

**SHURE**  
**AUDIO**  
**CATALOG**

FOR  
SOUND SYSTEM  
SPECIALISTS



A series of concentric circles in a light green color, centered on the page, creating a ripple effect that frames the text.

# SHURE

## MICROPHONES

world standard  
wherever  
sound quality  
is  
paramount

## ENGINEERING LEADERSHIP

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 "work-horse" 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 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.

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 years without deviation from their original standards.

A decorative border made of a repeating wavy line pattern, enclosing the 'SHURE GUARANTEE' section.

## SHURE GUARANTEE

Every Shure microphone is guaranteed a full year against defects in materials and workmanship, covering every mechanical and electrical aspect of the unit. All Armo-Dur cases are unconditionally guaranteed against breakage.

## 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 43 of this catalog. 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.



**SHURE**

**FIRST IN  
PUBLIC-ADDRESS  
SOUND  
REINFORCEMENT  
SYSTEMS**



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, as well as ham, citizens band, paging and special applications.





# SELECTING THE CORRECT

**SHURE**

## STEP I

### PICK-UP PATTERNS



#### WHAT IT IS

These microphones pick up sound mainly from the front, while suppressing sound and noise coming from the back. The most generally useful unidirectional pick-up pattern is the **CARDIOID** (meaning "heart shaped"). This pattern will suppress rear sounds at least 70% while picking up front sound over a broad area. Sounds 120° to 180° off-axis are almost entirely suppressed.

In addition to the Cardioids (The Unidyne III, Unidyne II, Unidyne A, and Unisphere Series of Shure unidirectional microphones) other Shure unidirectional microphones are described as Super-Cardioid (Models 330, 737A). The pickup patterns of these microphones vary from the Cardioid. Check the polar pattern to determine the suitability to your application.

#### WHERE TO USE IT

The most commonly applied solution to feedback problems. Greatly simplifies planning of sound installations. With the rear of the microphone rejecting sound, the microphone can be placed so that sound projecting from the loudspeaker cannot re-enter the microphone to generate feedback. Performers can work much further away from unidirectional microphones than with omnidirectional microphones.

Effectively suppresses audience noises, coughing, shuffling feet, etc. Ideal for fixed installation before an individual performer or a small group. Pickup of a large group can be effected with multiple microphone installation.



These microphones pick up sound more-or-less evenly from all directions. In effect, they are nondirectional. They can be hand-held, stand-mounted, or worn around the neck. This type includes the greatest number of microphones, together with the widest price range and response characteristics.

Good for general applications where feedback or audience noise is no great problem. Extremely versatile. Practically all ultra-slim "probe" type microphones are omnidirectional units—they are ideal for "walk-around" and interview situations. (Note: Shure also makes a unidirectional "probe"—the Model 545.) (See pages 8-9)



Picks up sound from front and back while suppressing sound from sides, top and bottom.

Ideally suited for use when two performers, or groups, are on opposite sides of microphone. Allows the same freedom of movement as unidirectional microphones, while solving difficult feedback problems such as rooms with "hard" ceilings or where loudspeakers are mounted over or to the side of the microphone.

## STEP II

### FREQUENCY RESPONSE

The fidelity of reproduction afforded by the microphone depends on three factors of the frequency response:

1. **Response Range.** In general, the more extended the frequency response of the microphone is, the more faithful the reproduction will be.
2. **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.
3. **Flatness.** A flat frequency response curve is one showing output remaining at approximately the same level throughout the frequency range. This means that the microphone responds equally well at any frequency, an essential of high fidelity reproduction.

While the microphone with the widest range, smoothest and flattest frequency response 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 systems.] 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 Hz	Flat Smooth	Ribbon Dynamic
High quality public address for voice and music	70-10,000 Hz	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 Hz	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 Hz	Rising A peak in the 2000 to 3500 Hz region is often desirable	Controlled Magnetic Dynamic Carbon Some Ceramics



# MICROPHONE FOR THE APPLICATION

## STEP III TYPES OF MICROPHONES

SHURE SERIES NO.	TYPE	WHAT IT IS	WHERE TO USE IT
100	CARBON	Very high output units recommended for mobile communications where intelligibility requires limited frequency response. Needs external power supply. Low impedance.	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 ceramic microphones—all are economical, rugged, attractively styled.
300	RIBBON	Virtually uniform frequency response. Definitely among the very best available. Fairly high priced. Extremely rugged for normal use indoors. Adjustable impedance.	Wherever quality of response is the first consideration in broadcasting, professional recording, or public address, look to Shure Ribbon microphones (unidirectional and bidirectional). Excellent for music. Not recommended for outdoor 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 transformer. Modestly priced, extremely dependable performance.	Highly recommended for the best possible performance in Mobile Communications—truly the Field-Proved Standard in Mobile Communications.  Indoors, outdoors—wherever rugged performance 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 Hz).	The dependable unit where exceptional performance, ruggedness and reliability are required, such as broadcasting and better quality Public Address. Superior in frequency response to ceramic, crystal, carbon, and Controlled Magnetic units. Unidirectional, omnidirectional.
700	CRYSTAL	Good quality at a low price. Response is somewhat limited (normally about 10,000 Hz 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.

## STEP IV

### PRICE

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.



## 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.

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: A typical set of Shure Audio Specialist specs—for Model 545S—together with response curve and polar patterns are shown here as well as an explanation of each point in the specs:)

**TYPE:** You may choose from six different type Shure microphones: ribbon, dynamic, "Controlled Magnetic," ceramic, crystal and carbon (see page 5 for detailed explanation of types).

**FREQUENCY RESPONSE:** Indicates the useful practical range. We suggest you refer to the frequency response diagram for a more specific representation of the particular microphone's capabilities.

**OUTPUT LEVEL:** Note that Shure includes a base reference level (for low impedance: 0 db = 1 milliwatt per 10 microbars; for high impedance: 0 db = 1 volt per microbar). In addition, output is expressed in millivolts per microbar (which specifies the actual voltage output for a given sound level).

**IMPEDANCE:** Impedances are shown as a guide to properly matching the microphone to the amplifier. Most generally impedances are classified as low (L) or high (H). The rated impedance or recommended loads are shown, including the resistance of the supplied cable. Longer cable runs with high impedance microphones will result in loss of about 3 db output for each additional 25 feet of cable added. Use low impedance units for long cable runs to eliminate this problem. Many Shure microphones are multi-impedance and can be set for high or low impedance use.

**OPTIONAL ACCESSORIES:** General information on other Shure products which will extend the usefulness and/or versatility of the microphone. Many units also list "Supplied Accessories" such as lavalier assemblies, switches, stands, etc.

**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 8-9 for the 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 page 4 for detailed explanations of these functions). Note particularly that because directional characteristics may be affected by frequency, Shure shows the pickup pattern at many frequencies—often as many as six frequencies.

**LIST PRICE:** \$89.95

**TYPE:** Dynamic

**FREQUENCY RESPONSE:** 50-15,000 Hz

**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:** 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:** Equivalent to Amphenol MC4M plug

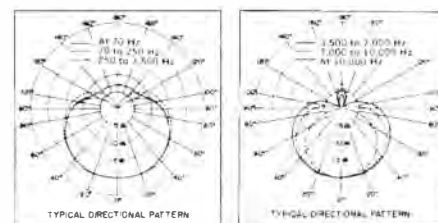
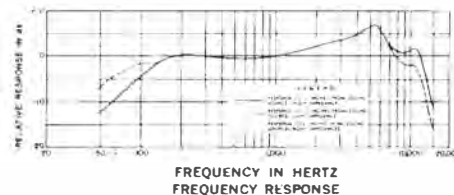
**CABLE:** 18-ft., 3-conductor shielded

**STAND THREAD:** 5/8"-27 thread

**DIMENSIONS** (not including swivel): 1 1/4" diameter, 5 1/8" length

**NET WEIGHT** (less cable): 14 oz., packaged weight 2 1/4 lbs.

**OPTIONAL ACCESSORIES:** Model A95A Cable Type Transformer, Model S36A Desk Stand, Model S39A Vibration-Isolation Stand, Model A2WS Windscreen.





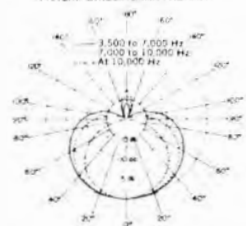
## MODEL 546 UNIDYNE III

Top-of-line version of smallest probe-type, truly cardioid microphone available. Remarkably faithful sound reproduction makes it ideal for broadcasting, recording, and top quality public address applications. Low frequency response makes it a favorite for pickup of drums and bass instruments—prevents over-emphasis of bass. The cardioid properties are uniform at all frequencies and symmetrical about the axis of the microphone, which provides effective rejection of sound from the sides and rear. This means greater reduction of feedback and “hoominess”—as well as improved tonal quality of speech and music. Smart black and satin chrome finish and compact modern design make the Unidyne III adaptable to every installation. Model 546 comes complete with live-rubber shock mounting, lifetime swivel, combination impedance—ON-OFF switch, and windscreen for outdoor use. Available in matched pairs for stereo broadcasting and recording at no additional cost. Listed on page 42.

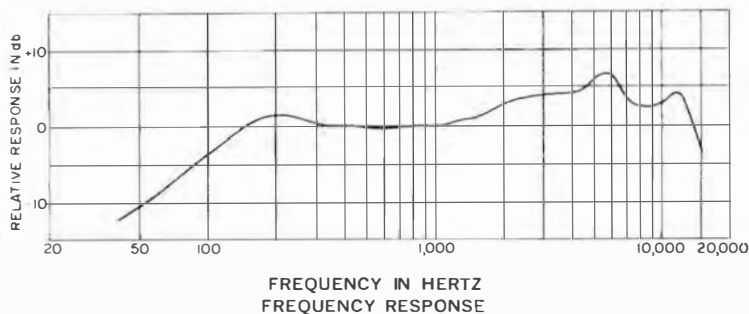
TYPICAL DIRECTIONAL PATTERN



TYPICAL DIRECTIONAL PATTERN



◀ **NOTE:** Directional patterns show polar response at six frequencies.



U.S. Patents:  
3,132,713 and  
D-190,864

### 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 Hz, 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 —56 db  
(0 db = 1 milliwatt per 10 microbars)  
250 ohms impedance —56 db  
(0 db = 1 milliwatt per 10 microbars)

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

Low Impedance —149 db  
Medium Impedance —148 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  $\frac{5}{8}$ "-27 thread.

The overall dimensions shall be 8" in height, and  $1\frac{1}{4}$ " in diameter.

### AUDIO SPECIALIST'S SPECIFICATIONS

LIST PRICE: \$135.00

TYPE: Dynamic

FREQUENCY RESPONSE: 50-15,000 Hz

OUTPUT LEVEL: 50 ohms: —56 db (0 db = 1 milliwatt per 10 microbars); .067 millivolts/microbar  
250 ohms: —56 db (0 db = 1 milliwatt per 10 microbars); .149 millivolts/microbar

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: 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', two-conductor shielded broadcast type

STAND THREAD:  $\frac{5}{8}$ "-27 thread

DIMENSIONS: (Swivel not included)  $1\frac{1}{4}$ " diameter, 5 $\frac{1}{2}$ " length

NET WEIGHT (Less cable):  $1\frac{1}{8}$  lb., packaged weight 3 $\frac{3}{4}$  lbs.

OPTIONAL ACCESSORIES: Model S33B Desk Stand, Model A95A Cable-Type Transformer, Model S39A Vibration-Isolation Stand, Model A45 Quick-Disconnect Isolation Unit, Model A2WS Windscreen.



problem-solving **UNIDYNE III** series . . . the *true* cardioid microphones

*..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 A25B Swivel Adaptor 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. Listed on page 42.



Model 545  
(On S33B  
Desk Stand)

Model 544

Model 545S

#### 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 Hz

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: Self-adjusting "Positive Action" lifetime swivel permits tilting of the head through 180° (Model 545, 90°) 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., two-conductor shielded.

STAND THREAD:  $\frac{5}{8}$ "-27 thread

DIMENSIONS Model 545:  $1\frac{1}{4}$ " diameter,  $5\frac{1}{8}$ " length

NET WEIGHT: Model 545S, 14 oz., Model 545, 10 oz., Model 544, 13 oz. Packaged weight, Model 545S,  $2\frac{1}{4}$  lbs., Model 545,  $2\frac{1}{8}$  lbs.

OPTIONAL ACCESSORIES: Model A95A Cable-Type Transformer, Model S39A Vibration-Isolation Stand, Model A2WS Windscreen, Model S36A Desk Stand for Model 545S, Model S33B Desk Stand for Model 545, Model A47 Quick-Disconnect Isolation Unit

#### ARCHITECT'S SPECIFICATIONS

The microphone shall be Shure Model 545, (545S), (544) or equivalent. A moving coil type of microphone with a frequency range of 50 to 15,000 Hz, 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 a dual-impedance microphone having a 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 Hz 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 Amphenol 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  $5\frac{1}{8}$ " (147.6 mm)  $\pm \frac{1}{4}$ " in length and  $1\frac{1}{4}$ " (31.4 mm)  $\pm \frac{1}{4}$ " in diameter.

#### For Model 545S:

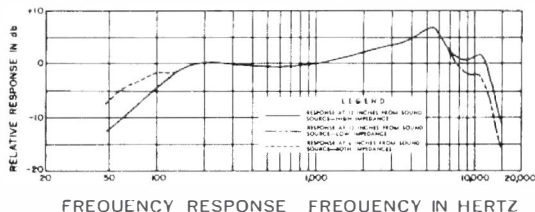
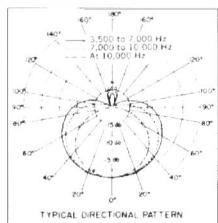
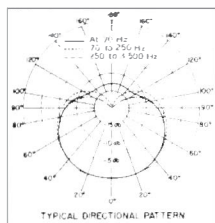
The Model 545S Microphone shall be provided with a swivel, a built-in on-off switch and a receptacle equivalent to the Amphenol MC4F capable of connecting to a 3-conductor shielded cable plug. The microphone shall mount on a stand having  $\frac{5}{8}$ "-27 thread. The overall dimension shall be  $7\frac{3}{8}$ " (200.7 mm)  $\pm \frac{1}{4}$ " in length,  $1\frac{3}{8}$ " (42.1 mm) in depth and  $1\frac{1}{4}$ " (31.4 mm)  $\pm \frac{1}{4}$ " in diameter.

The Model 544 Microphone shall be provided with a fixed adapter having a  $\frac{5}{8}$ "-27 thread. The overall dimension shall be  $7\frac{1}{8}$ " (194.5 mm)  $\pm \frac{1}{4}$ " in length and  $1\frac{1}{4}$ " (31.4 mm)  $\pm \frac{1}{4}$ " in diameter.



with pickup symmetrical about axis at all frequencies . . . in all planes

*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,

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 Hz!

### 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 off-axis (dotted line) response is virtually the same. Note also the smoothness of response. The controlled roll-off at the low end prevents "boomy" sound.

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

PROBLEMS CAUSED BY INEFFICIENT REJECTION OF UNWANTED SOUNDS BY THE MICROPHONE			
SITUATION	PROBLEM	CAUSES	SOLUTION
<b>REFLECTIONS</b>	Feedback occurs where a so-called "cardioid" microphone is used and the speakers are placed to the rear of the microphone. A common occurrence in churches, auditoriums, 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 this problem because of effective rejection of sound at the rear of the microphone with uniformity at all frequencies. Sounds bouncing off the floor or other reflective surfaces that reach the rear of the Unidyne III are rejected.
<b>COLUMN LOUSPEAKERS</b>	Unexplained feedback. Column 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 this problem because it has no rear or side lobes. Thus it rejects the side and rear lobes of the sound column speakers.
<b>REVERBERANT BOOM</b>	A disturbing, echoing effect of low frequency sound often found in churches, large auditoriums, 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 characteristic of many halls.	Using the Unidyne III Microphone will solve the problem because it maintains a uniform pattern of sound rejection in all frequencies, even as low as 70 cps. The frequency response also has a controlled roll-off of the low end. This prevents reinforcement of the low frequency reverberation and diminishes the effect of a boomy hall.
PROBLEMS CAUSED BY THE MICROPHONE'S INEFFECTIVENESS IN PICKING UP THE DESIRED SOUND			
<b>GROUP COVERAGE WITH ONE MICROPHONE</b>	A single microphone does not provide uniform coverage of a group. This is commonly experienced with choral groups, quartets, instrumental 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 uniform pickup of the group with a resulting consistency in volume and sound quality among the members of the group.
<b>USING MULTIPLE MICROPHONES</b>	Variation in the pickup level and tonal quality exists throughout the broad area to be covered. This may occur in stage pickup of musical and dramatic productions, 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 a smoothness in pickup as the true cardioid pattern gives broad coverage with uniformity throughout the coverage area. This eliminates "holes", "hot spots", and the variations in sound quality and permits blending many microphones with ease.
<b>DISTANT PICKUP</b>	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 gain relatively long range with effective rejection of sound at all frequencies at the rear of the microphone.





## MODEL 545L UNIDYNE III LAVALIER MICROPHONE

The newest addition to the Shure Unidyne III Line of cardioid dynamic microphones. Specifically designed for use as a lavalier microphone to provide the user with freedom of movement and the full use of both hands.

It is by far the most versatile microphone in the Unidyne Series because in addition to its applications as a lavalier microphone (with the lavalier cord and clip assembly provided) this Unidyne microphone can also be used as:

A Hand-Held Microphone.

A Stand-Mounted Microphone (when used with the optional Shure Model A25B Swivel Stand Adapter).

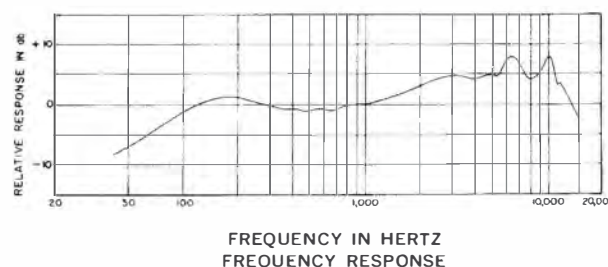
A Gooseneck or Fixed Mounted Microphone.

In addition to the versatility in usage, the performance in each of these functions is superb because of the true cardioid pickup pattern that is characteristic of the Unidyne III performance. The uniform rejection of sound at the rear and to the sides of the microphone minimize pickup of surrounding sounds from other performers. Clothing and cable noise pickup are almost non-existent due to the microphone cartridge being shock-mounted.

The overall response of 50 to 15,000 Hz is ideal for lavalier use and other uses where excellent reproduction of voice and music is required.



TYPICAL  
DIRECTIONAL PATTERN



U. S. Patents 3,132,713 - 3,240,883 and D190,864

### AUDIO SPECIALISTS' SPECIFICATIONS

LIST PRICE: Model 545L \$70.00.

TYPE: Dynamic.

FREQUENCY RESPONSE: 50-15,000 Hz.

OUTPUT LEVEL: -57.5 db (0 db = 1 milliwatt per 10 microbars); .100 millivolts/microbar.

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

DIAPHRAGM: Shure Duracoustic.

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

MAGNETIC CIRCUIT: Uses Alnico V Magnet.

CASE: Aluminum and "Armo-Dur."

FINISH: Satin anodized and black.

CABLE: Nondetachable 20-foot two-conductor shielded.

DIMENSIONS: 1 1/4" diameter, 5 1/8" length.

NET WEIGHT: 7 ounces, packaged weight: 2 lbs.

FURNISHED ACCESSORIES: Lavalier assembly and belt clip.

OPTIONAL ACCESSORIES: Model A25B Swivel Adapter, Model A95A Cable-Type Transformer, Model S39A Vibration-Isolation Stand, Model S33B Desk Stand, Model A2WS Windscreen.

