250.00

TYPE: Ribbon

U.S. Patent

D-178,018

FREQUENCY RESPONSE: 30 to 15,000 cps

- OUTPUT LEVEL: 50 ohm impedance: -60 db; .049 millivolts/ microbar. 150 ohm impedance: -59 db; .089 millivolts/microbar. 250 ohm impedance: -59 db; .111 millivolts/microbar (0 db=1 milliwatt per 10 microbars)
- IMPEDANCE: Equipped with a multi-impedance switch, furnish-ing a choice of three impedances—L-50 ohms, M-150 ohms, H-250 ohms

POLAR PATTERN: Super-Cardioid (Unidirectional)

MAGNETIC CIRCUIT: Uses Alnico V Magnet

CASE: Die-cast zinc

- FINISH: Combination non-reflecting "Bronze-Tone" enamel case with beige aluminum grille
- SWIVEL: New, improved, self-adjusting "Positive Action" lifetime swivel. Permits tilting the head 45° forward and 70° backward, making it simple to aim the microphone at the source of sound.
- SHOCK MOUNT: Special vibration-isolation unit of live rubber construction
- CABLE CONNECTOR: Equivalent to Cannon XLR-3-11
- CABLE: 20 ft., (6.1m) 2-conductor shielded broadcast type STAND THREAD: Standard %"-27 thread
- STAND COUPLERS: Adapter for 1/2" pipe thread or 5%"-24 thread available upon request at no extra charge
- SWITCH: Voice-Music Switch to adjust low frequency characteristic for optimum performance. (See Frequency Response Curve) DIMENSIONS: 7[%]₃₂" high; 1[%]₃₂" wide; 1[%]₈" deep

NET WEIGHT (less cable): 11/2 lbs.; packaged weight 41/4 lbs. OPTIONAL ACCESSORIES: Model S33 Desk Stand, Model A86A Cable-Type Transformer, Model S39A Vibration-Isolation Stand, Model A45 Quick-Disconnect Isolation Unit

ARCHITECT'S SPECIFICATIONS

The microphone shall be Shure Model 333 or equivalent. A moving-ribbon type microphone with a frequency range of 30 to 15,000 cps, this unit shall have a unidirectional horizontal polar characteristic. The cancellation at the rear shall be in the order of 15 db. The microphone shall be equipped with a three-position impedance change switch for selecting the microphone impedance to 50 ohms, 150 ohms, or 250 ohms.

The microphone output shall be:

- 50 ohm impedance -60 db;

150 ohm impedance -59 db; 250 ohm impedance -50 db; (0 db = 1 milliwatt per 10 microbars) The microphone rating Gm (sensitivity) at 1000 cps shall be within 2 db of the

- following levels:
 - "L" Position of switch -153 db
 - "M" Position of switch 153 db "H" Position of switch 151 db EIA Standard SE-105 August 1949

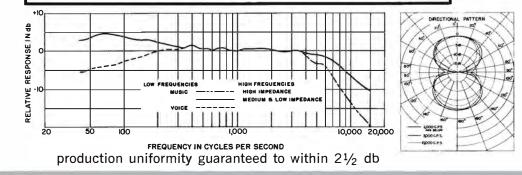
The microphone shall be provided with a swivel adjustable from 45° forward and 70° backward. The microphone shall be equipped with a vibration-isolation unit in combination with the stand connector, and it shall have a detachable Cannon XLR-3-11 cable connector capable of connecting to a two-conductor shielded cable. The microphone will mount on a stand having $\frac{5}{3}$ "-27 thread. The overall dimen-sion shall be $\frac{7}{32}$ " (184.9 mm) $\pm \frac{1}{4}$ " (6.4 mm) in height, $\frac{17}{32}$ " (31.0 mm) $\pm \frac{1}{3}$ " (3.2 mm) in width, and $\frac{1}{3}$ " (47.6 mm) ± 1/8 " (3.2 mm) in depth.

MODEL "300" GRADIENT¹ BIDIRECTIONAL MICROPHONE

A wide-range, quality ribbon microphone with bidirectional pickup pattern making it ideal for dialogs, interviews, and other applications where front and back pickup is desirable. Also a problem solver where side-located loud-speakers can cause feedback. Comes complete with multi-impedance switch, Voice-Music switch to adjust low frequency characteristics, self-adjusting, "Positive-Action" lifetime swivel and live-rubber shock-mount. Slim, modern design case is finished in non-reflecting "Bronze-Tone" enamel. Available in matched pairs for stereo broadcasting and recording at no additional cost. (Matched to ± 1 db in level and 1½ db in frequency response.)

SHURE RIBBON MICROPHONES

The characteristically wide-range response of the ribbon element has made it the most widely used type of microphone for broadcasting and professional recording. Shure engineers have designed remarkable ruggedness* into Shure ribbon microphones, making them an excellent choice for any indoor application where highest quality response is required. * Shure ribbon microphones actually have been used "to pound nails" and subjected to severe drop tests — without affecting the performance.



AUDIO SPECIALIST'S SPECIFICATIONS

LIST PRICE: \$150.00

TYPE: Ribbon

- FREQUENCY RESPONSE: 40 to 15,000 cps
- OUTPUT LEVEL: 30-50 ohms -60 db*; .044 millivolts/microbar. 150-250 ohms -59 db*; .100 millivolts/microbar. High -57 db**; 1.410 millivolts/microbar
 - * (0 db = 1 milliwatt per 10 microbars)
 - ** (0 db = 1 volt per microbar)
- IMPEDANCE: Equipped with a multi-impedance switch, furnishing a choice of three impedances — L-30-50 ohms, M-150-250 ohms, High

POLAR PATTERN: Bidirectional. Equally sensitive at front and rear. Response at sides down 15 to 20 db from front and rear responses.

- MAGNETIC CIRCUIT: Uses Alnico V magnet
- CASE: Die-cast zinc
- FINISH: Non-reflecting "Bronze-Tone" enamel
- SWIVEL: New improved self-adjusting "Positive Action" lifetime swivel permits tilting the head 45° forward and 90° backward so that the microphone can be aimed at the source of sound
- SHOCK MOUNT: Special vibration-isolation unit of live rubber construction
- CABLE CONNECTOR: Equipped with Cannon XLR-3-11 connector
- CABLE: 20 ft. (6.1 m) 2-conductor shielded broadcast type
- STAND THREAD: % "-27 thread
- STAND COUPLERS: Adapters for ½" pipe thread or %"-24 thread available upon request at no extra charge
- SWITCH: Equipped with Voice-Music switch to adjust low frequency characteristic for optimum performance (See Frequency Response Curve)

DIMENSIONS: 6" high; 17/16" wide, 21/16" deep

- NET WEIGHT (less cable): 1 lb.; packaged weight 4 lbs.
- OPTIONAL ACCESSORIES: Model S33 Desk Stand, Model A86A Cable-Type Transformer, Model S39A Vibration-Isolation Stand, Model A45 Quick-Disconnect Isolation Unit

ARCHITECT'S SPECIFICATIONS

The microphone shall be Shure Model 300 or equivalent. A moving-ribbon type microphone with a frequency range of 40 to 15,000 cps, this unit shall have a bidirectional horizontal polar characteristic. The cancellation at the sides shall be 15 to 20 db. The microphone shall be equipped with a three-position impedance change switch for selecting the microphone rating impedance to 38 ohms, 150 ohms, or 40,000 ohms.

The microphone output shall be:

30-50 ohms	$-60 db^*$
50 250 ohma	50 dh*

 $150-250 \text{ ohms} - 59 \text{ db}^*$ High -57 db^{**}

* (0 d b = 1 milliwatt per 10 microbars)
** (0 d b = 1 volt per microbar)

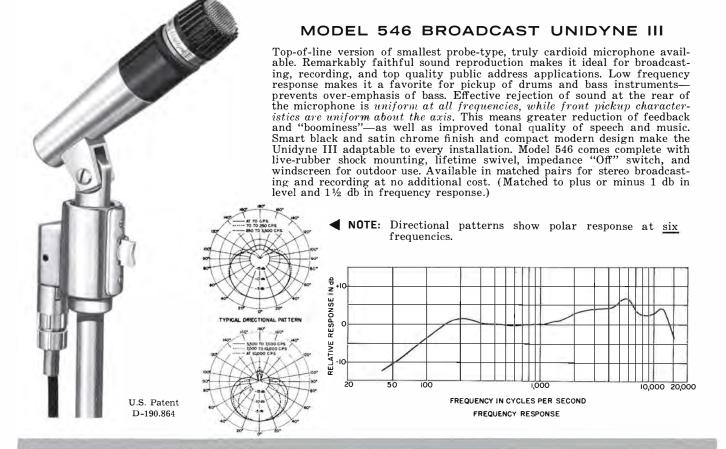
The microphone rating Gm (sensitivity) at 1000 cps shall be within 3 db of the following levels:

EIA Standard SE-105 August 1949

The microphone shall be provided with a swivel adjustable from 45° forward and 90° backward. The microphone shall be equipped with a vibration-isolation unit in combination with the stand connector, and it shall have a detachable Cannon cable connector capable of connecting to a two-conductor shielded cable.

The microphone will mount on a stand having $\frac{5}{8}$ "-27 thread. The overall dimensions shall be $9\frac{7}{32}$ " (234.2 mm) $\pm \frac{1}{4}$ " (6.4 mm) in height, $1\frac{7}{16}$ " (36.5 mm) $\pm \frac{1}{8}$ " (3.2 mm) in width, and $1\frac{3}{32}$ " (27.8 mm) $\pm \frac{1}{8}$ " (3.2 mm) in depth.

U.S. Patent D-171.055



AUDIO SPECIALIST'S SPECIFICATIONS

- LIST PRICE: \$135.00
- **TYPE**: Dynamic
- FREQUENCY RESPONSE: 50-15,000 cps
- OUTPUT LEVEL: 50 ohms: -55 db (0 db=1 milliwatt per 10 microbars); .079 millivolts/microbars 250 ohms: -55 db (0 db=1 milliwatt per 10 microbars); .176
- millivolts/microbars
- IMPEDANCE: Dual. Choice of 50 or 150 ohms. (To match all low impedance inputs, 50 to 250 ohms.)
- DIAPHRAGM: Shure "Duracoustic"
- POLAR PATTERN: Cardioid. (Uniform with frequency, symmetrical about axis)
- MAGNETIC CIRCUIT: Uses Alnico V Magnet
- CASE: Die-cast zinc and "Armo-Dur"
- FINISH: Satin chrome and black
- SWIVEL: New improved self-adjusting "positive action" lifetime swivel permits tilting of the head through 180° so that the microphone can be aimed at the source of sound.
- SHOCK MOUNT: Special vibration-isolation unit of live-rubber construction
- SWITCH: Impedance selection switch with center position "Off"
- CABLE CONNECTOR: Equipped with Cannon XL-3-11 connector CABLE: 20', (6.1 m) two-conductor shielded broadcast type
- STAND THREAD: % "-27 thread
- DIMENSIONS: (Swivel not included) 115/64" (31.2 mm) diameter, $57_{16}''$ (138.1 mm) length
- NET WEIGHT (Less cable) : 1 lb., packaged weight 3% lbs.
- OPTIONAL ACCESSORIES: Model S33B Desk Stand, Model A86A Cable-Type Transformer, Model S39A Vibration-Isolation Stand, Model A45 Quick-Disconnect Isolation Unit

ARCHITECT'S SPECIFICATIONS

The microphone shall be Shure Model 546 or equivalent. A moving coil type microphone with a frequency range of 50 to 15,000 cps, this unit shall have a cardioid polar characteristic. The cancellation at the sides shall be approximately 6 db and the cancellation at the rear shall be 15 to 20 db. The microphone shall be equipped with a three-position impedance "Off" switch for adjusting the microphone rating impedance to 38 ohms-150 ohms.

The microphone output shall be:

- 50 ohms impedance -55 db
- (0 db = 1 milliwatt per 10 microbars)250 ohms impedance -55 db(0 db = 1 milliwatt per 10 microbars)
- The microphone rating Gm (sensitivity) at 1,000 cps shall be within \pm 3 db of the following levels:
 - Low Impedance -147 db Medium Impedance —146 db EIA Standard SE-105 August 1949

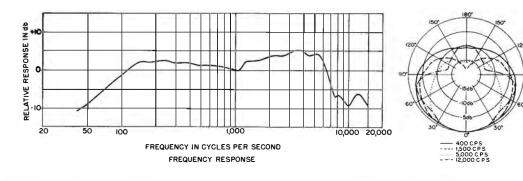
The microphone shall be provided with a swivel adjustable through 180° . The microphone shall be equipped with a vibration-isolation unit in combination with the stand connector and it shall have a detachable Cannon cable connector. The microphone will mount on a stand having 5% "-27 thread.

The overall dimensions shall be 8" (203.2 mm) in height, 1%" (34.9 mm) in width, and $2!_{16}$ " (52.5 mm) in depth.

MODEL 556S BROADCAST UNIDYNE II MICROPHONE

The world's most famous microphone because of its wide popularity and universal acceptance. Incorporates all the refinements in appearance and features dictated by many years of experience in a wide variety of applications. Ultracardioid, unidirectional characteristic, achieved through the patented Shure "Uniphase" network, provides effective rear rejection to eliminate feedback problems. Extremely rugged construction and resistance to wind and breath noises make the Model 556S outstanding for outdoor applications as well as most indoor broadcasting, recording, and high quality public-address, theatrestage sound systems. Impedance switch permits selection of low, medium, or high impedance. A classic of microphone design, finished in satin chrome and mounted on lifetime swivel and live-rubber shock mount. Available in matched pairs for stereo broadcasting and recording at no additional cost. (Matched to plus or minus 1 db in level and 11/2 db in frequency response.)

TYPICAL DIRECTIONAL PATTER



AUDIO SPECIALIST'S SPECIFICATIONS

LIST PRICE: \$135.00

TYPE: Dynamic

FREQUENCY RESPONSE: 40 to 15,000 cps

- OUTPUT LEVEL: L--30-50 ohm impedance -56 db
- (0 db =1 milliwatt per 10 microbars); .063 millivolts/microbar M—150-250 ohm impedance -57 db
- (0 db = 1 milliwatt per 10 microbars); .125 millivolts/microbar H—High -56 db (0 db=1 volt per microbar); 1.410 millivolts/ microbar
- IMPEDANCE: Equipped with a Multi-impedance switch, furnishing a choice of 3 impedances-L-30-50 ohms, M-150-250 ohms, H-High
- POLAR PATTERN: Ultra-Cardioid (Unidirectional) Response at rear down 15 db from front

MAGNETIC CIRCUIT: Uses Alnico V Magnet

- CASE: Die-cast zinc
- FINISH: Satin chrome
- SWIVEL: New improved self-adjusting "Positive Action" lifetime swivel permits tilting of the head through 45° forward and 80° backward so that the microphone can be aimed at the source of sound
- SHOCK MOUNT: Special vibration-isolation unit of live-rubber construction
- CABLE CONNECTOR: Equipped with Cannon XL-3-11 connector
- CABLE: 20 ft. (6.1 m), 2-conductor shielded broadcast type

STAND THREAD: Standard % "-27 thread

DIMENSIONS: 7 $\frac{3}{16}$ " high, $2\frac{3}{16}$ " wide, $3\frac{1}{16}$ " deep

NET WEIGHT (less cable): 2 lbs., packaged weight 3½ lbs.

OPTIONAL ACCESSORIES: Model S33B Desk Stand, Model A86A Cable-Type Transformer, Model S39A Vibration-Ísolation Stand, Model A45 Quick-Disconnect Isolation Unit

ARCHITECT'S SPECIFICATIONS

The microphone shall be Shure Model 556S or equivalent. A moving-coil type microphone with a frequency range of 40 to 15,000 cps, this unit shall have an "Ultra-Cardioid" horizontal polar characteristic. The cancellation at the sides shall be approximately 6 db and the can-cellation at the rear shall be in the order of 15 db. The microphone shall be equipped with a three-position impedance change switch for selecting the micro-phone rating impedance to 38 ohms, 150 ohms, or 40,000 ohms.

The microphone output shall be:

- "L"-30-50 ohm impedance -56 db (0 db = 1 milliwatt per 10 microbars) "M"-150-250 ohm impedance -57 db (0 db = 1 milliwatt per 10 microbars) "H"-High -56 db

 - (0 db = 1 volt per microbar)

The microphone rating Gm (sensitivity) at 1000 cps shall be within ± 3 db of the following levels:

The microphone shall be provided with a swivel adjustable from 45° forward and 80° backward. The microphone shall be equipped with a vibration-isolation unit in combination with the stand connector, and it shall have a detachable Cannon cable connector capable of connection to a two-conductor shielded cable. The microphone will mount on stand having 5%' '-27 broke with mount on stand having $\frac{1}{78} - \frac{1}{22}$ thread. The overall dimensions shall be $7\frac{3}{4}$ " (196.8 mm) $\pm \frac{1}{4}$ " (6.4 mm) in height, $2\frac{3}{16}$ " (55.6 mm) $\pm \frac{1}{4}$ " (3.2 mm) in width, and $3\frac{1}{16}$ " (77.8 mm) $\pm \frac{1}{4}$ " (3.2 mm) in depth.

MODEL SE-1 STEREO TRANSCRIPTION PREAMPLIFIER

Designed especially for stereo broadcasting, recording studio and mastering room playback and related applications where the highest quality of disc reproduction is required. The Model SE-1 provides precise RIAA equalization from magnetic phono re-



producers at line levels. It features separate high and low frequency response trimmers on each channel and includes a flat position for calibration checks and special applications. Its performance meets the most critical standards with exceptionally low distortion, noise level and susceptibility to stray RF fields.

