Shure—the Standard of Quality...“In Electronics Since 1925”

Shure Brothers, Inc. is providing for today’s critical requirements and will meet the exacting demands of the future. The world of electronics is at the threshold of a new era, and Shure planning envisions dramatic new products and revolutionary applications which will meet the challenge and fulfill the promise of tomorrow.

Since 1925 Shure Brothers, Inc., has made numerous significant contributions to the development of original acoustical-electronic products. In the future, as in the past, you can look to Shure for continued leadership in:

- Fine Studio and Public Address Microphones
- Precision Magnetic Recording Heads
- High Fidelity Phonograph Cartridges and Arms
- Original Equipment and Replacement Phonograph Cartridges
- “Industry-Standard” Communications Microphones
- Handsets and Special-Purpose Microphones
Shure Brothers, Inc., is able to give you quality products because we continually strive to raise already critical standards to precision levels previously considered unattainable.

Some of the more important factors governing Shure quality are:

* **RESEARCH AND DEVELOPMENT**—A continuing research program is devoted to the objective of developing new products with performance and design standards of a high order.

* **ENGINEERING FACILITIES**—The most modern anechoic chambers and laboratory equipment, much of it unavailable commercially, have been designed and built by our own engineering laboratory staff.

* **ADVANCED METHODS AND STANDARDS**—Special control techniques and devices enable us to improve the precision quality of customized assembly-line production.

* **SCIENTIFIC PRODUCTION TECHNIQUES**—Special production facilities guarantee desired delivery of mass-produced components for original equipment.

* **QUALITY CONTROL**—The continuous use of daily quality control techniques for incoming materials and for all phases of production results in uniform, high quality products.

Add up all of these factors and you have a time-proved formula for the quality performance and long-life operation of Shure products.

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| MAGNETIC RECORDING HEADS | Page 22 |
**Model "333" STUDIO UNI-RON UNI-DIRECTIONAL RIBBON MICROPHONE**

This quality microphone is designed for discriminating users with the most exacting professional requirements. The rugged "333" is highly recommended for motion-picture studios, TV studios, radio stations, professional recording, and all other uses where quality requirements are of the highest. The "333" is super-cardioid, uni-directional—reduces the pickup of random noise energy by 73%—prevents the pickup of moving props and scuffing feet. The "333" Studio features the patented, world-famous Shure "Uniphase" acoustical network system—a field-proved standard of quality.

**Model "525" STUDIO SLENDYNE OMNI-DIRECTIONAL DYNAMIC MICROPHONE**

The Studio "525" is an exceptionally fine, slender microphone of broadcast quality. It is custom-built to provide high fidelity reproduction of voice and music. The microphone has complete versatility and reliability for indoor and outdoor use and may be used: (1) on a conventional floor or desk stand, (2) in the hand, and (3) with the lavalier cord and belt clip assembly. The use of high efficiency magnetic materials and specially designed magnetic circuits has made it possible to develop this small microphone and still achieve maximum operating efficiency. The microphone is ruggedly built to withstand hard usage and is unaffected by temperature and humidity variations.

**Model "300" STUDIO GRADIENT BI-DIRECTIONAL RIBBON MICROPHONE**

This professional quality multi-impedance microphone is widely used for tape recording, broadcast and highest quality Public Address use. The "300" has a specially designed anti-"PFF" filter screen—which eliminates pickup of distracting breath noises. It provides sound pickup at the front and rear of the microphone, but greatly reduces pickup at the sides. One of the outstanding features of the "300" is the fact that the microphone can be placed at a 73% greater distance from the performer than is possible with omni-directional microphones. It is ideal for highest-quality reproduction, especially wherever multi-person pickup is desired, yet background noise must be reduced.

*Available in matched sets for stereo recording at no additional cost. (Matched to plus or minus 1 db in level and 1½ db in frequency response.)
"333" UNI-DIRECTIONAL RIBBON MICROPHONE

LIST PRICE: $250.00
TYPE: Ribbon
FREQUENCY RESPONSE: 30 to 15,000 cps production uniformity guaranteed to plus or minus 2½ db.
OUTPUT LEVEL: 50 ohm impedance: -60 db
M-150 ohm impedance: -59 db
250 ohm impedance: -59 db
POLAR PATTERN: Super-cardioid (Uni-directional)
MAGNETIC CIRCUIT: Uses Alnico magnet
CASE: Die cast zinc
FINISH: Combination non-reflecting, "Bronze-Tone" enamel case with beigger aluminum grille.
SWIVEL: New, improved, self-adjusting "positive action" lifetime swivel. Permits tilting the head 45° forward and 70° backward, making it simple to aim the microphone at the source of sound.
SHOCK MOUNT: Special vibration-isolation unit of live rubber construction.
CABLE CONNECTOR: Cannon XL-3-11
CABLE: 20 ft., 2-conductor shielded broadcast type
STAND THREAD: Standard 3/8"—27 thread
STAND COUPLERS: Adapter for 1/2" pipe thread or 3/8"—24 thread available upon request at no extra charge.
SWITCH: Voice-Music Switch to adjust frequency characteristic for optimum performance.
DIMENSIONS: 7 3/4" high; 1 1/2" wide; 1 3/4" deep
NET WEIGHT: (less cable): 1 lb.; packaged weight 4 1/2 lbs.
OPTIONAL ACCESSORIES: Model S33 Desk Stand, Model A86A Cable-Type Transformer.

"525" OMNI-DIRECTIONAL DYNAMIC MICROPHONE

LIST PRICE: $200.00
TYPE: Dynamic
FREQUENCY RESPONSE: 40 to 15,000 cps, production uniformity guaranteed to plus or minus 2½ db.
OUTPUT LEVEL: At 50, 150, 250 ohms: -61 db
POLAR PATTERN: Omni-directional
MAGNETIC CIRCUIT: Uses Alnico V magnet
CASE: Aluminum
FINISH: Non-reflecting "Bronze Tone" enamel with beige grille.
SWIVEL ADAPTER: Furnished with A25 swivel adapter.
It is a self-adjusting "positive action" lifetime swivel which permits the microphone to be tilted 90° from vertical to horizontal, making it simple to aim the microphone at the source of sound.
CABLE CONNECTOR: Cannon XL-3-11
CABLE: 20 ft., 2-conductor shielded broadcast type
STAND THREAD: The Model A25 swivel adapter has a 3/8"—27 thread
STAND COUPLERS: Adapter for 1/2" pipe thread or 3/8"—24 thread available upon request at no extra charge.
DIMENSIONS: 8 1/4" high; 1" diameter
NET WEIGHT: (less cable): 1 lb.; packaged weight 3 1/2 lbs.
FURNISHED ACCESSORIES: A28L Lavalier Assembly, OPTIONAL ACCESSORIES: Model S33 Desk Stand, Model A86A Cable-Type Transformer.

"300" BI-DIRECTIONAL GRADIENT MICROPHONE

LIST PRICE: $150.00
TYPE: Ribbon
FREQUENCY RESPONSE: 40 to 15,000 cps production uniformity guaranteed to plus or minus 2½ db.
OUTPUT LEVEL: 30-50 ohms: -59 db*
M-150: -60 db*
H-250: -57 db**
* (0 db = 1 milliwatt per 10 microbars)
** (0 db = 1 volt per microbar)
POLAR PATTERN: Bi-directional. Equally sensitive at front and rear. Response at sides down 15 to 20 db from front and rear responses.
MAGNETIC CIRCUIT: Uses Alnico V magnet
CASE: Die cast zinc
FINISH: Non-reflecting "Bronze-Tone" enamel
SWIVEL: New improved self-adjusting "positive action" lifetime swivel permits tilting the head 45° forward and 90° backward so that the microphone can be aimed at the source of sound.
SHOCK MOUNT: Special vibration-isolation unit of live rubber construction.
CABLE CONNECTOR: Equipped with Cannon XL-3-11 connector.
CABLE: 20 ft., 2-conductor shielded broadcast type
STAND THREAD: 3/8"—27 thread
STAND COUPLERS: Adapter for 1/2" pipe thread or 3/8"—24 thread available upon request at no extra charge.
SWITCH: Equipped with Voice-Music Switch to adjust frequency characteristic for optimum performance.
DIMENSIONS: 6" high; 11/6" wide; 2 1/2" deep
NET WEIGHT: (less cable): 1 lb.; packaged weight 4 lbs.
OPTIONAL ACCESSORIES: Model S33 Desk Stand, Model A86A Cable-Type Transformer.
GENERAL PURPOSE MICROPHONES

Model "330" PROFESSIONAL UNI-RON*

The striking-looking new 330 "UNI-RON" Microphone has been designed to meet the exacting requirements of professional tape recording and highest quality, indoor public-address systems. The "UNI-RON" is basically a member of the Shure Studio Microphone family, similar in appearance and performance to the Model "333". The "UNI-RON" has a super-cardioid pickup pattern—reduces the pickup of undesired random noise energy by 73%!