### ARCHITECT'S SPECIFICATIONS

The microphone shall be Shure Model 545L or equivalent. A moving coil microphone with a frequency range of 50 to 15,000 Hz, this unit shall have a cardioid directional 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 a single impedance microphone having a rated impedance of 150 ohms. The microphone output shall be -57.5 db where 0 db = 1 milliwatt with 10 microbars. The microphone rating Gm (sensitivity) at 1,000 Hz shall be within + 3 db of 151.5 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 20-foot two-conductor shielded cable. The overall dimension shall be 5 1/8" (130.2 mm) in length and 1 1/4" (31.8 mm) in diameter.



## MODEL 566 UNISPHERE I UNIDIRECTIONAL DYNAMIC MICROPHONE

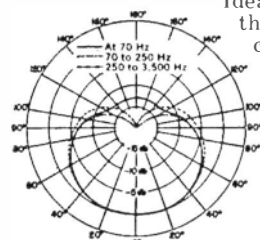
Introducing a superb unidirectional shock-mounted dynamic microphone with all the characteristics of the famed Unidyne microphones, plus the following features: A strong, built-in, wire-mesh spherical front that contains a very effective filter designed to provide excellent protection from wind and "pop" (explosive breath sounds), AND a built-in vibration-isolation shock mount which prevents the pickup of mechanical vibrations and handling noise. The Unisphere I provides wide range reproduction of voice and music, and can be effectively used both indoors and outdoors. In addition, the exceptionally uniform and effective unidirectional pickup pattern provides an easy solution to feedback problems in reverberant locations; permits best utilization of space in small studios; facilitates orchestral placement; and provides practically complete exclusion of unwanted noises.

Ideal for use by professional entertainers in high quality theatre-stage sound systems, indoor or outdoor recording, cathedrals and churches, and critical public-address systems such as those used in political conventions and legislatures, convention halls, hotels, public auditoriums, stadiums, etc.

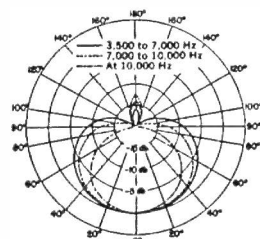
Available in matched pairs for stereo broadcasting and recording at no additional cost. Listed on Page 42.

NOTE: Available June, 1967

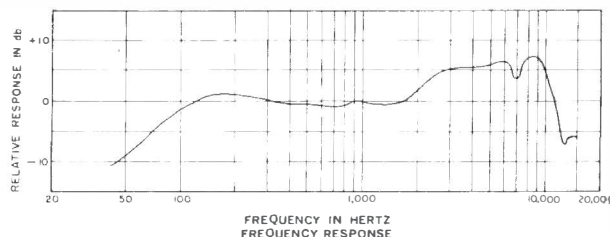
NOTE: DIRECTIONAL PATTERNS SHOW POLAR RESPONSE AT SIX FREQUENCIES



TYPICAL DIRECTIONAL PATTERN



TYPICAL DIRECTIONAL PATTERN



FREQUENCY RESPONSE



U.S. Patents 3,132,713 and 3,240,883

### AUDIO SPECIALIST'S SPECIFICATIONS

LIST PRICE: \$140.00

TYPE: Dynamic.

FREQUENCY RESPONSE: 50-15,000 Hz.

OUTPUT LEVEL: 50 ohms: —55 db (0 db = 1 milliwatt per 10 microbars); .075 millivolts/microbars.

250 ohms: —55 db (0 db = 1 milliwatt per 10 microbars); .158 millivolts/microbars.

IMPEDANCE: Dual. Choice of 30-50 ohms "L" or 150-250 ohms "H," selected by impedance switch.

DIAPHRAGM: Shure "Duracoustic."

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

MAGNETIC CIRCUIT: Uses Alnico V Magnet.

CASE: Die cast zinc with steel mesh grill.

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: 18-foot, (5.5 mm) two-conductor shielded.

STAND THREAD: 5/8"-27 thread.

DIMENSIONS: (Swivel not included) 2 1/2" diameter, 6 1/2" length.

NET WEIGHT: (Less cable) 1 1/4 pounds, packaged weight 2 3/4 pounds.

OPTIONAL ACCESSORIES: Model S33B Desk Stand, Model A95A Cable-Type Transformer, Model S39A Vibration-Isolation Stand, Model A45 Quick-Disconnect Isolation Unit.

### ARCHITECT'S SPECIFICATIONS

The microphone shall be Shure Model 566 or equivalent. A moving coil (dynamic) microphone with a frequency range of 50 to 15,000 Hz, this unit shall have a cardioid polar characteristic. The cancellation at the sides 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 with 10 microbars)

250 ohms impedance —55 db  
(0 db = 1 milliwatt with 10 microbars)

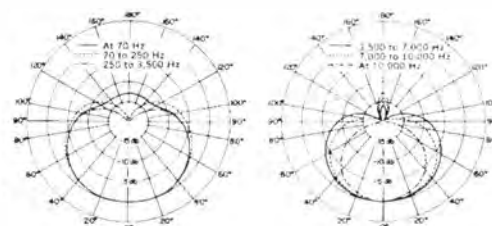
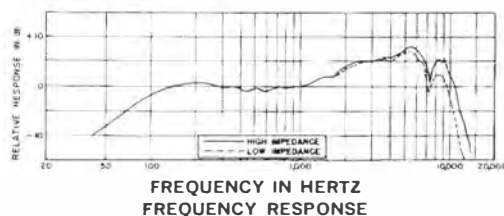
The microphone rating Gm (sensitivity) at 1,000 Hz shall be within ± 3 db of the following levels.

Low Impedance —148 db  
Medium Impedance —148 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 5/8"-27 thread.

The overall dimensions shall be 5 3/4" (134.1 mm) in height, 2 1/2" (51.5 mm) in width, and 6 1/2" (173.1 mm) in depth.



**NEW!****565S****565**

NOTE: Model 565S Available June, 1967  
U.S. Patent 3,132,713

#### AUDIO SPECIALIST'S SPECIFICATIONS

LIST PRICE: Model 565, \$95.00; Model 565S, \$100.00

TYPE: Dynamic

FREQUENCY RESPONSE: 50 to 15,000 Hz

OUTPUT LEVEL: Low: -57 db (0 db = 1 milliwatt per 10 microbars); .141 millivolts/microbar. High: -54.5 db (0 db = 1 volt per microbar); 1.88 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: Chrome-plated, die-cast and steel mesh grille.

FINISH: Satin chrome, black and chrome plated.

SWIVEL: Self-adjusting "positive action" lifetime swivel permits tilting of the head through 180° (Model 565, 90°) so that the microphone can be aimed at the source of sound.

CABLE CONNECTOR: Equivalent to Amphenol MC4M Plug.

CABLE: 18-foot three-conductor shielded.

STAND THREAD: 5/8"-27 thread.

DIMENSIONS: Model 565 2" diameter, 6 1/32" length.  
Model 565S 2" diameter, 6 1/4" length.

NET WEIGHT: Model 565 10 1/2 oz., packaged weight, 2 1/4 lbs.  
Model 565S 1 lb., packaged weight 2 3/4 lbs.

OPTIONAL ACCESSORIES: Model A95A Cable-type transformer; Model S39A Vibration-Isolation Stand; Model S36A Desk Stand for Model 565S; Model S33B Desk Stand for Model 565; Model A47 Quick-Disconnect Isolation Unit.

#### THE MODEL 565 SERIES UNISPHERE I MICROPHONES

Solves major public-address system problems due to feedback . . . boominess . . . "POP."

Now! You can get all the superb, world-renowned feedback-control and uniform cardioid pickup pattern features that have made the Unidyne family of microphones the industry standard for solving difficult public-address problems — with the added problem-solving ability afforded by special filter assemblies that effectively control explosive breath sounds ("POP") and minimize wind noise in outdoor locations (eliminating the need for windscreens).

The Unisphere I provides excellent reproduction of voice and music — can be effectively used outdoors and indoors, and is ideal for use by professional entertainers, teachers, lecturers, and politicians — wherever reliable microphones are required for use in the highest-quality public-address systems.

Model 565 is without "On-Off" switch while Model 565S includes an "On-Off" as a part of the receptacle swivel assembly.

Matched pairs are available for stereo recording. Listed on Page 42.

#### ARCHITECT'S SPECIFICATIONS

The microphone shall be the Shure Model 565 (565S) or equivalent. The microphone shall be a moving-coil type microphone with a frequency range of 50 to 15,000 Hz. This unit shall have a "cardioid" horizontal 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 a dual-impedance microphone 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: -54.5 db (0 db = 1 volt per microbar)

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

Low Impedance ..... -148.5 db

High Impedance ..... -150.5 db

EIA Standard SE-105 August 1949

##### For Model 565

The Model 565 microphone shall be provided with a swivel adapter adjustable through 90° from vertical to horizontal and 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 5/8"-27 thread. The overall dimension shall be 6 1/32" (153.2 mm) in length and 2" (50.8 mm) in diameter.

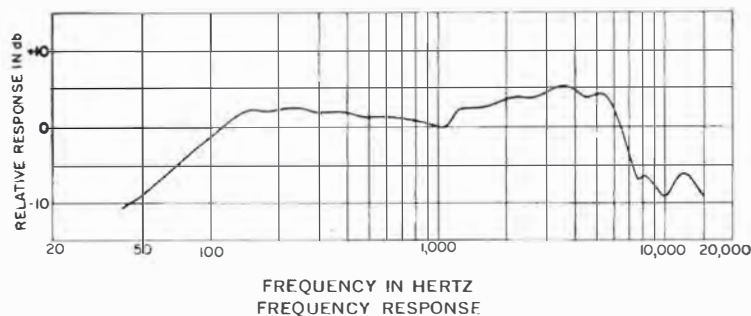
##### For Model 565S

The Model 565S 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 a three-conductor shielded cable plug. The microphone shall mount on a stand having 5/8"-27 thread. The overall dimension shall be 6 1/4" (156.8 mm) in depth, 2" (50.8 mm) in diameter (width), and 5 3/8" (131.8 mm) in height.

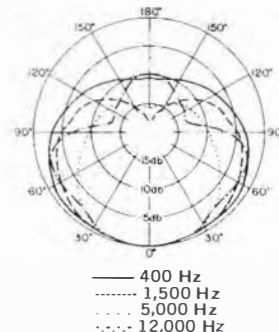


## MODEL 556S UNIDYNE II SHOCK-MOUNTED MICROPHONE

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 use in a wide variety of applications. The Cardioid, 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, theatre-stage 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 recording at no additional cost. Listed on page 42.



TYPICAL DIRECTIONAL PATTERN



U.S. Patents: 2,237,298, 2,305,596 and 2,305,597



### AUDIO SPECIALIST'S SPECIFICATIONS

LIST PRICE: \$135.00

TYPE: Dynamic

FREQUENCY RESPONSE: 40 to 15,000 Hz

OUTPUT LEVEL: L—30-50 ohm impedance —56.5 db (0 db = 1 milliwatt per 10 microbars); .067 millivolts/microbar

M—150-250 ohm impedance —57.5 db (0 db = 1 milliwatt per 10 microbars); .13 millivolts/microbar

H—High —56 db (0 db = 1 volt per microbar); 1.58 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: Cardioid (Unidirectional) Response at rear down 15 db from front

MAGNETIC CIRCUIT: Uses Alnico V Magnet

CASE: Die-cast zinc

FINISH: Satin chrome

SWIVEL: 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 type connector

CABLE: 20 ft. (6.1 m), 2-conductor shielded broadcast type

STAND THREAD: Standard 5/8"-27 thread

DIMENSIONS: 7 3/4" high, 2 3/8" wide, 3 1/8" deep

NET WEIGHT (less cable): 2 lbs., packaged weight 3 1/2 lbs.

OPTIONAL ACCESSORIES: Model S33B Desk Stand, Model A95A Cable-Type Transformer, Model S39A Vibration-Isolation 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 Hz, this unit shall have a Cardioid horizontal 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 selecting the microphone rating impedance to 38 ohms, 150 ohms, or 40,000 ohms.

The microphone output shall be:

"L"—30-50 ohm impedance — 56.5 db  
(0 db = 1 milliwatt per 10 microbars)

"M"—150-250 ohm impedance — 57.5 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 Hz shall be within  $\pm 3$  db of the following levels:

"L" Position of switch — 149 db

"M" Position of switch — 149 db

"H" Position of switch — 152 db

EIA Standard SE-105 August 1949

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 type cable connector capable of connection to a two-conductor shielded cable. The microphone will mount on stand having 5/8"-27 thread. The overall dimensions shall be 7 3/4" (196.8 mm)  $\pm 1/4$ " (6.4 mm) in height, 2 3/8" (55.6 mm)  $\pm 1/8$ " (3.2 mm) in width, and 3 1/8" (77.8 mm)  $\pm 1/8$ " (3.2 mm) in depth.



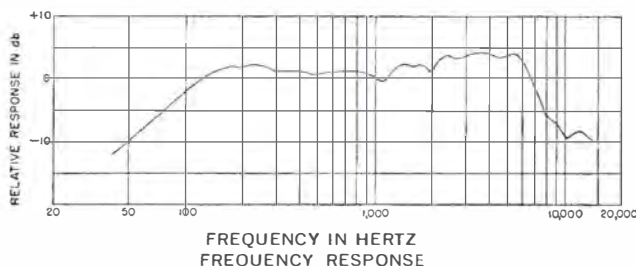
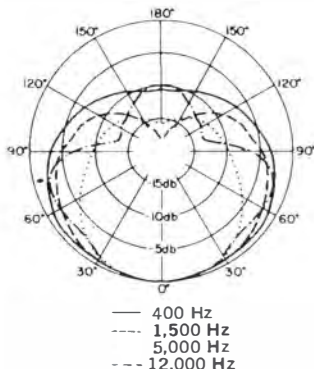
## FAMED 55S SERIES UNIDYNE II UNIDIRECTIONAL DYNAMIC MICROPHONES

"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. 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. Listed on page 42.



Model 55SW  
(with switch)

TYPICAL DIRECTIONAL PATTERN



### AUDIO SPECIALIST'S SPECIFICATIONS

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

TYPE: Dynamic

FREQUENCY RESPONSE: 50 to 15,000 Hz

OUTPUT LEVEL: L—30-50 ohms —55.5 db (0 db = 1 milliwatt per 10 microbars); .071 millivolts/microbar.

M—150-250 ohms —56.5 db (0 = 1 milliwatt per 10 microbars); .141 millivolts/microbar. H—High —55.5 db (0 db = 1 volt per microbar); 1.68 millivolts/microbar

IMPEDANCE: Equipped with a multi-impedance switch, furnishing a choice of three impedances—L—30-50 ohms, M—150-250 ohms, H—High.

POLAR PATTERN: Cardioid (unidirectional). Response at rear down 15 db from front.

MAGNETIC CIRCUIT: Uses Alnico V Magnet

CASE: Zinc die-cast.

FINISH: Satin chrome

SWIVEL: 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 5/8"-27 thread

DIMENSIONS: 7 3/8" high, 2 1/8" wide, 3 1/8" deep

NET WEIGHT (less cable): 1 5/8 lbs., packaged weight 3 1/8 lbs.

OPTIONAL ACCESSORIES: Model S36A Desk Stand, Model A95A Cable Type Transformer, Model S39A Vibration-Isolation Stand, Model A47 Quick-Disconnect Isolation Unit

### ARCHITECT'S SPECIFICATIONS

The microphone shall be Shure Model 55S, 55SW or equivalent. A moving coil type microphone with a frequency range of 50 to 15,000 Hz, 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 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 55S shall have no "On-Off" switch. The Model 55SW shall have a built-in "On-Off" switch.

The microphone output shall be:

- L—30-50 ohms —55.5 db  
(0 db = 1 milliwatt per 10 microbars)
- M—150-250 ohms —56.5 db  
(0 db = 1 milliwatt per 10 microbars)
- H—High —55.5 db  
(0 db = 1 volt per microbar)

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

- "L" Position of switch —148 db
- "M" Position of switch —148.5 db
- "H" Position of switch —151.5 db

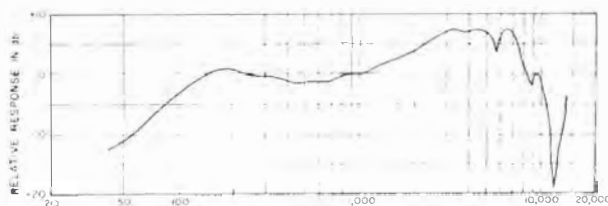
EIA Standard SE-105 August 1949

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 stand having 5/8"-27 thread. The overall dimensions shall be 7 3/8" (188.1 mm) ± 1/8" in height, 2 1/8" (55.6 mm) ± 1/8" in width, and 3 1/8" (77.8 mm) ± 1/8" in depth.

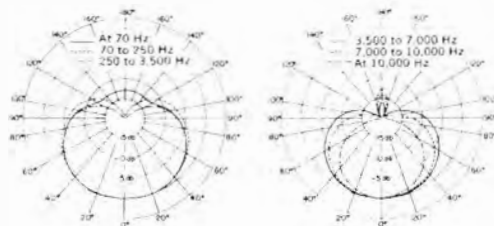


## MODELS 580SA and 580SB UNIDYNE A UNIDIRECTIONAL DYNAMIC MICROPHONES

Now, in the quality tradition of the Unidyne family, the new Unidyne A Series offers unidirectional problem-solving features at an omnidirectional price! With the Unidyne A, feedback problems can be solved even in low-budget public-address systems—making this new microphone the ideal choice where low cost is an important factor, yet quality reproduction is essential. The built-in ON-OFF switch has the provision for locking in ON position. May be used on a stand, or in the hand, indoors or out. A Model A25B Swivel Adapter with  $\frac{5}{8}$ " stand thread is furnished. The attractive case is satin chrome with black "Armo-Dur" cap and stainless steel grille. Choice of high-impedance Model 580SA, or low-impedance Model 580SB. Model 580SA is available in matched pairs at no additional cost. Listed on page 42.



FREQUENCY IN HERTZ  
FREQUENCY RESPONSE



TYPICAL DIRECTIONAL PATTERN

U.S. Patent 3,132,715  
Other Patents Pending

### AUDIO SPECIALIST'S SPECIFICATIONS

LIST PRICE: Model 580SA \$59.00, Model 580SB \$52.00.

TYPE: Dynamic.

FREQUENCY RESPONSE: 50 to 12,000 Hz.

OUTPUT LEVEL: Model 580SA. High: —56.5 db (0 db = 1 volt per microbar); 1.48 millivolts/microbar.

Model 580SB. Low: —57 db (0 db = milliwatt per 10 microbars); .105 millivolts/microbar.

IMPEDANCE: Model 580SA, High.

Model 580SB, 150 to 250 ohms.

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 ADAPTER: Positive action swivel to fit  $\frac{5}{8}$ "-27 stand thread.

CABLE: Model 580SA, non-detachable 15-foot one-conductor shielded.

Model 580SB, non-detachable 15-foot two-conductor shielded.

STAND THREAD:  $\frac{5}{8}$ "-27 thread.

DIMENSIONS: 1 $\frac{1}{8}$ " diameter, 6  $\frac{41}{64}$ " length.

NET WEIGHT: 1 $\frac{3}{8}$  lbs., packaged weight 2 $\frac{1}{2}$  lbs.

OPTIONAL ACCESSORIES: Model A95A Cable-Type Transformer; Model S39A Vibration-Isolation Stand; Model S33B Desk Stand; Model A45 Quick-Disconnect Isolation Unit.

### ARCHITECT'S SPECIFICATIONS

The microphone shall be Shure Model 580SA (580SB) or equivalent. The microphone shall be a moving-coil dynamic type microphone with a shaped frequency range of 50 to 12,000 Hz. 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.

Model 580SA—The microphone has a single high impedance for connection into a high impedance input.

The microphone output shall be —56.5 db where 0 db = 1 volt per microbar.

The microphone rating impedance is 40,000 ohms and the Gm (sensitivity) at 1,000 Hz shall be within  $\pm 3$  db of —152.5 db referenced to EIA Standard SE-105, August 1949.