SPECIFICATIONS

PROFESSIONAL USER NET PRICE: \$295.00

- GAIN: .0012 volt input produces a minimum output of +4 dbm OUTPUT: +4 to +8 dbm nominal at 600 or 150 ohms (Strapped to users choice)
- INPUT: 47,000 ohms to properly match most magnetic reproducers
- FREQUENCY RESPONSE: ±1 db from RIAA or flat characteristic: 30-15,000 cps
- DISTORTION: Less than 1% at +15 dbm
- HUM AND NOISE: -64 db at + 4 dbm output
- CHANNEL SEPARATION: Greater than 37 db at 10 KC
- ADJUSTMENTS: Separate level controls, high and low frequency trimmers, rumble filter (45 cps) and hiss filter (7 KC) POWER SUPPLY: Separate, with pigtail line switch
- DIMENSIONS: Preamplifier requires 3 % " x 7" opening with 11" rear clearance
 - Power Supply mounting dimensions 3¹/₂" x 6" x 11"

PHYSIOLOGICAL SOUND TRANSDUCERS SP-5 Series

Models SP-5 and SP-5S are Stethoscope Pickups incorporating a Controlled Magnetic Transducer to detect sound vibrations in human and animal tissue. They are useful in general science, physiology, and biology laboratories, as well as for medical and veterinary clinical applications. They are ideally suited for the study of human heart sounds because they incorporate the following features:

Frequency response independent of applied pressure

- Velocity sensitive to compensate for sound losses through the body
- Low electrical impedance and high sensitivity
- Low ambient acoustic sensitivity in desired frequency range

Available in two versions: for hand held use, Model SP-5; and for hands-free applications with adjustable web strap, Model





VIBRATION PICKUPS

Used for locating and measuring vibration as well as detection of sudden motion. Can be used for a wide variety of applications such as:

Pickup for protection systems Balancing rotating systems Monitoring of animal activity Selecting shock mountings Analysis for stress and strain Detection of leaks and wear points Surface smoothness measurements

SP-5S. These units may be used with standard medical phono-cardiograph equipment, inexpensive "electronic stethoscopes," or with high quality components in an assembled system. The output may be presented in a number of ways-such as by loudspeakers, earphones, oscilloscopes, graph recorders, and may be preserved on magnetic tape with a standard tape recorder. It is an ideal transducer to "upgrade" any existing system.

SPECIFICATIONS

Model SP-5 List Price: \$162.50 Model SP-5S List Price: \$180.84

- TYPE: Controlled Magnetic, direct coupled
- FREQUENCY RESPONSE: Smooth from below 10 cps to 1000 cps with velocity characteristic
- ELECTRICAL IMPEDANCE: Nominal 230 ohms at 100 cps
- OUTPUT: Approximately 0.2 mv for adult normal heart
- CABLE: Two-conductor shielded, 10 foot (3.0 m) with trimmed conductor
- FINISH: Anodized aluminum and white inert plastic
- MOUNTING: SP-5—Hand held. 1.12" x 1.5" diameter (28.7 mm x 38.1 mm diameter). SP-5S—¾" x ½6" open strap slot. 1.3" x 1.5" Diameter (33.0 mm x 38.1 mm Diameter)
- WEIGHT: SP-5-86 grams, SP-5S 110 grams

Model 61B, Model 61CP

The Model 61B has a triple moisture sealed Grafoil Bimorph Crystal element. The 61CP has a Lead Zirconate Titanate (PZT) element. The units may be fastened to an object or used with the furnished extension rod for point-to-point tests.

SPECIFICATIONS

- 61B-Crystal List Price: \$ 97.50
- 61CP—Ceramic List Price: \$125.00
- FREQUENCY RESPONSE: 3 KC resonance
- INTERNAL IMPEDANCE: 61B-Equivalent to .005 microfarad capacitor. Recommended Load: 1/2 to 5 megohms.
 - 61P-Equivalent to .010 microfarad capacitor. Recommended Load: 1/2 to 5 megohms.
- CASE: Die-cast aluminum, black finish
- CABLE: 61B—Equipped with 7 ft. single-conductor rubber-jacketed shielded cable.61CP—Equipped with 7 ft. detachable single-conductor plastic-jacketed shielded cable.
- ACCESSORIES FURNISHED: Complete set of adapters, inextension rod, ball-tip, point-tip and mounting cluding 8" bracket.

Recognizing that the quality of reproduction a sound system provides is absolutely limited by the quality of sound put into it by the microphone, Shure, for over a quarter century, has provided the highest quality microphones for public-address use. Shure microphones have consistently been selected by sound engineers and audio specialists for installations where quality of reproduction or difficult acoustics required a superior microphone. Whether a microphone is selected for installation in a theater, nightclub, auditorium, music hall, school, church, meeting hall, gymnasium, legislative or judicial chamber, or any other indoor or outdoor application, one of the many Shure microphones can provide the ideal solution at a reasonable cost. Shure microphones are rugged—may be depended upon to deliver consistent performance for years without deviation from their original standards. Shure microphone accessories also provide additional versatility and practical value when used with Shure microphones. The following pages contain information on Shure products designed to give the utmost performance for public-address use. Also included are famous Shure microphones for mobile and fixed-station communications, paging and special applications.



FIRST IN PUBLIC-ADDRESS

SOUND REINFORCEMENT SYSTEMS





High-quality microphone performance for on-stage, recording and broadcast use. Smooth, wide-range response worthy of top name performers. Super-cardioid unidirectional pickup pattern to solve difficult feedback problems. Equally at home in a concert hall or night club stage, it has become the accepted standard in the finest theater-restaurant, hotels and supper clubs. Also outstanding for sound reinforcement in theaters of all types including such difficult sound problems as found in tent theaters "in-the-round." Compact, distinctive, modern design with satin chrome finish and anodized aluminum grille. Available in matched pairs for stereo broadcasting and matched pairs of stereo broadcasting and recording at no additional cost. (Matched to plus or minus 1 db in level and $1\frac{1}{2}$ db in frequency response.)

SHURE RIBBON MICROPHONES

The characteristically wide-range response of the ribbon element has made it the most widely used type of microphone for broadcasting and professional recording. Shure engineers have designed remarkable ruggedness* into Shure ribbon microphones, making them an excellent choice for any indoor application where highest quality response is required. * Shure ribbon microphones actually have been used "to pound nails" and subjected to severe drop tests — without affecting the performance.



ECTIONAL PATTER

qpN

RESPONSE

RELATIVE

20

10.000 20,000 100 FREQUENCY IN CYCLES PER SECOND FREQUENCY RESPONSE

AUDIO SPECIALIST'S SPECIFICATIONS

LIST PRICE: \$120.00

TYPE: Ribbon

FREQUENCY RESPONSE: 30 to 15,000 cps

OUTPUT LEVEL: 50 ohm impedance - 59 db*; .049 millivolts/ microbar. 150 ohm impedance -57 db*; .089 millivolts/microbar. 250 ohm impedance -58 db*; .111 millivolts/microbar

(0 db=1 milliwatt per 10 microbars)

IMPEDANCE: Equipped with a Multi-Impedance Switch, furnishing a choice of three impedances-50 ohms, 150 ohms, 250 ohms

POLAR PATTERN: Super-cardioid (Unidirectional)

MAGNETIC CIRCUIT: Use Alnico V Magnet

CASE: Die-cast zinc

FINISH: Satin chrome plate with natural anodized aluminum grille

- SWIVEL: Self-adjusting "positive action" lifetime swivel. Permits tilting the head 45° forward and 70° backward, making it simple
- to aim the microphone at the source of the sound
- SHOCK MOUNT: Special vibration-isolation unit of live-rubber construction

CABLE CONNECTOR: Equipped with Cannon XL-3-11 Connector

CABLE: 20 ft., two-conductor shielded broadcast type

STAND THREAD: Standard % "-27 thread

DIMENSIONS: 311/16" high, 17/32" wide, 17/8" deep

- NET WEIGHT (less cable): 1½ lb.; packaged weight 3½ lbs.
- OPTIONAL ACCESSORIES: Model S33 Desk Stand, Model A86A Cable-Type Transformer, Model S39A Vibration-Isolation Stand, Model A45 Quick-Disconnect Isolation Unit

ARCHITECT'S SPECIFICATIONS

The microphone shall be a Shure Model 330 or equivalent. A moving ribbon type microphone with a frequency range of 30 to 15,000 cps. The unit shall have a super cardioid unidirectional polar characteristic. The microphone shall be equipped with a three-position impedance change switch for adjusting the microphone impedance to 50 ohms, 150 ohms, or 250 ohms.

The microphone output shall be:

- 50 ohm impedance -59 db^*
 - 150 ohm impedance -57 db^*
 - 250 ohm impedance 58 db* * (0 db=1 milliwatt per 10 microbars)

The microphone rating Gm (sensitivity) at 1000 cps shall be within ± 2 db of the following levels:

- 50 ohm Position of switch -152 db 150 ohm Position of switch -152 db
- 250 ohm Position of switch -150 db EIA Standard SE-105 August 1949

The microphone shall be provided with a swivel adjustable from 45° forward and 70° backward. The microphone shall be equipped with a vibration-isolation unit in combination with the stand connector, and it shall have a detachable Cannon cable connector capable of connecting to a two-conductor shielded cable.

The microphone will mount on a stand having a $\frac{5}{3}$ "-27 thread. The overall di-mensions shall be $7\frac{3}{32}$ " (184.9 mm) $\pm \frac{1}{4}$ " in height, $1\frac{7}{32}$ " (31.0 mm) $\pm \frac{1}{3}$ " in width, and $1\frac{7}{3}$ " (47.6 mm) $\pm \frac{1}{3}$ " in depth.

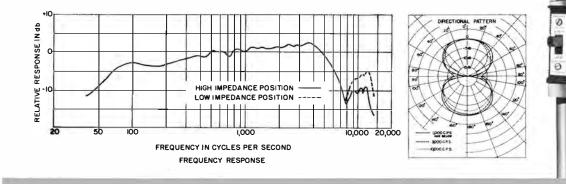
MODELS 315 AND 315S GRADIENT¹ BIDIRECTIONAL MICROPHONES

The "Figure 8" pickup pattern of this unit makes it ideal for dialogues, interviews, and other group pickup applications where front and back pickup is desirable. It is also a problem solver in public-address systems where loudspeakers located at the side of the microphone tend to cause feedback problems. Comes complete with multiimpedance switch and lifetime swivel for tilting the microphone toward the source of sound.

Model 315S includes "On-Off" switch; Model 315 is without switch. Slim modern design case has smart satin chrome finish. Available in matched pairs for stereo recording at no additional cost. (Matched to plus or minus 1 db in level and $1\frac{1}{2}$ db in frequency response.)

SHURE RIBBON MICROPHONES

The characteristically wide-range response of the ribbon element has made it the most widely used type of microphone for broadcasting and professional recording. Shure engineers have designed remarkable ruggedness* into Shure ribbon microphones, making them an excellent choice for any indoor application where highest quality response is required. * Shure ribbon microphones actually have been used "to pound nails" and subjected to severe drop tests -- without affecting the performance.



AUDIO SPECIALIST'S SPECIFICATIONS

LIST PRICE: Model 315 \$89.50

Model 315S (with switch) \$91.50

TYPE: Ribbon

FREQUENCY RESPONSE: 50 to 12,000 cps

- OUTPUT LEVEL: L-30-50 ohm impedance -59.5 db*; .044 millivolts/microbar. M-150-250 ohm impedance -60 db*; .100 milli-volts/microbar. H-High -57 db**; 1.410 millivolts/microbar (0 db = 1 milliwatt per 10 microbars)** (0 db = 1 volt per microbar)
- IMPEDANCE: Equipped with a multi-impedance switch, furnishing a choice of 3 impedances: L-30-50 ohms, M-150-250 ohms, H-High
- POLAR PATTERN: Bidirectional, equally sensitive at front and back. Response at sides down 15 to 20 db from front and rear responses.

MAGNETIC CIRCUIT: Uses Alnico V Magnet

CASE: Die-cast zinc

- FINISH: Satin chrome
- SWIVEL: New self-adjusting swivel permits tilting the head through 90° so that the microphone can be aimed at the source of sound
- CABLE CONNECTOR: Equivalent to the Amphenol MC3M Plug
- CABLE: 18 ft., two-conductor shielded broadcast type

STAND THREAD: Standard %"-27 thread

DIMENSIONS: 6" high, 17/16" wide, 13/32" deep

NET WEIGHT (less cable): 1 lb.; packaged weight 21/2 lbs.

OPTIONAL ACCESSORIES: Model S36A Desk Stand, Model A86A Cable-Type Transformer, Model S39A Vibration-Isolation Stand, Model A47 Quick-Disconnect Isolation Unit

ARCHITECT'S SPECIFICATIONS

U.S. Patent

D-171.055

The microphone shall be a Shure Model 315 (315S) or equivalent, a ribbon microphone with a frequency range of 50 to 12,000 cps. This unit shall have a bidirectional polar characteristic. The cancella-tion at the sides shall be 15 to 20 db. The microphone shall be equipped with a three-position impedance change switch for adjusting the microphone rating im-pedance to 38 ohms, 150 ohms, or 40,000 ohms. The Model 315S shall have a built-in "On-Off" switch. The Model 315 shall have no switch.

The microphone output shall be:

- L-30-50 ohm impedance -59.5 db^{*}
- M—150-250 ohm impedance -60 db* H—High -57 db**
- H-High

* (0 db = 1 milliwatt per 10 microbars)** (0 db = 1 volt per microbar)

The microphone rating Gm (sensitivity) at 1000 cps shall be within ± 3 db of the following levels:

- "L" Position of switch —155 db "M" Position of switch —153 db
- "H" Position of switch 155 db EIA Standard SE-105 August 1949

The microphone shall be provided with a swivel and it shall have a detachable cable connector capable of connection to a two-conductor shielded cable. The microphone will mount on a stand having $\frac{1}{2}$ "-27 thread. The overall dimensions shall be $9\frac{1}{2}$ " (224.6 mm) $\pm \frac{1}{4}$ " in height, $17\frac{1}{6}$ " (36.5 mm) $\pm \frac{1}{4}$ " in width, and $1\frac{3}{2}$ " (27.8 mm) in depth.



AUDIO SPECIALIST'S SPECIFICATIONS

LIST PRICE: Model 545S \$89.95, Model 545 \$85.00, Model 544 \$80.00, Model 544-G6 \$83.00. Includes 6" flexible gooseneck and mounting flange.

Model 544-G12 \$83.75. Includes 12" flexible gooseneck and mounting flange.

Model 544-G18 \$85.00. Includes 18" flexible gooseneck and mounting flange

TYPE: Dynamic

FREQUENCY RESPONSE: 50-15,000 cps

OUTPUT LEVEL: Low: -57 db (0 db = 1 milliwatt per 10 microbars); .141 millivolts/microbar. High: -55 db (0 db = 1 volt per microbar); 1.760 millivolts/microbar

IMPEDANCE: Dual. Choice of 50-250 ohms or High

DIAPHRAGM: Shure Duracoustic

POLAR PATTERN: Cardioid. (Uniform with frequency, symmetrical about axis)

MAGNETIC CIRCUIT: Uses Alnico V Magnet

- CASE: Die-cast zinc and "Armo-Dur"
- FINISH: Satin chrome and black
- SWIVEL: New improved self-adjusting "Positive Action" lifetime swivel permits tilting of the head through 180° so that the microphone can be aimed at the source of sound
- CABLE CONNECTOR: Models 545S and 545: Equivalent to Amphenol MC4M plug. (Model 544 has attached cable)
- CABLE: Models 545S and 545: 18 ft., three-conductor shielded Model 544: 7 ft., three-conductor shielded

STAND THREAD: %"-27 thread

DIMENSIONS (not including swivel): 1^{15}_{64} diameter, 5^{7}_{16} length

- NET WEIGHT: Model 545S, 34 lb., Model 545, 1/2 lb., Model 544, 5% lb. Packaged weight, Model 545S, 23% lbs., Model 545, 21% lbs.
- OPTIONAL ACCESSORIES: Model A86A Cable-Type Trans-former; Model S39A Vibration-Isolation Stand; Model S36A Desk Stand for Model 545S; Model S33B Desk Stand for Model 5455; Model A47 Quick-Disconnect Isolation Unit for Model 545S; Model A45 Quick-Disconnect Isolation Unit for Model 545

...designed for critical applications where

FAMOUS UNIDYNE III

The world's finest moderately priced dynamic cardioid microphone for public-address system use. The Unidyne III approaches the theoretical ideal of the cardioid pickup pattern. This means completely uniform pickup about the axis at all frequencies—in all planes.

(The advantages of this uniformity of pickup are demonstrated in the chart on the facing page.) Remarkably faithful reproduction of the human voice makes the Unidyne III a superior choice for public-address applications. Low frequency characteristics of the Unidyne III eliminate boominess, and make it a favorite for pickup of drums and bass instruments. Striking black and satin chrome finish in compact modern design makes the Unidyne III a stylish addition to any platform. Model 545 is suitable for handheld and/or stand use with Model A25 Swivel Adapter included. Model 545S is mounted on lifetime swivel and includes on-off switch. Model 544 is furnished with cable attached and is designed for gooseneck mountings. Available in matched pairs for stereo recording at no additional cost. (Matched to plus or minus 1 db in level and 1½ db in frequency response.)

ARCHITECT'S SPECIFICATIONS

The microphone shall be Shure Model 545, (545S), (544) or equivalent. A moving coil type microphone with a frequency range of 50 to 15,000 cps, this unit shall have a Cardioid polar characteristic. The cancellation at the sides shall be approximately 6 db and the cancellation at the rear shall be 15 to 20 db. The micro-phone shall be a dual-impedance micro-phone having rating impedance of 150 ohms and 40,000 ohms.