This rugged performer has been developed to achieve optimum operating performance—for those applications where highest quality is essential, yet cost is an important factor.

**SPECIFICATIONS FOR MODEL 330**

| LIST PRICE: | $120.00 |
| TYPE: | Ribbon |
| FREQUENCY RESPONSE: | 30 to 15,000 cps |
| OUTPUT LEVEL: | 50 ohm impedance —59 db* |
| | 150 ohm impedance —57 db* |
| | 250 ohm impedance —58 db* |

- *(0 db = 1 milliwatt per 10 microbars)*
- **IMPEEDANCE:** Equipped with a Multi-impedance Switch, furnishing a choice of 3 impedances—50 ohms, 150 ohms, 250 ohms

**POLAR PATTERN:** Super Cardioid (Uni-directional). Response at rear down 15 db from front.

**MAGNETIC CIRCUIT:** Ribbon Element—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., 2-conductor shielded broadcast type

**STAND THREAD:** Standard 3/8"—27 thread

**DIMENSIONS:** 3/8" high, 13/16" wide, 13/8" deep

**NET WEIGHT:** (less cable): 11/2 lb.; packaged weight 31/6 lbs.

**OPTIONAL ACCESSORIES:** Model 33 Desk Stand, Model A86A Cable-Type Transformer.

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MODEL "315" AND "315S" GRADIENT*

This rugged high fidelity multi-impedance microphone is recommended for fine quality, general-purpose uses. The 315 will reproduce voice and music in a clear, natural-tone quality, which makes it ideal for use in auditoriums, night clubs, schools and churches. It is similar in features and design to the Studio Model 300. The 315 is used for those numerous public-address applications where its streamlined design and striking beauty lend dignity and prestige to any setting in which it is used. This gradient microphone is a favorite of professional performers and educators because it provides unusual freedom of motion on the platform—making it possible for the user to stand at a 73% greater distance from the microphone than is possible with omni-directional microphones.

**SPECIFICATIONS FOR MODEL 315**

| LIST PRICE: | Model 315 $89.50, Model 315S (with switch) $91.50 |
| TYPE: | Ribbon |
| FREQUENCY RESPONSE: | 50 to 12,000 cps |
| OUTPUT LEVEL: | L—30-250 ohm impedance —59.5 db* |
| | M—150-250 ohm impedance —60 db* |
| | H—High —57 db** |

- *(0 db = 1 milliwatt per 10 microbars)*
- **IMPEEDANCE:** Equipped with a multi-impedance switch, furnishing a choice of 3 impedances: L-30-50 ohms, M-150-250 ohms, H-High.

**POLAR PATTERN:** Bi-directional. 66% reduction of pickup of undesired sound. Equally sensitive at front and back. Response at sides down 15 to 20 db from front and rear responses.

**MAGNETIC CIRCUIT:** Uses Alnico V magnet

**CASE:** Die cast zinc

**FINISH:** Satin chrome

**SWIVEL:** New self-adjusting swivel permits tilting the head through 90° so that the microphone can be aimed at the source of sound.

**CABLE CONNECTOR:** Equivalent to the Amphenol MC3M plug

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

**STAND THREAD:** Standard 3/8"—27 thread

**DIMENSIONS:** 6" high, 13/8" wide, 13/8" deep

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

**OPTIONAL ACCESSORIES:** Model S36A Desk Stand, Model A86A Cable-Type Transformer.

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*Available in matched sets for stereo recording at no additional cost. (Matched to plus or minus 1 db in level and 11/2 db in frequency response.)
OMNI-DIRECTIONAL DYNAMIC MICROPHONES

SPECIFICATIONS FOR MODEL 530

LIST PRICE: $110.00
TYPE: Dynamic
FREQUENCY RESPONSE: 50 to 15,000 cps
OUTPUT LEVEL: L—50-250 ohm impedance —61 dB (0 dB = 1 milliwatt per 10 microbars)
H—High impedance —61 dB (0 dB = 1 volt per microbar)
IMPEDANCE: Equipped with a dual-impedance switch, furnishing a choice of 2 impedances—L-50-250, H-high.
POLAR PATTERN: Omni-directional
MAGNETIC CIRCUIT: Uses Alnico V magnet
CASE: Aluminum
FINISH: Black and gold anodized
SWIVEL ADAPTER: Furnished with A25 type swivel adapter. It is a self-adjusting “Positive Action” lifetime swivel which permits the microphone to be tilted through 90° from vertical to horizontal, making it simple to aim the microphone at the source of sound.
CABLE CONNECTOR: Cannon XL-3-11
CABLE: 20 ft. high quality, 2-conductor shielded broadcast type.
STAND THREAD: With swivel adapter, standard 5/8"—27 thread and may be mounted on any conventional desk, banquet or floor stand.
SWITCH: On-Off (normally closed)
DIMENSIONS: 7¾" high, 1" diameter
NET WEIGHT: (less cable): ½ lb.; packaged weight 2½ lbs.
FURNISHED ACCESSORIES: On-Off Switch, with Adapter Plate, A25B Swivel Adapter, and A28L Lavalier Assembly.
OPTIONAL ACCESSORIES: Model S33B Desk Stand, Model A86A Cable-Type Transformer.

SPECIFICATIONS FOR MODEL 535

LIST PRICE: $72.50
TYPE: Dynamic
FREQUENCY RESPONSE: 60 to 13,500 cps
OUTPUT LEVEL: L—50-250 ohms impedance —61 dB (0 dB = 1 milliwatt per 10 microbars)
H—High impedance —61 dB (0 dB = 1 volt per microbar)
IMPEDANCE: Equipped with a dual-impedance switch, furnishing a choice of 2 impedances—L-50-250 ohms, H-high.
POLAR PATTERN: Omni-Directional
MAGNETIC CIRCUIT: Uses Alnico V magnet
CASE: Brass
FINISH: Satin chrome
SWIVEL ADAPTER: Furnished with Model A25 type Swivel Adapter. It is self-adjusting and permits the microphone to be tilted through 90° from vertical to horizontal, making it simple to aim the microphone at the source of sound.
CABLE CONNECTOR: Equivalent to Amphenol MC3M plug
CABLE: 18 ft. 2-conductor shielded broadcast type.
STAND THREAD: With swivel adapter, standard 5/8"—27 thread, and may be mounted on any conventional desk, banquet or floor stand.
SWITCH: On-Off (normally closed)
DIMENSIONS: 7¾" high, 1" diameter
NET WEIGHT: (less cable): ½ lb.; packaged weight 2½ lbs.
FURNISHED ACCESSORIES: On-Off Switch Adapter plate, A25 type Swivel Adapter.
OPTIONAL ACCESSORIES: Model S33 Desk Stand, Model A86A Cable-Type Transformer and A28L Lavalier Assembly.

Model ’530’ BROADCAST SLENDYNE*

The Slendynes are the most versatile fine quality probe microphones ever developed—actually five microphones in one because of their practical design and useful accessories. They can be used for indoor or outdoor applications in the following manner: (1) in the hand; (2) on a floor or desk stand; (3) hung around the neck on a lavalier cord and clip assembly; (4) “on-off” switch adapter; (5) “high and low” dual-impedance switch. The Slendynes are ideal for high quality public address, theater-stage sound systems and all recording applications where an omni-directional microphone is desirable. These microphones are ruggedly built to withstand hard usage, and are unaffected by temperature and humidity variations.