Model 580SB—The microphone has a single low impedance for connection into a 50 to 250 ohm line.

The microphone output shall be —57.0 db where 0 db = 1 milliwatt with 10 microbars.

The microphone rating impedance is 150 ohm and the Gm (sensitivity) at 1,000 Hz shall be within  $\pm 3$  db of —151.0 referenced to EIA Standard SE-105 August 1949.

The Model 580SA (580SB) shall be provided with a swivel adapter adjustable through 90° from vertical to horizontal. The microphone is equipped with a built-in "ON-OFF" switch and a one conductor (580SB, two conductor), shielded cable, non-detachable. The microphone swivel adapter will mount on a stand having a  $\frac{5}{8}$ "-27 thread. The overall dimensions shall be 6  $\frac{41}{64}$ " (168.8 mm) in length and 1 $\frac{1}{8}$ " (46.0 mm) in diameter.



**NEW!**

U.S. Patents  
3,132,713 and 3,249,883

TYPICAL DIRECTIONAL PATTERN

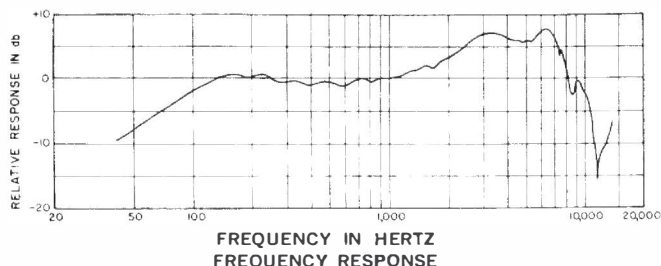
## MODELS 585SA AND 585SB UNISPHERE A

The Model 585 Series Unisphere A Microphones are unidirectional dynamic microphones featuring a built-in wire-mesh screen with special filters that provide protection from wind and "pop" (explosive breath sounds).

The Unispheres are particularly suitable for use in locations where omnidirectional microphones may not operate properly because of poor acoustics or where wind creates a problem. The 585's eliminate the annoying loud-speaker "squeal" caused by feedback and they also prevent echoing (boominess) that sometimes occurs in partially-filled halls. These microphones can also be used closer to loudspeakers than usual, without creating feedback problems.

This suppression of feedback, combined with their smooth sound, makes these microphones particularly good for use with orchestras, small combos, rock'n'roll groups, singers, and typical public-address applications involving speakers, teachers, lecturers, politicians.

The Model 585 Series comes complete with shock-mounted cartridge, ON-OFF switch, detachable cable, and swivel adapter. Model 585SA is high impedance; Model 585SB is low impedance. Model 585SA is also available in matched pairs for stereo recording. Listed on Page 42.



### AUDIO SPECIALIST'S SPECIFICATIONS

LIST PRICE: Model 585SA—\$65.00; Model 585SB—\$58.00.

TYPE: Dynamic.

FREQUENCY RESPONSE: 50 to 12,000 Hz.

OUTPUT LEVEL: Model 585SA. High: 56.5 db (0 db = 1 volt per microbar); 1.48 millivolts/microbar.  
Model 585SB. Low: -57.0 db (0 db = 1 milliwatt per 10 microbars); .105 millivolts/microbar.

IMPEDANCE: Model 585SA, High.  
Model 585SB, 150 to 250 ohms.

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

MAGNETIC CIRCUIT: Uses Alnico V magnet.

CASE: Die-cast zinc and steel mesh grille.

FINISH: Satin chrome.

SWIVEL ADAPTER: Positive action swivel to fit  $\frac{3}{8}$ "-27 stand thread.

CABLE CONNECTOR: Model 585SA, equivalent to Amphenol MC1F Type Plug.  
Model 585SB, equivalent to Amphenol MC2M Type Plug.

CABLE: Model 585SA, 15-foot, one-conductor shielded.  
Model 585SB, 15-foot, two-conductor shielded.

STAND THREAD:  $\frac{3}{8}$ "-27 thread.

DIMENSIONS:  $2\frac{1}{8}$ " diameter,  $6\frac{3}{4}$ " length.

NET WEIGHT:  $\frac{7}{8}$  lb., packaged weight  $2\frac{1}{4}$  lbs.

OPTIONAL ACCESSORIES: Model A95A Cable-Type Transformer;  
Model S39A Vibration-Isolation Stand; Model S33B Desk Stand;  
Model A45 Quick-Disconnect Isolation Unit.

### ARCHITECT'S SPECIFICATIONS

The microphone shall be Shure Model 585SA (585SB) or equivalent. The microphone shall be a moving-coil dynamic type microphone with a shaped frequency range of 50 to 12,000 Hz. 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.

Model 585SA—The microphone has a single high impedance for connection into a high impedance input.

The microphone output shall be -56.5 db where 0 db = 1 volt per microbar.

The microphone rating impedance is 40,000 ohms and the Gm (Sensitivity) at 1,000 Hz shall be within  $\pm 3$  db of -125.5 db referenced to EIA Standard SE-105, August 1949.

Model 585SB—The microphone has a single impedance for connection into a 50 to 250 ohm line.

The microphone output shall be -57 db where 0 db = 1 milliwatt with 10 microbars.

The microphone rating impedance is 150 ohms and the Gm (Sensitivity) at 1,000 Hz shall be within  $\pm 3$  db of -151 db referenced to EIA Standard SE-105, August 1949.

The Model 585SA (585SB) shall be provided with a swivel adapter adjustable through 90° from vertical to horizontal. The microphone is equipped with a built-in "On-Off" switch and a one-conductor (585SB two-conductor), shielded cable, detachable. The microphone swivel adapter will mount on a stand having a  $\frac{3}{8}$ "-27 thread. The overall dimensions shall be  $6\frac{3}{4}$ " (171.4 mm) in length and  $2\frac{1}{8}$ " (52.4 mm) in diameter.

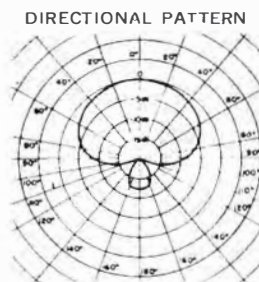
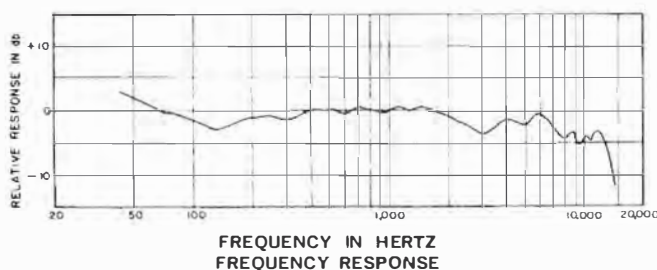


## MODEL 330 SUPER CARDIOID UNI-RON MICROPHONE

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 recording at no additional cost. Listed on page 42.

### 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.



U.S. Patent  
D-178,018

### AUDIO SPECIALIST'S SPECIFICATIONS

LIST PRICE: \$120.00

TYPE: Ribbon

FREQUENCY RESPONSE: 30 to 15,000 Hz

OUTPUT LEVEL: 50 ohm impedance — 60 db\*; .049 millivolts/microbar. 150 ohm impedance — 58.5 db\*; .089 millivolts/microbar. 250 ohm impedance — 58.5 db\*; .117 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 5/8"-27 thread

DIMENSIONS: 7 3/32" high, 1 3/32" wide, 1 7/8" deep.

NET WEIGHT (less cable): 1 1/2 lb., packaged weight 3 3/8 lbs.

OPTIONAL ACCESSORIES: Model S33 Desk Stand, Model A95A 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 Hz. 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 — 60 db\*  
150 ohm impedance — 58.5 db\*  
250 ohm impedance — 58.5 db\*  
\*(0 db = 1 milliwatt per 10 microbars)

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

50 ohm Position of switch — 152.5 db  
150 ohm Position of switch — 152.5 db  
250 ohm Position of switch — 150.5 db  
EIA Standard SE-105 August 1949.

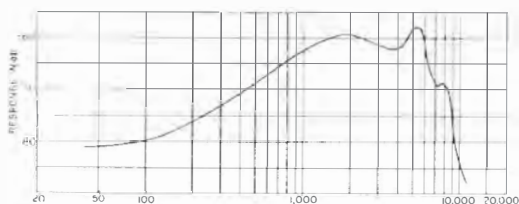
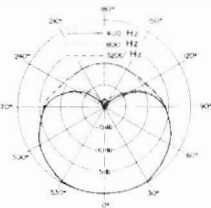
The microphone shall be provided with a swivel adjustable from 45° forward and 70° backward. The microphone shall be equipped with a vibration-isolation unit in combination with the stand connector, and it shall have a detachable Cannon cable connector capable of connecting to a two-conductor shielded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

The microphone will mount on a stand having a 5/8"-27 thread. The overall dimensions shall be 7 3/32" (184.9 mm) ± 1/4" in height, 1 3/32" (31.0 mm) ± 1/8" in width, and 1 7/8" (47.6 mm) ± 1/8" in depth.





TYPICAL DIRECTIONAL PATTERN



FREQUENCY IN HERTZ FREQUENCY RESPONSE

## 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  $-40^{\circ}$  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). Models 245GS (with switch) and 245G (without switch) are 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

**TYPE:** Ceramic

**FREQUENCY RESPONSE:** 50 to 7,000 Hz

**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 ft. single-conductor shielded cable with a plug (equivalent of Amphenol MC1F) for attaching cable to microphone. Models 245G and 245GS: 7 ft. single-conductor shielded cable attached to microphone

**SWITCH:** Models 245S and 245GS have built-in "On-Off" switch

**STAND THREAD:** Models 245 and 245S provided with Model A25B swivel adapter with  $\frac{5}{8}$ "-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  $\frac{5}{8}$ "-27 thread or for customized installation where a concealed cable is desired

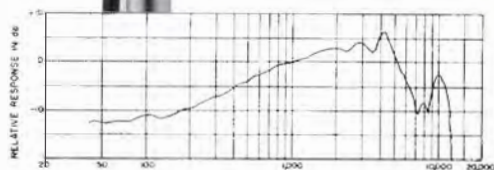
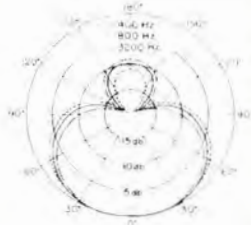
**DIMENSIONS:** (Microphone only):  $4\frac{3}{32}$ " high,  $1\frac{1}{8}$ " diameter

**NET WEIGHT (Microphone only):**  $\frac{3}{8}$  lb., packaged weight  $\frac{3}{4}$  lb.

**OPTIONAL ACCESSORIES:** Model S38B Microphone Stand



TYPICAL DIRECTIONAL PATTERN



FREQUENCY IN HERTZ FREQUENCY RESPONSE

## 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 "economy" public address systems or home recording. Unidirectional characteristics of maximum reduction of sound at the rear of the microphone and large usable pickup areas at the front help solve feedback problems.

### AUDIO SPECIALIST'S SPECIFICATIONS

**LIST PRICE:** \$46.00

**TYPE:** Crystal—Moisture proof "Metal-Seal" crystal for long operating life

**FREQUENCY RESPONSE:** 60 to 10,000 Hz

**OUTPUT LEVEL:**  $-51.5$  db (0 db = 1 volt per microbar); 2.65 millivolts/microbar

**IMPEDANCE:** High. Recommended load: 1 to 5 megohms

**POLAR PATTERN:** Super-Cardioid

**CASE:** Die-cast zinc

**FINISH:** Satin chrome

**SWIVEL:** Lifetime swivel permits tilting the head  $90^{\circ}$  backward to horizontal position for omnidirectional pickup

**CABLE CONNECTOR:** Equivalent to Amphenol MC3M

**CABLE:** 15 ft., single-conductor shielded

**STAND THREAD:** Standard  $\frac{5}{8}$ "-27 thread

**DIMENSIONS:** 4" high,  $6\frac{1}{8}$ " high with connector,  $3\frac{3}{32}$ " wide,  $3\frac{3}{32}$ " deep with connector

**NET WEIGHT (less cable):** 1  $\frac{1}{8}$  lbs.; packaged weight 2  $\frac{1}{4}$  lbs.

**OPTIONAL ACCESSORIES:** Model S36A Desk Stand, Models A83B, A84B, A85C, A88A "On-Off" Switches, Model S39A Vibration-Isolation Stand, Model A47 Quick-Disconnect Isolation Unit

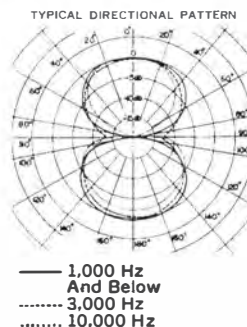
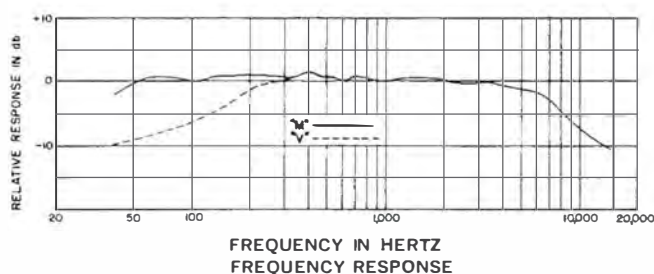


## MODEL "300" GRADIENT BIDIRECTIONAL RIBBON MICROPHONE

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 loudspeakers 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. Listed on page 42.

### 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.



U.S. Patent  
D-171,055

### AUDIO SPECIALIST'S SPECIFICATIONS

LIST PRICE: \$150.00

TYPE: Ribbon

FREQUENCY RESPONSE: 40 to 15,000 Hz

OUTPUT LEVEL: 30-50 ohms —60.5 db (0 db = 1 milliwatt per 10 microbars); .043 millivolts/microbar. 150-250 ohms —59 db (0 db = 1 milliwatt per 10 microbars); .105 millivolts/microbar. High —57.5 db (0 db = 1 volt per microbar); 1.32 millivolts/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: 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-3-11C connector

CABLE: 20 ft. 2-conductor shielded broadcast type

STAND THREAD: 5/8"-27 thread

STAND COUPLERS: Adapters for 1/2" pipe thread or 5/8"-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; 1 1/8" wide, 1 3/8" deep

NET WEIGHT (less cable): 1 lb., packaged weight 4 lbs.

OPTIONAL ACCESSORIES: Model S33 Desk Stand, Model A95A 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 Hz, 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 —60.5 db\*  
150-250 ohms —59 db\*  
High —57.5 db\*\*

\* (0 db = 1 milliwatt per 10 microbars)

\*\* (0 db = 1 volt per microbar)

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

"L" Position of switch —153 db  
"M" Position of switch —151 db  
"H" Position of switch —154 db

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 5/8"-27 thread. The overall dimensions shall be 9 7/8" (234.2 mm) ± 1/4" (6.4 mm) in height, 1 1/8" (36.5 mm) ± 1/8" (3.2 mm) in width, and 1 3/8" (27.8 mm) ± 1/8" (3.2 mm) in depth.



## MODELS 315 AND 315S GRADIENT BIDIRECTIONAL RIBBON MICROPHONES

The "Figure 8" pickup pattern of this microphone 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 multi-impedance switch and lifetime swivel for tilting the microphone toward the source of sound.

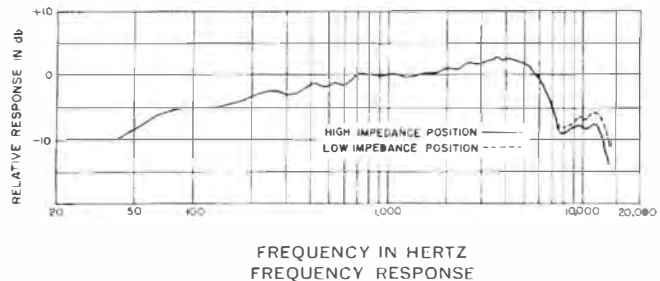
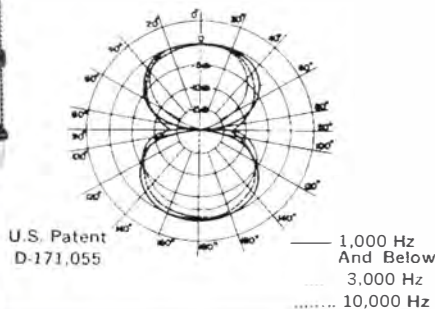
Model 315S includes "On-Off" switch; Model 315 is without switch. Slim modern design case has smart satin chrome finish. Available in matched pairs for stereo recording at no additional cost. Listed on page 42.



### 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.

DIRECTIONAL PATTERN



### AUDIO SPECIALIST'S SPECIFICATIONS

LIST PRICE: Model 315 \$89.50  
Model 315S (with switch) \$91.50

TYPE: Ribbon

FREQUENCY RESPONSE: 50 to 12,000 Hz

OUTPUT LEVEL: L—30-50 ohm impedance —62 db (0 db = 1 milliwatt per 10 microbars); .035 millivolts/microbar. M—150-250 ohm impedance —61 db (0 db = 1 milliwatt per 10 microbars); .089 millivolts/microbar. H—High —58.5 db (0 db = 1 volt per microbar); 1.15 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: 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: 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 5/8"-27 thread

DIMENSIONS: 6" high, 1 1/8" wide, 1 3/32" deep

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

OPTIONAL ACCESSORIES: Model S36A Desk Stand, Model A95A Cable-Type Transformer, Model S39A Vibration-Isolation Stand, Model A47 Quick-Disconnect Isolation Unit

### ARCHITECT'S SPECIFICATIONS

The microphone shall be a Shure Model 315 (315S) or equivalent, a ribbon microphone with a frequency range of 50 to 12,000 Hz. This unit shall have a bidirectional 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 adjusting the microphone rating impedance 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 —62 db\*  
M—150-250 ohm impedance —61 db\*  
H—High —58.5 db\*\*

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

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

"L" Position of switch —155 db  
"M" Position of switch —152.5 db  
"H" Position of switch —155 db

EIA Standard SE-165 August 1949

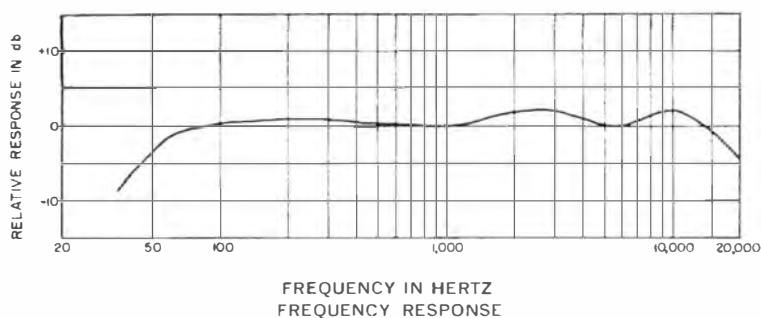
The microphone shall be provided with a swivel and it shall have a detachable cable connector capable of connection to a two-conductor shielded cable. The microphone will mount on a stand having 5/8"-27 thread. The overall dimensions shall be 9 3/32" (232.5mm)  $\pm$  1/4" in height, 1 1/8" (36.6 mm)  $\pm$  1/8" in width and 1 3/32" (27.8 mm) in depth.



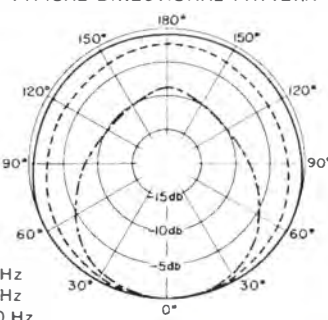
## MODEL 576 OMNIDIRECTIONAL DYNAMIC MICROPHONE ( $\frac{3}{4}$ " DIAMETER PROBE)

A 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 strenuous field tests. Strikingly modern in ultra-slim  $\frac{3}{4}$ -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 recording. Listed on page 42.