The microphone output shall be: Low: -57 db (0 db=1 milliwatt per

10 microbars)

High: -55 db (0 db = 1 volt per microbar)

The microphone rating Gm (sensitivity) at 1000 cps shall be within 3 db of the following levels:

Low impedance -149 db High impedance -151 db

EIA Standard SE-105 August 1949 For Model 545:

The Model 545 Microphone shall be provided with a swivel adapter adjustable through 90° from vertical to horizontal and a receptacle equivalent to the Amand a receptacle equivalent to the Amphenol 91-MC4F capable of connecting to a three-conductor shielded cable plug. The microphone swivel adapter will mount on a stand having $\frac{5}{8}$ "-27 thread. The overall dimension shall be $5^{13}/_{16}$ " (147.6 mm) $\pm \frac{1}{44}$ " in length and $1^{15}/_{64}$ " (31.4 mm) $\pm \frac{1}{44}$ " in diameter.

For Model 545S:

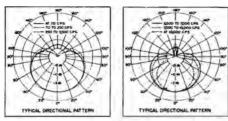
The Model 545S Microphone shall be provided with a swivel, a built-in on-off switch and a receptacle equivalent to the Amphenol 91-MC4F capable of connecting to phenol 91-MC4r capable of connecting to a 3-conductor shielded cable plug. The microphone shall mount on a stand having $\frac{5}{8}$ "-27 thread. The overall dimension shall be 7^{29}_{32} " (200.8 mm) $\pm \frac{1}{14}$ " in length, 1^{21}_{32} " (42.1 mm) in depth and 1^{15}_{16} " (31.4 mm) $\pm \frac{1}{14}$ " in diameter.

For Model 544:

The Model 544 Microphone shall be provided with a fixed adapter having a $\frac{5}{3}$ "-27 thread. The overall dimension shall be $7^{2}\frac{1}{32}$ " (194.5 mm) $\pm \frac{1}{32}$ " in length and $1^{15}\frac{1}{34}$ " (31.2 mm) $\pm \frac{1}{44}$ " in diameter.

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sound system problems seem insurmountable

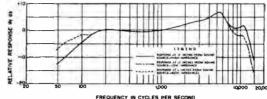


Model 545S Unidyne III

The world's finest moderately priced dynamic cardioid microphone for general purpose and public address system use. In addition to its outstanding pickup characteristics, the Unidyne III is designed throughout for superior reproduction with utmost convenience and distinguished appearance:

Smallest of the unidirectional microphones Built-in "On-Off" switch Improved swivel permits tilting of head through 180° so microphone can be "aimed" at the source of sound

Imagine a perfectly round balloon—now, poke your finger into one side of it and push in hard . . . the resultant configuration represents the ideal symmetrical pickup pattern of a cardioid microphone. Ideally, this pattern should be broad at the front, uniform at all frequencies—with uniform sound quality at any point within the pattern, off-axis as well as on-axis. Otherwise,



FREQUENCY IN CYCLES PER SECOND FREQUENCY RESPONSE

even slight movements of the performer about the axis tend to distort the sound. And, unless the pattern is symmetrical, it is prey to feedback—creating floor and ceiling reflected sound waves. The Unidyne III comes closest of any popular P.A. microphone in reaching the ideal . . . its pattern is totally symmetrical (there is no hidden top or bottom bulge) . . . in fact, it is truly cardioid at frequencies as low as 70 cps!

What to Look For:

Study the pickup pattern of the Unidyne III. Note its relative uniformity at ALL frequencies. Compare this to the patterns of other microphones which become sharply less directional as frequency drops until at very low frequencies, they become omnidirectional.

Note that the Unidyne III on-axis (solid line) and offaxis (dotted line) response is virtually the same. Note also the smoothness of response. The controlled roll-off at the low end prevents "boomy" sound. Test for pickup pattern symmetry yourself—rotate the Unidyne III while talking into it from various off-axis angles (45°, 90°, etc.). You will note that the volume and tonal quality of the microphone remain constant about the axis.

These common microphone problems can be solved only with the Unidyne III

SITUATION	PROBLEM	CAUSES	SOLUTION
REFLECTIONS	Feedback occurs where a so- called "cardioid" micro- phone is used and the speak- ers are placed to the rear of the microphone. A common occurrence in churches, au- ditoriums, and meeting rooms.	Sound bounces off hard surfaces on the walls, floor and ceiling, in and around the audience area and the microphone used is not effective in rejecting these sounds at all frequencies, and in all planes about its axis.	The Unidyne III eliminates th problem because of effecti rejection of sound at the re of the microphone with u formity at all frequencie Sounds bouncing off the flk or other reflective surfac that reach the rear of t Unidyne III are rejected.
	Unexplained feedback. Col- umn loudspeakers are used to distribute sound more evenly to the audience in churches and auditoriums.	While column speakers direct the sound toward the audience, they also have side and rear sound lobes which may reach the microphone. Feedback occurs when the rear and side sound lobes of the speakers coincide with the rear and side lobes of a so-called "cardioid" microphone.	The Unidyne III solves the problem because it has rear or side lobes. Thus it jects the side and rear lob of the sound column speake
REVERBERANT BOOM	A disturbing, echoing effect of low frequency sound often found in churches, large au- ditoriums, and arenas.	The particular "cardioid" microphone used fails to retain its unidirectional characteristics with low frequencies. In addition, its front response tends to accent low frequencies of the desired sounds. These factors result in pickup and reinforcement of the low frequency reverberation and boominess charac- teristic of many halls.	Using the Unidyne III Mic phone will solve the proble because it maintains a u form pattern of sound rej tion in all frequencies, even low as 70 cps. The frequer response also has a control roll-off of the low end. T prevents reinforcement of t low frequency reverberat and diminishes the effect o boomy hall.
PROBLEMS CAUSED B	Y THE MICROPHONE'S IN	EFFECTIVENESS IN PICKING UP T	HE DESIRED SOUND
GROUP COVERAGE WITH ONE MICROPHONE	A single microphone does not provide uniform cov- erage of a group. This is commonly experienced with choral groups, quartettes, in- strumental combos, and speaker panels.	The particular "cardioid" microphone used lacks a uniform pickup pattern, so that persons in different positions within the general pickup area of the microphone are heard with varying tonal quality and volume.	The Unidyne III affords u form pickup of the group w a resulting consistency volume and sound qua among the members of group.
USING MULTIPLE MICROPHONES	Variation in the pickup level and tonal quality exists throughout the broad area to be covered. This may oc- cur in stage pickup of mu- sical and dramatic produc- tions, panels and audience participation events.	The pickup pattern of the microphones used is too narrow, causing "holes" and "hot spots". The off-axis frequency response of the microphones also varies.	The Unidyne III permits smoothness in pickup as it true cardioid pattern gh broad coverage with unifor ity throughout the covera area. This eliminates "hole "hot spots", and the variatic in sound quality and perm blending many microphor with ease.
	Too much background noise or feedback results when working with microphone at desired distance from sound source.	So-called "cardioid" and particularly long range microphones being used are less directional with lower frequencies. In addition, they have lobes or hot spots that pick up sound at the rear, resulting in the background noise or feedback problem.	Use the Unidyne III to g relatively long range with fective rejection of sound at frequencies at the rear of t microphone.

FAMED 55 SERIES UNIDYNE II UNIDIRECTIONAL DYNAMIC MICROPHONE

"The old reliable" to leading sound specialists, performers, and public speakers throughout the world because of its faithful sound reproduction. Extremely rugged, always dependable, incorporating the refinements in performance characteristics and features evolved from many years of use in a wide variety of critical applications. Ultra-Cardioid unidirectional characteristics eliminate feedback problems. Extreme ruggedness and resistance to wind and breath noises make the Unidyne II outstanding for outdoor as well as indoor applications. Select Low, Medium or High impedance simply by turning convenient built-in impedance switch. Model 55SW includes "On-Off" switch, while Model 55S is without "On-Off" switch. Both models mounted on lifetime swivel to tilt microphone towards the desired source of sound. Available in matched pairs for stereo recording at no additional cost. (Matched to plus or minus 1 db in level and 11/2 db in frequency response.)

N db

ONSE RSP ¥

20

AUDIO SPECIALIST'S SPECIFICATIONS

80

400 C.P.S. 1,500 C.P.S. 5,000 C.P.S. 12,000 C.P.S

TYPICAL DIRECTIONAL PATTERN

150

120

LIST PRICE: Model 55S \$83.00, Model 55SW (with switch) \$85.00.

TYPE: Dynamic

Model 55SW (with switch)

FREQUENCY RESPONSE: 50 to 15,000 cps

- OUTPUT LEVEL: L-35-50 ohms -55 db (0 db=1 milliwatt per 10 microbars); .063 millivolts/microbar. M-150-250 ohms -56 db (0 db=1 milliwatt per 10 microbars); .125 millivolts/microbar. H—High -57 db (0 db=1 volt per microbar); 1.410 millivolts/ microbar
- IMPEDANCE: Equipped with a multi-impedance switch, furnishing a choice of three impedances-L-35-50 ohms, M-150-250 ohms, H—High.
- POLAR PATTERN: Ultra-Cardioid (unidirectional). Response at rear down 15 db from front.
- MAGNETIC CIRCUIT: Uses Alnico V Magnet

CASE: Die-cast zinc

FINISH: Satin chrome

SWIVEL: New improved self-adjusting "positive action" lifetime swivel permits tilting of the head through 45° forward or 80° backward so that the microphone can be aimed at the source of sound

CABLE CONNECTOR: Equivalent to Amphenol MC3M

CABLE: 18 ft., two-conductor shielded broadcast type

STAND THREAD: Standard %"-27 thread

DIMENSIONS: 7%" (187.3 mm) high, 2³/₁₆" (55.6 mm) wide, 3¹/₁₆" (77.8 mm) deep

NET WEIGHT (less cable): 1% lbs.; packaged weight 3% lbs.

OPTIONAL ACCESSORIES: Model S36A Desk Stand, Model A86A Cable Type Transformer, Model S39A Vibration-Isolation Stand, Model A47 Quick-Disconnect Isolation Unit

ARCHITECT'S SPECIFICATIONS

FREQUENCY IN CYCLES PER SECOND FREQUENCY RESPONSE

The microphone shall be Shure Model 55S (55SW) or equivalent. A moving coil type microphone with a frequency range of 50 to 15,000 cps, this unit shall have an "Ul-tra-Cardioid" polar characteristic. The cancellation at the sides shall be approximately 6 db and the cancellation at the rear shall be in the order of 15 db. The microphone shall be equipped with a three-position impedance change switch for adjusting the microphone rating impedance to 38 ohms, 150 ohms or 40,000 ohms. The Model 55SW shall have a built in "On-Off" switch. The Model 55S shall have no "On-Off" switch.

The microphone output shall be:

- $\begin{array}{l} \text{Incrobinote output shall be:} \\ \text{L} = -35 50 \text{ ohms} = -55 \text{ db} \\ \text{(0 db} = 1 \text{ milliwatt per 10 microbars)} \\ \text{M} = -150 250 \text{ ohms} = -56 \text{ db} \\ \text{(0 db} = 1 \text{ milliwatt per 10 microbars)} \\ \text{H} = \text{High} = -57 \text{ db} \\ \text{(0 db} = 1 \text{ volt per microbar)} \end{array}$

The microphone rating Gm (sensitivity) at 1000 cps shall be within 3 db of the

- EIA Standard SE-105 August 1949
- The microphone shall be provided with a swivel and it shall have a detachable cable connector capable of connection to a twoconductor shielded cable. The microphone will mount on stand having % "-27 thread. The overall dimensions shall be 7%' (187.3 mm) $\pm 14''$ in height, $23_{16}''$ (55.6 mm) $\pm 1\%''$ in width, and $3\frac{1}{16}''$ (77.8 mm) $\pm 1\%''$ in depth. (55.6)(77.8)

MODEL 245 UNIPLEX UNIDIRECTIONAL CERAMIC MICROPHONE

Even a budget sound system can have a true unidirectional microphone with the Uniplex, incorporating the same "Uniphase" system found in higher priced Shure Unidirectional microphones. Its wide useful pickup angle at the front and effective elimination of pickup at the rear provides the ideal solution to feedback problems in low cost public address systems. Good voice reproduction for home recording and paging applications. Reliable, rugged ceramic cartridge performs at temperatures from -40° to $+170^{\circ}$ F. Available in four models, all with metal, die-cast case. Lightweight and versatile, it can be used as a hand-held or stand-mounted unit in Models 245S (with switch) and 245 (without switch). Model 245G is supplied with cable attached for gooseneck mounting.

AUDIO SPECIALIST'S SPECIFICATIONS

LIST PRICE: Model 245 \$35.00. Includes A25B swivel-stand adapter and removable cable. Model 245S \$37.00. Includes "On-Off" switch. A25B Swivel-Stand Adapter and removable cable. Model 245G \$30.00. Gooseneck mounting version of 245 with fixed cable, no swivel-stand adapter. Model 245GS \$32.00. Gooseneck mounting version of 245S with "On-Off" switch, fixed cable, no swivel-stand adapter adapter

- TYPE: Ceramic FREQUENCY RESPONSE: 50 to 7,000 cps OUTPUT LEVEL: -59 db (0 db = 1 volt per microbar); 1.100 millivolts/microbar

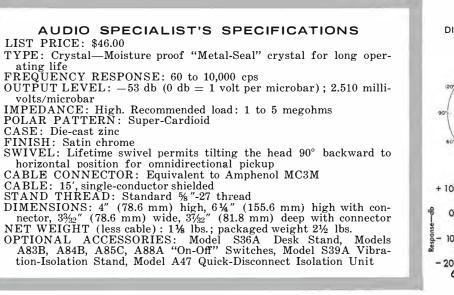
IMPEDANCE: High. Recommended load impedance: 1 to 5 megohms POLAR PATTERN: Cardioid (unidirectional)

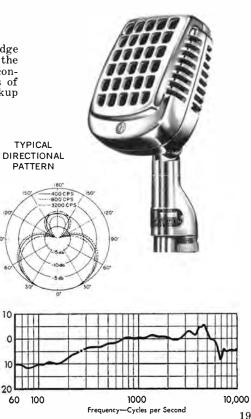
- CASE: Die-cast zinc
- CABLE AND CONNECTORS: Models 245 and 245S provided with 15' (4.6 m) single-conductor shielded cable with a plug (equivalent of Amphenol MCIF) for attaching cable to microphone. Models 245G and 245GS: 7' (2.1 m) single-conductor shielded cables attached to microphone
- SWITCHES: Models 245S and 245GS have built-in "On-Off" switch STAND THREAD: Models 245 and 245S provided with Model A25B swivel adapter with %"-27 thread for use with S38B Desk Stand, or any convenient desk or floor stand. Models 245G and 245GS are especially designed for use with flexible goosenecks having a $\frac{5}{6}$ "-27 thread or for customized installation where a concealed cable is desired
- DIMENSIONS (Microphone only): 423/32" (119.9 mm) high, 11/8" (28.6 mm) diameter

NET WEIGHT (Microphone only): % lb., packaged weight ¾ lb. OPTIONAL ACCESSORIES: Model S38B Microphone Stand

MODEL 737A MONOPLEX SUPER-CARDIOID CRYSTAL MICROPHONE

The Monoplex incorporates a high output, long-life "Metal-Seal" crystal cartridge in the famed Shure patented "Uniphase" acoustical network. The "737A" is the only Super-Cardioid crystal microphone available. An excellent choice for "econ-omy" public address systems or home recording. Unidirectional characteristics of omv maximum reduction of sound at the rear of the microphone and large usable pickup areas at the front help to solve feedback problems.





FREQUENCY IN CYCLES PER SECOND FREQUENCY RESPONSE

TYPICAL

DIRECTIONAL PATTERN

> C R YSTAL C NIDIRE MICROPHONE CTIONAL

UNIDIRE

MICROPHONE

CTIONAL

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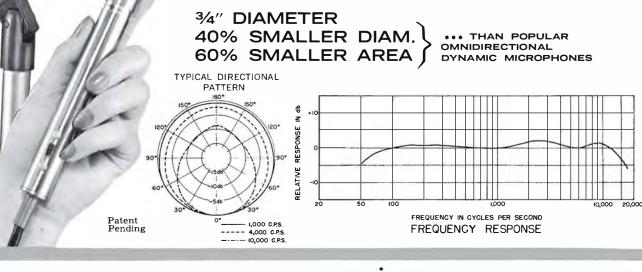
П

RAMIC



MODEL 578 OMNIDYNE ULTRA SLIM (3/4" DIAMETER) PROBE

An outstanding new public address microphone combining striking modern ultra-slim (4" diameter) design with exceptional performance, proved in severe field testing. Inconspicuous because of slender shape. Smooth, natural response from 50 to 17,000 cps. Built-in wire mesh "pop" filter reduces breath noises. Extremely rugged construction makes the Omnidyne an excellent choice for quality P.A. use indoors and outdoors. Satin chrome steel case provides magnetic shielding as well as good looks. Model 578 has exceptional "feel" and "balance" making it ideal for hand-held use. Dual impedance. Complete with "On-Off" switch and special slip-in swivel stand adapter. Locking switch plate is included to lock switch in "On" position. Available in Matched Pairs for Stereo Recording (Matched to plus or minus 1 db in level and 11/2 db in frequency response).