Model ’535’ SLENDYNE*

*Available in matched sets for stereo recording at no additional cost. (Matched to plus or minus 1 db in level and 1½ db in frequency response.)
## General Purpose Microphones

### Unidyne III

-smallest unidirectional dynamic microphones. Feature truly uniform cardioid pickup pattern.

Recommended for critical broadcast and theater-stage sound system operation, high quality public address and recording applications.

### Specifications for Model 546

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<th>Model 546 Details</th>
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<td>LIST PRICE</td>
<td>$135.00</td>
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<tr>
<td>TYPE</td>
<td>Dynamic</td>
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<tr>
<td>FREQUENCY RESPONSE</td>
<td>50-15,000 cps.</td>
</tr>
<tr>
<td>OUTPUT LEVEL: LOW</td>
<td>-55 db (0 db = 1 milliwatt per 10 microbars)</td>
</tr>
<tr>
<td>OUTPUT LEVEL: HIGH</td>
<td>-55 db (0 db = 1 volt per microbar)</td>
</tr>
<tr>
<td>IMPEDANCE</td>
<td>Dual. Choice of 30-100 ohms or 100-250 ohms</td>
</tr>
<tr>
<td>POLAR PATTERN</td>
<td>Cardioid. (Uniform with frequency, symmetrical about axis)</td>
</tr>
<tr>
<td>MAGNETIC CIRCUIT</td>
<td>uses Alnico V magnet</td>
</tr>
<tr>
<td>CASE</td>
<td>Die cast zinc and “Armo-Dur”.</td>
</tr>
<tr>
<td>FINISH</td>
<td>Satin chrome and black.</td>
</tr>
<tr>
<td>SWIVEL</td>
<td>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.</td>
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Recommended for dependable use in applications where a quality microphone with on-off switch is required.

### Specifications for Model 545S

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<tr>
<td>LIST PRICE</td>
<td>$89.95</td>
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<tr>
<td>TYPE</td>
<td>Dynamic</td>
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<tr>
<td>FREQUENCY RESPONSE</td>
<td>50-15,000 cps.</td>
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<tr>
<td>OUTPUT LEVEL: LOW</td>
<td>-57 db (0 db = 1 milliwatt per 10 microbars)</td>
</tr>
<tr>
<td>OUTPUT LEVEL: HIGH</td>
<td>-55 db (0 db = 1 volt per microbar)</td>
</tr>
<tr>
<td>IMPEDANCE</td>
<td>Dual. Choice of 50-250 ohms or high.</td>
</tr>
<tr>
<td>POLAR PATTERN</td>
<td>Cardioid. (Uniform with frequency, symmetrical about axis)</td>
</tr>
<tr>
<td>MAGNETIC CIRCUIT</td>
<td>uses Alnico V magnet</td>
</tr>
<tr>
<td>CASE</td>
<td>Die cast zinc and “Armo-Dur”.</td>
</tr>
<tr>
<td>FINISH</td>
<td>Satin chrome and black.</td>
</tr>
<tr>
<td>SWIVEL</td>
<td>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.</td>
</tr>
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Recommended for public address, tape recording, fixed-station communications, and a variety of other applications requiring compactness coupled with maximum operating efficiency.

### Specifications for Model 545

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<tbody>
<tr>
<td>LIST PRICE</td>
<td>$85.00</td>
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<tr>
<td>TYPE</td>
<td>Dynamic</td>
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<tr>
<td>FREQUENCY RESPONSE</td>
<td>50-15,000 cps.</td>
</tr>
<tr>
<td>OUTPUT LEVEL: LOW</td>
<td>-57 db (0 db = 1 milliwatt per 10 microbars)</td>
</tr>
<tr>
<td>OUTPUT LEVEL: HIGH</td>
<td>-55 db (0 db = 1 volt per microbar)</td>
</tr>
<tr>
<td>IMPEDANCE</td>
<td>Dual. Choice of 50-250 ohms or high.</td>
</tr>
<tr>
<td>POLAR PATTERN</td>
<td>Cardioid. (Uniform with frequency, symmetrical about axis)</td>
</tr>
<tr>
<td>MAGNETIC CIRCUIT</td>
<td>uses Alnico V magnet</td>
</tr>
<tr>
<td>CASE</td>
<td>Die cast zinc and “Armo-Dur”.</td>
</tr>
<tr>
<td>FINISH</td>
<td>Satin chrome and black.</td>
</tr>
<tr>
<td>CABLE CONNECTOR</td>
<td>Equivalent to Amphenol MC4M plug.</td>
</tr>
<tr>
<td>CABLE</td>
<td>18 ft., 3-conductor shielded</td>
</tr>
<tr>
<td>DIMENSIONS</td>
<td>Length 5 1/4”; Diameter 1 1/8”</td>
</tr>
<tr>
<td>NET WEIGHT</td>
<td>(less cable): 1/2 lb., packaged weight 2 1/2 lbs.</td>
</tr>
<tr>
<td>FURNISHED ACCESSORIES</td>
<td>A25B swivel adapter.</td>
</tr>
<tr>
<td>OPTIONAL ACCESSORIES</td>
<td>Model S36A Cable Type Transformer. Model S33B Desk Stand.</td>
</tr>
</tbody>
</table>

*Available in matched sets for stereo recording at no additional cost. (Matched to plus or minus 1 db in level and 1 1/2 db in frequency response.)

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*Image of microphones*
GENERAL PURPOSE MICROPHONES

WORLD FAMOUS "UNIDYNE" MICROPHONES

SPECIFICATIONS FOR MODEL 55S
LIST PRICE: Model 55S $83.00, Model 55SW (with switch) $85.00
TYPE: Dynamic
FREQUENCY RESPONSE: 50 to 15,000 cps
OUTPUT LEVEL: L—35-50 ohms — 54 db
M—150-250 ohms — 55 db
H—High — 57 db (0 db = 1 volt per microbar)
POLAR PATTERN: Ultra-Cardioid (uni-directional) Response at rear down 15 db from front.
MAGNETIC CIRCUIT: Uses Alnico V Magnet
CASE: Die cast zinc
FINISH: Satin chrome
SWIVEL: New improved self-adjusting "positive action" lifetime swivel permits tilting of head through 80° so that the microphone can be aimed at the source of sound.
CABLE CONNECTOR: Equivalent to Amphenol MC3M
CABLE: 18 ft., 2-conductor, shielded broadcast type
STAND THREAD: Standard 7/16—27 thread
DIMENSIONS: 7 1/2" high, 2 1/2" wide, 3 3/4" deep
NET WEIGHT: (less cable) 1 3/4 lb; packaged weight 3 1/2 lbs.
OPTIONAL ACCESSORIES: Model S36A Desk Stand, Model A86A Cable Type Transformer.

SPECIFICATIONS FOR MODEL 556S
LIST PRICE: $135.00
TYPE: Dynamic
FREQUENCY RESPONSE: 40 to 15,000 cps
OUTPUT LEVEL: L—30-50 ohm impedance — 54 db
M—150-250 ohm impedance — 55 db
H—High — 57 db (0 db = 1 volt per microbar)
IMPEDANCE: Equipped with a Multi-Impedance switch, furnishing a choice of 3 impedances—L-30-50 ohms, M-150-250 ohms, H-High.
POLAR PATTERN: Ultra-Cardioid (Uni-directional) Response at rear down 15 db from front.
MAGNETIC CIRCUIT: Uses Alnico V Magnet
CASE: Die cast zinc
FINISH: Satin chrome
SWIVEL: New improved self-adjusting "positive action" lifetime swivel permits tilting of head through 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 XL-3-11 connector.
CABLE: 20 ft., 2-conductor shielded broadcast type.
STAND THREAD: Standard 7/16—27 thread
DIMENSIONS: 7 1/2" high, 2 1/2" wide, 3 3/4" deep
NET WEIGHT: (less cable) 2 lbs., packaged weight 3 1/2 lbs.
OPTIONAL ACCESSORIES: Model S33B Desk Stand, Model A86A Cable-Type Transformer.