**$\frac{3}{4}$ " DIAMETER  
40% SMALLER DIAM.  
60% SMALLER AREA** } **THAN OTHER POPULAR  
OMNIDIRECTIONAL  
DYNAMIC MICROPHONES**



TYPICAL DIRECTIONAL PATTERN



### AUDIO SPECIALIST'S SPECIFICATIONS

LIST PRICE: \$175.00

ELEMENT TYPE: Dynamic

FREQUENCY RESPONSE: 40-20,000 Hz

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); .094 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  $\frac{5}{8}$ "-27 thread

CABLE: 25' three-conductor shielded broadcast cable

DIMENSIONS:  $\frac{3}{4}$ " diameter, 8 $\frac{3}{4}$ " overall length

NET WEIGHT: 7 ounces (less cable), packaged weight, 2 $\frac{1}{2}$  lbs.

OPTIONAL ACCESSORIES: Model S33B Desk Stand, Model A95A Transformer, Model S39A Vibration-Isolation Stand, Model A47 Quick-Disconnect Isolation Unit, Model A2WS Windscreen

### ARCHITECT'S SPECIFICATIONS

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 Hz. 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  $G_m$  (sensitivity) at 1,000 Hz shall be within 2 db of the following levels:

"Low" Impedance —151.0 db  
"M" Impedance —152.0 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  $\frac{5}{8}$ "-27 thread. The overall dimensions shall be 8 $\frac{3}{4}$ " (213.6mm) in length and 2 $\frac{5}{32}$ " (19.8 mm) in diameter.



# MODELS 578 AND 578S OMNIDYNE ULTRA-SLIM ( $\frac{3}{4}$ " DIAMETER) PROBE

An outstanding series of public-address microphones combining strikingly modern ultra-slim ( $\frac{3}{4}$ " diameter) design with exceptional performance, proved in severe field testing. Inconspicuous because of slender shape. Smooth, natural response from 50 to 17,000 Hz. 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 a built-in "ON-OFF" switch and a non-detachable cable, making it ideal for hand-held or hand-to-stand usage. Model 578S features an attached swivel with an "ON-OFF" switch and a detachable cable for use on a floor or desk stand. A locking switch plate is included with both models to lock switch in "ON" position. Both models are available in matched pairs for stereo recording and are listed on Page 42.

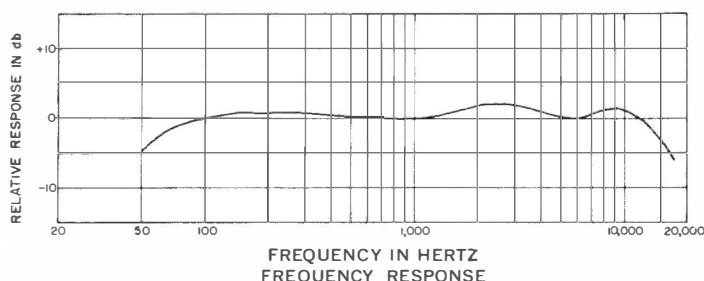
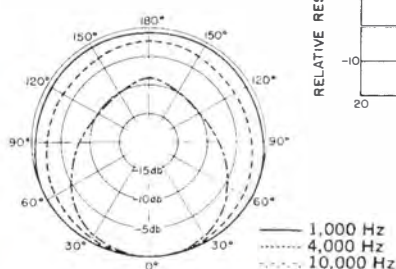
**$\frac{3}{4}$ " DIAMETER  
40% SMALLER DIAM. }  
60% SMALLER AREA } THAN OTHER POPULAR  
OMNIDIRECTIONAL  
DYNAMIC MICROPHONES**



Patent Pending

578

TYPICAL  
DIRECTIONAL PATTERN



ARCHITECT'S  
SPECIFICATIONS

The microphone shall be Shure Model 578 (578S) or equivalent. The microphone shall be a moving-coil (dynamic) type microphone with a frequency range of 50 to 17,000 Hz. The unit 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: —60 db (0 db = 1 milliwatt per 10 microbars).

High: —59 db (0 db = 1 volt per microbar).

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

Low Impedance —151.0 db\*

High Impedance —155.0 db\*

\*EIA Standard SE-105 August 1949

For Model 578: The microphone shall have a built-in "ON-OFF" switch with a locking plate provided to lock switch permanently. The microphone shall be provided with a swivel adapter adjustable through 90° from vertical to horizontal. The swivel adapter will mount on a stand having a  $\frac{5}{8}$ "-27 thread. The microphone shall be provided with an 18-foot (5.5 meter), three-conductor shielded cable. The overall dimensions shall be  $7\frac{13}{32}$  inches (188.1mm) in length and  $2\frac{5}{32}$  inch (19.8mm) in diameter.

For Model 578S: The microphone shall be provided with a swivel, a built-in "ON-OFF" switch, and a receptacle for a detachable Cannon type cable connector. The cable is an 18-foot (5.5 meter) two-conductor shielded, plastic jacketed cable. The microphone shall mount on a stand thread having  $\frac{5}{8}$ "-27 thread. The overall dimensions shall be  $9\frac{1}{8}$ " (233.4 mm) in depth,  $3\frac{1}{4}$ " (82.6 mm) in height, and  $2\frac{5}{32}$ " (19.8 mm) in diameter.

## AUDIO SPECIALIST'S SPECIFICATIONS

LIST PRICE: Model 578 \$82.50  
Model 578S \$90.00

TYPE: Dynamic

FREQUENCY RESPONSE: 50-17,000 Hz

OUTPUT: Low Impedance —60 db (0 db = 1 milliwatt per 10 microbars); .100 millivolt/microbar.

High Impedance —59 db (0 db = 1 volt per microbar); 1.11 millivolts/microbar.

IMPEDANCE: Dual. 50 - 250 ohms and High.

DIAPHRAGM: Shure Duracoustic

POLAR PATTERN: Omnidirectional

MAGNETIC CIRCUIT: Uses Alnico V Magnet

CASE: Die-cast zinc

FINISH: Satin chrome with stainless steel grille

SWIVEL: Model 578, adjustable swivel adapter

Model 578S, positive action built-in swivel

CABLE CONNECTOR: Model 578S, Cannon type XL-3-11

CABLE: Model 578, non-detachable 18-foot three-conductor shielded  
Model 578S, detachable 18-foot two-conductor shielded

STAND THREAD:  $\frac{5}{8}$ "-27 thread

SWITCH: Supplied with "ON-OFF" switch and optional cover plate

DIMENSIONS: Model 578,  $\frac{3}{4}$ " diameter,  $7\frac{7}{8}$ " overall length  
Model 578S,  $\frac{3}{4}$ " diameter,  $9\frac{1}{8}$ " depth,  $3\frac{1}{4}$ " height

NET WEIGHT: Model 578, 7 ozs., packaged weight  $1\frac{3}{4}$  lbs.  
Model 578S, 13 ozs., packaged weight  $2\frac{1}{4}$  lbs.

OPTIONAL ACCESSORIES: Model S33B Desk Stand, Model A95A Transformer, Model S39A Vibration-Isolation Stand, Model A47 Quick-Disconnect Isolation Unit, Model A2WS Windscreen.



## MODELS 570 AND 570S LAVALIER MICROPHONES (3/4" DIAMETER)

The 570 Series are miniature size, professional-quality dynamic microphones designed for lavalier use by moderators, panelists, announcers, singers, instrumentalists, public speakers, lecturers, instructors, and for all applications which require a small size, lightweight, wearable unit of distinctive appearance.

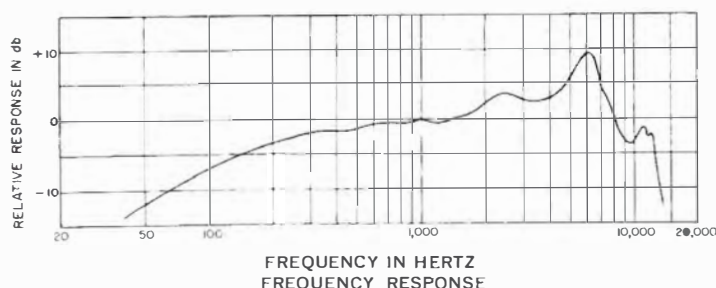
The 570 Microphones have a "shaped" response to provide superior performance—with the special feature of eliminating or greatly reducing the pickup of clothing and cable noise.

In addition, Model 570S features a built-in long-life "ON-OFF" switch.

Can be used on stand with 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.



TYPICAL DIRECTIONAL PATTERN



### AUDIO SPECIALIST'S SPECIFICATIONS

LIST PRICE: Model 570, \$95.00. Model 570S, \$105.00.

TYPE: Dynamic.

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

OUTPUT: Model 570 and Model 570S, —60.5 db (0 db = 1 milliwatt per 10 microbars); .085 millivolts/microbar.

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

DIAPHRAGM: Shure Duracoustic.

POLAR PATTERN: Omnidirectional.

MAGNETIC CIRCUIT: Uses Alnico V Magnet.

CASE FINISH: Non-reflecting gray.

CABLE: 30-foot two-conductor shielded (non-detachable).

DIMENSIONS: Model 570, 3/4" diameter, 2 1/2" length.  
Model 570S, 3/4" diameter, 5 5/8" length.

NET WEIGHT: Model 570, 2 oz. (less cable), packaged weight 2 1/2 lbs.  
Model 570S, 3 1/2 oz. (less cable), packaged weight 1 lb.

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

OPTIONAL ACCESSORIES: Model A57S Swivel Adapter (for Model 570S).  
Model A57R Swivel Adapter (for Model 570).  
Model A95A Transformer.

### ARCHITECT'S SPECIFICATIONS

The microphone shall be the Shure Model 570 (570S) Dynamic Lavalier Microphone or equivalent. The microphone shall be a moving coil (dynamic) type microphone with a frequency range of 50 to 12,000 Hz. The unit shall have an omnidirectional polar characteristic. The microphone shall be a single impedance microphone having a rating impedance of 150 ohms. The microphone output shall be —60.5 db (0 db = 1 milliwatt per 10 microbars); .085 millivolts/microbar. The microphone rating Gm (sensitivity) at 1,000 Hz shall be within ± 3 db of —153 db (EIA Standard SE-105, August 1949).

#### Model 570

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-foot, two-conductor shielded cable. The overall dimensions shall be 2 1/2 inches (65.9 mm) in length and 2 5/8 inches (19.8 mm) in diameter.

#### Model 570S

The microphone shall have a built-in "On-Off" switch with a locking plate provided to lock switch permanently. 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-foot, 2-conductor shielded cable. The overall dimensions shall be 5 5/8" (131 mm) in length, 2 5/8" (19.8 mm) in diameter.

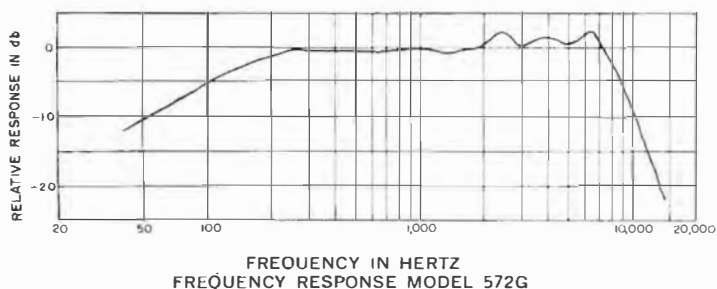
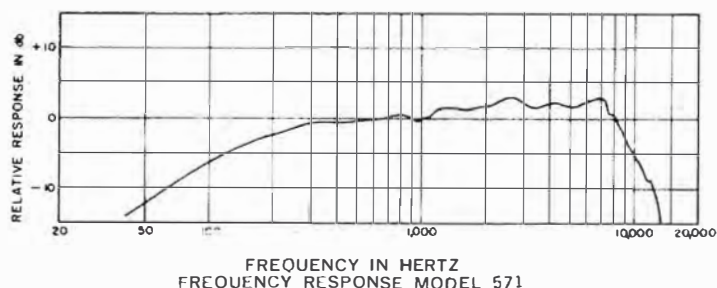


## MODELS 571 AND 572G OMNIDYNE DYNAMIC MICROPHONES



Model 571 Omnidynamic Miniature Microphone is designed for hand-held and stand use. Similar to Model 570 (previous page) in size and appearance, but has smooth peak-free response from 50 to 10,000 Hz for voice applications where a small, inconspicuous microphone should be used. Can be used in hand, on stand, hung over a stage, or concealed in studio, motion picture, theatrical and public-address applications.

Model 572G Omnidynamic Microphone features same response and size characteristics of Model 571, plus the added feature of permanent mounting on a new small-diameter, ultra-quiet gooseneck. Comes complete with 12" gooseneck and mounting flange. Ideal for permanent mounting on lecterns, paging and dispatching stations, in language laboratories and other applications where a permanently-mounted quality microphone is required. The gooseneck is a new ultra-quiet type that reduces noise caused by adjusting microphone.



### AUDIO SPECIALIST'S SPECIFICATIONS

- LIST PRICE:** Model 571—\$95.00    Model 572G—\$110.00
- TYPE:** Dynamic
- FREQUENCY RESPONSE:** 50-10,000 Hz.
- OUTPUT:** —61.0 db (0 db = 1 milliwatt per 10 microbars); .078 millivolts/microbar.
- IMPEDANCE:** Properly matches any low impedance input from 50 to 250 ohms.
- POLAR PATTERN:** Omnidirectional.
- MAGNETIC CIRCUIT:** Uses Alnico V Magnet.
- CASE FINISH:** Non-reflecting gray with stainless steel grille.
- SWIVEL ADAPTER:** Model 571, furnished with swivel adapter having  $\frac{5}{8}$ "-27 thread.
- MOUNTING:** Model 572G, furnished with 12" flexible gooseneck and mounting flange.
- CABLE:** Model 571, non-detachable 30-foot, two-conductor shielded. Model 572G, non-detachable 5-foot, two-conductor shielded.
- DIMENSIONS:** Model 571,  $\frac{3}{32}$ " diameter,  $2\frac{1}{2}$ " overall length. Model 572G,  $\frac{3}{32}$ " diameter,  $15\frac{1}{4}$ " overall length.
- NET WEIGHT:** Model 571, 2 ounces, packaged weight,  $1\frac{1}{2}$  lbs. Model 572G, 12 ounces, packaged weight,  $1\frac{1}{8}$  lbs.
- OPTIONAL ACCESSORIES:** Model A95A Cable-type Transformer; Model S33B Desk Stand for Model 571; Model A57L "Flex-Grip" Lavalier Assembly for Model 571; Model A2WS Windscreen for Model 572G.

### ARCHITECT'S SPECIFICATIONS

The microphone shall be the Shure Model 571 (572G) Dynamic Microphone or equivalent. The microphone shall be a moving-coil (dynamic) type microphone with a frequency range of 50 to 10,000 Hz. The unit shall have an omnidirectional polar characteristic. The microphone shall be a single impedance microphone having a rating impedance of 150 ohms. The microphone rating Gm (sensitivity) at 1000 Hz shall be within  $\pm 3$  db of —153.5 db (EIA Standard SE-105, August 1949).

#### For Model 571

The microphone shall be provided with an A57R Stand Adapter for a convenient means of attaching the microphone to any  $\frac{5}{8}$ "-27 fixture. The microphone shall be provided with 30 foot, two-conductor shielded cable. The overall dimensions shall be  $2\frac{1}{8}$  inches (65.9 mm) in length and  $\frac{3}{32}$  inches (19.8 mm) in diameter.

#### For Model 572G

The microphone unit shall be mounted on a flexible arm having a mounting flange. The microphone shall have a 5 foot (1.5 m), two-conductor shielded cable. The over-all dimensions shall be  $15\frac{1}{4}$ " (389 mm) in length and  $\frac{3}{32}$ " (19.8 mm) in diameter.

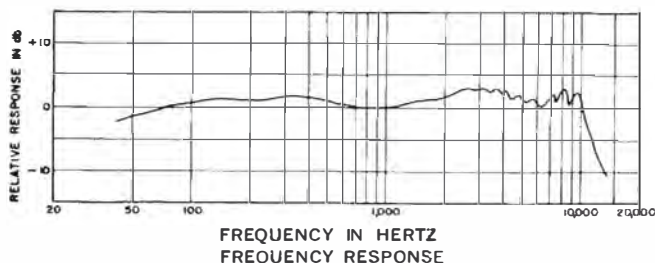


## MODELS 533SA AND 533SB SPHER-O-DYNE DYNAMIC MICROPHONES

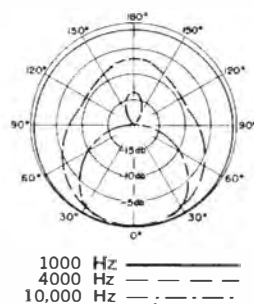
A rugged omnidirectional dynamic microphone unsurpassed for its type and quality at such a moderate cost. This small rugged microphone features flat response for faithful reproduction of voice and music and was designed specifically for use by entertainers, interviewers, singers, and rock 'n' roll groups.

The "ball"-type head contains a spherical screen to provide protection from "pop" (explosive breath sounds), blast, and wind. Ideal for close-to-mouth operation. Can be used on stand or in the hand. "ON-OFF" Switch can be locked in "ON" position.

Choice of impedances. Model 533SA is high, and Model 533SB is low (150 to 250 ohms).



TYPICAL  
DIRECTIONAL PATTERN



### AUDIO SPECIALIST'S SPECIFICATIONS

LIST PRICE: Model 533SA—\$50.00. Model 533SB—\$47.50.

TYPE: Dynamic.

FREQUENCY RESPONSE: 40-11,000 Hz.

OUTPUT: Model 533SA: High Impedance ---55.0 db (0 db = 1 volt per microbar) 1.76 millivolts/microbar.  
Model 533SB: Low Impedance —55.5 db (0 db = 1 milliwatt per 10 microbars) .149 millivolts/microbar.

IMPEDANCE: Model 533SA High Impedance.  
Model 533SB—150 to 250 ohms.

POLAR PATTERN: Omnidirectional.

MAGNETIC CIRCUIT: Uses Alnico V Magnet.

CASE FINISH: Satin chrome with plated steel grille.

SWIVEL ADAPTER: Furnished with swivel adapter having  $\frac{5}{8}$  inch -27 thread.

CABLE CONNECTOR: Model 533SA, equivalent to Amphenol MC1F Type Plug.  
Model 533SB, equivalent to Amphenol MC2M Type Plug.

CABLE: Model 533SA, 15-foot, one-conductor shielded.  
Model 533SB, 15-foot, two-conductor shielded.

DIMENSIONS:  $2\frac{1}{8}$  inches diameter,  $6\frac{1}{2}$  inches length.

NET WEIGHT: 11 ounces, packaged weight  $1\frac{3}{4}$  pounds.

OPTIONAL ACCESSORIES: Model A95A Cable Type Transformer; Model A22L Lavalier Assembly; Model S33B Desk Stand; Model S38B Desk Stand; Model S39A Vibration-Isolation Stand; Model A47 Quick-Disconnect Isolation Unit.

### ARCHITECT'S SPECIFICATIONS

The microphone shall be Shure Model 533SA (533SB) or equivalent. The microphone shall be a moving-coil (dynamic) type microphone with a frequency range of 40 to 11,000 Hz. The unit shall have an omnidirectional polar characteristic.

#### For Model 533SA

The microphone has a single high impedance for connection into a high impedance input.

The microphone output shall be —55.0 db when 0 db = 1 volt per microbar.

The microphone rating impedance is 40,000 ohms and the Gm (Sensitivity) at 1,000 Hz shall be within  $\pm 3$  db of —151 db referenced to EIA Standard SE-105, August, 1949.

#### For Model 533SB

The microphone has a single low impedance for connection into a 50 to 250 ohm line. The microphone output shall be —55.5 db when 0 db = 1 milliwatt with 10 microbars.