AUDIO SPECIALIST'S SPECIFICATIONS

LIST PRICE: \$82.50

TYPE: Dynamic

FREQUENCY RESPONSE: 50-17,000 cps

OUTPUT: High impedance -59 db (0 db = 1 volt per microbar); 1.11 millivolts/microbar. Low impedance -60 db (0 db = 1 milliwatt per 10 microbars); .100 millivolt/microbar

IMPEDANCE: Dual. 200 ohms and high

DIAPHRAGM: Shure Duracoustic

POLAR PATTERN: Omnidirectional

MAGNETIC CIRCUIT: Uses Alnico V Magnet

CASE FINISH: Satin chrome

SWIVEL ADAPTER: Furnished with swivel adapter having 5%"-27 thread

CABLE: 18'-three-conductor shielded

SWITCH: Supplied with "On-Off" switch and optional cover plate

DIMENSIONS: ¾" diameter. 7%" overall length

NET WEIGHT: 7 ounces (less cable)

OPTIONAL ACCESSORIES: Model S33B Desk Stand, Model A86A Transformer, Model S39A Vibration-Isolation Stand, Model A45 Quick-Disconnect Isolation Unit

ARCHITECT'S SPECIFICATIONS

The microphone shall be Shure Model 578 or equivalent. A dynamic type microphone with a frequency range of 50 to 15,000cps, it shall have an omnidirectional polar characteristic. The microphone shall be a dual impedance unit-the "low" impedance for connection into a 50 to 250 ohm line and the "high" impedance for connection into a high impedance input. The microphone output shall be:

Low impedance -60 db

(0 db = 1 milliwatt per 10 microbars) High impedance -59 db (0 db = 1 volt per microbar)

The microphone rating Gm (sensitivity) at 1000 cps shall be within \pm 3 db of the following levels:

Low impedance -151 db* High impedance -155 db* *EIA Standard SE-105, August 1949

SWITCH: Built-in "On-Off" switch with lock plate furnished. Microphone is shipped without lock plate installed. Lock plate is held by screws directly below switch knob.

CABLE: Non-detachable 18 foot (5.5 meter), three-conductor shielded, plasticiacketed.

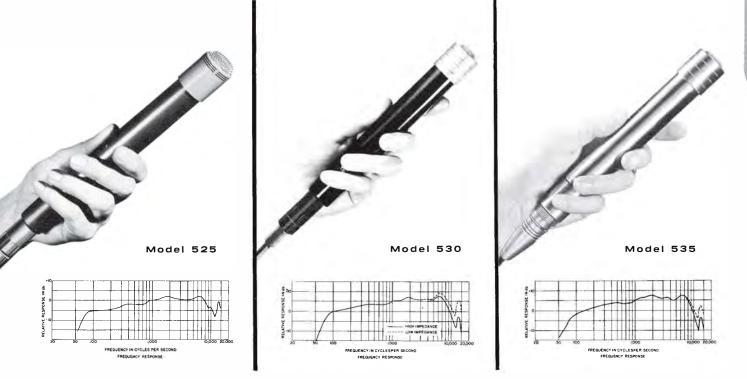
FINISH: Satin chrome with stainless steel grille.

DIMENSIONS: See Figure C.

NET WEIGHT (less cable): 7 ounces (198 grams); 16 ounces (454 grams) with 18' (5.5 meters) of cable.

PACKAGED WEIGHT: 1 pound 11 ounces (768 grams).

SWIVEL ADAPTER: Positive action swivel to fit $\frac{5}{3}$ "-27 stand thread.



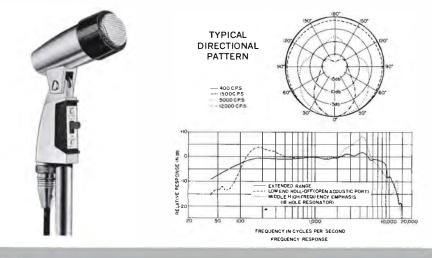
SLENDYNE SERIES

Choice of three models providing utmost versatility in omnidirectional dynamic microphones. Proved in rugged use for years of dependable service. All units come complete with Model A25 swivel stand adapter and Models 525 and 530 also include Model A22L Lavalier Assembly. All models also have impedance switch. Models 530 and 535 have "On-Off" switch. All models can be used in the hand, on desk or floor stand, or as lavalier microphones. Ideal for high quality public address, theater-stage sound systems, and recording.

	MODEL 525	MODEL 530	MODEL 535			
	\$200.00	\$110.00	\$72.50			
TYPE:	Dynamic	Dynamic	Dynamic			
FREQUENCY RESPONS	E : 40 to 15,000 cps	50 to 15,000 cps	60 to 13,500 cps			
OUTPUT LEVEL:	50 ohm impedance: -60 db; .039 millivolts/microbar 150 ohm impedance: -59 db; .071 millivolts/microbar 250 ohm impedance: -59 db; .089 millivolts/microbar (0 db=1 milliwatt per 10 microbars)	b; H—High Impedance: -61 db (0 db = 1 volt pe				
IMPEDANCE:	Multi-impedance 3-position switch L — 30-50 ohms M — 150 ohms H — 250 ohms	Dual Impedance Switch: L — 50-250 ohms H — High				
DIAPHRAGM:		Shure Duracoustic				
POLAR PATTERN:		Omnidirectional				
MAGNETIC CIRCUIT:		Uses Alnico V Magnet				
CASE:	Aluminum	Alùminum	Brass			
FINISH:	Non-reflecting "Bronze-Tone" Enamel with beige grille	Black and Gold Anodized	Satin Chrome			
CABLE CONNECTOR:	Cannon XL-3-11	Cannon XL-3-11	Equivalent to Amphenol MC3M plug			
CABLE:	20 ft., two-conductor shielded	Broadcast type	18 ft., two-conductor shielded			
SWITCH:	None	"On-Off" (N	ormally Closed)			
DIMENSIONS:	8^{17}_{32} " high, 1" diameter	7^{11}_{32} " high, 1" diameter	7 [%] ₃₂ " high, 1" diameter			
NET WEIGHT:	⅓ lb.	½ lb.	¾ !b.			
PACKAGED WEIGHT:	3½ lbs.	2% lbs.	2 % lbs.			
FURNISHED ACCESSORIES:	A25 Swivel Adapter, A22L Lavalier Assembly	A25B Swivel Adapter, A22L Lavalier Assembly, "On-Off" Switch with adapter plate	A25 Swivel Adapter, A22L Lavalier Assembly, "On-Off" Switch with adapter plate			
OPTIONAL ACCESSORIES:	Model S33 Desk Stand Model A86A Transformer	Model S33B Desk Stand Model A86A Transformer	Model S33 Desk Stand Model A86A Transformer			

SONODYNE II

Has the looks and performance worthy of twice its price! Adjustable frequency response and dual impedance makes the Sonodyne II the most versatile microphone! Normal wide-range response can be adjusted to provide increased voice intelligibility, and/or reduction of unwanted low frequency noise below 400 cps, for paging and communications applications. Full-range response and high output (particularly with high impedance) make the Sonodyne II an outstanding choice for most public address and recording applications. The unusual versatility and ruggedness of this unit also makes it an outstanding choice for school applications.



AUDIO SPECIALIST'S SPECIFICATIONS

LIST PRICE: Model 540S (with switch) \$49.95; Model 540 (without switch) \$47.95

TYPE: Dynamic

- FREQUENCY RESPONSE: 60 to 13,000 cps. Provisions for alternate response: rapid roll-off above 6,000 cps and/or below 400 cps
- OUTPUT LEVEL: 50-250 ohm impedance: -56.5 db (0 db = 1 milliwatt per 10 microbars); .141 millivolts/microbar. High impedance: -55 db (0 db = 1 volt per microbar); 1.76 millivolts/microbar IMPEDANCE: Dual. Choice of 50-250 ohms or high DIAPHRAGM: Shure Duracoustic POLAR PATTERN: Omnidirectional

- CASE: Die-cast zinc and "Armo-Dur"
- FINISH: Satin chrome and black
- SWIVEL: New improved self-adjusting "positive action" lifetime swivel permits tilting of the head through 180° so that the microphone can be pointed at the source of sound
- CABLE CONNECTOR: Equivalent to Amphenol MC3M

CABLE CONNECTOR: Equivalent to Amplified Model CABLE: 15 ft., two-conductor shielded STAND THREAD: %"-27 thread DIMENSIONS (not including swivel): 1²¹/₃₂" diameter, 3%" length NET WEIGHT (less cable): 1 lb., packaged weight 3½ lbs. FURNISHED ACCESSORIES: Resonator plate and set-screw for changing response

OPTIONAL ACCESSORIES: Model S36A Desk Stand, Model A86A Cable Type Transformer, Model S39A Vibration-Isolation Stand, Model A47 Quick-Disconnect Isolation Unit

ARCHITECT'S SPECIFICATIONS

The microphone shall be Shure Model 540S (540) or equivalent. A moving coil type microphone with a frequency range of 60 to 13,000 cps. Its response shall be adjustable to allow limiting the high and low frequency characteristics when desired. The unit shall have an omnidirectional polar characteristic. The microphone shall be a dual impedance microphone having rating impedances of 150 ohms and 40,000 ohms.

The microphone output shall be:

50-250 ohm impedance: -56.5 db (0 db = 1 milliwatt per 10 microbars) High impedance: -55 db (0 db = 1 volt per microbar)

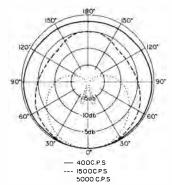
The microphone rating Gm (sensitivity) at 1,000 cps shall be within \pm 3 db of the following levels:

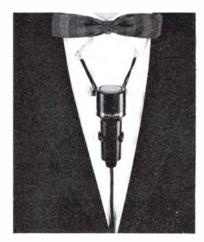
- Low impedance –150.0 db High impedance –152.0 db EIA Standard SE-105, August 1949

The microphone shall be provided with an adjustable swivel with a built-in "On-Off" switch to control the microphone circuit. The Model 540 shall have no switch. It shall have a detachable cable connector capable of connection to a two-conductor shielded cable. The microphone shall mount on a stand having $\frac{5}{8}$ "-27 thread. The overall dimensions shall be $\frac{6}{32}$ " (154.7 mm) in height, $1^{21}/_{22}$ " (42.1 mm) in diameter, and $2\frac{9}{16}$ " (65.1 mm) in depth.

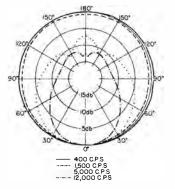


TYPICAL DIRECTIONAL PATTERN



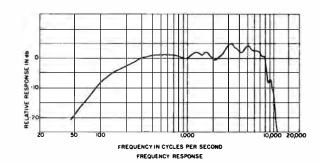


TYPICAL DIRECTIONAL PATTERN



SONODYNE MODEL 51 AND 51S

A favorite for schools and other public address applications where ruggedness and high output are desirable features. Excellent for use with tape recorders requiring microphones with high output. Multi-impedance switch gives choice of Low, Medium, or High impedance. Mounted on lifetime positive-lock swivel to point the microphone toward the source of sound. Model 51S comes complete with "On-Off" switch; Model 51 without switch. Distinctive design case finished in smart satin chrome.



OMNIDIRECTIONAL DYNAMIC MICROPHONE

AUDIO SPECIALIST'S SPECIFICATIONS

- LIST PRICE: Model 51 \$49.50; Model 51S (with switch) \$51.50

- TYPE: Dynamic FREQUENCY RESPONSE: 60 to 10,000 cps OUTPUT LEVEL: Low, 35-50 ohm impedance --52.0 db*; .089 millivolt/microbar. Medium, 150-250 ohm impedance --52.5 db*; .238 millivolt/microbar. High, High --49.5 db**; 2.510 millivolt/ microbar. microbar
- microbar *0 db = 1 milliwatt per 10 microbars *0 db = 1 volt per microbar IMPEDANCE: Equipped with a multi-impedance switch, furnish-ing a choice of three impedances: Low 35-50 ohms; Medium 150-050 choice High High 250 ohms; High—High. POLAR PATTERN: Omnidirectional MAGNETIC CIRCUIT: Uses Alnico
- Uses Alnico V Magnet

- CASE: Die-cast zinc FINISH: Satin chrome SWIVEL: Lifetime swivel permits tilting the head 80° backward to horizontal

- to horizontal CABLE CONNECTOR: Equivalent to Amphenol MC3M CABLE: 15 ft., two-conductor shielded STAND THREAD: Standard % "-27 thread DIMENSIONS: 5%" high, 3%" wide, 2%" deep NET WEIGHT (Less cable): 1% lbs., packaged weight 3% lbs. OPTIONAL EQUIPMENT: Model S36A Desk Stand, Model A86A Cable Type Transformer, Model S39A Vibration-Isolation Stand, Model A47 Quick-Disconnect Isolation Unit

ARCHITECT'S SPECIFICATIONS

The microphone shall be the Shure Model 51S (51) or equivalent. A moving coil type microphone with a frequency range of 60 to 10,000 cps. The microphone shall have an omnidirectional polar characteristic. The unit shall have a three-position impedance selection switch for selecting the microphone rating impedance of 35-50 ohms, 150-250 ohms, or 35,000 ohms.

The microphone output shall be:

Low 35-50 ohm impedance -52.0 db^* Medium 150-250 ohm impedence -52.5 db^* High High -49.5 db^{**} *0 db = 1 milliwatt per 10 microbars

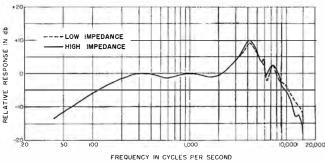
The Model 51S shall have a built-in "On-Off" switch. The Model 51 that have no "On-Off" switch. The microphone rating Gm (sensitivity) at 1,000 cps shall be within ± 3 db of the following levels: "L" Position of Switch -144.5 db "M" Position of Switch -145.0 db

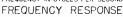
- "H" Position of Switch 149.5 db EIA Standard Rating SE-105 August 1949

The microphone shall be provided with a swivel adjustable from horizontal to 80° backward. It shall have a detachable cable connec-tor capable of connecting to a two-conductor shielded cable. The microphone shall mount on a stand having $\frac{6}{3}$ ".27 thread. The over-all dimensions shall be $\frac{5}{2}$ " (131 mm) high, $3\frac{16}{3}$ " (79.4 mm) wide, and $3\frac{8}{3}$ " (98.4 mm) deen. and 3%" (98.4 mm) deep.

MODEL 560 DYNAMIC LAVALIER MICROPHONE

Model 560 Dual Impedance, Dynamic Microphone with "tailored" response specifically designed for lavalier use. A truly excellent general purpose lavalier microphone at a very practical price. Compact and lightweight. Modern black satin all-metal case with stainless steel grille meets black satin all-metal case with stamess steer grine income virtually every lavalier application, with quick change from High to Low impedance by simply moving pin jacks. New design clip-grip lavalier assembly holds microphone securely to wearer. Lightweight 18 foot attached cable permits maximum freedom of movement.





AUDIO SPECIALIST'S SPECIFICATIONS

- AUDIO SPECIALISI'S SPECIFICATIONS LIST PRICE: \$42.50 FREQUENCY RESPONSE: Specially adapted to give optimum performance for lavalier use OUTPUT LEVEL: High: -56.5 db (0 db = 1 volt per microbar); 1.33 millivolts/microbar. Low: -55.5 db (0 db = 1 milliwatt per 10 microbars); .149 millivolt/microbar IMPEDANCE: Dual. Choice of 150 to 250 ohms or High DIAPHRAGM: Shure Duracoustic CABLE: Non-detachable 18 ft., two-conductor shielded CASE: Non-reflecting, black satin finished all-metal case with stainless steel grille

stainless steel grille DIMENSIONS: 3²⁹/₂" long by 1¹/₃" diameter NET WEIGHT: 5 ounces; packaged weight: 13 ounces

ARCHITECT'S SPECIFICATIONS

The microphone shall be Shure Model 560 or equivalent. A moving coil type microphone with a frequency specially adapted to lavalier use with a response of 40 to 10,000 cps. The unit shall have an omnidirectional characteristic. The microphone shall be a dual impedance microphone having rating impedance of 150 ohms and 40,000 ohms. The microphone output shall be:

High: -56.5 db (0 db = 1 volt per microbar)Low: -55.5 db (0 db = 1 milliwatt per 10 microbars)

The microphone rating Gm (sensitivity) at 1,000 cps shall be within \pm 3 db of the following levels:

Low impedance – 148 db High impedance – 152.5 db EIA Standard Rating SE-105. August 1949

The microphone shall be provided with a lavalier cord and clip assembly for use as a wearable microphone. The microphone shall be provided with an 18 foot (5.5 m) two-conductor shielded cable. The overall dimensions shall be: $2294.^{\circ}$ (00.9 m cm \rightarrow 1/ " (1.2 m cm \rightarrow 1)

 $3^{2}\%_{2}''$ (99.2 mm) $\pm \%_{6}''$ (1.6 mm) in length 1%'' (34.9 mm) maximum in diameter



MODEL 575S "VERSADYNE"

WIDE RANGE, VERSATILE DYNAMIC MICROPHONE AT A LOW PRICE

Smooth response from 40-15,000 cps makes this unit a "best-buy" for general public address, home recording of voice and music and call-system use where both performance and economy are important. Smart, modern design incorporates good looks with a rugged, high-performance dynamic cartridge that is unaffected by temperature and humidity variations. Choice of High or Low impedance models, each complete with locking, slide-to-talk switch plus stand adapter and lavalier cord. This small, ex-tremely lightweight unit is especially adapted for lavalier use as well as hand-held and stand-mounted applications.