Models 55S, 55SW and 556S
UNI-DIRECTIONAL DYNAMIC MICROPHONES*

For many years the Unidynes have been the most widely used microphones throughout the world. They are specified by leading sound engineers and requested by famed celebrities—for those important events where the faithfulness of sound reproduction is most critical. And now, ”The Best is Even Better”—for the famed Unidynes are now 41% higher in output level! This means that the Unidynes are ideal for use with low-gain tape recorders and low-gain P. A. systems—in addition to their famed use with highest quality sound systems.

Models 55S and 55SW are highly recommended for fine quality public address, theater-stage sound systems, recording and remote broadcasting. They are also the field-proved standards for fixed-station use in the police, fire, transportation, forestry and commercial services.

Model 556S is specially designed to meet the high technical requirements of broadcast and television studios. It will endure the heavy punishment of daily use and abuse—will operate at optimum efficiency while conventional microphones are "out of service," due to their frequent need for maintenance and repair.

It is held within close tolerances in frequency response and directivity. The Broadcast Unidyne is ideal for high quality station and remote broadcasting, public-address, theater-stage sound systems and recording applications. The 556S is provided with a vibration-isolation unit of live rubber construction. This specially designed shock-mount completely eliminates metal-to-metal contact between microphone and stand.

*Available in matched sets for stereo recording at no additional cost. (Matched to plus or minus 1 db in level and 1/2 db in frequency response.)
GENERAL PURPOSE MICROPHONES

**THE "SONODYNE" FAMILY**

**SPECIFICATIONS FOR MODEL 540S**

<table>
<thead>
<tr>
<th>LIST PRICE: $49.95</th>
</tr>
</thead>
<tbody>
<tr>
<td>TYPE: Dynamic</td>
</tr>
<tr>
<td>FREQUENCY RESPONSE: 60 to 10,000 cps (Provisions for alternate response for voice intelligibility in paging and communications systems).</td>
</tr>
<tr>
<td>OUTPUT LEVEL: 30-250 ohm impedance: —57 db (0 db = 1 milliwatt per 10 microbars)</td>
</tr>
<tr>
<td>IMPEDANCE: Dual. Choice of 50—250 ohms or high.</td>
</tr>
<tr>
<td>POLAR PATTERN: Omni-directional.</td>
</tr>
<tr>
<td>CASE: Die cast zinc and &quot;Armo-Dur.&quot;</td>
</tr>
<tr>
<td>FINISH: Satin chrome and black.</td>
</tr>
<tr>
<td>SWIVEL: New improved self-adjusting &quot;positive action&quot; lifetime swivel permits tilting of the head through 150° so that the microphone can be aimed at the source of sound.</td>
</tr>
<tr>
<td>CABLE CONNECTOR: Equivalent to Amphenol MC3M.</td>
</tr>
<tr>
<td>CABLE: 15 ft., 2-conductor shielded.</td>
</tr>
<tr>
<td>STAND THREAD: 5/8&quot;—27 thread.</td>
</tr>
<tr>
<td>Dimensions: 5 1/2&quot; high, 3 5/8&quot; wide, 2 1/8&quot; deep.</td>
</tr>
<tr>
<td>NET WEIGHT (less cable): 1 3/4 lbs., packaged weight 3 1/2 lbs.</td>
</tr>
<tr>
<td>OPTIONAL ACCESSORIES: Model S36A Desk Stand, Model A86A Cable Type Transformer.</td>
</tr>
</tbody>
</table>

**SPECIFICATIONS FOR MODEL 51 AND 51S**

<table>
<thead>
<tr>
<th>LIST PRICE: Model 51—$49.50</th>
</tr>
</thead>
<tbody>
<tr>
<td>Model 51S (with switch)—$51.50</td>
</tr>
<tr>
<td>TYPE: Dynamic</td>
</tr>
<tr>
<td>FREQUENCY RESPONSE: 60 to 10,000 cps</td>
</tr>
<tr>
<td>OUTPUT LEVEL: L—35-50 ohm impedance —53 db*</td>
</tr>
<tr>
<td></td>
</tr>
<tr>
<td></td>
</tr>
<tr>
<td>POLAR PATTERN: Omni-directional</td>
</tr>
<tr>
<td>MAGNETIC CIRCUIT: Uses Alnico V magnet</td>
</tr>
<tr>
<td>CASE: Die cast zinc</td>
</tr>
<tr>
<td>FINISH: Satin chrome</td>
</tr>
<tr>
<td>SWIVEL: Lifetime swivel permits tilting the head 90° backward to horizontal position for omni-directional pickup.</td>
</tr>
<tr>
<td>CABLE CONNECTOR: Equivalent to Amphenol MC3M.</td>
</tr>
<tr>
<td>CABLE: 15 ft., 2-conductor shielded.</td>
</tr>
<tr>
<td>STAND THREAD: Standard 5/8&quot;—27 thread</td>
</tr>
<tr>
<td>Dimensions: 5 1/2&quot; high, 3 1/2&quot; wide, 2 1/8&quot; deep.</td>
</tr>
<tr>
<td>NET WEIGHT (less cable): 1 3/4 lbs., packaged weight 3 1/2 lbs.</td>
</tr>
<tr>
<td>OPTIONAL EQUIPMENT: Model S36A Desk Stand, Model A86A Cable Type Transformer.</td>
</tr>
</tbody>
</table>
**Model 737A "Monoplex"**

The "Monoplex" is the only Super-Cardioid Crystal Microphone made—far superior to any other crystal microphone. It is excellent for high-quality public address, communications, recording, and similar applications. The 737A operates under adverse conditions of background noise and reverberation—where a conventional microphone would be inadequate. Eliminates feedback problems and reduces pickup of random sound by 73%! Has moisture-proof "Metal Seal" crystal for long operating life.

**SPECIFICATIONS FOR MODEL 737A**

LIST PRICE: $46.00  
TYPE: Crystal—Moisture-proof "Metal Seal" crystal for long operating life.  
FREQUENCY RESPONSE: 60 to 10,000 cps  
OUTPUT LEVEL: —53 db* (0 db = 1 volt per microphone)  
IMPEDANCE: High. Recommended load: 1 to 5 meg. ohms  
POLAR PATTERN: Super Cardioid, for 73% reduction of pickup of random noise energy.  
CASE: Die cast zinc  
FINISH: Satin chrome  
SWIVEL: Lifetime swivel permits tilting the head 90° backward to horizontal position for omni-directional pickup.  
CABLE CONNECTOR: Equivalent to Amphenol MC3M  
CABLE: 15 ft., single conductor, shielded  
STAND THREAD: Standard 5/8"—27 thread  
DIMENSIONS: 4" high, 6 1/8" high with connector, 3 3/4" wide, 1 5/8" deep.  
NET WEIGHT: (less cable): 1/4 lb.; packaged weight 2 1/2 lbs.  
OPTIONAL ACCESSORIES: Model S36A Desk Stands, Models A83B, A84B, A85C, A88A On-Off Switches  

**Model 777 "Slim-X"**

The "777" Slim-X Microphones are rugged little microphones weighing only 6 ounces. They use a "Metal Seal" crystal for long operating life under adverse conditions of heat and humidity. They are designed for good-quality voice and music reproduction. Their versatility and "hand-ability" make them ideal for use by lecturers, announcers, instructors, and Hams; for audience participation shows; carnivals; panel and quiz shows; and use with home-recorders. When mounted on either cradle or swivel, the "777" can be removed in a flash (no tools necessary)—simply by lifting it out of the holder. This makes it an ideal "walk-around" hand-held microphone. All models are furnished with a lavalier cord, for suspension of microphone around the neck.