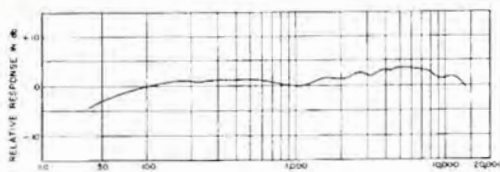
The microphone rating impedance is 150 ohms and the Gm (Sensitivity) at 1,000 Hz shall be within  $\pm 3$  db of —148 db referenced to EIA Standard SE-105, August, 1949.

The Model 533SA (533SB) shall be provided with a swivel adapter adjustable through 90° from vertical to horizontal. The microphone is equipped with a built-in "ON-OFF" switch and a one conductor (Model 533SB two conductor) shielded cable, detachable. The microphone swivel adapter will mount on a stand having a  $\frac{5}{8}$ "-27 thread. The overall dimensions shall be:  $6\frac{1}{2}$ " (167.5 millimeters) in length and  $2\frac{1}{8}$ " (52.4 millimeters) in diameter.



## MODEL 550S PROBE DYNAMIC MICROPHONE

A rugged, high quality Dynamic Microphone designed for use in top-quality sound reinforcement applications. Features smooth, wide-range response which is excellent for pickup of voice and music. Performance and appearance characteristics make the "Probe-Dynamic" a wise choice for use in meeting rooms, auditoriums, for tape recordings, or wherever a quality omnidirectional microphone is required, and moderate cost is an important consideration. Includes on-off switch. Available in matched pairs for stereo recording. Listed on Page 42.



FREQUENCY IN HERTZ  
FREQUENCY RESPONSE

TYPICAL  
DIRECTIONAL  
PATTERN



— 1,000 Hz  
— 5,000 Hz  
— 10,000 Hz

### AUDIO SPECIALIST'S SPECIFICATIONS

LIST PRICE: \$69.00

TYPE: Dynamic.

FREQUENCY RESPONSE: 50-15,000 Hz.

OUTPUT LEVEL: 50-250 ohms impedance: -57.0 db (0 = 1 milliwatt per 10 microbars); .118 millivolts/microbar.

High impedance: -57.5 db (0 db = 1 volt per microbar; 1.32 millivolts/microbar.

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

POLAR PATTERN: Omnidirectional.

CASE: Die-cast zinc.

FINISH: Satin chrome with stainless steel grille.

SWIVEL: 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. To fit 5/8 inch -27 thread.

CABLE CONNECTOR: Equivalent to Amphenol MC3M Type Plug.

CABLE: 18 foot two-conductor shielded.

DIMENSIONS: 1 1/2" diameter, 6 1/2" length.

NET WEIGHT: 15 ounces; packaged weight, 2 1/4 pounds.

OPTIONAL ACCESSORIES: Model S36A Desk Stand; Model A95A Cable Type Transformer; Model S39A Vibration-Isolation Stand; Model A47 Quick-Disconnect Isolation Unit.

### ARCHITECT'S SPECIFICATIONS

The microphone shall be Shure Model 550S or equivalent. The microphone shall be a moving-coil (dynamic) type microphone with a frequency range of 50 to 15,000 Hz. The unit 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 rating Gm (sensitivity) at 1,000 Hz shall be within  $\pm 3$  db of the following levels:

Low Impedance .....-150.0 db\*

High Impedance .....-153.5 db\*

\*EIA Standard SE-105, August 1949

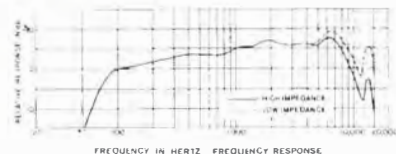
The microphone shall be provided with an adjustable switch with a built-in "On-Off" switch. It shall have a detachable cable connector of the Amphenol MC3M type and a two conductor, shielded cable. The microphone shall mount on a stand having 5/8" -27 thread. The overall dimensions shall be 4 1/8" (124.4 mm) in height, 1 1/2" (38.1 mm) in diameter, and 6 1/2" (165.1 mm) in depth.

## SLENDYNE MODELS

Choice of two extremely rugged omnidirectional dynamic microphones. Proved in severe use for years of dependable service. All units come complete with Model A25 swivel stand adapter and Model 530 also includes Model A22L Lavalier Assembly. Both models



Model 530



FREQUENCY IN HERTZ FREQUENCY RESPONSE

### MODEL 530

LIST PRICE: \$110.00

TYPE: Dynamic

FREQUENCY RESPONSE: 50 to 15,000 Hz

OUTPUT LEVEL: L—50-250 ohms impedance: -61 db (0 db = 1 milliwatt per 10 microbars); .071 millivolts/microbar. H—High Impedance: -60 db (0 db = 1 volt per microbar); .100 millivolts/microbar.

POLAR PATTERN: Omnidirectional

CABLE CONNECTOR: Cannon XL-3-11

CABLE: 20 ft., two-conductor shielded

SWITCH: "On-Off"

DIMENSIONS: 1" diameter, 7 1/2" length

NET WEIGHT: 1/2 lb.

PACKAGED WEIGHT: 2 3/4 lbs.

FURNISHED ACCESSORIES: A25B Swivel Adapter, A22L Lavalier Assembly.

OPTIONAL ACCESSORIES: Model S33B Desk Stand, Model A95A Transformer.

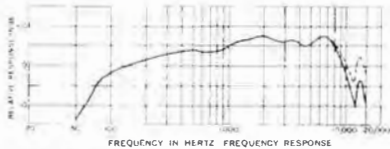


## 530 AND 535

also have impedance switch and "On-Off" switch. Both models can be used in the hand, on desk or floor stand, or as lavalier microphones. Ideal for public address, theater-stage sound systems, and recording.



Model 535



### MODEL 535

LIST PRICE: \$72.50

TYPE: Dynamic

FREQUENCY RESPONSE: 60 to 13,500 Hz

OUTPUT LEVEL: L—50-250 ohms impedance: —61 db (0 db = 1 milliwatt per 10 microbars); .071 millivolts/microbar. H—High Impedance: —60 db (0 db = 1 volt per microbar); .100 millivolts/microbar.

POLAR PATTERN: Omnidirectional

CABLE CONNECTOR: Equivalent to Amphenol MC3M plug

CABLE: 18 ft., two-conductor shielded

SWITCH: "On-Off"

DIMENSIONS: 1" diameter, 7 $\frac{3}{4}$ " length.

NET WEIGHT:  $\frac{3}{4}$  lb.

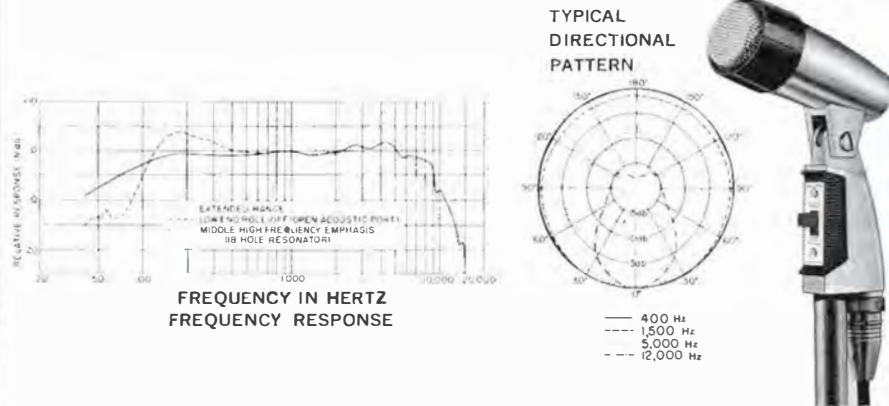
PACKAGED WEIGHT: 2 $\frac{5}{8}$  lbs.

FURNISHED ACCESSORIES: A25 Swivel Adapter, A22L Lavalier Assembly.

OPTIONAL ACCESSORIES: Model S33B Desk Stand, Model A95A Transformer

## MODELS 540 AND 540S 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: 50 to 13,000 Hz. Provisions for alternate response: rapid roll-off above 6,000 Hz and/or below 400 Hz.

OUTPUT LEVEL: 50-250 ohm impedance: —56.0 db (0 = 1 milliwatt per 10 microbars); .149 millivolts/microbar. High impedance: —53.5 db (0 db = 1 volt per microbar); 2.13 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: 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: 15 ft., two-conductor shielded

STAND THREAD:  $\frac{5}{8}$ " -27 thread

DIMENSIONS (not including swivel): 1 $\frac{1}{2}$ " diameter, 3 $\frac{3}{8}$ " length

NET WEIGHT (less cable): 1 lb., packaged weight 3 $\frac{1}{4}$  lbs.

FURNISHED ACCESSORIES: Resonator plate and set-screw for changing response

OPTIONAL ACCESSORIES: Model S36A Desk Stand, Model A95A 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 50 to 13,000 Hz. 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: —56.0 db  
(0 db = 1 milliwatt per 10 microbars)  
High impedance: —53.5 db  
(0 db = 1 volt per microbar)

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

Low impedance —148.0 db  
High impedance —150.0 db  
FIA 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 5 $\frac{1}{8}$ " (130.2 mm) in height, 1 $\frac{1}{2}$ " (42.1 mm) in diameter, and 3 $\frac{3}{8}$ " (92.1 mm) in depth.

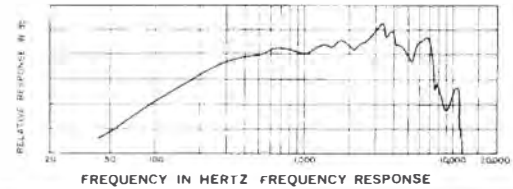




TYPICAL DIRECTIONAL PATTERN

## SONODYNE MODELS 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. Lifetime positive-lock swivel. Model 51S comes complete with "On-Off" switch; Model 51 without switch.



### AUDIO SPECIALIST'S SPECIFICATIONS

LIST PRICE: Model 51 \$49.50; Model 51S (with switch) \$51.50  
 TYPE: Dynamic  
 FREQUENCY RESPONSE: 60 to 10,000 Hz  
 OUTPUT LEVEL: Low, 30-50 ohm impedance 51.0 db\*; .118 millivolts/microbar. Medium, 150-250 ohm impedance —51 db\*; .265 millivolts/microbar. High, —48.5 db\*: 3.75 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: Low 30-50 ohms; Medium 150-250 ohms; High—High.  
 POLAR PATTERN: Omnidirectional  
 MAGNET CIRCUIT: Uses Alnico V Magnet  
 CASE: Die-cast zinc  
 FINISH: Satin chrome  
 SWIVEL: Lifetime swivel permits tilting the head 80° backward to horizontal  
 CABLE CONNECTOR: Equivalent to Amphenol MC3M  
 CABLE: 15 ft., two-conductor shielded  
 STAND THREAD: Standard 5/8"-27 thread  
 DIMENSIONS: 4 1/4" high, 3 1/4" wide, 3 3/4" deep  
 NET WEIGHT: 1 1/4 lbs., packaged weight 3 1/4 lbs.  
 OPTIONAL ACCESSORIES: Model S36A Desk Stand, Model A95A 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 Hz. 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 30-50 ohms, 150-250 ohms, or 35,000 ohms.

The microphone output shall be:

Low 30-50 ohm impedance —51.0 db\*  
 Medium 150-250 ohm impedance —51.0 db\*  
 High High —48.5 db\*  
 \*0 db = 1 milliwatt per 10 microbars  
 \*\*0 db = 1 volt per microbar

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

"L" Position of Switch —144.0 db  
 "M" Position of Switch —143.0 db  
 "H" Position of Switch —145.0 db  
 EIA Standard Rating SE-105 August 1949

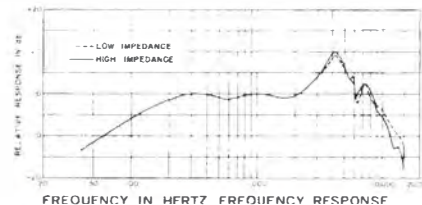
The microphone shall be provided with a swivel adjustable from horizontal to 80° backward. It shall have a detachable cable connector capable of connecting to a two-conductor shielded cable. The microphone shall mount on a stand having 5/8"-27 thread. The overall dimensions shall be 4 1/4" (115.1 mm) high, 3 1/4" (79.4 mm) wide, and 3 3/4" (98.4 mm) deep.



TYPICAL DIRECTIONAL PATTERN

## MODEL 560 DYNAMIC LAVALIER MICROPHONE

A Dual Impedance, Dynamic Microphone with "tailored" response specifically designed for virtually every lavalier application. Compact and lightweight. Modern black satin all-metal case with stainless steel grille. Change from High to Low impedance by simply moving pin jacks. Clip-grip lavalier assembly holds microphone securely to wearer. Lightweight 18 foot attached cable permits maximum freedom of movement.



### AUDIO SPECIALIST'S SPECIFICATIONS

LIST PRICE: \$42.50  
 FREQUENCY RESPONSE: 40 to 10,000 Hz  
 OUTPUT LEVEL: Low: —55.5 db (0 db = 1 milliwatt per 10 microbars); .149 millivolts/microbar. High: —56.5 db (0 db = 1 volt per microbar); 1.48 millivolts/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  
 DIMENSIONS: 3 1/2" long by 1 1/8" diameter  
 NET WEIGHT: 5 ounces; packaged weight: 13 ounces  
 OPTIONAL ACCESSORIES: Model A25B Swivel Adapter; Model A95A Cable Type Transformer

### ARCHITECT'S SPECIFICATIONS

The microphone shall be Shure Model 560 or equivalent. The microphone shall be a moving coil type microphone with a frequency range of 40 to 10,000 Hz. 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 rating Gm (sensitivity) at 1000 Hz shall be within ± 3 db of the following levels.

Low Impedance —148.0 db  
 High Impedance —152.5 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 an 18 foot (5.5 m) two conductor shielded cable. The overall dimensions shall be

3 1/2" (91.2 mm) ± 1/8" (1.6 mm) inches in length  
 1 1/8" (34.9 mm) maximum in diameter



## "VERSADYNE" MODELS 575S AND 575SB

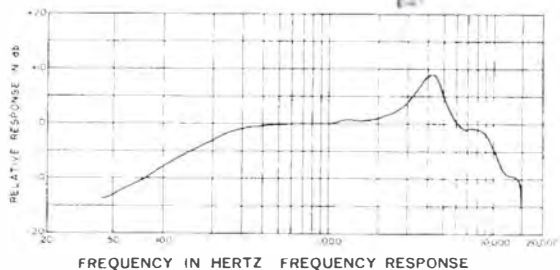
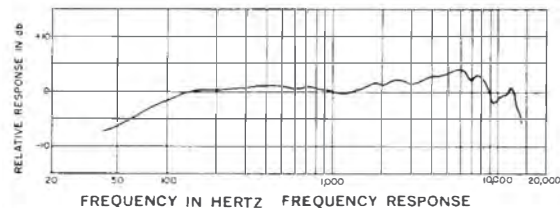
WIDE RANGE, VERSATILE DYNAMIC MICROPHONES  
AT A LOW PRICE

Smooth response from 40-15,000 Hz makes these units 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. These small, extremely lightweight units can be easily adapted for lavalier use as well as hand-held and stand-mounted applications.

U.S. Patent 196,919

### AUDIO SPECIALIST'S SPECIFICATIONS

LIST PRICE: Model 575S \$24.00 Model 575SB \$21.00  
TYPE: Dynamic  
FREQUENCY RESPONSE: 40 to 15,000 Hz  
OUTPUT LEVEL: Model 575S —56 db (0 db = 1 volt per microbar); 158 millivolts/microbar. Model 575SB —56.0 db (0 db = 1 milliwatt per 10 microbars); .131 millivolts/microbar  
POLAR PATTERN: Omnidirectional  
IMPEDANCE: Model 575S—High; 100,000 ohms or more; 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, 1½" diameter  
STAND ADAPTER THREAD: ⅝"-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; A95A Cable Type Transformer (for use with 575S)



## MODEL 561 DYNAMIC MICROPHONE

Compact, high quality, tamper-proof dynamic microphone with attached cable and standard ⅝"-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.

### AUDIO SPECIALIST'S SPECIFICATIONS

LIST PRICE: \$32.50  
FREQUENCY RESPONSE: 40 to 10,000 Hz. Rising characteristic to 4500 Hz.  
OUTPUT LEVEL: —56.0 db (0 db = 1 milliwatt per 10 microbars); 1.31 millivolts/microbar  
IMPEDANCE: 150 to 250 ohms  
DIAPHRAGM: Shure Duraoustic  
CABLE: Non-detachable 4 ft., two-conductor shielded  
STAND THREAD: ⅝"-27  
CASE: Black and chrome satin finished all-metal case with stainless steel grille  
DIMENSIONS: 2¼" long by 1½" diameter  
NET WEIGHT: 5 ounces; packaged weight: 9 ounces

### ARCHITECT'S SPECIFICATIONS

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 Hz. 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 Hz shall be within ±3 db of —149 db (EIA Standard SE-105, August 1949).

The microphone shall be provided with a ⅝"-27 thread. The microphone shall be provided with a 1 foot two-conductor shielded cable. The overall dimensions shall be 2¼ inches (67.1 mm) in length and 1½ inches (34.5 mm) in diameter.





MODEL 415



MODEL 425



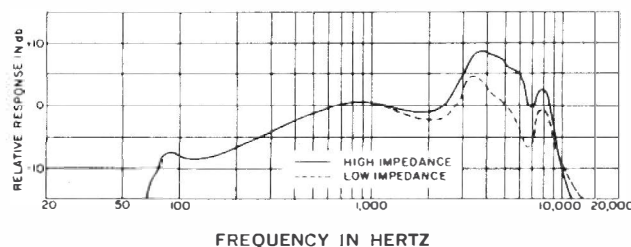
MODEL 420



MODEL 430

## THE COMMANDO SERIES MODELS 415, 420, 425 AND 430

The Commando Series represents a significant achievement in providing quality performance at nominal cost—incorporating Shure's rugged, patented Controlled Magnetic cartridge 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 A25B Swivel Stand Adapter for stand-mounted use. Model 425 is specially designed for gooseneck mounting but can also be utilized as a stand-mounted unit with A25B Swivel Adapter.



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

**LIST PRICE:** Model 415, \$27.50; Model 420, \$30.00; Model 425, \$30.00; Model 430, \$38.50; Model 425-G6 with 6-in. gooseneck, \$33.00; Model 425-G12 with 12-in. gooseneck, \$33.75; Model 425-G-18 with 18-in. gooseneck, \$35.00.

**TYPE:** Controlled Magnetic

**FREQUENCY RESPONSE:** 60 to 10,000 Hz.

**IMPEDANCE:** Model 415 — High. Model 420-425-430 — Dual, High and 150 to 250.

**OUTPUT LEVEL:** High —52 db (0 db = 1 volt per microbar); 2.510 millivolts/microbar. Low —52 db (0 db = 1 milliwatt per 10 microbars); .225 millivolts/microbar

**POLAR PATTERN:** Omnidirectional

**CASE:** Model 415 and 430—Impact-resistant polystyrene and die-cast zinc. Model 420—Impact-resistant polystyrene. Model 425—Impact-resistant polystyrene and brass.

**FINISH:** Model 415-425-430—Non-reflecting gray and satin chrome. Model 420—Non-reflecting gray.

**CABLE:** Model 415—7 ft. non-detachable single-conductor shielded. Model 420—20 ft. non-detachable two-conductor shielded. Model 425—7 foot non-detachable two-con-

ductor shielded. Model 430—15 ft. two-conductor shielded with Amphenol Type MC2M connector.

**SWITCH:** Models 415-420-425—None. Model 430—Press-to-talk switch—normally closed.

**DIMENSIONS:** Model 415—6 $\frac{1}{8}$ " length. 1 $\frac{1}{4}$ " diameter. Model 420—3 $\frac{1}{8}$ " length. 1 $\frac{1}{4}$ " diameter. Model 425—3 $\frac{1}{8}$ " length. 1 $\frac{1}{4}$ " diameter. Model 430—6" length. 1 $\frac{1}{4}$ " diameter.