AUDIO SPECIALIST'S SPECIFICATIONS

LIST PRICE: Model 575S \$24.00; Model 575SB \$21.00 TYPE: Dynamic FREQUENCY RESPONSE: 40 to 15,000 cps

- OUTPUT LEVEL: Model 575S -59 db (0 db=1 volt per microbar); 1.110 millivolts/microbar. Model 575SB -62 db (0 db=1 milliwatt per 10 microbars); .071 millivolts microbar
- POLAR PATTERN: Omnidirectional
- IMPEDANCE: Model 575S—High; 100,000 ohms or higher; Model 575SB—150 to 250 ohms
- CABLE: Attached 7 ft. single-conductor shielded
- SWITCH: Slide-to-talk locking type
- FINISH: Black high-impact "Armo-Dur" body with satin anodized cap and stainless steel grille DIMENSIONS: 4¾" long, 1¼" diameter STAND ADAPTER THREAD: %"-27

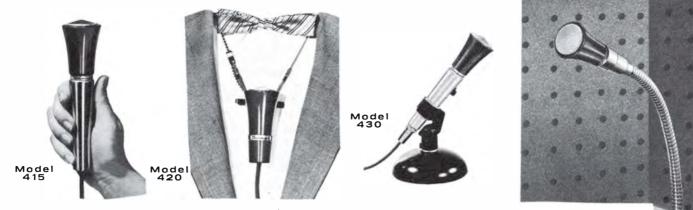
- NET WEIGHT: 5 ounces PACKAGED WEIGHT: 1 pound, 1 ounce
- FURNISHED ACCESSORIES: Stand Adapter and Lavalier Bracket and Cord Assembly (Lavalier Bracket becomes wall bracket when cord is removed)
- OPTIONAL ACCESSORIES: S38B Desk Stand; A86A Cable Type Transformer (for use with 575S)

MODEL 561

Compact, high quality, tamper-proof dynamic microphone with attached cable and standard %"-27 thread for direct mounting on flexible gooseneck or fixed pipe to conceal and protect cable. Extremely rugged, dynamic cartridge (Model R50) easily replaced in field. Excellent voice response for language lab systems, paging applications, base-station communications and talk-back and cuing from professional control-room installations. Low impedance permits unusually long cable lengths to be used without affecting response or level. Complete with Allen wrench for locking on mounting thread and removing microphone head to remove cartridge.

Patent Pending

AUDIO SPECIALIST'S SPECIFICATIONS	ARCHITECT'S SPECIFICATIONS:
LIST PRICE: \$32.50 FREQUENCY RESPONSE: 40 to 10,000 cps. Rising characteristic to 4500 cps. OUTPUT LEVEL: -56.0 db (0 db=1 milliwatt per 10 microbars); 1.41 millivolts/microbar IMPEDANCE: Matches 50 to 250 ohms DIAPHRAGM: Shure Duracoustic CABLE: Non-detachable 4 ft., two-conductor shielded STAND THREAD: %"-27 CASE: Black and chrome satin finished all-metal case with stainless steel grille DIMENSIONS: 241/44" long by 12%64" diameter	The microphone shall be a Shure Model 561 or equivalent. The microphone shall be a moving coil (dynamic) type microphone with a frequency range of 40 to 10,000 cps. The unit shall have an omnidirectional characteristic. The microphone shall be a low impedance microphone having a rating impedance of 150 ohms. The microphone output shall be: -56.0 db (0 db=1 milliwatt per 10 microbars) The microphone rating Gm (sensitivity) at 1000 cps shall be within ± 3 db of -149 db (EIA Stand- ard SE-105, August 1949). The microphone shall be provided with a $\frac{5}{4}$ "-27 thread. The microphone shall be provided with a 4 foot two-conductor shielded cable. The overall
NET WEIGHT: 5 ounces; packaged weight: 9 ounces	dimensions shall be $2^{41}/_{64}$ inches (67.1 mm) in length and $1^{23}/_{64}$ inches (34.5 mm) in diameter.



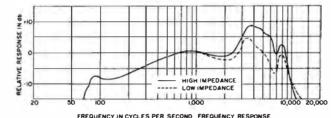
THE COMMANDO SERIES

The Commando Series represents a significant achievement in providing quality performance at nominal cost—incorpo-rating Shure's rugged, patented Controlled Magnetic cart-ridge in a dramatic-looking versatile series of microphones. Suitable for indoor or outdoor use, these microphones feature high output, smooth response, extreme ruggedness and ability to withstand severe moisture and temperature conditions. Model 420 is specially designed for lavalier use and it, as

well as the Model 430, features adjustment for high or low impedance by simple pin-jack changing method. Model 430 includes an "On-Off" switch as well as detachable cable. Both Models 415 and 430 are furnished with Shure Model A25 Swivel Stand Adapter for stand-mounted use. Model 425 is specially designed for gooseneck mounting but can also be utilized as stand-mounted units with A25B Swivel Adapter.



Model 425



U.S. Patent 2,454,425

"COMMANDO" MODELS 415, 420, 425, and 430 AUDIO SPECIALIST'S SPECIFICATIONS FOR

- LIST PRICE: Model 415 \$27.50; Model 420 \$30.00; Model 425 \$30.00; Model 430 \$38.50
- **TYPE:** Controlled Magnetic
- FREQUENCY RESPONSE: 60 to 10,000 cps IMPEDANCE: Model 415 High. Model 420-425-430 Equipped with readily changeable pin-jacks (no soldering required) furnishing a choice of two impedances: H-High and L-150 to 250 OUTPUT LEVEL: High -52 db (0 db=1 volt per micro-
- bar); 2.510 millivolts/microbar. Low -52 db (0 db=1 milliwatt per 10 microbars); .225 millivolts/microbar
- POLAR PATTERN: Omnidirectional
- CASE: Model 415-Impact-resistant polystyrene and diecast zinc. Model 420-Impact-resistant polystyrene. Model 425-Impact-resistant polystyrene and brass. Model 430-
- Impact-resistant polystyrene and brass. Model 430— Impact-resistant polystyrene and die-cast zinc. FINISH: Model 415—Non-reflecting gray and satin chrome. Model 420—Non-reflecting gray. Model 425-430—Non-re-florting gray. and gratin chrome. flecting gray and satin chrome.
- CABLE: Model 415-7 ft. non-detachable single-conductor shielded. Model 420-20 ft. non-detachable two-conductor shielded. Model 425-7 ft. non-detachable two-conductor shielded. Model 430-15 ft. two-conductor shielded with Amphenol MC2M connector for attaching to microphone.

ARCHITECT'S SPECIFICATIONS

The microphone shall be Shure Model (430, 420, 425) or equivalent. A balanced armature Controlled Magnetic type microphone with a frequency range of 60 to 10,000 cps. This unit shall have an omnidirectional polar characteristic. The microphone shall be dual impedance having rated impedances of 150 ohms and 15,000 ohms.

The microphone output shall be:

High -52 db (0 db=1 volt per microbar)

Low -52 db (0 db=1 milliwatt per 10 microbars)

The microphone rating Gm (sensitivity) at 1000 cps shall be within ±3 db of the following levels: Low Impedance Connected -145 db High Impedance Connected -143 db EIA Standard SE-105, August 1949

MODEL 430

The Model 430 Microphone shall be provided with an "On-Off" switch, a swivel adapter adjustable through 90° from vertical to horizontal, and a 15 foot (4.6 m) two-conductor

- SWITCH: Models 415-420-425-None. Model 430-Press-totalk switch-normally closed.
- DIMENSIONS: Model 415—Length 6¹³/₁₆". Diameter of head $1\frac{3}{16}$ ". Diameter of handle $\frac{13}{16}$ ". Model 420 Length $\frac{311}{16}$ ". Diameter 1 ¾ ". Model 425-Length 311/16". Diameter 1 ¾ ". Model 430-Length 637/64". Diameter of head 134 ". Diameter of handle 13/16".
- NET WEIGHT: Model 415-1/2 lb. Models 420-425-1/4 lb. Model 430-% lb. (less cable)
- PACKAGED WEIGHT: Model 415 1% lbs. Models 420-425 -¾ lb. Model 430—2½ lbs.
- FURNISHED ACCESSORIES: Model 415-Model A25B Swivel Adapter. Models 420-Lavalier Cord and clip assembly. Readily detachable for use of microphone as a hand-held type. Model 430-Switch locking plate for keeping switch in "On" position, Model A25B Swivel Adapter.
- OPTIONAL ACCESSORIES: Model 415-Model S38B or S33B Desk Stand. A34L Lavalier Assembly. Models 420-425-Model A86A Cable Type Transformer. Model 430-Model A86A Cable Type Transformer and Model S38B or S33B Desk Stand. A34L Lavalier Assembly.

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shielded cable with an Amphenol 80MC2M Plug for connecting to the microphone. The microphone swivel adapter shall mount on a stand having a $\frac{5}{3}$ "-27 thread. The overall dimensions shall be 7" (177.8 mm) $\pm \frac{1}{4}$ " (6.4 mm) in length and $1\frac{3}{4}$ " (44.5 mm) $\pm \frac{1}{3}$ " (3.2 mm) in diameter.

MODEL 420

The Model 420 microphone shall be provided with a lavalier cord and clip assembly for use as a wearable microphone. The microphone shall be provided with a 20 foot (6.1 m) two-conductor shielded cable. The overall dimensions shall be $3^{1}/_{6}$ " (93.7 mm) $\pm \frac{1}{4}$ " (6.4 mm) in length and $1\frac{3}{4}$ " (44.5 mm) $\pm \frac{1}{8}$ " (3.2 mm) in diameter.

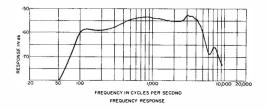
MODEL 425

The Model 425 shall be provided with an adapter having a 5%"-27 thread. The microphone shall be provided with a 7 foot two-conductor shielded cable. The average dimensions shall be $4^{21}y_{22} \pm 14''$ in length and $134 \pm 16''$ in diameter.



MODELS 520SL, 520SLB, 520, 520B

Models 520SL and 520SLB combine microphone, grip-to-talk, slide-to-lock switch, and desk stand—a complete assembly. A time honored favorite among dispatchers because of its dependability. This rugged assembly is designed for base-station use in police, fire, utility, forestry and transportation services, as well as paging and call systems. Model 520 or 520B known as "Green Bullet," is the microphone head alone and is an exceedingly rugged utility public address microphone. Choice of Medium or High impedance available in both series.



520SLB 520SL

AUDIO SPECIALIST'S SPECIFICATIONS

LIST PRICE: Model 520SL \$45.00; Model 520SLB \$49.25; Model 520 \$22.50; Model 520B \$22.50

TYPE: Controlled Magnetic

FREQUENCY RESPONSE: 100 to 9,000 cps

- OUTPUT LEVEL: Models 520 and 520SL: -52.5 db (0 db = 1 volt per microbar) 2.38 millivolts/microbar; Models 520B and 520SLB: -51.0 db (0 db = 1 milliwatt per 10 microbars) .281 millivolts/microbar
- IMPEDANCE: Model 520SL: High. Recommended load 100,000 ohms or more. Model 520SLB: 150-250 ohms

POLAR PATTERN: Semidirectional

CASE: Die-cast zinc

- FINISH: Metallic green (with satin chrome handle and grille on Models 520SL and 520SLB)
- CABLE CONNECTOR: Model 520SL: Equivalent to Amphenol MC3M Plug. Model 520SLB: Equivalent to Amphenol MC4M Plug

- CABLE: Model 520SL: 7 ft. high quality two-conductor shielded. Model 520SLB: 7 ft. high quality four-conductor (two-conductor shielded). Model 520: 7 ft., single-conductor shielded. Model 520B: 7 ft., two-conductor shielded
- SWITCH: Equipped with grip-to-talk switch, similar to Shure A88A. Model 520SL: DPST—normally closed—normally open. Model 520SLB: DPST normally open—normally open. Model 520 and 520B have no switch
- DIMENSIONS: With stand 9%" high, 5" wide, 7" deep
- NET WEIGHT (less cable): 2¼ lbs.; packaged weight 5 lbs.
- OPTIONAL ACCESSORIES: Model A86A Cable Type Transformer (for use only with Model 520SLB), S34B Desk Stand (for use with 520 and 520B)



MODELS 510SLB, 510C, 510S, 410 AND 410S

Model 510SLB is a complete assembly of Controlled Magnetic Microphone with a switch and a desk stand. Models 510C, 510S, 410 and 410S are the microphone head alone (known as "Hercules"), available with or without switch. Model 510SLB is especially recommended for mobile and fixed-station use as well as for call systems. Models 510C and 510S are designed for hand-held or desk top placement making them excellent for home-recording, mobile public address systems, and intercom systems. Models 410 and 410S are assembled with adapter and are specifically designed for gooseneck mounting to conceal cable.

AUDIO SPECIALIST'S SPECIFICATIONS

LIST PRICE: Model 510SLB, \$29.75; Model 510C, \$17.00; Model 510S (with switch), \$19.00. Model 410 \$19.00; Model 410S (with switch) \$21.00

TYPE: Controlled Magnetic

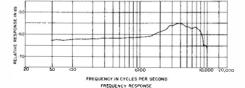
- FREQUENCY RESPONSE: 100 to 7,000 cps
- OUTPUT LEVEL: Model 510SLB 51 db (0 db = 1 milliwatt per 10 microbars); .238 millivolts/microbar. Models <math>510C, 510S, 410 and <math>410S 52.5 db (0 db = 1 volt per microbar); 2.38 millivolts/microbar
- IMPEDANCE: 510SLB—150-250 ohms. 510C, 510S, 410 and 410S—High. Recommended load 100,000 ohms or more

POLAR PATTERN: Semidirectional

CASE: Die-cast zinc

- FINISH: 510 Series: Metallic green. 410 Series: Gray
- CABLE: Model 510SLB: 7 ft., two-conductor shielded. Model 510C, 510S, 410 and 410S: 7 ft., singleconductor shielded
- SWITCH: Built-in, normally open, switch to control the microphone circuit. The switch is of the pressto-talk locking or non-locking type
- DIMENSIONS: With stand 8%" high, 5" wide, 7" deep
- NET WEIGHT: 2 lbs., packaged weight 2% lbs.
- OPTIONAL ACCESSORIES: Model A86A Cable Type Transformer for 510SLB only. S34B Desk Stand (for 510C and 510S)





MODEL 777 "SLIM-X"

The "777" Slim-X Microphones are rugged little microphones weighing only 6 ounces. They use a "Metal Seal" crystal for long operating life under adverse conditions of heat and humidity. Designed for good-quality voice reproduction, their versatility and "hand-ability" make them ideal for use by lecturers, announcers, instructors, and Hams; for audience participation shows; carnivals; and for use with home-recorders. When mounted on either cradle or swivel, the "777" can be removed in a flash. This makes it an ideal "walk-around" hand-held microphone. All models are furnished with a lavalier cord.

AUDIO SPECIALIST'S SPECIFICATIONS

LIST PRICE: Model 777—\$25.00 Includes A22L Lavalier Cord and molded stand adapter. Model 777S—\$27.00 Includes A22L Lavalier Cord, "On-Off" Switch, and molded stand adapter. Model 777A-\$33.00 Includes A22L Lavalier Cord, A25 swivel stand adapter, S38 Desk Stand. Model 777SA-\$35.00 Includes A22L Lavalier Cord, A25 Swivel stand adapter, S38 Desk Stand and "On-Off" Switch. TYPE: Crystal-moisture-proof "Metal Seal" FREQUENCY RESPONSE: Smooth from 60 to 10,000 cps OUTPUT LEVEL: -62 db (0 db = 1 volt per microbar); .790 millivolts/microbar POLAR PATTERN: Omnidirectional CASE: Die-cast zinc with satin chrome finish CABLE CONNECTOR: Equipped with Amphenol MC1F Plug. CABLE: Detachable 7 ft. single-conductor shielded STAND THREAD: Standard % "-27 thread DIMENSIONS (Microphone only): 41/2" high, 1" diameter NET WEIGHT (Microphone only): % lb.; packaged weight ¾ lb. OPTIONAL ACCESSORIES: Model S38B Desk Stand, A25B Type Swivel Adapter



MODEL 707A

Ideal for low-cost public address systems, call systems, amateur phone transmitters and general purpose use. Features goodquality reproduction at low cost. Uses moisture-proofed Bimorph Rochelle Salt crystal for long-life operation.

AUDIO SPECIALIST'S SPECIFICATIONS

LIST PRICE: \$19.50

TYPE: Crystal

- FREQUENCY RESPONSE: 30 to 7,000 cps
- OUTPUT LEVEL: -50 db (0 db = 1 volt per microbar); 3.150 millivolts/microbar
- IMPEDANCE: High-Recommended load impedance: 1 to 5 megohms
- POLAR PATTERN: Semidirectional
- CASE: Die-cast zinc
- FINISH: Iridescent gray case, satin chrome grille
- CABLE: 7 ft., single-conductor shielded
- STAND THREAD: Standard %"-27 thread
- DIMENSIONS: 3¼" high, 215/32" diameter
- OPTIONAL ACCESSORIES: Model S34B Desk Stand
- NET WEIGHT: % lb.; packaged weight 11/4 lbs.



MODEL 710 "**REX**"

Low price, rugged hand-held microphone, designed for high speech intelligibil-

ity. A natural for radio amateur rigs, home recording and low-cost public address sys-tems. Models 710A and 710S have broad base, complete with stand adapter for mounting on floor stand. Models 710G and 710GS are assembled with adapter and are specifically designed for gooseneck mounting to conceal cable.

AUDIO SPECIALIST'S SPECIFICATIONS

- LIST PRICE: Model 710A, \$12.00; Model 710S (with switch), \$14.00; Model 710G, \$14.00; Model 710GS (with switch), \$16.00

- TYPE: Crystal FREQUENCY RESPONSE: 60 to 9,000 cps OUTPUT LEVEL: -50 db (0 db = 1 volt per microbar); 3.150 millivolts/microbar
- IMPEDANCE: High-Recommended load impedance: 1 to 5 megohms POLAR PATTERN: Semidirectional
- CASE: Die-cast zinc
- FINISH: Models 710A and 710S-Metallic burgundy red; Models 710G and 710GS—Gray CABLE: 7 ft. fabric covered, single-conductor shielded
- SWITCH: Models 710S and 710GS have a built-in,
- press-to-talk locking or non-locking switch DIMENSIONS: 3732" high, 2¹/₁₆" wide, 1¹/₈" deep OPTIONAL ACCESSORIES: Models 710A and 710S —S34B Desk Stand; Models 710G and 710GS—Goosenecks
- NET WEIGHT: Models 710A and 710S: 5% lb.; packaged weight 1 ¼ lbs. Models 710G and 710GS: % lb.; packaged weight 1 ¼ lbs.