**SPECIFICATIONS FOR MODEL 777**

LIST PRICE: Model 777—$25.00 Includes A37L lavaliier cord and molded stand adapter.  
Model 777S—$27.00 Includes A37L lavaliier cord, "On-Off" switch and molded stand adapter.  
Model 777A—$33.00 Includes A37L lavaliier cord, A25 Swivel stand adapter, S38 Desk Stand.  
Model 777SA—$35.00 Includes A37L lavaliier cord, A25 Swivel stand adapter, S38 Desk Stand and "On-Off" switch.  
TYPE: Crystal—moisture-proof "Metal Seal" for long operating life.  
FREQUENCY RESPONSE: Smooth, peak free from 60 to 10,000 cps.  
OUTPUT LEVEL: —62 db (0 db = 1 volt per microphone)  
POLAR PATTERN: Omni-directional  
CASE: Die cast zinc  
FINISH: Satin chrome  
SWIVEL: Models 777A and 777SA are equipped with Model A25 swivel stand adapter. It has a self-adjusting "positive action" lifetime swivel which permits the microphone to be tilted 90° from vertical to horizontal.  
CABLE CONNECTOR: Equipped with Amphenol MC1F plug for attaching cable to microphone.  
CABLE: Detachable 7 ft., rubber-covered, single conductor shielded.  
STAND THREAD: Standard 3/8"—27 thread  
SWITCHES: Models 777S and 777SA have a built-in switch to control the microphone circuit. The switch is of the press-to-talk locking or non-locking type.  
DIMENSIONS: (Microphone only) 4 1/2" high, 1" diameter.  
NET WEIGHT: (Microphone only) 3/4 lb.; packaged weight 3 1/2 lb.  
OPTIONAL ACCESSORIES: Model S38 Desk Stand, A25 type swivel Adapter.
LOW COST ALL PURPOSE CERAMIC & CRYSTAL MICROPHONES

Models 215-715

These beautifully designed microphones are excellent for voice and music reproduction. Their extremely low price and good quality make them a "natural" for home recording, intercom systems and inexpensive public address systems. The "Starlite" microphones can be held in the hand, or used on a desk by simply releasing a "built-in", retractable stand which is an integral part of the back of the microphone case.

LIST PRICE: $8.00
TYPE: Model 215—Ceramic, Model 715—Crystal
FREQUENCY RESPONSE: Model 215—50-8000 cps, Model 715—50-10,000 cps
OUTPUT LEVEL: Model 215—56.5 db (0 db = 1 volt per microbar), Model 715—50 db (0 db = 1 volt per microbar)
IMPEDANCE: High—Recommended load impedance: 1 to 5 megohms
POLAR PATTERN: Semi-Directonal
CASE: Impact Resistant Polystyrene
FINISH: Model 215—Black Front, gray back with light gray grille, Model 715—Gray front, black back with black grille
CABLE: Equipped with 5 ft., fabric-covered, single conductor shielded cable
STAND: Permanently connected retractable stand
DIMENSIONS: 3½" high, 2½" wide, 1½" deep
NET WEIGHT: 3½ oz.; packaged weight ½ lb.

Model 710

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

LIST PRICE: Model 710A $12.00, Model 710S (with switch) $14.00
TYPE: Crystal
FREQUENCY RESPONSE: 60 to 9,000 cps
OUTPUT LEVEL: —50 db (0 db = 1 volt per microbar)
IMPEDANCE: High—Recommended load impedance: 1 to 5 megohms
POLAR PATTERN: Semi-directonal
CASE: Die cast zinc
FINISH: Metallic burgundy red
CABLE: 7 ft. fabric covered, single-conductor shielded
STAND THREAD: Microphones are provided with a stand adapter having the Standard 3/8"—27 thread which fits the conventional floor stand
SWITCH: Model 710S has a built-in, press-to-talk switch
DIMENSIONS: 3½" high, 2½" wide, 1½" deep
OPTIONAL ACCESSORIES: Models S34B or S36A Desk Stands
NET WEIGHT: ½ lb.; packaged weight 1½ lbs.

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.

LIST PRICE: $19.50
TYPE: Crystal
FREQUENCY RESPONSE: 30 to 7,000 cps
OUTPUT LEVEL: —50 db (0 db = 1 volt per microbar)
IMPEDANCE: High—Recommended load impedance: 1 to 5 megohms
POLAR PATTERN: Semi-directonal
CASE: Die cast zinc
FINISH: Iridescent gray case, satin chrome grille
CABLE: 7 ft., single-conductor shielded
STAND THREAD: Standard 3/4"—27 thread
DIMENSIONS: 3½" high, 2½" diameter
OPTIONAL ACCESSORIES: Models S34B or S36A Desk Stands
NET WEIGHT: ½ lb.; packaged weight 1½ lbs.
**CONTROLLED MAGNETIC MICROPHONES**

**Model 510 “HERCULES”**

The 510 is ideal for general purpose use in areas where heat and humidity are a problem. Provides ruggedness, clear reproduction and high output. Recommended for Announcing, Mobile Public Address Systems, Communications, Home Recording, and Intercom Systems. Fits snugly in the hand, or sits firmly on a desk.

**SPECIFICATIONS:** Model 510

- **LIST PRICE:** Model 510C $17.00, Model 510S (with switch) $19.00
- **TYPE:** Controlled Magnetic
- **FREQUENCY RESPONSE:** 100 to 7,000 cps
- **OUTPUT LEVEL:** —52.5 db (0 db = 1 volt per microbar)
- **IMPEDANCE:** High. Recommended load 100,000 ohms or more
- **POLAR PATTERN:** Semi-directional
- **CASE:** Die cast zinc
- **FINISH:** Metallic green
- **CABLE:** 7 ft., single conductor, shielded
- **STAND THREAD:** Microphone provided with a stand adapter having a 7/8"—27 thread which fits the conventional floor stand
- **SWITCH:** Model 510S has a built-in switch to control the microphone circuit. The switch is of the press-to-talk locking or non-locking type
- **DIMENSIONS:** 3½" high, 2¼" wide, 1½" deep
- **NET WEIGHT:** ½ lb.; packaged weight 1½ lbs.

**OPTIONAL ACCESSORIES:** Models S34B or S36A Desk Stand

**Model 510SLB**

Model 510SLB is a complete assembly of a low impedance, Controlled Magnetic Microphone with switch and a desk stand. It is designed for mobile and fixed-station use in all types of communications, paging, and dispatching systems.

**SPECIFICATIONS:** Model 510SLB

- **LIST PRICE:** $29.75
- **TYPE:** Controlled Magnetic
- **FREQUENCY RESPONSE:** 100 to 7,000 cps
- **OUTPUT LEVEL:** —51 db (0 db = 1 milliwatt with 10 microbars)
- **IMPEDANCE:** 150-250 ohms

**POLAR PATTERN:** Semi-directional

- **CASE:** Die cast zinc
- **FINISH:** Metallic green
- **CABLE:** 7 ft., 2-conductor, shielded
- **SWITCH:** Equipped with grip-to-talk switch, similar to Shure A88A.
- **DIMENSIONS:** With stand 9¾" high, 5¼" wide, 7½" deep
- **NET WEIGHT:** (less cable): 2½ lbs.; packaged weight 3½ lbs.

**OPTIONAL ACCESSORIES:** Models A86A cable type transformer (for use only with Model 520SLB)

**Model 520 and 520B “GREEN BULLET”**

The “Green Bullet” is designed to provide quality music and speech reproduction at moderate cost. It is practically immune to the effects of high temperature and humidity. The “Green Bullet” is highly recommended for those public address systems where low cost is a must, good reproduction is essential and ruggedness is a necessity.

**SPECIFICATIONS:**

- **LIST PRICE:** Model 520 $22.50
- **Model 520B $22.50
- **TYPE:** Controlled Magnetic
- **FREQUENCY RESPONSE:** 100 to 9,000 cps
- **OUTPUT LEVEL:** Model 520: —52.5 db (0 db = 1 volt per microbar)
- **IMPEDANCE:** Model 520: High. Recommended load 100,000 ohms or more.
- **Polar Pattern:** Semi-directional
- **Finish:** Metallic green with satin chrome grille
- **Cable:** Model 520 —7 ft., single conductor shielded
- **Stand Thread:** Standard 7/8"—27 thread
- **Dimensions:** Diameter 2½”, overall length 3¼”
- **Net Weight:** 1 lb.; packaged weight: 1¼ lbs.