**NET WEIGHT:** Model 415— $\frac{1}{2}$  lb. Models 420-425— $\frac{1}{4}$  lb. Model 430—1 lb.

**PACKAGED WEIGHT:** Model 415—1 $\frac{1}{2}$  lb. Models 420-425— $\frac{3}{4}$  lb. Model 430—2 $\frac{1}{2}$  lbs.

**FURNISHED ACCESSORIES:** Model 415—Model A25B Swivel Adapter. Model 420—Lavalier Cord and clip assembly. Model 430—Switch locking plate for keeping switch in "On" position, Model A25B Swivel Adapter.

**OPTIONAL ACCESSORIES:** Model S38B or S33B Desk Stand for Models 415 and 430; Model A34L Lavalier Assembly for Models 415 and 430; Model A95A Cable Type Transformer for Models 420, 425, and 430.

### ARCHITECT'S SPECIFICATIONS

The microphone shall be Shure Model (415, 420, 425, 430) or equivalent. A balanced armature Controlled Magnetic type microphone with a frequency range of 60 to 10,000 Hz. This unit shall have an omnidirectional polar characteristic. The microphone shall be dual impedance (except Model 415—high impedance only) 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 Hz shall be within  $\pm 3$  db of the following levels:

Low Impedance Connected —145 db

High Impedance Connected —143 db

EIA Standard SE-105, August 1949

#### MODEL 415

The microphone shall be provided with a swivel adapter adjustable through 90° from vertical to horizontal and mountable on a stand having  $\frac{5}{8}$ "-27 thread. The microphone shall be provided with a single conductor shielded cable. The overall dimensions shall be 6 $\frac{1}{8}$ "  $\pm$   $\frac{1}{4}$ " in length and 1 $\frac{1}{4}$ "  $\pm$   $\frac{1}{8}$ " in diameter.

#### MODEL 420

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 20 foot (6.1 m) two-conductor shielded cable. The overall dimensions shall be 3 $\frac{1}{8}$ " (93.7 mm)  $\pm$   $\frac{1}{4}$ " in length and 1 $\frac{1}{4}$ "  $\pm$   $\frac{1}{8}$ " in diameter.

#### MODEL 425

The microphone shall be provided with an adapter having a  $\frac{5}{8}$ "-27 thread. The microphone shall be provided with a 7 foot two-conductor shielded cable. The overall dimensions shall be 4 $\frac{3}{8}$ "  $\pm$   $\frac{1}{4}$ " in length and 1 $\frac{1}{4}$ "  $\pm$   $\frac{1}{8}$ " in diameter.

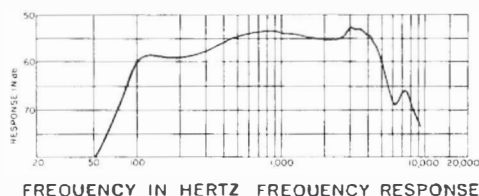
#### MODEL 430

The microphone shall be provided with an "On-Off" switch, a swivel adapter adjustable through 90° from vertical to horizontal, and a 15 foot two-conductor shielded cable with an Amphenol MC2M Type Plug for connecting to the microphone. The microphone swivel adapter shall mount on a stand having a  $\frac{5}{8}$ "-27 thread. The overall dimensions shall be 7"  $\pm$   $\frac{1}{4}$ " in length and 1 $\frac{1}{4}$ "  $\pm$   $\frac{1}{8}$ " 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," are the microphone heads alone and are exceedingly rugged utility public address microphones. Choice of Low or High impedance available in both series.



### 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 Hz

**OUTPUT LEVEL:** Models 520SL and 520: -52.5 db (0 db = 1 volt per microbar) 2.38 millivolts/microbar; Models 520SLB and 520B: -51.0 db (0 db = 1 milliwatt per 10 microbars) .281 millivolts/microbar

**IMPEDANCE:** Models 520SL and 520: High. Recommended load 100,000 ohms or more. Models 520SLB and 520B: 150-250 ohms

**POLAR PATTERN:** Omnidirectional

**CASE:** Die-cast zinc

**FINISH:** Metallic green with satin chrome grille. (Satin chrome handle on Models 520SL and 520SLB)

**CABLE CONNECTOR:** Model 520SL: Equivalent to Amphenol Type MC3M Plug. Model 520SLB: Equivalent to Amphenol Type 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: SPDT—normally closed—normally open. Model 520SLB: DPST—normally open—normally open. Model 520 and 520B have no switch

**DIMENSIONS:** Models 520SL and 520SLB: With stand 9 $\frac{3}{8}$ " high, 5" wide, 7" deep. Models 520 and 520B: Length 3 $\frac{1}{4}$ ", diameter 2 $\frac{3}{8}$ "

**NET WEIGHT:** Models 520SL and 520SLB: 2 $\frac{1}{4}$  lbs.; packaged weight: 5 lbs. Models 520 and 520B:  $\frac{3}{4}$  lb.; packaged weight: 1 $\frac{1}{2}$  lbs.

**OPTIONAL ACCESSORIES:** Model A95A Cable Type Transformer (for use only with Model 520SLB), S34B Desk Stand (for use with 520 and 520B)

## MODELS 510SLB, 510C, AND 510S

Model 510SLB is a complete assembly of a Controlled Magnetic Microphone with a switch and a desk stand. Models 510C and 510S 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.



### AUDIO SPECIALIST'S SPECIFICATIONS

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

**TYPE:** Controlled Magnetic

**FREQUENCY RESPONSE:** 100 to 7,000 Hz

**OUTPUT LEVEL:** Model 510SLB -51 db (0 db = 1 milliwatt per 10 microbars); .238 millivolts/microbar. Models 510C and 510S -52.5 db (0 db = 1 volt per microbar); 2.38 millivolts/microbar

**IMPEDANCE:** 510SLB—150-250 ohms. 510C and 510S—High. Recommended load 100,000 ohms or more

**POLAR PATTERN:** Semidirectional

**CASE:** Die-cast zinc

**FINISH:** Metallic green

**CABLE:** Model 510SLB: 7 ft., two-conductor shielded. Model 510C and 510S: 7 ft., single-conductor shielded

**SWITCH:** Built-in, normally open, switch to control the microphone circuit. The switch is of the press-to-talk locking or non-locking type

**DIMENSIONS:** Model 510SLB: With stand 8 $\frac{7}{8}$ " high, 5" wide, 7" deep. Models 510C and 510S: 3 $\frac{1}{4}$ " high, 2 $\frac{3}{4}$ " wide, 1 $\frac{1}{2}$ " deep

**NET WEIGHT:** Model 510SLB: 2 lbs.; packaged weight: 2 $\frac{3}{8}$  lbs. Models 510C and 510S:  $\frac{7}{8}$  lb.; packaged weight: 1 $\frac{1}{2}$  lbs.

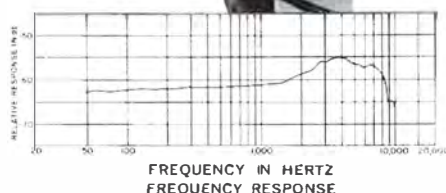
**OPTIONAL ACCESSORIES:** Model A95A Cable Type Transformer for 510SLB only. S34B Desk Stand (for 510C and 510S)





## THE MODEL 777 "SLIM-X" SERIES

The "777" Slim-X Microphones are rugged little microphones weighing only 6 ounces. They use a "Metal Seal" crystal for operating 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 quickly removed, making it an ideal "walk-around" hand-held microphone. All models are furnished with a lavalier cord.



### 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, slide-to-talk switch, plus lavalier assembly and stand adapter. U.S. Patent 196,919

### MODEL 707A

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

### MODEL 710 "REX"

Low price, rugged hand-held microphone, designed for high speech intelligibility. A natural for radio amateur rigs, home recording and low-cost public address systems. Features broad base, complete with stand adapter for mounting on floor stand.

### AUDIO SPECIALIST'S SPECIFICATIONS

**LIST PRICE:** Model 777—\$25.00 Includes Lavalier Cord and molded stand adapter. Model 777S—\$27.00 Includes Lavalier Cord, "On-Off" Switch, and molded stand adapter. Model 777A—\$33.00 Includes Lavalier Cord, A25B swivel stand adapter, S38B Desk Stand. Model 777SA—\$35.00 Includes Lavalier Cord, A25B Swivel stand adapter, S38B Desk Stand and "On-Off" Switch.

**TYPE:** Crystal—moisture-proof "Metal Seal"

**FREQUENCY RESPONSE:** Smooth from 60 to 10,000 Hz

**OUTPUT LEVEL:** —62 db (0 db = 1 volt per microbar); .790 millivolts/microbar

**IMPEDANCE:** High—recommended load impedance: 1 to 5 megohms

**POLAR PATTERN:** Omnidirectional

**CASE:** Die-cast zinc with satin chrome finish

**CABLE CONNECTOR:** Equipped with Amphenol MC1F Type Plug.

**CABLE:** Detachable 7 ft. single-conductor shielded

**DIMENSIONS (Microphone only):** 4 3/8" high, 1" diameter

**NET WEIGHT (Microphone only):** 3/8 lb.; packaged weight 3/4 lb.

**OPTIONAL ACCESSORIES:** Model S38B Desk Stand for Models 777 and 777S, A25B Type Swivel Adapter for Models 777 and 777S

### AUDIO SPECIALIST'S SPECIFICATIONS

**LIST PRICE:** \$15.00

**TYPE:** Ceramic

**FREQUENCY RESPONSE:** 40 to 12,000 Hz

**OUTPUT LEVEL:** —59.5 db (0 db = 1 volt per microbar); 1.050 millivolts/microbar

**IMPEDANCE:** High—Recommended load impedance: 1 to 5 megohms

**POLAR PATTERN:** Omnidirectional

**CASE:** Black high impact "Armour" body with satin anodized cap and grille

**CABLE:** Attached 7' single-conductor shielded

**SWITCH:** Slide-to-talk locking type

**DIMENSIONS:** 4 3/8" long, 1 3/8" diameter

**FURNISHED ACCESSORIES:** Stand adapter with standard 3/8"-27 thread, and lavalier assembly. (Lavalier bracket becomes wall bracket when cord is removed.)

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

**OPTIONAL ACCESSORIES:** S38B Desk Stand

**LIST PRICE:** \$19.50

**TYPE:** Crystal

**FREQUENCY RESPONSE:** 30 to 7,000 Hz

**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 3/8"-27 thread

**DIMENSIONS:** 3 1/4" high, 2 1/8" diameter

**NET WEIGHT:** 7/8 lb; packaged weight: 2 lbs.

**OPTIONAL ACCESSORIES:** Model S34B Desk Stand

**LIST PRICE:** Model 710A, \$12.00; Model 710S (with switch), \$14.00

**TYPE:** Crystal

**FREQUENCY RESPONSE:** 60 to 9,000 Hz

**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:** Metallic burgundy red

**CABLE:** 7 ft. fabric covered, single-conductor shielded

**SWITCH:** Model 710S has a built-in, press-to-talk locking or non-locking switch

**DIMENSIONS:** 3 3/8" high, 2 1/8" wide, 1 1/8" deep

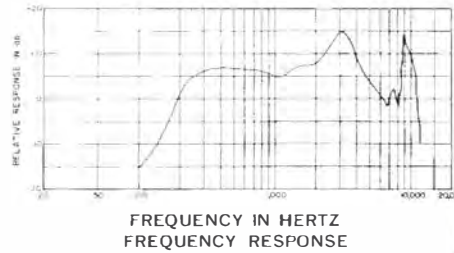
**NET WEIGHT:** 5/8 lb.; packaged weight 1 1/4 lbs.

**OPTIONAL ACCESSORIES:** S34B Desk Stand



## 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.



### AUDIO SPECIALIST'S SPECIFICATIONS

LIST PRICE: \$49.50  
 ELEMENT TYPE: Controlled Magnetic  
 FREQUENCY RESPONSE: 100 to 10,000 Hz  
 OUTPUT LEVEL:  
     High impedance —54.0 db (0 db = 1 volt per microbar); 2.00 millivolts/microbar  
     Low impedance —53.0 db (0 db = 1 milliwatt per 10 microbars); .225 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: Press-to-talk switch—locking or non-locking operation. Switch actuates microphone circuit and an external relay or control circuit. Microphone circuit is normally shorted in high impedance and normally open in low impedance position.  
 DIMENSIONS: 4" wide, 5½" deep, 10½" high (adjustable)  
 NET WEIGHT: 1½ lbs.; packaged weight: 2¼ lbs.

### ARCHITECT'S SPECIFICATIONS

The microphone shall be the Shure Model 450 balanced armature Controlled Magnetic type microphone or equivalent. The frequency response range shall be 100 to 10,000 Hz. 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 —54.0 db (0 db = 1 volt per microbar)  
 Low impedance —53.0 db (0 db = 1 milliwatt per 10 microbars)

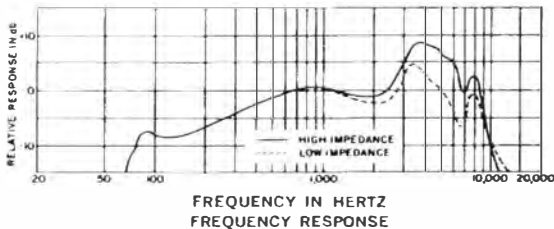
The microphone rating Gm (sensitivity) at 1,000 Hz shall be within ±3 db of the following levels:

Low impedance position —145.0 db  
 High impedance position —145.0 db

EIA Standard SE-105 August 1949

The microphone shall have a height adjustment of 2½" and it shall have "press-to-talk" switch to operate the microphone circuit and the external relay circuit. The microphone shall have a 7 foot non-detachable four-conductor, two-conductor shielded cable. The overall dimensions on the microphone shall be 4" (101.6 mm) ± ⅛" (3.2 mm) wide, 5½" (141.5 mm) ± ⅛" (3.2 mm) deep, and 10½" (264.3 mm) ± ⅛" (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 Hz. Free from undesirable peaks  
 POLAR PATTERN: Omnidirectional  
 OUTPUT LEVEL: Low impedance —52 db (0 db = 1 milliwatt 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. three-conductor, one-conductor shielded  
 SWITCH: Million cycle, press-to-talk locking or non-locking type to control both microphone and external relay or control circuit  
 FINISH: Satin chrome and black  
 DIMENSIONS: 6½" long, 1¼" diameter  
 NET WEIGHT: 1 lb.; packaged weight: 2¼ lbs.  
 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 Hz. 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 Hz shall be within ±3 db of the following levels:

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

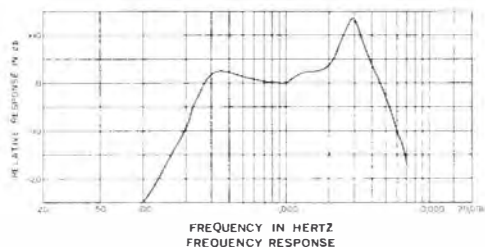
EIA Standard SE-105 August 1949

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 6½" (173.0 mm) ± ⅛" (6.4 mm) long, 1¼" (44.5 mm) ± ⅛" (3.2 mm) in diameter.





Model 444



U.S. Patent D198,850

## MODEL 444 ADJUSTABLE HEIGHT "HAM" MICROPHONE

Now! A microphone specifically designed to meet the needs of the discriminating amateur radio enthusiast! Shure has built into this 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, and an adjustable stand that raises or lowers microphone for most comfortable talking position.

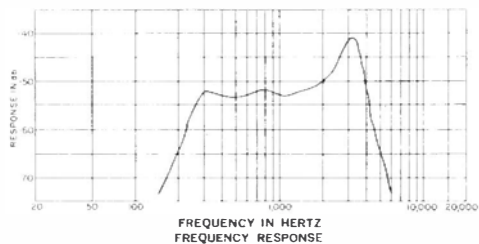
### AUDIO SPECIALIST'S SPECIFICATIONS

LIST PRICE: \$42.50  
ELEMENT TYPE: Controlled Magnetic  
FREQUENCY RESPONSE: 300 to 3,000 Hz  
OUTPUT LEVEL: -53.0 db (0 db = 1 volt per microbar); 2.25 millivolts/microbar  
IMPEDANCE: High  
CASE: Gray "Armo-Dur"  
CABLE: 7 ft., two-conductor shielded  
SWITCH: Press-to-talk switch bar, 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, 5 1/4" deep, 10 1/2" high (adjustable)  
NET WEIGHT: 1 1/2 lbs.; packaged weight: 2 1/8 lbs.



Model 440

Model 440SL



### \*A87K MODIFICATION KIT

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

LIST PRICE: \$3.25

## 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 equaling that of a crystal unit. Model 440SL includes stand as illustrated.

### AUDIO SPECIALIST'S 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 Hz  
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: 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 5/8"-27 thread  
DIMENSIONS: Model 440—2 1/2" diameter, 3 1/4" length  
Model 440SL—9 3/8" high, 5" wide, 7" deep (with stand)  
NET WEIGHT: Model 440—3/4 lb., packaged weight 1 1/2 lbs. Model 440SL—2 1/2 lbs., packaged weight 5 lbs.  
OPTIONAL ACCESSORIES: Model 440—Models S34B or S36A Desk Stands. Model 440SL—A87K Modification Kit\*



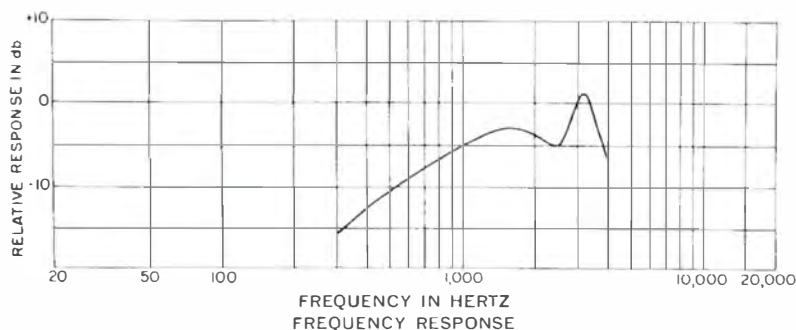
a new break-through in microphone design . . .

## 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 fixed-station 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 heavy-duty 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



NOISE CANCELLING MICROPHONES

#### AUDIO SPECIALIST'S SPECIFICATIONS

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	(SPECIALLY TAILORED FOR BEST IN INTELLIGIBILITY) 200 to 4000 Hertz			
TYPE	Controlled Reluctance			
OUTPUT LEVEL (0 db=1 VOLT PER MICROBAR FIELD)	.141 volts (—17 db)	.014 volts (—37 db)	0.45 volts (—7 db) using 6 volts DC and 500 ohm load	0.71 volts (—3 db) using 12 volts and 500 ohm load
IMPEDANCE	High: Recommended Load 100,000 ohms or more	150-250 ohms	Recommended Load 100 to 500 ohms	Recommended AC Load 100 to 800 ohms
CABLE	Three-Conductor (One-conductor shielded) cadmium copper coiled cord (5½' extended)	Four-Conductor (Two-conductor shielded) cadmium copper coiled cord (5½' extended)	Four-Conductor cadmium copper coiled cord (5½' extended)	Three-Conductor Tinsel coiled cord (5½' extended) with PJ 068 —plug attached
SWITCH MIC CIRCUIT	Normally closed*	Normally open**	Normally open	Normally open
RELAY CIRCUIT	Normally open	Normally open	Normally open	Normally open
CASE	GRAY HIGH IMPACT "ARMO-DUR" WITH PERFORATED STEEL GRILLE AND RUBBER LIP GUARD			
DIMENSIONS	3 1/8" high x 2 3/8" wide x 2 1/2" deep			
WEIGHT	¾ lb., packaged weight 1 1/8 lbs.			
ACCESSORIES	MOUNTING BRACKET FOR PERMANENT PLACEMENT			

\* Provision for simple change to normally open

\*\* Provision for simple change to normally closed





## MODELS 419A AND 419B RANGER II NOISE CANCELLING MICROPHONES

Now, a series of small size noise-cancelling hand microphones specifically designed to provide highly intelligible speech communications in those applications requiring rejection of unwanted noise and where small size is desirable.