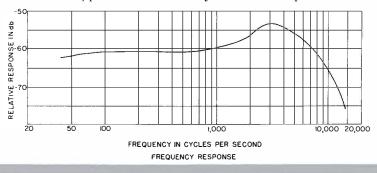
710GS





MODEL 275S "VERSAPLEX"

Smart, modern design with rugged, lightweight construction in a low-cost unit. Wide-range response for tape recording, budget public address, amateur radio and many other applications. Built-in filter reduces voice "pop." Complete with locking, slideto-talk switch, plus lavalier assembly and stand adapter.



AUDIO SPECIALIST'S SPECIFICATIONS

LIST PRICE: \$15.00 TYPE: Ceramic FREQUENCY RESPONSE: 40 to 12,000 cps OUTPUT LEVEL: -59.5 db. (0=1 volt per microbar); 1.050 millivolts/microbar IMPEDANCE: High-Recommended load impedance: 1 to 5 megohms

POLAR PATTERN: Omnidirectional

CASE: Black high impact "Armo-Dur" body with satin anodized cap and filter CABLE: 7' single-conductor shielded

SWITCH: Slide-to-talk locking type

DIMENSIONS: 423/32" long, 111/32" diameter

- FURNISHED ACCESSORIES: Stand adapter with standard %"-27 thread, and lavalier assembly. (Lavalier bracket becomes wall bracket when cord is removed.)
- OPTIONAL ACCESSORIES: S38B Desk Stand

NET WEIGHT: 4 oz.; packaged weight: 1 lb.

MODELS 215 and 715 "STARLITE"

These beautifully designed economy microphones are useful for voice reproduction. Their extremely low price and good quality make them a "natural" for home recording and other applications where low cost is more important than critical performance. The "Starlite" microphones can be held in the hand, or used on a desk.



AUDIO SPECIALIST'S SPECIFICATIONS

LIST PRICE: \$8.00

TYPE: Model 215—Ceramic. Model 715—Crystal

- FREQUENCY RESPONSE: Model 215-50 to 8,000 cps. Model 715-50 to 10,000 cps
- OUTPUT LEVEL: Model 215: -56.5 db (0 db=1 volt per microbar); 1.480 millivolts/microbar. Model 715: -50 db (0 db=1 volt per microbar); 3.150 millivolts/microbar
- IMPEDANCE: High—Recommended load impedance: 1 to 5 megohms

POLAR PATTERN: Semidirectional

CASE: Impact Resistant Polystyrene

- FINISH: Model 215—Black front, gray back with light gray grille. Model 715—Gray front, black back with black grille
- CABLE: Equipped with 5 ft., plastic-covered, single-conductor shielded cable

STAND: Permanently connected retractable stand

DIMENSIONS: $3\frac{5}{22}$ " high, $2\frac{3}{16}$ " wide, $1\frac{5}{32}$ " deep

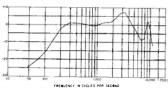
NET WEIGHT: 3½ oz.; packaged weight: ½ lb.



MODEL 450 "DISPATCHER" MICROPHONE

New modern design fits every decor for paging use. Integrated case design, made of gray "Armo-Dur", features telescoping height adjustment for maximum convenience. Rugged Controlled Magnetic element with impedance switch for low or high impedance. Push-to-talk switch bar with optional features provide every desired switching option.





FREQUENCY IN CYCLES PER SECOND FREQUENCY RESPONSE

ARCHITECT'S SPECIFICATIONS

LIST PRICE: \$49.50

ELEMENT TYPE: Controlled Magnetic

FREQUENCY RESPONSE: 100 to 9,000 cps

OUTPUT:

High impedance -52.5 db (0 db=1 volt per microbar); 2.380 millivolts/microbar

AUDIO SPECIALIST'S SPECIFICATIONS

Low impedance -51.0 db (0 db=1 milliwatt per 10 microbars); .281 millivolts/microbar

IMPEDANCE: Dual. Switch for 50 to 250 ohms or High

CASE: Two-tone Gray "Armo-Dur"

CABLE: 7 ft., four-conductor (two-conductor shielded)

- SWITCH: Push-to-talk switch button with optional locking feature to operate independent microphone and relay circuits. Relay portion of switch is normally open. Microphone portion of switch is normally open or normally closed as required.
- DIMENSIONS: 4" wide, 511/16" deep, 105/16" high (adjustable)

NET WEIGHT: 1½ lbs.

The microphone shall be the Shure Model 450 balanced armature Controlled Magnetic type microphone or equivalent. The frequency response range shall be 100 to 9,000 cps. The microphone shall be equipped with a slide switch for selecting the microphone rating impedance of 200 ohms or 14,000 ohms. The microphone output shall be:

High impedance -52.5 db (0 db=1 volt per microbar) Low impedance -51.0 db (0 db=1 milliwatt per 10 microbars)

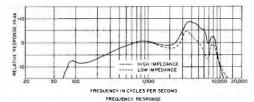
The microphone rating Gm (sensitivity) at 1,000 cps shall be within ± 3 db of the following levels:

phone circuit and the external relay circuit. The microphone shall have a 7 foot non-detachable four-conductor, two-Similar latter a 1 discrimination of the intermediate of the second second action of the microphone shall be 4" (101.6 mm) $\pm \frac{1}{8}$ " (3.2 mm) wide, $5^{11}/_{16}$ " (144.5 mm) $\pm \frac{1}{8}$ " (3.2 mm) deep, and $10^{13}/_{32}$ " (264.3 mm) $\pm \frac{3}{8}$ " (9.6 mm) high.



MODEL 430SL "COMMANDO" CONTROLLED MAGNETIC PAGING MICROPHONE

Latest addition to the famed Shure "Commando" line. Special "momentary" press-to-talk locking or non-locking switch controls both microphone circuit and external relay or control circuit. Specially designed for public address, call systems, background music, paging systems, and similar applications. Model 430SL is complete with S38B Desk Stand and A25B Swivel Adapter. Can be used in stand or hand-held.



AUDIO SPECIALIST'S SPECIFICATIONS

LIST PRICE: \$49.95

- TYPE: Controlled Magnetic FREQUENCY RESPONSE: Smooth and uniform from 60 to 10,000 cps. Free from undesirable peaks
- OUTPUT LEVEL: Low impedance -52 db (0 db=1 milli-watt per 10 microbars); .225 millivolts/microbar High impedance: -52 db (0 db=1 volt per microbar);
- 2.510 millivolts/microbar
- IMPEDANCE: Dual—Easily converted from High to Low CABLE: Non-detachable 15 ft. (4.6 m) three-conductor, one-conductor shielded
- SWITCH: Million cycle, press-to-talk locking or non-lock-ing type to control both microphone and external relay or control circuit FINISH: Satin chrome and black
- DIMENSION: (Microphone only) 6^{13}_{16} " (173.0 mm) long $1\frac{3}{4}$ " (44.5 mm) Diameter at head. $^{13}_{16}$ " (20.6 mm) Di-
- ameter at handle NET WEIGHT: 1 lb. (Microphone only with 15 foot of
- cable) PACKÁGED WEIGHT: 21/8 lbs. (963.9 g)
- FURNISHED ACCESSORIES: A25B Swivel Adapter; S38B Desk Stand

ARCHITECT'S SPECIFICATIONS

The microphone shall be the Shure Model 430SL Balanced Armature Controlled Magnetic type microphone or equivalent with a frequency range of 60 to 10,000 cps. This unit shall have an omnidirectional horizontal polar characteristic. The microphone shall be dual impedance having rated impedances of 150 ohms and 15,000 ohms. The microphone output shall be:

Low: -52 db (0 db=1 milliwatt per 10 microbars) High: -52 db (0 db=1 volt per microbar)

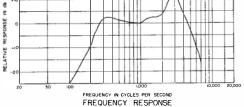
The microphone rating Gm (sensitivity) at 1,000 cps shall be within ± 3 db of the following levels:

- Low impedance connected position -145 db
- High impedance connected position -143 db

EIA Standard SE-105 August, 1949

The microphone shall be provided with an "On-Off" switch to control the microphone circuit and the relay circuit, a base and swivel adapter adjustable through 90° from vertical to horizontal, and a 15 foot three-conductor, one-conductor shielded non-detachable cable. The overall dimensions of the microphone only shall be 7" (177.8 mm) $\pm \frac{1}{4}$ " (6.4 mm) long, $1\frac{3}{4}$ " (44.5 mm) $\pm \frac{1}{8}$ " (3.2 mm) in diameter.





NEW! MODEL 444†

ADJUSTABLE HEIGHT "HAM" MICROPHONE

At last! A microphone specifically designed to meet the needs of the discriminating amateur radio enthusiast! Shure has built into an entirely new, modern microphone the unmatched performance characteristics of the famed Model 440SL. Special features include press-to-talk switch with optional locking feature, providing ideal switching functions for both press-to-talk and VOX operation, adjustable stand that raises or lowers microphone for most comfortable talking position.

SPECIFICATIONS

LIST PRICE: \$42.50

- **ELEMENT TYPE:** Controlled Magnetic
- FREQUENCY RESPONSE: 300 to 3,000 cps
- OUTPUT: -52.5 db (0 db=1 volt per microbar); 2.38 millivolts/ microbar
- IMPEDANCE: High

CASE: Gray "Armo-Dur"

- CABLE: 7 ft. two-conductor shielded
- SWITCH: Push-to-talk switch button, with optional locking feature to operate relay control and microphone muting circuits. Separate switch enables user to disable relay control circuit for VOX operation.
- DIMENSIONS: 4" wide, 511/16" deep, 105/16" high (adjustable) NET WEIGHT:1^{1/2}pounds

MODELS 440-440SL MICROPHONES†

The response characteristic of these microphones has been tailored to meet the demands of radio communications. These microphones are specifically designed for single-sideband broadcast, and are ideally suited for use with all types of "ham" transmitters. The rising response characteristic with sharp cutoff below 300 and above 3,000 cps insures the highest possible "talk power" level.

The units utilize a rugged, time-proven, controlled magnetic element, with high output equalling that of a crystal unit.

SPECIFICATIONS MODEL 440 and MODEL 440SL MICROPHONES†

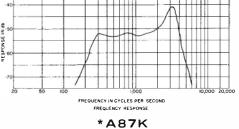
LIST PRICE: Model 440-\$25.00; Model 440SL-\$47.50

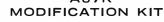
TYPE: Controlled Magnetic

FREQUENCY RESPONSE: 300 to 3,000 cps

- OUTPUT LEVEL: -52.5 db (0 db=1 volt per microbar); 2.38 millivolts/microbar
- IMPEDANCE: High. Recommended load 100,000 ohms or more
- POLAR PATTERN: Omnidirectional
- CASE: Die-cast zinc
- FINISH: Model 440-Satin chrome and gray. Model 440SL-Satin chrome and gray
- CABLE CONNECTOR: Equivalent to Amphenol MC3M plug
- CABLE: Model 440-7 ft., single-conductor shielded. Model 440SL -7 ft., high quality, two-conductor shielded
- SWITCH: Model 440SL-Equipped with grip-to-talk switch, similar to Shure A88A
- STAND THREAD: Model 440-Standard %"-27 thread
- DIMENSIONS: Model 440-2¹³/₃₂" diameter, 3¹/₄" overall length. Model 440SL-9%" high, 5" wide, 7" deep (with stand) NET WEIGHT: Model 440-1 lb., packaged weight 1³/₄ lbs. Model
- 440SL--21/4 lbs., packaged weight 3% lbs.
- OPTIONAL ACCESSORIES: Model 440-Models S34B or S36A Desk Stands. Model 440SL-A87K Modification Kit*







For use with Shure Model 440SL Microphone. The Shure A87K Kit will modify the 440SL microphone to obtain optimum flex-ibility between either VOX or push-to-talk operation.

LIST PRICE: \$3.25

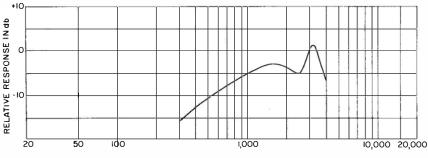
a new break-through in microphone design ...

SHURE MODEL 488* NOISE-CANCELLING MICROPHONE!

Outperforms and obsoletes all others...confirmed by extensive laboratory and field comparison tests!

Provides highly intelligible speech communication in mobile and fixedstation use where high volume background noise is found, such as airplanes, helicopters, motorcycles, trucks, fire engines, power boats, sporting events, drop forges, press-rooms, engine-rooms, factories. The 488 incorporates the patented Shure Controlled Reluctance cartridge into a distance discriminate microphone that effectively cancels background noise to permit transmission under conditions that would be impossible with any other microphone. Correct placement of microphone for close-talk use is assured by convenient rubber lip-guard. Rugged, impact-resistant "Armo-Dur" case is lightweight, easier to handle in extremes of temperature. Four versions of the 488 are available: 488A-high impedance; 488B-low impedance; and 488C and 488T-transistorized for direct replacement of carbon microphones (488T FAA Certified for Aircraft applications). All models equipped with coiled-cord and long-life heavyduty push-to-talk switches. Field-testing these blade-type switches confirms their operating life rating to be in excess of one million cycles.

SHURE MODEL 488 NOISE CANCELLING MICROPHONE





FREQUENCY IN CYCLES PER SECOND FREQUENCY RESPONSE

	RESPONSE			
JUENUT	RESPONSE			
		SPEC	IFICA	TIONS

MODEL	488A High Impedance	488B Low Impedance	488C Transistorized	488T Transistorized Aircraft						
List Price	\$57.50	\$57.50	\$62.50	\$72.50						
Noise Discrimination	Far Superior to Standard Communication Microphones									
Frequency Response (SP	ECIALLY TAILORED	ECIALLY TAILORED FOR BEST INTELLIGIBILITY) 200 to 4000 Cycles Per Second								
Туре		Controlled Reluct	ance							
Output Level (0 db=1 volt per 100 microbar field)	.125 volts (-18 db)	.014 volts (37 db)	0.45 volts (-7 db) using 6 volts and 500 ohm load	0.56 volts (3 db) using 12 volts and 500 ohm load						
Impedance	High : Recommended Load 100,000 ohms or more	150-250 ohms	Recommended Load 500 ohms	Recommended AC Load 100 to 800 ohms						
Cable	Three-Conductor (One-conductor shielded) cadmium copper coiled cord (5½ ' extended)	One-conductor (Two-conductor hielded) cadmium shielded) cadmium opper coiled cord copper coiled cord		Three-Conductor Tinsel coiled cord (5½' extended) with PJ 068 —plug attached						
Switch Mic Circuit Relay Circuit	Normally closed* Normally open	Normally open** Normally open	Normally open Normally open	Normally open Normally open						
Case GRAY HIGH IMPA	CT "ARMO-DUR" W	TH PERFORATED	STEEL GRILLE AN	ND RUBBER LIP GUARD						
Dimensions	3 ¹¹ / ₁₆ " high x 2% " wide x 2½" deep									
Weight		3⁄4 lb.								
Accessories	MOUNTING B	RACKET FOR PER	MANENT PLACEME	ENT						

* Provision for simple change to normally open

* Provision for simple change to normally closed

† U.S. Patents 2,454,425

31



CONTROLLED MAGNETIC "404" SERIES SPECIAL-PURPOSE MICROPHONES (with Armo-Dur Housing)

The Shure Controlled Magnetic Model 404 has been proved superior in years of use for mobile communications by police, taxicab and truck-fleet operators. Model 404 has become the most widely used microphone for this purpose. It is designed for those applications where a rugged, hand-held, close-talking microphone is needed. It is ideal for outdoor public address (sports arenas, athletic fields, carnivals, etc.) and for mobile communications. The "404" is designed for high speech intelligibility. Easy to use, fits snugly in the palm of the hand.

The "404" is without a doubt, the strongest and most practical microphone for ANY mobile application. Exclusive ARMO-DUR housing is immune to severe weather, oil, grease, fumes, sun, salt spray, rust and corrosion in addition to its ability to withstand mechanical shocks and vibration.

CHECK THESE FEATURES

- Superior speech intelligibility.
- Rugged "Controlled Magnetic" Cartridge
- Unaffected by temperature extremes . . . either mechanically or electrically
- Lightweight--cuts operator fatigue
- Comfortable to the hand through heat and cold
- "Life-Time" hang-up button
- Fully shielded against electric, magnetic fields
- Low in cost-rigidly quality-controlled

(Note: Transistorized version available for direct replacement of carbon microphones. See Model 405T listed on page 33.)

SPECIFICATIONS

LIST PRICE: Model 404B—\$33.00. Model 404C —\$33.00

TYPE: Controlled Magnetic

- FREQUENCY RESPONSE: 200 to 8,000 cps
- OUTPUT LEVEL: Model 404B: -50 db (0 db = 1 milliwatt per 10 microbars); .293 millivolts/microbar; Model 404C: -50.0 db (0 db = 1 volt per microbar); 2.930 millivolts/microbar
- IMPEDANCE: Model 404B-150-250 ohms. Model 404C - High - Recommended load 100,000 ohms or more
- POLAR PATTERN: Omnidirectional

CASE: High impact gray "Armo-Dur"

CABLE LENGTH: 5½ ft. extended

TYPE: Copper

DESCRIPTION: Model 404B—Four conductor (two-conductor shielded) Coiled Cord. Model 404C — Three-conductor (one-conductor shielded) Coiled Cord

- SWITCH MICROPHONE CIRCUIT: Model 404B—Normally open. Model 404C—Normally closed*
- RELAY CIRCUIT: Normally open. Leaf-type switches to control the microphone circuit and to control an external relay or switching circuit
- DIMENSIONS: $3^{11}/_{16}$ " high, $2\frac{5}{8}$ " wide, $1^{49}/_{64}$ " deep

NET WEIGHT: 5% lb.

PACKAGED WEIGHT: % lb.