**OPTIONAL ACCESSORIES:** Models S34B or S36A Desk Stands, Model A86A cable type transformer (for use only with Model 520B)
"CONTROLLED MAGNETIC" GENERAL PURPOSE MICROPHONES

The Commando series represents a significant achievement in providing quality performance at nominal cost. These dramatic looking, rugged microphones can be used indoors or outdoors. Models 415 and 430 provide practical versatility of operation. They can be held in the hand, set on a floor stand or on a desk stand—can be inserted or withdrawn from the stand in a second, without the use of any tools! Coupled with this versatility of usage, the Commandos provide excellent voice and music reproduction, making them ideal for general-purpose applications where both voice and music reproduction are of critical importance. Commandos can be used for tape recording in the home; theater-restaurant public address systems; lecturing; paging and dispatching systems; interview-type shows; outdoor public address systems for carnivals, picnics and special events.

SPECIFICATIONS FOR "COMMANDO" MODELS 415, 420 AND 430

<table>
<thead>
<tr>
<th></th>
<th>415</th>
<th>420</th>
<th>430</th>
</tr>
</thead>
<tbody>
<tr>
<td>List Price:</td>
<td>$27.50</td>
<td>$30.00</td>
<td>$38.50</td>
</tr>
<tr>
<td>Type:</td>
<td>CONTROLLED MAGNETIC</td>
<td>CONTROLLED MAGNETIC</td>
<td>CONTROLLED MAGNETIC</td>
</tr>
<tr>
<td>Frequency Response:</td>
<td>60 Hz to 10,000 Hz</td>
<td>60 Hz to 10,000 Hz</td>
<td>60 Hz to 10,000 Hz</td>
</tr>
<tr>
<td>Impedance:</td>
<td>High</td>
<td>High</td>
<td>High</td>
</tr>
<tr>
<td>Output Level:</td>
<td>High -52 db (0 db = 1 volt per microbar)</td>
<td>High -52 db (0 db = 1 milliwatt per 10 microbars)</td>
<td>Low -52 db (0 db = 1 milliwatt per 10 microbars)</td>
</tr>
<tr>
<td>Polar Pattern:</td>
<td>OMNI-DIRECTIONAL</td>
<td>OMNI-DIRECTIONAL</td>
<td>OMNI-DIRECTIONAL</td>
</tr>
<tr>
<td>Case:</td>
<td>Impact—resistant polystyrene and die cast zinc</td>
<td>Impact—resistant polystyrene and die cast zinc</td>
<td>Impact—resistant polystyrene and die cast zinc</td>
</tr>
<tr>
<td>Finish:</td>
<td>Non-reflecting gray and satin chrome</td>
<td>Non-reflecting gray and satin chrome</td>
<td>Non-reflecting gray and satin chrome</td>
</tr>
<tr>
<td>Cable:</td>
<td>2' non-detachable single conductor shielded 20' non-detachable, 2 conductor, shielded</td>
<td>15' 2 conductor shielded with Amphenol MC2M connector for attaching to microphone</td>
<td></td>
</tr>
<tr>
<td>Switch:</td>
<td>None</td>
<td>None</td>
<td>Press-to-talk switch—normally closed</td>
</tr>
<tr>
<td>Dimensions:</td>
<td>Length 6 ½&quot; Diameter of head 1¾&quot; Diameter of handle 1½&quot;</td>
<td>Length 3 ½&quot; Diameter of head 1¾&quot; Diameter of handle 1½&quot;</td>
<td>Length 6 ½&quot; Diameter of head 1¾&quot; Diameter of handle 1½&quot;</td>
</tr>
<tr>
<td>Net Weight:</td>
<td>½ lb.</td>
<td>¼ lb.</td>
<td>¼ lb. (less cable)</td>
</tr>
<tr>
<td>Packaged Weight:</td>
<td>1¼ lbs.</td>
<td>¼ lb.</td>
<td>½ lb.</td>
</tr>
<tr>
<td>Furnished Accessories:</td>
<td>Model A250 Self-adjusting Swivel Adapter with standard ¾&quot;-27 stand thread permits microphone to be tilted through 90° arc from vertical to horizontal, making it simple to aim the microphone at the source of sound.</td>
<td>Lavaliere cord and clip assembly. Readily detachable for use of microphone as a hand-held type.</td>
<td>Switch locking plate for keeping switch in &quot;on&quot; position. Model A55B Self-adjusting Swivel Adapter with standard ¾&quot;-27 stand thread permits microphone to be tilted through 90° arc from vertical to horizontal, making it simple to aim the microphone at the source of sound.</td>
</tr>
</tbody>
</table>
| Optional Accessories: | Model S38B or S33B Desk Stand A34L Lavaliere Assembly | Model A86A Cable Type Transformer | Model A86A Cable Type Transformer and Model S38B or S33B Desk Stand, A34L Lavaliere Assembly.
SPECIAL PURPOSE MICROPHONES

The "Ten-Four" features the high-impact "Armo-Dur" corrosion-proof case.

CONTROLLED MAGNETIC "TEN-FOUR" SERIES

The Shure Controlled Magnetic "Ten-Four" 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 "Ten-Four" is designed for high speech intelligibility. Easy to use, fits snugly in the palm of the hand.

ATTENTION "HAMS"—You'll find the "TEN-FOUR" to be a choice microphone for all your mobile communications applications.

SPECIFICATIONS

<table>
<thead>
<tr>
<th>405B</th>
<th>405K</th>
<th>405KB</th>
<th>405C</th>
<th>405H</th>
</tr>
</thead>
<tbody>
<tr>
<td>List Price</td>
<td>$33.00</td>
<td>$32.00</td>
<td>$37.50</td>
<td>$33.00</td>
</tr>
<tr>
<td>Type</td>
<td>CONTROLLED MAGNETIC</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Frequency Response</td>
<td>200 to 8,000 cps</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Output Level</td>
<td>-50 db (0 dbw = 1 milliwatt per 10 microbars)</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Impedance</td>
<td>150 to 250 ohms</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Polar Pattern</td>
<td>OMNI-DIRECTIONAL</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Case</td>
<td>High impact gray &quot;Armo-Dur&quot;</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Cable Length</td>
<td>5/8 ft. Extended</td>
<td>5 ft.</td>
<td>5/8 ft. Extended</td>
<td>5 ft.</td>
</tr>
<tr>
<td>Type</td>
<td>Copper</td>
<td>Copper</td>
<td>Tinsel</td>
<td>Copper</td>
</tr>
<tr>
<td>Description</td>
<td>4 Conductor (2 cond., shielded) Coiled Cord</td>
<td>4 Conductor (2 cond., shielded) Straight Cord</td>
<td>3 Conductor (1 cond., shielded) Coiled Cord (Amphenol MC4M plug attached)</td>
<td>3 Conductor (1 cond., shielded) Coiled Cord</td>
</tr>
<tr>
<td>Switch Mic Circuit</td>
<td>Normally closed*</td>
<td>Normally open</td>
<td>Normally closed*</td>
<td>Normally open</td>
</tr>
<tr>
<td>Relay Circuit</td>
<td>Normally open</td>
<td>Normally open</td>
<td>Normally open</td>
<td>Normally open</td>
</tr>
<tr>
<td>Dimensions</td>
<td>3⅜&quot; high, 2⅜&quot; wide, 1¼&quot; deep</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Net Weight</td>
<td>⅛ lb.</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Package Weight</td>
<td>⅛ lb.</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Fitted Accessories</td>
<td>Mounting bracket for permanent placement with the associated equipment</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Optional Accessories</td>
<td>Model A86A cable type transformer</td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

*PROVISIONS FOR SIMPLE CHANGE TO NORMALLY OPEN.

Model 405T

"TEN-FOUR"

The perfect improvement-replacement for carbon microphones now used in mobile communications equipment. An outstanding feature incorporated in this unit is a TRANSISTOR AMPLIFIER, housed within the case. It is powered by the current available from the carbon microphone circuit. Does not require batteries or extra power-supplies. Provides remarkable speech clarity and is free from the aging common to carbon microphones used under conditions of vibration. Recommended for mobile communications where carbon microphones have been in use: police, bus, trucking, taxicab, etc., where high speech intelligibility and long operating life are essential.