The Controlled Magnetic cartridge incorporated in this series permits transmission under conditions heretofore thought impossible. Significantly superior speech intelligibility and a specially tailored response (200 to 4,000 Hz) all combine to make these microphones ideal for all types of outdoor-indoor communication activity in mobile and fixed-station use, as in Police, Fire, Utility, Forestry and Transportation Services; Commercial; Industrial (including radio telephone); Amateur Radio; and similar applications. The microphones are exceptionally suitable for outdoor and indoor public-address and call systems in noisy areas (factories; forges; printing plants; etc.). Lightweight . . . only 7 ounces less cable.

U.S. Patent 3,263,187

### AUDIO SPECIALIST'S SPECIFICATIONS

LIST PRICE: Model 419A, \$62.50; Model 419B, \$62.50.

TYPE: Controlled Magnetic.

FREQUENCY RESPONSE: 200 to 4,000 Hz

OUTPUT LEVEL: Model 419A, .12 volt (-18.5 db), (0 db = 1 volt per 100 microbars).

Model 419B, .014 volt (-37 db), (0 db = 1 milliwatt per 10 microbars).

IMPEDANCE: Model 419A, High: Recommended Load 100,000 ohms or more.  
Model 419B, 150-250 ohms.

CASE: High impact "Armo-Dur."

CABLE: Model 419A: Three-conductor (one-conductor shielded). Coiled cord (5½ feet extended).

Model 419B: Four-conductor (two-conductors shielded). Coiled cord (5½ feet extended).

SWITCH: Double-pole, single-throw, leaf-type switch to control the microphone circuit and to control an external relay on switching circuit.

DIMENSIONS: 2½" high, 2⅞" wide, 2⅝" deep.

NET WEIGHT: 7 oz.; packaged weight ¾ lb.

FURNISHED ACCESSORY: Mounting Bracket.



## MODEL TH100 PROFESSIONAL MOBILE TELEPHONE HANDSET

The TH100 Telephone Handset is a Controlled Magnetic communications handset which allows the operator to expand or upgrade his present equipment and to obtain a degree of privacy in his communications and two-way conversations.

It features normal equipment loudspeaker operation with the handset in the hangup cradle (which is designed for panel mounting), and automatic switching of loudspeaker signal to the handset receiver when handset is lifted from the cradle.

In addition, the control of the transmitter circuits is operated by the push-to-talk handset switch.

The TH100 is specifically designed for Citizen's Band, Amateur, Industrial, Commercial, Business, Educational, and other radio communication applications such as Safety, Marine, Forestry, etc.

### AUDIO SPECIALIST'S SPECIFICATIONS

LIST PRICE: \$58.00.

TYPE: Controlled Magnetic.

FREQUENCY RESPONSE: 200 to 3,000 Hz.

OUTPUT LEVEL: (0 db = 1 volt per 100 microbars, .22 volt (-13.0 db)).

IMPEDANCE: Transmitter: High.  
Receiver: 125 ohms.

CASE: High impact "Armo-Dur."

CABLE: Four-conductor, one-conductor shielded, plastic-jacketed coil cord on handset. Four-foot, four-conductor, one-conductor shielded, plastic-jacketed cable on hangup cradle.

SWITCH: Double-pole, leaf-type switches in both handset and cradle designed to stand up under severe operating conditions and constant usage.

DIMENSIONS: Handset: 8¼" high, 2½" wide, 2½" deep.

Cradle: 3⅝" high, 3⅜" wide, 2⅝" deep.

NET WEIGHT: 1½ lbs.; packaged weight 2½ lbs.



## MODELS 404B AND 404C CONTROLLED MAGNETIC MICROPHONE

The Shure Controlled Magnetic "404" is recommended for those applications where a rugged hand-held 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, lightweight, it fits snugly in the palm of the hand and is comfortable to the touch through heat and cold.

The "404" is an unusually strong and practical microphone for ANY mobile application, no matter how severe the use.



### AUDIO SPECIALIST'S SPECIFICATIONS

LIST PRICE: Model 404B, \$33.00; Model 404C, \$33.00.

TYPE: Controlled Magnetic.

FREQUENCY RESPONSE: 400 to 4,000 Hz.

OUTPUT LEVEL: Model 404B: -52 db (0 db = 1 milliwatt per 10 microbars); .21 millivolts/microbar;

Model 404C: -54.0 db (0 db. = 1 volt per 100 microbars); 0.20 volts.

IMPEDANCE: Model 404B—150-250 ohms.

Model 404C—High, recommended Load, 100,000 ohms or more.

POLAR PATTERN: Semidirectional.

CASE: High impact gray "Armo-Dur".

CABLE: 5½ foot extended.

Model 404B—Four-conductor (two-conductor shielded) Coiled Cord.

Model 404C—Three-conductor (one-conductor shielded) Coiled Cord.

SWITCH: Push-to-talk, leaf type.

DIMENSIONS: 3½" high, 2½" wide, 1½" deep.

NET WEIGHT: 12 oz.; packaged weight, 1 lb.

FURNISHED ACCESSORY: Mounting bracket.

OPTIONAL ACCESSORY: Model A95A Cable-type Transformer.

## MODELS 414A, 414B AND 414C RANGER II MICROPHONES

Ideal for miniaturized or portable communications systems, the 414 Series of hand microphones are about half the size and weight of conventional microphones, yet perform as well or better.

They are rugged units recommended for critical outdoor-indoor communications in mobile and fixed-station use, as in Police, Fire, Utility, Forestry, and Transportation Services; Commercial; Industrial; radio telephone; amateur radio; and similar applications.

Model 414A is high impedance; 414B is low impedance, while Model 414C is transistorized, and features a transistor amplifier within the case, powered by the current available from a carbon microphone circuit, making the 414C directly replaceable for carbon microphones in most carbon circuits.

U.S. Patent D203,187



### AUDIO SPECIALIST'S SPECIFICATIONS

LIST PRICE: Model 414A, \$33.00; Model 414B, \$33.00; Model 414C, \$48.50.

TYPE: Controlled Magnetic.

FREQUENCY RESPONSE: 400 to 4,000 Hz.

OUTPUT LEVEL: Model 414A: -14.5 db. (0 db. = 1 volt per 100 microbars); 0.19 volt.

Model 414B: -52.5 db (0 db = 1 milliwatt per 10 microbars); 0.20 volt.

Model 414C: -1.5 db (0 db = 1 volt with 100 microbars) or .85 volt using 6 volts d.c. and 500-ohm load.

IMPEDANCE: Model 414A—High, recommended load 100,000 ohms or more.

Model 414B—150-250 ohms.

Model 414C—Recommended AC load, 100 to 1,000 ohms.

POLAR PATTERN: Semidirectional.

CASE: High impact "Armo-Dur"

CABLE: 5½-foot extended. Model 414A—3-conductor, one shielded neoprene jacketed coil cord.

Model 414B—4-conductor, two shielded neoprene jacketed coil cord.

Model 414C—4-conductor, neoprene jacketed, coil cord.

SWITCH: Push-to-talk, leaf type.

DIMENSIONS: 2¾" high, 2¼" wide, 1¾" deep.

NET WEIGHT: 8 oz.; packaged weight, 13 oz.

FURNISHED ACCESSORY: Mounting bracket.





### MODEL 405T TRANSISTORIZED MICROPHONE

The transistor amplifier within the case of this Controlled Magnetic microphone provides perfect improvement-replacement for carbon microphones now used in mobile communications equipment. Powered by the current available from the carbon microphone circuit, it 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.

### MODELS 405K AND 418A CONTROLLED MAGNETIC MICROPHONES

Designed for clear, crisp, natural voice response of high intelligibility. The 405K and 418A Series Communication Hand Microphones are pressure-actuated units using the Shure developed balanced-armature, Controlled Magnetic Cartridge.

Model 405K is high impedance (14,000 ohms) and Model 418A is medium impedance (1,500 ohms). Both are especially recommended for all types of outdoor-indoor communication activity in mobile and fixed-station use, as in Police, Fire, Utility, Forestry, and Transportation Service; Commercial; Industrial; radio telephone; amateur radio and similar applications.

### MODELS 104A AND 104B CARBON MICROPHONES

Featuring "Armo-Dur" high impact, corrosion-proof cases. Used throughout the world for police, taxi, bus, truck and commercial applications—more than all other makes combined! Adopted as the standard microphone for professional two-way radio communications equipment. The "104 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.

Illustration is of models  
405T, 405K 418A, 104A and 104B

#### AUDIO SPECIALIST'S SPECIFICATIONS

LIST PRICE: Model 405T, \$48.50.

TYPE: Controlled Magnetic (with Transistor Amplifier).

FREQUENCY RESPONSE: 200 to 4,000 Hz.

OUTPUT LEVEL: -1 db loaded with 500 ohms (0 db = 1 volt 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: 3½" high, 2½" wide, 1½" deep.

NET WEIGHT: ¾ lb.; packaged weight 1 lb.

FURNISHED ACCESSORY: Mounting bracket.

#### AUDIO SPECIALIST'S SPECIFICATIONS

LIST PRICE: Model 405K, \$37.50; Model 418A, \$37.50.

TYPE: Controlled Magnetic.

FREQUENCY RESPONSE: 200 to 4,000 Hz.

OUTPUT LEVEL: Model 405K: -14 db (0 db. = 1 volt per 100 microbars);

Model 418A: -22.5 db (0 db = 1 volt per 100 microbars).

IMPEDANCE: Model 405K, High, 14,000 ohms or more; Model 418A, Medium, 1,500 ohms or more.

POLAR PATTERN: Semidirectional.

CASE: High-impact gray "Armo-Dur."

CABLE: 5-foot extended. Model 405K—3-conductor, one shielded coiled cord, with Amphenol MC4M type plug attached.

Model 418A—4-conductor, one shielded, coiled cord, with a Components 6601-M6 type plug attached.

SWITCH: Single throw, double pole, leaf type.

DIMENSIONS: 3½" high, 2½" wide, 1½" deep.

NET WEIGHT: ¾ lb.; packaged weight 1 lb.

FURNISHED ACCESSORY: Mounting bracket.

#### AUDIO SPECIALIST'S SPECIFICATIONS

LIST PRICE: Model 104A, \$30.00; Model 104B, \$30.00.

TYPE: Carbon.

FREQUENCY RESPONSE: 300 to 4,000 Hz  
(Tailored voice response).

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

IMPEDANCE: Recommended load—50 to 100 ohms.

POLAR PATTERN: Semidirectional.

CASE: High-impact Gray "Armo-Dur."

CABLE: Cadmium copper coiled cord.

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

DIMENSIONS: 3½" high, 2½" wide, 1½" deep.

NET WEIGHT: 1½ lb.; packaged weight 1½ lb.

FURNISHED ACCESSORY: Mounting bracket.



**AUDIO SPECIALIST'S SPECIFICATIONS**

**LIST PRICE:** Model 201, \$18.00; Model 202, \$20.00; Model 401A, \$22.00; Model 401B, \$22.00.

**TYPE:** Models 201, 202—Ceramic.

Models 401A, 401B—Controlled Magnetic.

**FREQUENCY RESPONSE:** 200 to 4,000 Hz. free from undesirable peaks.

**OUTPUT LEVEL:** Model 201— -55.5 db (0 db = 1 volt per microbar); 1.680 millivolts/microbar;

Model 202— -50.5 db (0 db = 1 volt per microbar); 2.93 millivolts/microbar;

Model 401A— -51 db (0 db = 1 volt per microbar); 2.81 millivolts/microbar;

Model 401B— -49 db (0 db = 1 milliwatt per 10 microbars); .31 millivolts/microbar.

**IMPEDANCE:** Models 201, 202—High-Recommended load impedance; 1 to 5 megohms. Model 401A—High-Recommended load impedance; 100,000 ohms or more. Model 401B—Low-Recommended load impedance; 150-250 ohms.

**POLAR PATTERN:** Semidirectional.

**CASE:** Blue High-Impact "Armo-Dur." Model 202—Gray.

**CABLE:** Coiled Cord extends to 5 feet. Models 201, 202, 401A—Three-conductor, one-conductor shielded. Model 401B—Four-conductor, two-conductor shielded.

**SWITCH:** Push-to-talk, non-locking.

**DIMENSION:** 4" high x 2 3/4" wide x 1 7/8" deep.

**NET WEIGHT:** Models 201, 202—10 oz.; packaged weight 1 1/4 lbs. Models 401A, 401B—12 oz.; packaged weight 1 lb.

**FURNISHED ACCESSORY:** Mounting bracket.

**MODELS 201, 202 AND 401  
LOW COST PALM  
MICROPHONES**

FOR CB, AMATEUR, FIXED  
STATION OR MOBILE USES

Loaded with features—yet priced unusually low. "Shaped" voice response is patterned after professional mobile and SSB amateur response curves . . . assures maximum intelligibility. Professional design and construction—perform as well as they look. Long-life slide-switch, guaranteed for a full year. Virtually indestructible "Armo-Dur" 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); ceramic, noise-cancelling (model 202); 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

**AUDIO SPECIALIST'S SPECIFICATIONS**

**LIST PRICE:** \$16.50.

**TYPE:** Ceramic.

**FREQUENCY RESPONSE:** 40 to 10,000 Hz. Free from undesirable peaks.

**OUTPUT LEVEL:** 59.5 db below 1 Volt per Microbar; 1.05 millivolts/microbar.

**IMPEDANCE:** High—recommended load 1/2 to 5 Megohms.

**POLAR PATTERN:** Omnidirectional.

**CASE:** Black high impact "Armo-Dur" with satin anodized cap and grille.

**CABLE:** Coiled Cord extends to 5 feet. Three Conductors, one shielded.

**SWITCH:** Momentary Slide-to-talk, non-locking type.

**DIMENSION:** 4 3/4" long x 1 1/2" diameter.

**NET WEIGHT:** 6 oz.; packaged weight 1 1/4 lbs.

**FURNISHED ACCESSORIES:** Stand adapter with standard 5/8" -27 thread and lavalier assembly (lavalier bracket becomes wall bracket when cord is removed).

**OPTIONAL ACCESSORY:** S38B Desk Stand

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

Citizen's Band broadcasters will find this ceramic microphone ideal for replacing original equipment crystal or ceramic type microphones. Comes complete with stand adapter and lavalier assembly. "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 satin-finish cap and grill.

U.S. Patent 196,919

**AUDIO SPECIALIST'S SPECIFICATIONS**

**LIST PRICE:** \$15.00.

**TYPE:** Ceramic.

**FREQUENCY RESPONSE:** 200 to 4,000 Hz.

**OUTPUT LEVEL:** -53 db (0 db = 1 volt per microbar).

**IMPEDANCE:** High—Recommended Load 1 to 5 megohms.

**POLAR PATTERN:** Omnidirectional.

**CASE:** Gray High-impact plastic.

**CABLE:** Coiled Cord extends to five feet. Three-conductor (one-conductor shielded).

**SWITCH:** Push-to-talk (non-locking).

**DIMENSIONS:** 3 1/8" high, 2 1/2" wide, 1 3/4" deep.

**NET WEIGHT:** 8 oz.; packaged weight 13 oz.

**FURNISHED ACCESSORY:** Mounting bracket.

**MODEL 206  
CERAMIC  
COMMUNICATIONS  
MICROPHONE**

This low-cost ceramic communications microphone is designed to provide clear, crisp, natural voice reproduction of high intelligibility. It is also relatively immune to adverse temperature and humidity conditions. The switching circuitry is designed to make the Model 206 a universal replacement in all communications equipment utilizing ceramic microphones.





## SOUND LEVEL MICROPHONES

### 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.

#### AUDIO SPECIALIST'S 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 Hz. Model 98B99A—30 to 15,000 Hz

OUTPUT LEVEL AT 400 Hz: 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: 1½" diameter, 2¼" long

NET WEIGHT: 3.8 oz.

## SMALL CONTROLLED MAGNETIC MICROPHONES



Model MC11-J



Model MC20A-J

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.

#### AUDIO SPECIALIST'S SPECIFICATIONS

LIST PRICE:

MC11-J (Circular) \$12.50

MC20A-J (Rectangular) \$14.00

MC30-J (Square) \$20.00

TYPE: Controlled Magnetic

FREQUENCY RESPONSE: MC11-J—400 to 4,000 Hz  
MC20A-J—400 to 4,500 Hz, MC30-J—400 to 3,500 Hz

OUTPUT LEVEL: MC11-J—-73 db (0 db=1 volt per microbar)  
MC20A-J—-72 db (0 db=1 volt per microbar)  
MC30-J—-77.5 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) 1¼" diameter, ⅝" thick, MC20A-J (rectangular) ⅝" wide, 1⅛" long, ⅛" thick, MC30-J (square) ½" wide, ½" long, ¼" thick

NET WEIGHT: MC11-J—12½ grams, MC20A-J—9.6 grams, MC30-J—3.7 grams

## ULTRA MINIATURE CERAMIC MICROPHONE MODEL CA5A-J



A rugged ultra-miniature ceramic microphone with a lead-zirconate-titanate element. Frequency response is equivalent to microphones of much greater size. The CA5A-J is ideal for hearing aids, small headpiece microphones, pocket walkie-talkies, dictating machines, musical instruments, intelligence and security work.

#### AUDIO SPECIALIST'S SPECIFICATIONS

LIST PRICE: \$20.00

TYPE: Ceramic element

FREQUENCY RANGE: 50-4500 Hz

IMPEDANCE: Equivalent to 400 pfd

OUTPUT LEVEL: -70 db re 1 volt/microbar

TEMPERATURE RANGE: -20° to 200° Fahrenheit

HUMIDITY RANGE: Unaffected by humidity

SIZE: 1" x ¼" x ⅛"

(2.54 cm x .635 cm x .254 cm)

WEIGHT: ¾ gram



## MODEL 61B VIBRATION PICKUP

Model 61B Vibration Pickup is a piezoelectric instrument for the measurement and analysis of vibrations in industrial fields. The piezoelectric element is a grafoil bimorph Rochelle salt crystal unit with special-process moisture-proofing. The crystal element is inertia actuated, a principle which eliminates the need of a stationary reference body in vibration measurements. The isolated mounting used in this type of actuation gives a maximum protection against breakage of the crystal. The assembly is enclosed in a cast aluminum case. A few of the many applications for the Model 61B are as follows:

**Industrial Research and Design:** Determination of optimum shapes and material distribution in high-speed rotating members, motor windings, and hydraulic equipment. Research in vibration isolation materials, construction of vibration-proof rooms, vault protective systems, etc. Noise reduction of automobile and airplane structures, gearing, bearings, etc.

**Manufacturing and Inspection:** Balancing of rotors, adjustment of gears and impact devices, uniformity of air-gap pull, smoothness of surfaces; vibration in machinery, building structures, transmission lines, antenna towers, etc.

**Servicing and Surveying:** Location and elimination of sources of vibration, loose pistons and bearings; servicing refrigerators and air-conditioning systems, isolation of machinery, tracing leaks in water-pipes, tanks, and hydraulic structures, geodetic surveying for oil and mineral strata, etc.

List Price: \$97.50. For complete technical information, write, requesting Technical Data Sheet No. 27-19.

## MODEL 61CP VIBRATION PICKUP

The Model 61CP Vibration Pickup is a piezoelectric transducer, designed for the measurement and analysis of vibrations in industrial and research applications. The piezoelectric element is a "bender sandwich" of Lead Zirconate Titanate (high temperature ceramic) which is inertially actuated. This eliminates the need for a stationary reference in vibration measurements, and gives maximum protection against breakage of the element. The assembly is enclosed in a cast aluminum case.

The 61CP is normally used for locating and measuring periodic vibrations but it will also respond to sudden aperiodic motions, since the input need not be periodic. This means that the 61CP can be used for a wide variety of applications such as:

- Analysis of Stress and Strain,
- Selecting Shock Mountings,
- Pickup for Protection Systems,
- Monitoring of Animal Activity,
- Detection of Leaks and Wear Points,
- Surface Smoothness Measurements,
- Termite Detection, and
- Balancing Rotating Systems

List Price: \$125.00. For complete technical information, write, requesting Technical Data Sheet No. 27A255.