- FURNISHED ACCESSORIES: Mounting bracket for permanent placement with the associated equipment
- OPTIONAL ACCESSORIES: Model A86A cable type transformer

* Provisions for simple change to normally closed plus provisions for simple change to normally open.

≤0 Ш COMMUNICATIONS MICROPHON Ш ທ

MODEL 405T

TRANSISTORIZED MICROPHONE

Transistor amplifier provides perfect improvement-replacement for carbon microphones now used in mobile communications equipment. It is powered by the current available from the carbon microphone circuit. Does not require batteries or extra power supplies. Provides remarkable speech clarity and is free from the aging common to carbon microphones used under conditions of vibration.

MODEL 100 SERIES CARBON MICROPHONES

Now featuring "Armo-Dur" high impact, corrosion-proof units. Used around the world for police, taxi, bus, track and commercial applications—more than all other makes combined! Adopted as standard microphone for professional two-way radio communications equipment. The "100 Series" microphones are provided with a bracket for permanent placement in portable or mobile equipment. They fit naturally and comfortably in the palm of the hand. They are light, compact and rugged units—with a reputation for long-life performance under "rough and tumble" operating conditions.



AUDIO SPECIALIST'S SPECIFICATIONS

LIST PRICE: \$48.50

TYPE: Controlled Magnetic (with Transistor Amplifier

FREQUENCY RESPONSE: 200 to 4,000 cps

OUTPUT LEVEL: -1 db loaded with 500 obms (0 db=1 milliwatt per 100 microbars)

POLAR PATTERN: Semidirectional

CASE: High-impact gray "Armo-Dur"

- CABLE: 5 ft. extended, four-conductor stranded coiled cord, Model C15C
- SWITCH: Equipped with heavy-duty, push-to-talk switch. Controls external relay

DIMENSIONS: 3¹¹/₁₆" high, 2 % " wide, 1⁴⁹/₆₄" deep

NET WEIGHT: 5% lb., packaged weight: 3% lb.

AUDIO SPECIALIST'S SPECIFICATIONS

LIST PRICE: Model 104A—\$30.00; Model 104B—\$30.00

TYPE: Carbon FREQUENCY RESPONSE: 300 to 4,000 cps

(Tailored voice response)

OUTPUT LEVEL: 5 db below 1 volt for 100 microbar speech signal

IMPEDANCE: Recommended load-50 to 100 ohms

POLAR PATTERN: Omnidirectional

CASE: High-Impact "Armo-Dur"

FINISH: Gray

CABLE: Cadmium copper coiled cord with trimmed and tinned leads

SWITCH: Model 104A—DPST normally open switch to control microphone and relay. Model 104B—SPST normally open relay switch (no microphone switch)

DIMENSIONS: 311/16" high, 25%" wide, 14%4" deep

NET WEIGHT: % lb.

PACKAGED WEIGHT: 1 lb.

MODEL R5T

Model R5T is a conversion kit containing a Controlled Magnetic cartridge and transistor amplifier. It is designed to convert carbon microphones into improved controlled magnetic transistorized microphones. Conversion takes only a matter of minutes—and all that is necessary is a screwdriver, a long-nose plier and a soldering iron.

AUDIO SPECIALIST'S SPECIFICATIONS

LIST PRICE: \$25.00

TYPE: Controlled Magnetic with transistor amplifier

FREQUENCY RESPONSE: 200 to 4,000 cps

OUTPUT LEVEL: -1 db loaded with 500 ohms (0 db=1 milliwatt per 100 microbars)

POLAR PATTERN: Omnidirectional

MODEL 115 MICROPHONE

Designed for use with small portable and mobile transmitters. Only 2'' in diameter and $1\frac{1}{2}''$ thick. Operating characteristics similar to "100 Series" carbon microphones. Replacement for mfgrs. Model Nos. CB20, CB21.



AUDIO SPECIALIST'S SPECIFICATIONS

LIST PRICE: \$31.00

CASE: Aluminum

- FINISH: Blue gray wrinkle
- CABLE: Three-conductor, standard coiled cord, $11^{\prime\prime}$ retracted, 5 ft. extended
- SWITCH: Equipped with a heavy-duty, push-to-talk switch

DIMENSIONS: 2'' in diameter, $1\frac{1}{2}''$ thick

NET WEIGHT: 12 oz., Packaged weight 1 lb., 8 oz.

MODEL 201/401 LOW COST PALM MICROPHONES

FOR CB, AMATEUR, FIXED STATION OR MOBILE USES

Loaded with features—yet priced un-usually low. "Shaped" voice response is patterned after professional mobile and SSB amateur response curves... assures maximum intelligibility. Professional design and construction perform as good as they look. Longlife slide-switch, guaranteed full year. Virtually indestructible "Armo-Dur" wonder plastic case: shock-, shatter-, corrosion-, rust-, and weather-proof. Superior coiled cord won't kink, crack, peel. "Lifetime" hang-up bracket for positive snap-in, easy snap out. Choice of ceramic (model 201) or controlled magnetic (model 401A and 401B) elements. 401B is especially recommended for parallel balanced line operation such as public address, paging or where long cable lengths are required.

U.S. Patent D 194,749

MODEL 275SK "VERSAPLEX" CITIZEN'S BAND IMPROVEMENT MICROPHONE

Citizen's Band broadcasters will find this new ceramic unit ideal for replacing original equipment crystal or ceramic type microphone. Comes complete with wall or panel bracket for handy mounting and coiled cord. "Momentary" push-to-talk switch activates relay circuit. Smooth response from ceramic cartridge that is resistant to extremes of temperature and humidity. Lightweight impact-resistant "Armo-Dur" case is handsomely styled with black finish and anodized satinfinish cap.

Patents Pending

SPECIFICATIONS

LIST PRICE: Model 201-\$18.00. Model 401A-\$22.00.

- Model 401B-\$22.00 TYPE: Model 201-Ceramic. Models 401A-401B-Controlled Magnetic FREQUENCY RESPONSE: 200 to 4000 cps. free from undesirable
- peaks OUTPUT LEVEL: Model 201— -55.5 db (0 db=1 volt per micro-bar); 1.680 millivolts/microbar. Model 401A— -49 db (0 db=1 volt
- bar); 1.680 millivolts/microbar. Model 401A _____ 40B (0 db = 1 voit per microbar); 3.500 millivolts/microbar. Model 401B ______ -48 db (0 db = 1 milliwatt per 10 microbars); .390 millivolts/microbar IMPEDANCE: Model 201—High—Recommended load impedance; 1 to 5 megohms. Model 401A—High_Recommended load impedance; 1 100,000 ohms or more. Model 401B—Low—Recommended load im-pedance; 150-250 ohms CASE: Blue High-Impact "Armo-Dur"
- POLAR PATTERN: Omnidirectional
- CABLE LENGTH: Coiled Cord extends to 5 ft.
- CABLE DESCRIPTION: Models 201-401A—Three-Conductor, One-Conductor Shielded. Model 401B—Four-Conductor, Two-Conductors shielded.
- SWITCH: Push-to-talk, non-locking
- DIMENSION: 4" high x 2 ¾ " Wide x 1 % " Deep
- NET WEIGHT: Model 201-10 oz. Model 401A-12 oz. Model 401B 12 oz.
- FURNISHED ACCESSORIES: Mounting Bracket for Permanent Placement (with associated equipment)

SPECIFICATIONS FOR MODEL 275SK

LIST PRICE: \$16.50

TYPE: Ceramic

- FREQUENCY RESPONSE: 40 to 10,000 cps. free from undesirable peaks
- OUTPUT LEVEL: 59.5 db below 1 Volt per Microbar; 1.05 millivolts/microbar
- POLAR PATTERN: Omnidirectional
- IMPEDANCE: High-recommended load 1/2 to 5 Megohms
- CABLE: Coiled Cord extends to 5 feet. Three Conductors, one shielded
- FINISH: Black high impact plastic body with satin anodized cap and grille
- DIMENSION: 4³/₄" long x 1¹¹/₃₂" diameter
- SWITCH: Momentary Slide-to-talk, non-locking type.
- FURNISHED ACCESSORIES: Stand adapter with standard %"-27 thread, lavalier assembly (lavalier bracket becomes wall bracket when cord is removed)
- OPTIONAL ACCESSORIES: S38B Desk Stand NET WEIGHT: 6 oz.

LIST MODEL| TYPE CONDUCTORS PRICE TERMINATION USAGE Trimmed and tinned leads With General Electric EM10A and Shure C10C Tinsel 3 conductor, \$12.00 1 conductor shielded and Amphenol MC4M plug 505K Microphones (Die cast zinc case). With General Electric EM10A-2 and Shure 405K and 405KB Microphones ("Armo-Dur" case). 3 conductor, C11C Tinsel Trimmed and tinned leads \$12.00 1 conductor shielded and Amphenol MC4M plug C12C 3 conductor, 1 conductor shielded \$ 9.75 Trimmed and tinned leads With Shure 404C, 488A Cadmium-Copper Trimmed and tinned leads C14C With Shure 404B, 488B Cadmium-Copper 4 conductor, \$10.00 2 conductor shielded With Shure 405T, 505T, "CB" and "100" Series Microphones. C15C Cadmium-Copper 4 conductor, Trimmed and tinned leads \$ 6.25 unshielded 4 conductor, C16C Trimmed and tinned leads and Amphenol MC4M plug \$ 9.50 Tinsel With General Electric Equipment unshielded C17C Tinsel 4 conductor, Trimmed and tinned leads With Motorola equipment \$ 7.75 unshielded with spade lugs C18C Cadmium-Copper 4 conductor, Trimmed and tinned leads With Motorola equipment \$ 9.50 and Amphenol MC4M plug unshielded Trimmed and tinned leads and Amphenol MC4M plug C19C \$ 9.50 4 conductor, With Motorola equipment Tinsel unshielded C20C 3 conductor,1 con-Trimmed and tinned leads With Shure 201, 401A \$ 7.00 Cadmium-Copper ductor shielded C21C Trimmed and tinned leads With Shure 401B \$ 7.75 Cadmium-Copper 4 conductor, 2 shielded C22C \$15.00 Tinsel 3 conductor PJ-068 plug attached With Shure 488T C23C 3 conductor, With Shure 275SK \$ 6.00 Cadmium-Copper Trimmed and tinned leads 1 shielded

COILED CORD SETS—Coiled Cord replacements for Shure Microphones



MODEL S39A VIBRATION-ISOLATION STAND

Ideal for use on table, desk, in the footlight area of a stage, for remote broadcasting (particularly for sporting events), conference tables, panels, and for all applications where vibration is a problem. The S39A provides maximum isolation from extreme mechanical vibration by its capacity to absorb mechanical shock as a sponge absorbs water. The Model S39A Stand is designed for all Shure microphones and Swivel Adapter assemblies. An extension adapter is furnished to increase the height of certain microphones for cable connector clearance. Made of durable black crackle finish plastic with heavy duty foam rubber isolation.

NET WEIGHT: 21/8 lbs., Packaged Weight, 2% lbs. LIST PRICE: \$25.00

DESK STANDS



S34B TAKE-APART STAND

MODEL S34B. Handy low-cost gray stand for desk or hand use. One twist of wood handle locks it securely in base for use as a table stand, or releases handle for use in hand. Metal base. Suitable for use with Models 510, 520, 707A and 710.

NET WEIGHT: 5% lb. Packaged weight, 7% lb. LIST PRICE: \$4.50



415, 430, 575S, 575SB. MODELS S38 and 38B. LIST PRICE: \$4.50

S38 ROUND STAND

This stand is a heavy die-cast base. Metal screw machine stud connects microphone adapter to stand base. NET WEIGHT: % lb., Packaged weight, 1 lb.

MODEL S38. (Bronze) for use with 245, 777 Series microphones. MODEL S38B. (Black) for use with Models 275S, 275SK,



S33 MODERN DESK STAND

MODEL S33. Baked bronze finish. For use with Models 300, 333, 525, and 535.

NET WEIGHT: 21/2 lbs., Packaged weight, 3 lbs. LIST PRICE: \$15.00

MODEL A25. (Bronze) To be used with Model 245, 525, 535 and 777 Series microphones—For use with

standard desk or floor stand. MODEL A25B. (Black) To be used with Models 530, 415, 430 and 545 microphones—For use with stand-

ard desk or floor stand.

Model

A47

MODEL S33B. Same as S33—in black finish. For use with Models 330, 530, 544, 545, 546, 556S, 576, 578, 415, and 430. LIST PRICE: \$15.00



S36A "TEARDROP" DESK STAND

MODEL S36A. Streamlined gray desk mount fits all Shure connectortype microphones including 51, 51S, 55S, 55SW, 315, 315S, 540S, 545S, and 737A. Accommodates A25 type Swivel Adapter. Metal handle adapter provided for mounting Models 440, 510, 520, 710, and

707A. Ideal for use with the Shure switches listed on page 36. NET WEIGHT: 1 lb., packaged weight, 1% lbs. LIST PRICE: \$6.50



LIST PRICE: \$5.50

Model A45

SWIVEL ADAPTERS



MODEL A57S Slip-in Swivel Adapter for Model 576, 578 and 570 ¾" diameter Dynamic Microphones—For use desk or floor stand. with standard MODEL A57S. LIST PRICE: \$5.50

QUICK DISCONNECT MICROPHONE ISOLATION UNITS

Designed for use with microphones normally mounted on desk or floor stands but which must be periodically removed from stand for hand held or carry-around use. In addition, because of a molded rubber insert, the adapters effectively isolate the microphones from mechanical vibration, shocks and noises carried to the microphone through the desk or floor stand. Quick disconnect operation is instant, easy and silent. Made of aluminum and anodized for beauty and long wear despite frequent handling.

Model A45 is designed for microphones incorporating an isolation assembly such as the Shure Models 556, 330 and 546. It also can be used with microphones mounted on Shure A25 Swivel Adapter.

Model A47 is designed for microphones with connectors such as Shure Models 55S, 51, 545S, 540S, 737A or nearly all microphones with a standard %"-27 thread.

SPECIFICATIONS FOR MODELS A45-47

LIST PRICE: Model A45-\$12.00. Model A47-\$12.00 DIMENSIONS: Model A45-31/2" high x 15/16" diam. assembled. Model A47-51/2" high x 1⁵/16" diam. assembled. WEIGHT ADDED TO HAND HELD MICROPHONE: Model A45-2.3 oz. Model A47 -3.6 oz.

NET WEIGHT: Model A45-3.3 oz. Model A47-4.6 oz.



A 83B

A85C

R54

R10

R 5

MICROPHONE SWITCHES

"GRIP-TO-TALK SLIDE-TO-LOCK" SWITCH

Heavy-Duty Switch withstands the most severe field requiremenst of paging and dispatching systems. Ideal for police, taxicab, railroad, airport, bus, truck, and all emergency communications work. Switch supplied as a momentary switch with simple provision for slide-to-lock. Microphone normally shorted, external relay normally open, center blade common. Can be used with Shure connector-type crystal, dynamic and carbon microphones of any impedance. Fits handily on Shure S36A Desk Stand. Rich satin chrome finish. MODEL A88A. LIST PRICE: \$12.50

Quickly attached to any cable-connector type Shure microphone. These are plug-in units which require only a screwdriver to install. Suitable for use with the following Shure microphones: Models 55S, 51, 315, 540, 737A and 708A.

Model A83B. Rotary-type "On-Off" switch, microphone shorted in "Off" position. When "turned on", remains on until turned off.

MODEL A83B. LIST PRICE \$11.00

Model A84B. Momentary Press-to-Talk "On-Off" switch, microphone shorted in "Off" position. Press—it's on, release—it's off. MODEL A84B. LIST PRICE \$11.00

Model A85C. Momentary Press-to-Talk relay control switch, normally open. Microphone circuit not switched.

MODEL A85C. LIST PRICE: \$11.50

MICROPHONE REPLACEMENT CARTRIDGES

DYNAMIC

MODEL R50. Replacement cartridge for Shure Dynamic Microphones, Models: 540 (Series II), 540S (Series II), 560, 561, 575S and 575SB. MODEL R50. LIST PRICE: \$15.00

MODEL R54. Replacement cartridge for Shure Dynamic Microphones, Models 540 and

540S.

MODEL R54. LIST PRICE: \$15.00

CERAMIC

MODEL R2. Replacement cartridge assembly for Shure Uniplex Microphones, Models: 245, 245S, 245G and 245GS. Can also be used to convert 777 ("Slim-X") series microphones to Unidirectional Ceramic having same specifications as Uniplex series. (See page 19 for specifications.)

MODEL R2. LIST PRICE: \$15.00

CARBON

MODEL R10. Rugged microphone cartridge replacement for Models 104A and 104B Carbon Microphones. Furnished with necessary mounting hardware and complete installation instructions.

MODEL R10. LIST PRICE: \$8.50

MODEL 99A149. Replacement for cartridges used in microphone Models: CB20, CB21, CB50, CB50A and 115.

MODEL 99A149. LIST PRICE: \$8.50

CRYSTAL

MODEL R7. Replacement cartridge for Shure Crystal Microphones of the 707A and 708A Series, and other microphones of similar design. High output-48 db (0 db=1 volt per microbar). Supplied with rubber mounting rings and installation instructions. MODEL R7. LIST PRICE: \$8.25

MODEL 99A186. Replacement cartridge assembly for the 777 Series Slim-X Microphones. Crystal element metal-sealed for long life under adverse conditions of heat and humidity.

Requires only one solder connection.

MODEL 99A186. LIST PRICE: \$10.00

CONTROLLED MAGNETIC

MODEL R5. Direct replacement for high impedance cartridges used in the following Shure microphone Models: 401A, 510C, 510S, 520, 520SL, 404C, 405C, 405K, 410, 410S, 440, 440SL and 444. Also ideal for replacement of crystal cartridges in Shure cases of the Model 707A and 708A Series, where heat and humidity are a problem. Supplied with rubber mounting ring.