SPECIFICATIONS

FOR MODEL 405T

LIST PRICE: $48.50

TYPE: Controlled Magnetic (with TRANSISTOR AMPLIFIER)

FREQUENCY RESPONSE: 200 to 4,000 cps.

OUTPUT LEVEL:—1 db loaded with 300 ohms (0 dbw = 1 milliwatt per 100 microbars)

POLAR PATTERN: Semi-Directional

CASE: High-impact gray "Armo-Dur"

CABLE: 5 ft. extended, 4-conductor stranded coiled cord, Model C15C.

SWITCH: Equipped with heavy-duty, push-to-talk switch. Controls external relay.

DIMENSIONS: 3⅜" high, 2⅓" wide, 1¼" deep.

NET WEIGHT: ½ lb., packaged weight ¾ lb.

Model R5T

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

SPECIFICATIONS

FOR MODEL R5T

LIST PRICE: $25.00

TYPE: Controlled magnetic with transistor amplifier

FREQUENCY RESPONSE: 200 to 4,000 cps.

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

POLAR PATTERN: Omni-directional
SPECIAL PURPOSE MICROPHONES

... FOR AMATEUR RADIO COMMUNICATION

Models 440-440SL Microphones

The response characteristic of these microphones has been tailored to meet the demands of radio communications. These microphones are ideally suited for single-sideband broadcast. The rising response characteristic with sharp cutoff below 300 and above 3000 cps. eliminates the need for audio filters. These units utilize a rugged, time-proven, controlled magnetic element, with high output equaling that of a crystal unit. The 440 and 440SL are ideal for use with all types of amateur transmitters.

Specifications: Model 440 and Model 440SL Microphones

List Price: 440—$25.00—440SL—$47.50
Type: Controlled Magnetic.
Frequency Response: 300 to 3000 cps.
Output Level: —52.5 db (0 db=1 volt per microbar)
Impedance: High. Recommended Load 100,000 ohms or more.
Polar Pattern: Omni-directional.
Case: Die-cast zinc.
Finish: 440—Satin Chrome.
440SL—Satin Chrome with gray base.
Cable Connector: 440SL—Equivalent to Amphenol MC3M plug.
Cable: 440—7 ft., single conductor shielded.
440SL—7 ft., high quality 2-conductor shielded.
Switch: 440SL—Equipped with grip-to-talk switch, similar to Shure A88A.
Stand Thread: 440—standard 9/16"—27 thread.
Dimensions: 440—21/8" diameter, 31/8" overall length.
440SL—9/32" high, 5" wide, 7" deep (with stand).
Net Weight: 440—1 lb., Packaged weight 1 1/2 lbs.
440SL—2 1/4 lbs., Packaged weight 3 3/4 lbs.
Optional Accessories: 440—Models S14B or S36A Desk Stands.
440SL—A87K Modification Kit*

*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

SPECIAL NOTE:
For a mobile communications microphone embodying many of the outstanding features listed above, refer to the "Ten-Four", Model 404C microphone on page 15.
**Model 544** "UNIDYNE III" MICROPHONE

Ideal for high-quality voice and music reproduction in circumstances where a uni-directional microphone with a flexible arm can best be utilized. Recommended for use as a master microphone for language laboratory applications.

Electrical specifications for the 544 are identical to those for the 545 "Unidyne III" microphone.

LIST PRICE: Model 544—$80.00

- Model 544-G6—$83.00. Includes 6" flexible goose neck and mounting flange.
- Model 544-G12—$83.75. Includes 12" flexible goose neck and mounting flange.
- Model 544-G18—$85.00. Includes 18" flexible goose neck and mounting flange.

CABLE: 7 ft., 3 conductor, non-detachable, shielded.

NET WEIGHT (Mic. and cable): ¾ lb. packaged weight 2¾ lbs.

FURNISHED ACCESSORIES: Goose neck adapter.


**Model 425** "COMMANDO" MICROPHONE

Designed for faithful voice and music reproduction. Ideal for recording on tape, wire or disc, fixed or mobile public address systems, language laboratory systems, intercommunications systems, amateur communications and similar uses where a flexible arm is required. The 425 is rugged, and recommended for use where high quality is desired at low cost.

Electrical specifications for the 425 are identical to those for the 420 "Commando" microphone.

LIST PRICE: Model 425—$30.00

- Model 425-G6—$33.00. Includes 6" flexible goose neck and mounting flange.
- Model 425-G12—$33.75. Includes 12" flexible goose neck and mounting flange.
- Model 425-G18—$35.00. Includes 18" flexible goose neck and mounting flange.

CASE: Impact resistant polystyrene—brass.
FINISH: Bright Chrome and non-reflecting gray.
CABLE: 7 ft., 2-conductor, non-detachable, shielded.
DIMENSIONS: Length 3½", diameter 1¼".
NET WEIGHT (Mic. and cable): ¾ lb., packaged weight ¾· lbs.


**410, 410S, 710G, 710GS MICROPHONES**

Good quality, low-cost, controlled magnetic and crystal microphones providing concealed-cable goose neck mounting. Gray and chrome finish blends with any associated equipment.

Electrical specifications for the 410 and 410S are identical to those for the 510C and 510S microphones; 710G and 710GS have specifications identical to those for the 710 and 710S microphones.

LIST PRICE: Model 410—$19.00

- Model 410S (with switch)—$21.00
- Model 710G—$14.00
- Model 710GS (with switch)—$16.00

CASE: Die cast zinc.
FINISH: Gray and chrome.
CABLE: 7 ft., fabric-covered, single conductor shielded.
DIMENSIONS: 4¾" high, 2½⁄₄" wide, 1¾⁄₄" deep.
NET WEIGHT: 410 and 410S—¾ lb., packaged weight 1¾ lbs. 710G and 710GS—¾ lb., packaged weight 1⅜ lbs.
**SPECIAL PURPOSE MICROPHONES**

**MICROPHONE REPLACEMENT CARTRIDGES**

**SOUND LEVEL MICROPHONE MODEL 98BB99**

Custom-made non-directional crystal microphone 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. Protected from humidity by "Hum-Go" foil wrap. Features uniform frequency response; high sensitivity; high acoustical impedance; freedom from electrostatic and electromagnetic induction.

Model 98BB99  List Price $110.00

**SPECIFICATIONS FOR MODEL 98BB99**

**TYPE:** Crystal

**FREQUENCY RESPONSE:** 30-15,000 cps

**OUTPUT LEVEL:** -58 db (0 dB = 1 volt per microbar)

**POLAR PATTERN:** Omni-directional

**CASE:** Brass

**CABLE CONNECTOR:** Cannon XL-3-1/4" t

**DIMENSIONS:** 1 1/2" diameter, 2 1/2" long. NET WEIGHT: 3.8 oz.

**VIBRATION PICKUPS MODEL 61B, MODEL 61C**

Used for locating and measuring vibration; checking surface smoothness and for the solution of a wide variety of scientific and industrial problems. No external moving parts. The 61B has a triple moisture-sealed Grafoil Bimorph Crystal element. The 61C has a Barium Titanate Ceramic element. The units may be fastened to an object or used with the furnished extension rod for point-to-point tests.

Model 61B List Price $97.50

Model 61C  List Price $125.00

**SPECIFICATIONS:**

**TYPE:** 61B—Crystal

61C—Ceramic

**FREQUENCY RESPONSE:** Low frequency response dependent on the terminal impedance employed.

**INTERNAL IMPEDANCE:** 61B—Equivalent to .005 microfarad capacitor. Recommended Load: 1/2 to 5 megs. 61C—Equivalent to .010 microfarad capacitor. Recommended Load: 1/2 to 5 megs.

**FINISH:** 61B—Baked black enamel, 61C—Aluminum and black wrinkle.

**CABLE:** 61B—Equipped with 7 ft. single conductor rubber-jacketed shielded cable.

61C—Equipped with 7 ft. detachable single conductor plastic-jacketed shielded cable.