## MODEL 62CP ACCELEROMETER

The Shure Model 62CP is a ceramic accelerometer having a Lead Zirconate Titanate (PZT) element. This unit features:

- Very high voltage sensitivity
- High internal capacitance
- Extremely small Temperature Coefficient of Sensitivity for good stability
- High resonant frequency
- Construction unaffected by humidity

The high output and high capacity make the pickup especially useful for measuring low accelerations, measuring where electrical noise is high, and measuring with relatively long cables. The output voltage is proportional to acceleration throughout the linear range of the pickup. A signal proportional to velocity may be derived from a simple RC integrator. Further integration gives a signal proportional to displacement.

Other uses include routine vibration measurements and engineering vibration studies of all types of machinery, vehicles and motors, shock mountings, building construction, and sources of noise caused by structure-borne vibrations.

List Price: \$250.00. For complete technical information write, requesting Technical Data Sheet No. 27A326.



Model 61B  
Vibration Pickup and accessories.  
(Approximately 1/3 actual size)



Model 61CP  
Vibration Pickup and Accessories



Model 62CP  
Accelerometer



## GOLD MICROPHONES

Feature Gold finish on metal cases and grille. Specifications are identical to standard models.

Model No.	Description	Specifications To Be Found On:	List Price	Model No.	Description	Specifications To Be Found On:	List Price
545S Gold	Unidyne III	Page 8	\$ 99.95	580SA Gold	Unidyne A	Page 15	\$69.00
545 Gold	Unidyne III	Page 8	95.00	585SA Gold	Unisphere A	Page 16	75.00
545L Gold	Unidyne III	Page 10	80.00	578 Gold	Omnidyne	Page 22	92.50
565 Gold	Unisphere I	Page 12	105.00	578S Gold	Omnidyne	Page 22	100.00
55S Gold	Unidyne II	Page 14	93.00	550S Gold	Sonodyne II	Page 26	79.00
55SW Gold	Unidyne II	Page 14	95.00				

## MICROPHONES WITH ATTACHED PLUGS

Identical in specifications to standard models, but with the added feature of a special prewired plug end connector assembly which can be used as an MC1F, an MC1M, or a phone plug.

Model No.	Description	Specifications To Be Found On:	List Price	Model No.	Description	Specifications To Be Found On:	List Price
545SC	Unidyne III	Page 8	\$92.00	533SAC	Spher-O-Dyne	Page 25	\$52.00
545C	Unidyne III	Page 8	87.00	550SC	Probe-Dynamic	Page 26	71.00
565C	Unisphere I	Page 12	97.00	540SC	Sonodyne II	Page 27	52.00
55SWC	Unidyne II	Page 14	87.00	51SC	Sonodyne	Page 28	53.50
580SAC	Unidyne A	Page 15	61.00	560C	Lavalier	Page 28	44.50
585SAC	Unisphere A	Page 16	67.00	575SC	Versadyne	Page 29	26.00
245SC	Uniplex	Page 18	39.00	275SC	Versaplex	Page 32	17.00
578C	Omnidyne	Page 22	84.50				

## MATCHED PAIR MICROPHONES

For stereo broadcasting and recording, matched pair microphones are available at no additional cost. These microphones are identical to standard microphones except they are matched to a plus or minus 1 db in level and 1½ db in frequency response.

Model No.	Description	Specifications To Be Found On:	List Price Per Pair	Model No.	Description	Specifications To Be Found On:	List Price Per Pair
546M	Unidyne III	Page 7	\$270.00	55SWM Gold	Unidyne II	Page 14	\$190.00
545SM	Unidyne III	Page 8	179.90	580SA-MP	Unidyne A	Page 15	118.00
545SM Gold	Unidyne III	Page 8	199.90	580SBM	Unidyne A	Page 15	104.00
545M	Unidyne III	Page 8	170.00	585SAM	Unisphere A	Page 16	130.00
545M Gold	Unidyne III	Page 8	190.00	330M	Uni-Ron	Page 17	240.00
544M	Unidyne III	Page 8	160.00	300M	Studio Gradient	Page 19	300.00
544M-G6	Unidyne III	Page 8	166.00	315M	Gradient	Page 20	179.00
544M-G12	Unidyne III	Page 8	167.50	315SM	Gradient	Page 20	183.00
544M-G18	Unidyne III	Page 8	170.00	576M	Omnidirectional	Page 21	350.00
566M	Unisphere I	Page 11	280.00	578M	Omnidyne	Page 22	165.00
565M	Unisphere I	Page 12	190.00	578M Gold	Omnidyne	Page 22	185.00
565SM	Unisphere I	Page 12	200.00	578S	Omnidyne	Page 22	180.00
556S	Unidyne II	Page 13	270.00	578S Gold	Omnidyne	Page 22	200.00
55SM	Unidyne II	Page 14	166.00	550SM	Probe-Dynamic	Page 26	138.00
55SM Gold	Unidyne II	Page 14	186.00	550SM Gold	Probe-Dynamic	Page 26	158.00
55SWM	Unidyne II	Page 14	170.00	535M	Slendyne	Page 27	145.00

## MICROPHONE CASES



These black plastic impact-proof microphone carrying cases are ideal for carrying the microphone, cable and accessories from place to place, conveniently and safely. The foam inserts hold the contents securely.

Model No.	Designed to Fit	List Price
AC54	Model 545 Type Microphones	\$10.00
AC54S	Model 545S Type Microphones	10.00
AC55	Model 55S, 55SW Type Microphones	10.00
AC56	Model 565, 585, 533 Type Microphones	10.00
AC56S	Model 565S Type Microphones	10.00
AC57	Model 576, 578 Type Microphones	10.00
AC58	Model 580 Type Microphones	10.00



## MICROPHONE SWITCHES

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

Heavy-Duty Switch Model A88A, withstands the most severe field requirements 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.

LIST PRICE: \$12.50

### ON-OFF PRESS-TO-TALK SWITCHES

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

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

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.

LIST PRICE: \$11.00

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

LIST PRICE: \$11.50



A88A



A83B



A84B



A85C

## MICROPHONE REPLACEMENT CARTRIDGES

Model Number	Description	List Price
<b>DYNAMIC</b>		
R45	Dynamic for Unidyne III Models 544, 545, 545S, 546 .....	\$37.50
R50	Dynamic for Models 540 (series II), 540S (series II) 560, 561, 575S, 575SB .....	15.00
R54	Dynamic for Models 540 (series I), 540S (series I) .....	15.00
R55	Dynamic for Unidyne II models 55S, 55SW .....	30.00
R58	Dynamic for Models 580SA, 580SB .....	22.50
R65	Dynamic for Unisphere I Models 565, 565S .....	40.00
R85	Dynamic for Unisphere A Models 585SA, 585SB .....	25.00
<b>CERAMIC</b>		
R2	Ceramic Cartridge for 245 series models .....	15.00
<b>CARBON</b>		
R10	Carbon for Models 104A, 104B .....	8.50
99A149A	Carbon for Models CB20, CB21, CB50, CB50A, 115 .....	8.50
<b>CRYSTAL</b>		
R7	Crystal for Models 707A, 708A .....	8.25
99A186A	Crystal for the Slim-X 777 series .....	10.00
<b>CONTROLLED MAGNETIC</b>		
R4M	Controlled Magnetic for Commando Models 415, 420, 425, 430 .....	15.00
R5	Controlled Magnetic for high impedance Models 410, 410S, 440, 440SL, 505C, 505K, 510C, 510MD, 510S, 520, 520SL .....	11.00
R5B	Controlled Magnetic for Models 505B, 505KB, 505T, 510SLB, 520B, 520SLB .....	11.00
R5C	Controlled Magnetic for Model 418A .....	11.00
R5D	Controlled Magnetic for Models 405K, 444 .....	11.00
R5E	Controlled Magnetic for Models 401B, 404B, 405B, 405KB, 405T .....	11.00
R5F	Controlled Magnetic for Models 401A, 404C, 405C .....	11.00
R5T	Controlled Magnetic Kit Transistorized for Carbon Replacement .....	25.00
R14A	Controlled Magnetic for Model 414A .....	11.00
R14B	Controlled Magnetic for Model 414B .....	11.00
R14C	Controlled Magnetic for Model 414C .....	25.00
R19A	Controlled Magnetic for Model 419A .....	17.50
R19B	Controlled Magnetic for Model 419B .....	17.50
R88A	Controlled Magnetic for Model 488A .....	17.50
R88B	Controlled Magnetic for Models 488B, 488C .....	17.50
R88T	Controlled Magnetic for Model 488T .....	17.50



R50



R54



R2



99A186



R10



R7



R5



R4M





### 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: 2½ lbs., Packaged Weight, 2¾ 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 710A.

NET WEIGHT: ¾ lb. Packaged weight, 1 lb.

LIST PRICE: \$4.50



#### S38B ROUND STAND

This stand is a heavy die-cast base. Metal screw machine stud connects microphone adapter to stand base.

NET WEIGHT: ¾ lb., Packaged weight, 1 lb.

MODEL S38B. (Black) for use with Models 275S, 275SK, 415, 430, 575S, 575SB.

MODEL S38. (Bronze) for use with 245, 777 Series microphones.

LIST PRICE: \$4.50



#### S33B MODERN DESK STAND

MODEL S33B. Black finish. For use with Models 330, 530, 514, 545, 546, 556S, 565, 566, 576, 578, 580, 585, 415 and 430.

MODEL S33. Baked bronze finish. For use with Model 300 and 535.

NET WEIGHT: 2½ lbs., Packaged weight, 3 lbs.

LIST PRICE: \$15.00



#### S36A "TEARDROP" DESK STAND

MODEL S36A. Streamlined gray desk mount fits all Shure connector-type microphones including 51, 51S, 55S, 55SW, 315, 315S, 540S, 545S, and 737A. Accommodates A25B type Swivel Adapter. Metal handle adapter

provided for mounting. Models 440, 510, 520, 710A, and 707A. Ideal for use with the Shure switches listed on page 43.

NET WEIGHT: 1 lb., Packaged weight, 1¾ lbs.

LIST PRICE: \$8.00

### SWIVEL ADAPTERS



MODEL A25B. (Black) To be used with Models 530, 415, 430, 545, 565, 580 and 585 microphones—For use with standard desk or floor stand.

LIST PRICE: \$5.50



MODEL A57S Slip-in Swivel Adapter for Models 576, 578 and 570 ¾" diameter Dynamic Microphones—For use with standard or floor stand.

MODEL A57R. Slip-in Swivel Adapter for Model 571.

LIST PRICE: \$5.50

### QUICK DISCONNECT MICROPHONE ISOLATION UNITS

Model A45



Model A47

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 330, 546, 556 and 566. It also can be used with microphones mounted on Shure A25B Swivel Adapter.

Model A47 is designed for microphones with connectors such as Shure Models 55S, 51, 545S, 565S, 540S, 737A or nearly all microphones with a standard ¾"-27 thread.

#### SPECIFICATIONS FOR MODELS A45-47

DIMENSIONS: Model A45—3½" high x 1 ⅝" diam. assembled. Model A-47—5½" high x 1 ⅝" 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.

LIST PRICE: Model A45—\$12.00. Model A47—\$12.00



## CABLE TYPE TRANSFORMER



**MODEL A95A**

A high-quality, cable-type transformer which makes it possible to connect a low impedance microphone (35-50 ohm and 150-250 ohm) to a high impedance amplifier. It is housed in a compact, sturdy and magnetically-shielded case, 2½" long x ¾" diameter. Use of this transformer solves the problem of excessive high frequency loss and objectionable hum when long lengths of microphone cable are necessary. Model A95A may also be used in specialized applications requiring high impedance to low impedance circuit connections. Attractive gray and black case furnished with Cannon XL-3-11 input and Amphenol MC1F output plugs installed. Frequency response: 20 to 20,000 Hz, plus or minus 1 db.

List Price: \$17.50

## WINDSCREEN

**MODEL A2WS**

An inexpensive accessory designed to effectively minimize wind noise in outdoor locations, and also control explosive breath sounds in any location. May be used with Models 576 and 578 (illustrated), and Models 544, 545, 545S, 545L and 546.

List Price: \$6.00



## LAVALIER CORD ASSEMBLIES

MODEL NUMBER	DESCRIPTION	LIST PRICE
A22L	For Models 530, 535, 777, 777S .....	\$ 4.50
A27L	For Models 275, 575 .....	1.63
A34L	For Models 415, 420, 430, 560 .....	3.50
A54L	For Model 545L .....	5.00
A57L	For Models 570, 576, 578 .....	4.50

## REPLACEMENT COILED CORDS FOR COMMUNICATIONS MICROPHONES

C10C	Tinsel with Amphenol MC4M Connector (3-conductor shielded) for G.E. EM10A and Shure 505K, 505KB....	\$12.00
C11C	Tinsel with Amphenol MC4M Plug for G.E. EM10 A2, EM10B2, EM25A, EM25E, and Shure 405K, 405KB .....	12.00
C12C	Copper for Models 404C, 488A .....	9.75
C14C	Copper for Models 404B, 488B .....	10.00
C15C	Copper for Models 101A, 101B, 101C, 102A, 102B, 102C, 104A, 104B, 405T, 488C, CB10, CB10B, CB10D, CB10F, CB12, CB12A, CB12C, CB12D, CB12M, CB12W, CB15, CB15B, CB15C, CB15D, CB26, TU341, TU342, TU352 .....	6.25
C16C	Tinsel with Amphenol MC4M Connector for Model 101E, CB10E, CB50 .....	9.50
C17C	Copper with Spade Lugs for Models CB12E, CB12T, MS12 .....	7.75
C18C	Tinsel with Amphenol MC4M Connector for Models 103, CB15F .....	9.50
C19C	Copper with Amphenol MC4M Connector for use with Motorola Equipment .....	9.50
C20C	Copper for Models 201, 401A .....	7.00
C21C	Copper for Model 401B .....	7.75
C22C	Tinsel with PJ068 Plug for Model 488T .....	15.00
C23C	Copper for Model 275SK .....	6.00
C24C	Copper for Models 414A, 419A .....	9.75
C25C	Copper for Models 414B, 419B .....	10.00
C26C	Copper for Model 414C .....	8.35
C27C	Tinsel for Models 418A, EM18D .....	13.00
C28C	Tinsel for G.E. Models EM18A, EM18B, EM18C .....	13.00
TK-1	Solderless Terminal Kit for attaching plugs to tinsel cords. Includes special pliers .....	12.50
TK-1-TW	Replacement Terminal Kit (less pliers) .....	6.50

## REACTANCE SLIDE RULE

This handy, easy-to-use slide rule calculator provides quick computation of capacitive or inductive reactance, dissipation factor, "Q" of inductances and many other problems. Has five scales with large, easy-to-read numerals. List Price: \$1.00.



## MODEL M68 TRANSISTORIZED MICROPHONE MIXER



The Shure M68 Microphone Mixer is a practical, efficient and economical way of increasing the efficiency, usefulness and flexibility of public-address and paging systems, or tape recorders using more than one microphone or other sound source. One prime example: extra microphones can be placed in the audience for question and answer sessions.

This new mixer is unique in that it satisfies the need of most public-address systems and serious tape recording enthusiasts, while being light enough to be portable, simple to operate and modest in cost. Each microphone (or other sound source) can be cut in or out of the system (and independently balanced for volume) without loss in microphone output level. In addition to independent volume controls, a master volume control simultaneously controls the gain of all inputs. The M68 can therefore be used as a conveniently "at-hand" P.A. system volume control in situations where the regular amplifier is located some distance away.

### AUDIO SPECIALIST'S SPECIFICATIONS

LIST PRICE: \$125.00

TYPE: Transistorized

FREQUENCY RESPONSE: 30 to 20,000 Hz,  $\pm 2$  db

HUM-NOISE: 70 db below rated output.

**INPUTS: Microphone Inputs.** Four Cannon XLR-3-14 type microphone inputs. Each accepts a Dynamic or Ribbon microphone (not recommended for crystal or ceramic microphones).

**Auxiliary Input.** A fifth input labeled "AUX" is high level and accepts a tape recorder, phonograph or tuner signal.

**Input Impedance:** Microphone inputs for high or low impedance (balanced or unbalanced); input impedance for each microphone is selected by a slide switch. You can use one type or model of microphone, or mix several types and impedances.

**CONTROLS:** Four individual Microphone Volume Controls make it possible to raise or lower the level of sound from each microphone or to cut microphones in and out at will.

The Auxiliary Input Volume Control controls the sound level of the tape recorder, phonograph, or tuner. The Master Volume Control simultaneously adjusts the volume of all five input sources.

**The On-Off Switch.** This control not only controls the AC power, but when using the A68B, battery power supply, the DC power supply switches the battery on and off to increase battery life when not in use.

**OUTPUTS:** The M68 can be used to connect up to four microphones and a tape recorder, or tuner, or phonograph to any amplifier or tape recorder with a single connection. It has two outputs: one provides high or low impedance output for connection to the microphone input of a P.A. system amplifier or tape recorder. Desired impedance is selected by switch. The other provides a high impedance, high level output designed primarily to feed a power amplifier or tape recorder requiring .5 to 2 volts.

Because of the flexibility of outputs, the M68 Mixer can be used with virtually any type amplifier.

**CASE DIMENSIONS:** 2 $\frac{5}{8}$ " high, 11 $\frac{1}{8}$ " wide, 5 $\frac{1}{4}$ " deep.

**OPTIONAL ACCESSORIES:** Listed and illustrated below.

### ACCESSORIES TO INCREASE THE VERSATILITY OF THE MODEL M68 MICROPHONE MIXER



**AC68 ATTACHE CARRYING CASE**— Handsome slim-line vinyl leatherette attache case holds mixer, microphones, cables. 3 $\frac{3}{8}$ " x 18 $\frac{3}{8}$ " x 11 $\frac{5}{8}$ ". List Price \$37.50



**A68B BATTERY POWER SUPPLY**— Eliminates need for 115 V., A.C. hook-up. Less U20 type (30 V., D.C.) battery. List Price \$10.00



**A68C OUTPUT CABLE KIT**—Enables you to connect the M68 to virtually any P.A. system or amplifier. Includes cables and adapters for Hubbel, Amphe-nol MC1 type and standard phone plug inputs. List Price \$25.00



**A68S STACKING KIT**—Enables you to conveniently interconnect and stack 2 M68 Mixers — gives you 8 microphone inputs and 1 Auxiliary input. With 2 kits you can stack three mixers. A single master volume control handles the entire matrix. Includes brackets, interconnecting cable. List Price \$5.00

**A68C INTERCONNECTING CABLE ONLY** — Enables you to interconnect mixers as above, but without stacking brackets. List Price \$1.25



**A68L LOCKING PANEL** — Fastens over controls, locks in place with pad-lock (provided). Prevents tampering. List Price \$8.00



**A68P PHONO PREAMP** — Converts the Auxiliary input channel to a magnetic or ceramic phonograph input. Built-in scratch filter has on-off switch. Takes its power directly from the mixer. List Price \$25.00



**MOUNT IT IN A  
STANDARD RACK PANEL**

**A68R RACK PANEL KIT** — Standard 19" x 3 $\frac{1}{2}$ " audio equipment rack panel for use with the M68. Gray Hammer-tone finish. List Price \$12.50



# SHURE

FIRST IN PUBLIC ADDRESS  
SOUND REINFORCEMENT SYSTEMS



# SHURE

also manufactures an extensive line of  
**PROFESSIONAL MICROPHONES**  
expressly designed for radio, television,  
and  
motion picture and studio recording.



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**SHURE**

SHURE BROTHERS, INC.  
222 Hartrey Avenue, Evanston, Illinois 60204, USA  
AREA CODE 312 PHONE 328-9000 CHICAGO PHONE 743-1600  
CABLE ADDRESS: Shuremicro