MODEL R5. LIST PRICE: \$11.00

MODEL R5B. Replacement cartridge for cartridges used in microphone Models: 401B, 404B, 505B, 505T, 405B, 405T, 510SLB, 520SLB and 520B. Model R5B is physically identical to Model R5; but low impedance (150 to 250 ohms). Can be used in any R5 applications which require a low impedance cartridge.

MODEL R5B. LIST PRICE: \$11.00

MODEL R4M. Direct replacement cartridge for use in the Models: 430, 430SL, 425, 420 and 415 Shure "Commando" Microphones.

- MODEL R4M. LIST PRICE: \$15.00
- NOTE: For complete Shure Microphone Cartridge replacement information, write for AL188, Microphone Cartridge Replacement Guide.

S

R F

PA

A 8 8 A

A84B



R50





99A186



R7





R4M

SOUND LEVEL MICROPHONES

Custom-made non-directional crystal and ceramic microphones designed for scientific and industrial sound measurement work—and for those special applications that involve frequency response determinations, production testing, ambient noise levels, reverberation measurements, etc. Ceramic model more resistant to extremes of temperature and humidity, smoother response. Crystal model protected from humidity by "Humi-Seal" foil wrap. Both feature uniform frequency response; high sensitivity; high acoustical impedance; freedom from electrostatic and electromagnetic induction.

SPECIFICATIONS

LIST PRICE: Ceramic Model 98A108A \$116.00. Crystal Model 98B99A \$110.00

TYPE: Model 98A108A-Ceramic. Model 98B99A-Crystal

FREQUENCY RESPONSE: Model 98A108A—20 to 13,000 cps. Model 98B99A— 30 to 15,000 cps

OUTPUT LEVEL AT 400 CPS: Model 98A108A— -59.5 db (0 db=1 volt per microbar). Model 98B99A— -58 db (0 db=1 volt per microbar)

POLAR PATTERN: Omnidirectional

CAPACITANCE: Model 98A108A—460 mmf. Model 98B99A—400 mmf

TEMPERATURE LIMITATION: Model 98A108A— -40° F to 160°F. Model 98B99A—Up to 110° F.

CASE: Satin Chrome plated brass

CABLE CONNECTOR: Cannon XL-3-11

DIMENSIONS: 1 1/8" diameter, 243/64" long

NET WEIGHT: 3.8 oz.

CABLE-TYPE TRANSFORMER

Model A86A is a high-quality, cable-type transformer which makes it convenient to run a long microphone line from a low impedance microphone to a high impedance amplifier. Connection terminals are easily accessible, and compression fittings provide strain relief for the microphone and amplifier cables. The A86A matches 35-50 ohm and 150-250 ohm microphones to high impedance amplifier inputs. Solves the problem of excessive high frequency loss and objectionable hum pickup when long lengths of microphone cable are necessary.

SPECIFICATIONS FOR MODEL A86A

LIST PRICE: \$17.50
FREQUENCY RESPONSE: 20 to 20,000 cps plus or minus 1 db
IMPEDANCE: Matches 35-50 ohm and 150-250 ohm microphones to high impedance amplifier input
CASE: Compact, sturdy and magnetically shielded steel
FINISH: Two-tone gray
CABLE: 2 feet at output of transformer
DIMENSIONS: 2%" long, 1%" diameter
NET WEIGHT: ¾ lb., packaged weight 1 lb.

LAVALIER ASSEMBLIES

MODEL A57L. For use with Model 570 Dynamic Lavalier Microphone. LIST PRICE: \$4.50

MODEL A22L. For use with Slim-X Models 777, 777S and Slendyne Model 525, 530 and 535. LIST PRICE: \$4.50

MODEL A34L. For use with Model 560 and Commando Models 415, 420 and 430 LIST PRICE: \$3.50

MODEL A27L. For use with Models 275S and 575S. LIST PRICE: \$1.63





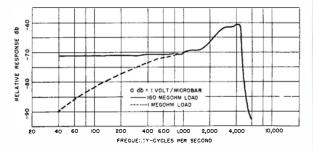
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Actual Size

RESPONSE FREQUENCY CHARACTERISTIC



MODEL CA5A ULTRA-MINIATURE CERAMIC MICROPHONE

The CA5A is a rugged ultra-miniature ceramic microphone. The frequency response is equivalent to standard microphones of much greater size. The CA5A is ideal for hearing aids, small headpiece microphones, pocket walkie-talkies, dictating machines, musical instruments, intelligence and security work and other applications requiring a miniature microphone with high stability.

The generating element is Lead-Zirconate-Titanate enabling use over wide temperature ranges. The ceramic structure is inherently more stable than electro-magnetic units of similar size. The low end response is easily controlled by external load.

SPECIFICATIONS

LIST PRICE: \$20.00 TYPE: Ceramic element FREQUENCY RANGE: 50 to 4500 cps IMPEDANCE: Equivalent to 400 pfd OUTPUT LEVEL: -73 db (0 db=1 volt per microbar) TEMPERATURE RANGE: -20° to 200° Fahrenheit HUMIDITY RANGE: Unaffected by humidity SIZE: 1.000" x .250" x .100" (2.54 cm x .635 cm x .254 cm) WEIGHT: ¾ gram

SMALL CONTROLLED MAGNETIC MICROPHONES

The MC Series of small microphones are specially designed for use in vacuum-tube devices, such as small, compact hearing aids, amplifiers, transmitters, dictating equipment—wherever size and weight are important factors. They also are highly recommended for use in small transistor-type devices. The MC Series are metal cased for hum protection. They are rugged units, immune to mechanical shock and to varying conditions of heat and humidity. The MC Series of microphones have also proven to be extremely useful in concealed microphone applications.

MC11-J	(Circular)	LIST PRICE: \$1	12.50
MC20A-J	(Rectangular)	LIST PRICE:	14.00
MC30-J	(Square)	LIST PRICE: 2	20.00

SPECIFICATIONS FOR MODELS MC11-J, MC20A-J and MC30-J

TYPE: Controlled Magnetic

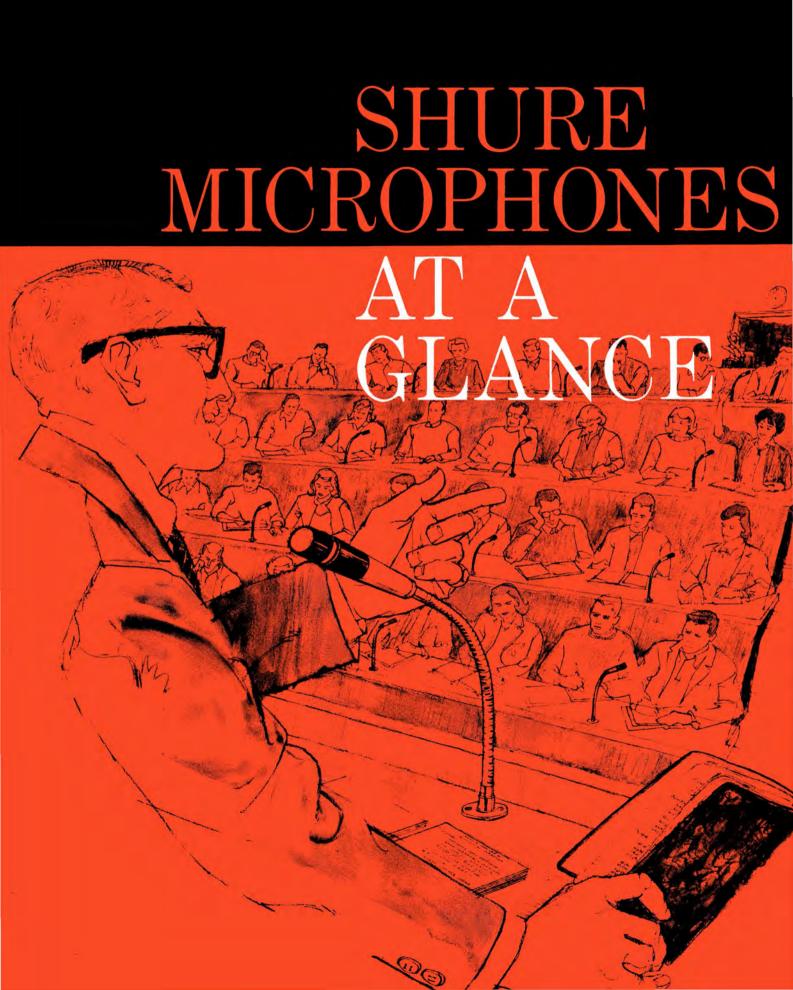
- FREQUENCY RESPONSE: MC11-J-400 to 4,000 cps, MC20A-J-400 to 4,500 cps, MC30-J-400 to 3,500 cps
- OUTPUT LEVEL: MC11-J -73 db (0 db=1 volt per microbar), MC20A-J -73 db (0 db=1 volt per microbar), MC-30-J -76 db (0 db=1 volt per microbar)
- IMPEDANCE: MC11-J-1,000 ohms, MC20A-J-2,000 ohms, MC30-J-1,850 ohms
- CASE: Brass
- FINISH: Cadmium plated
- TERMINALS: MC11-J—Eyelet solder type, MC20A-J—1½" flexible lead type, MC30-J—Eyelet solder terminals
- DIMENSIONS: MC11-J (circular) $1\frac{1}{44}$ " diameter, $2\frac{5}{64}$ " thick, MC20A-J (rectangular) $\frac{19}{66}$ " wide, $\frac{15}{66}$ " long, $\frac{5}{16}$ " thick, MC30-J (square) .5" wide, .5" long, .265" thick
- NET WEIGHT: MC11-J-12½ grams, MC20A-J-9.6 grams, MC30-J-3.7 grams



Model MC11-J

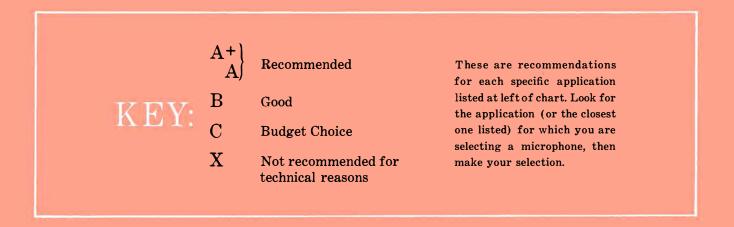


Model MC20A-J



THERE'S A SHURE MICROPHONE FOR EVERY USE – EVERY BUDGET

Additional literature on specific microphones is available directly from Shure Brothers, Inc., or may be obtained from your local Sound Consultant, P.A. System Dealer, or Sound Installer.



(1) Various Models Available: Basic Model Listed

NOTES:

(2) Low (30-50 ohms) — Medium (150-250 ohms) — High Impedance

(3) "L"-50 ohms; "M"-150 ohms; "H"-250 ohms

(4) Special "Shaped" response—See complete catalog listing for explanation

			Ĺ	UNIDIRE	CTIONAL				BIDIREC	TIONAL
								5		
TYPE:	RIBBON	RIBBON	DYNAMIC	DYNAMIC	DYNAMIC	DYNAMIC	CRYSTAL	CERAMIC	RIBBON	RIBBON
SHURE MODEL:	333 Uni-Ron	330 Uni-Ron	546 Unidyne III	556S Unidyne II	545 (545S) ⁽¹⁾ Unidyne III	55S (55SW) Unidyne II	737A Monoplex	245 (245S) Uniplex	300 Gradient ¹	315 (315S) Gradient ¹
LIST PRICE	\$250.00	\$120.00	\$135.00	\$135.00	545-\$85.00 545S-\$89.95	55S-\$83.00 55SW - \$85.00	\$46.00	245-\$35.00 245S-\$37.00	\$150.00	315- \$ 89.50 315S-\$91.50
SPECIAL FEATURES:	Shock- Mounted	Shock- Mounted	Shock- Mounted	Shock- Mounted	545-Probe 545S-Switch & Swivel	55SW-Switch	Low Cost	245S-Switch	Shock- Mounted	315S-Switch
IMPEDANCE:	Triple (3)	Triple ⁽³⁾	Dual $\binom{30-100}{100-250}$	Triple ⁽²⁾	Dual (L&H)	Triple ⁽²⁾	High	High	Triple ^{⁽²⁾}	Triple ⁽²⁾
FREQUENCY RESPONSE (CPS):	30-15,000	30-15,000	50-15,000	40-15,000	50-15,000	50-15,000	60-10,000	50-7000	40-15,000	40-15,000
PUBLIC ADDRESS SOUND REINFORCEMENT SYSTEMS:										
Auditorium and Theatre	A+	A+	A+	А	A+	А	С	С	A+	A
Outdoor Sound Systems	×	X	A+	A+	А	A	X	С	×	X
Night Club	A+	A+	A+	A+	А	A	С		A+	А
Concert Stage	A+	A+	А	А	В	В	С		А	В
Hotel Meeting Room	А	A	A+	A+	A+	А	В	С	А	А
Church Pulpit	A+	A+	A+	A+	А	А	С		A+	А
Paging and Dispatching					А	А	В	А		
Low Cost P.A. Systems							A+	A+		an a
RECORDING and BROADCASTING:										
Broadcasting	A+	A+	A+	A	В	В			A	В
Studio Recording	A+	A+	A	A	A	В			A	В
Conference, Speech & Drama Recording	A+	A+	A+	A+	A+	A+	В	С	A+	A
Hobby and Home Recording (Music)	A+	A+	A+	A+	A+	A+	В		А	В
COMMUNICATIONS:										
Amateur Base Station					А	А	А	А		
Amateur Mobile										
Dispatcher—Base Station					A+	А	В	А		
Emergency—Police, Fire, & Civil Defense					A+*	A*	×			
SPECIAL APPLICATIONS:										
Language Laboratories					$A+ \begin{pmatrix} Model \\ 544 \end{pmatrix}$	А		B (Model)		
Lavalier Microphones (worn on person)										
* Specifically recommended for Official C	ivilian Defens	e Applications.								

OMNIDIRECTIONAL

SPECIAL PURPOSE MICROPHONES

- M				-					V			i				
DYNAMIC	DYNAMIC	DYNAMIC	DYNAMIC	CONTROLLED MAGNETIC	DYNAMIC	CRYSTAL	CERAMIC	DYNAMIC	DYNAMIC	DYNAMIC	CONTROLLED MAGNETIC	CONTROLLED	CONTROLLED	CONTROLLED	CONTROLLED MAGNETIC	CERAMIC
576 Studio Probe	578 Omnidyne	540S (540) Sonodyne II	51 (51S) Sonodyne	$\begin{array}{c} 430 \left(\begin{smallmatrix} 420 \\ 425 \end{smallmatrix}\right)^{(1)} \\ \text{Commando} \end{array}$	575S (575SB) Versadyne	777 ^ش Slim- X	275S ⁽¹⁾ Versaplex	570 Studio Lavalier	560 Lavalier	561 Tamper-Proof	444 Ham	450 Dispatching	488 Series (1) Sono-Bar	404 Series (1) Mobile	401A (401B) Mobile	201 Mobile
\$175.00	\$82.50	540S-\$49.95 540-\$47.95	51-\$49.50 51S-\$51.50	430-\$38.50 420-\$30.00 425-\$30.00	575S-\$24.00 575SB-\$21.00	\$25.00	\$15.00	\$95.00	\$42.50	\$32.50	\$42.50	\$49.50	\$57.50	\$33.00	401A-\$22.00 401B-\$22.00	\$18.00
¾″ diam.	¾″ diam. Switch	Adjustable Frequency Response	51S-Switch	420-Lavalier 425-Gooseneck	For Stand, Hand or Lavalier	For Stand, Hand or Lavalier	For Stand, Hand or Lavalier	¾″ diam. 2½″ long		for gooseneck mounting	Adjustable Height	Adjustable Height	Noise Cancelling	Armo-Dur Case	Armo-Dur Case	Armo-Dur Case
$Dual\left(\begin{smallmatrix} 50-250\\Ohms\end{smallmatrix}\right)$	Dual (L&H)	Dual (L&H)	Triple ⁽²⁾	Dual (L&H)	575S-High 575SB-Low	High	High	Low	Dual (L&H)	Low	High	Dual (L&H)	Choice	Choice	401A-High 401B-Low	High
40-20,000	50-17,000	60-13,000	60-10,000	60-10,000	40-15,000	60-10,000	40-12,000	50-12,000	40-10,000 ⁽⁴	40-10,000	300-3,000	100-9,000	200-4,000 ⁽⁴	200-8,000 (4	200-4,000 ⁽⁴⁾	200-4,000 (4)
A+	A+	А	A	С	с	С		A+	A							
A+	A+	А	A	С	В	×		A+	A				В	А	В	С
A+	А	В	В	С	С			A+	А							
A+	А	С	С					A+	В			-				
A+	A+	А	А	С	В	С		A+	А							
A+	A+	A	В	C	С	С		A+	А	A						
		A+	В	$A \begin{pmatrix} Model \\ 430SL \end{pmatrix}$	В	С	С			A+	A	A+	A+	A+	A	С
		A+	A+	В	A+	В	С		A+							
A+								A+								
A+	А							A+								
A+	A+	A+	A	С	С	С	С	A+	А							
A+	A+	A	A		A+	С										
		A 1		~		<u> </u>	с			^	A+					
-		A+	В	С		С	C (Model 275SK)			A	At		A+	A+	A	B
		A	В	В			• (275SK)			A+	A+	A+	A+ A+			C
		A*	B	B						A*	A+*	A+*	A+*	A+*	В	C
	A+	A	В	C (Model)				A+	A	A+						
				B (^{Model})	В		С	A+	A							11 () - 1 ()
				C												

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SOUND LEVEL MICROPHONE
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APPLICATIONS CHART



SHURE BROTHERS, INC. 222 Hartrey Avenue, Evanston, Illinois,60202,USA PHONE DAvis 8-9000 CHICAGO PHONE SHeldrake 3-1600 CABLE ADDRESS: Shuremicro