**ACCESSORIES FURNISHED:** Complete set of adapters including 8" extension rod, ball-tip, point-tip and mounting bracket.

**SMALL CONTROLLED MAGNETIC MICROPHONES**

The MC Series of microphones are specially designed for use in vacuum-tube devices, such as small, compact hearing aids, amplifiers, transmitters, dictating equipment—where 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.

**ACCESSORIES FURNISHED:** Complete set of adapters including 8" extension rod, ball-tip, point-tip and mounting bracket.

**CONTROLLED MAGNETIC MICROPHONES**

The Model R4M controlled magnetic cartridge assembly is the direct replacement cartridge for use in the Microphones in the 777 Series Slim-X Microphones. Crystal element metal-sealed for long life under adverse conditions of heat and humidity. Requires only one solder connection. Model 99A186 List Price $10.00

**MICROPHONE REPLACEMENT CARTRIDGES**

**CARBON**

**MODEL R10**

Rugged microphone cartridge replacement for "CB", "100", and "120" Series Carbon Microphones. Furnished with necessary mounting hardware and complete installation instructions.

Model R10  List Price $8.50

**MODEL 99A149**

Model 99A149 is the replacement cartridge for cartridges used in microphone models: CB20, CB21, CB50 and 115.

Model 99A149  List Price $8.50

**CRYSTAL**

**MODEL R7**

Model R7 Crystal Microphone. Available for service installation as a replacement for the cartridges in the Shure Crystal Microphones of the 707A and 708A Series, and other microphones of similar design. High output—45 db below 1 volt per microbar. Supplied with rubber mounting rings and installation instructions.

Model R7  List Price $8.25

**MODEL 99A186**


Requires only one solder connection.

Model 99A186 List Price $10.00

**CONTROLLED MAGNETIC**

**MODEL R5**

Direct replacement for cartridges used in the following Shure microphone models: 505C, 510MD, 510S, 520, 520SL, 505C, 505K, 405C and 405K. Also ideal for replacement of crystal cartridges in Shure models of the 707A and 708A Series, where heat and humidity are a problem. Supplied with rubber mounting ring.

Model R5  List Price $11.00

**MODEL R5B**

Model R5B is the replacement cartridge for cartridges used in microphone models 505B, 505T, 405B, 405T, 510SLB, 520SLB and 520B. Model R5B is physically identical to Model R5; but low impedance (50 to 250 ohms). Can be used in any R5 applications which require a low impedance cartridge.

Model R5B List Price $11.00

**MODEL R4M**

The Model R4M controlled magnetic cartridge assembly is the direct replacement cartridge for use in the Microphones in the 740, 425, 420 and 415 Shure "Commande" microphones.

Model R4M List Price $15.00
CARBON COMMUNICATIONS MICROPHONES

The "Ten-Four" features the high-impact "Armo-Dur" corrosion-proof case.

Model 100 SERIES

Used around the world for police, taxi, bus, truck and commercial applications—more than all other makes combined! Adopted as standard microphone for G.E., Motorola, R.C.A. and others for 2-way radio communications equipment. The "100 Series" Microphones are provided with a bracket for permanent placement in portable or mobile equipment. They fit naturally and comfortably in the palm of the hand. They are light, compact and rugged units—with a reputation for long-life performance under "rough and tumble" operating conditions.

<table>
<thead>
<tr>
<th></th>
<th>104A</th>
<th>104B</th>
<th>101C</th>
<th>101E</th>
<th>Die Cast 102C</th>
<th>102E</th>
<th>103</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>List Price:</strong></td>
<td>$30.00</td>
<td>$30.00</td>
<td>$30.00</td>
<td>$33.00</td>
<td>$30.00</td>
<td>$33.00</td>
<td>$33.00</td>
</tr>
<tr>
<td>Type</td>
<td>Carbon</td>
<td>Carbon</td>
<td>Carbon</td>
<td>Carbon</td>
<td>Carbon</td>
<td>Carbon</td>
<td>Carbon</td>
</tr>
<tr>
<td>Frequency</td>
<td>300 to 4,000 c.p.s.</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Output Level</td>
<td>5 db below 1 volt for 100 microbar speech signal</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Impedance</td>
<td>Recommended load: 56 to 100 ohms</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Polar Pattern</td>
<td>Omni-directional</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Case</td>
<td>High-Impact &quot;Armo-Dur&quot;</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Finish</td>
<td>Gray</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Cable</td>
<td>Copper coiled cord with trimmed and tinned leads</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Switch</td>
<td>DPST normally open switch to control microphone &amp; relay</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Dimensions</td>
<td>3&quot; high, 2½&quot; wide, 1&quot; deep</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Net Weight</td>
<td>1 lb.</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Package Weight</td>
<td>1½ lb.</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
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</table>

Coiled Cord Sets

Coiled Cord replacement for Shure "100" and "CB" Series Microphones.

<table>
<thead>
<tr>
<th>Model</th>
<th>List Price</th>
<th>Type</th>
<th>Conductors</th>
<th>Termination</th>
<th>Usage</th>
</tr>
</thead>
<tbody>
<tr>
<td>C110</td>
<td>$12.00</td>
<td>Tinsel</td>
<td>3 conductor, 1 conductor shielded</td>
<td>Trimmed and tinned leads and Amphenol MC4M plug</td>
<td>With General Electric EM10A and Shure 505K Microphones (Die cast zinc case).</td>
</tr>
<tr>
<td>C110</td>
<td>$12.00</td>
<td>Tinsel</td>
<td>3 conductor, 1 conductor shielded</td>
<td>Trimmed and tinned leads and Amphenol MC4M plug</td>
<td>With General Electric EM10A2 and Shure 405K and 405KB Microphones (&quot;Armo-Dur&quot; case).</td>
</tr>
<tr>
<td>C120</td>
<td>$9.25</td>
<td>Copper</td>
<td>3 conductor, 1 conductor shielded</td>
<td>Trimmed and tinned leads</td>
<td>With Shure 404C</td>
</tr>
<tr>
<td>C140</td>
<td>$10.00</td>
<td>Copper</td>
<td>4 conductor, 2 conductor shielded</td>
<td>Trimmed and tinned leads</td>
<td>With Shure 404B</td>
</tr>
<tr>
<td>C150</td>
<td>$8.25</td>
<td>Copper</td>
<td>4 conductor, unshielded</td>
<td>Trimmed and tinned leads</td>
<td>With 405T, 505T, &quot;CB&quot; and &quot;100&quot; Series Microphones.</td>
</tr>
<tr>
<td>C160</td>
<td>$9.50</td>
<td>Tinsel</td>
<td>4 conductor, unshielded</td>
<td>Trimmed and tinned leads and Amphenol MC4M plug</td>
<td>With General Electric equipment.</td>
</tr>
<tr>
<td>C170</td>
<td>$7.75</td>
<td>Tinsel</td>
<td>4 conductor, unshielded</td>
<td>Trimmed and tinned leads with space lugs</td>
<td>With Motorola equipment.</td>
</tr>
<tr>
<td>C180</td>
<td>$9.50</td>
<td>Copper</td>
<td>4 conductor, unshielded</td>
<td>Trimmed and tinned leads and Amphenol MC4M plug</td>
<td>With Motorola equipment.</td>
</tr>
<tr>
<td>C190</td>
<td>$9.50</td>
<td>Tinsel</td>
<td>4 conductor, unshielded</td>
<td>Trimmed and tinned leads and Amphenol MC4M plug</td>
<td>With Motorola equipment.</td>
</tr>
</tbody>
</table>

Model 115 MICROPHONE

Designed for use with small portable and mobile transmitters. Only 2" in diameter and 1½" thick. Has same operating characteristics as "100 Series" Carbon Microphones. Replacement for Mfrs. Model Nos. CB20, CB21.

**LIST PRICE:** $31.00

**CASE:** Aluminum

**FINISH:** Blue Gray Wrinkle

**CABLE:** 3 conductor, standard coiled cord, 11" retracted, 5 ft. extended

**SWITCH:** Equipped with a heavy-duty, push-to-talk switch

**DIMENSIONS:** 2" in diameter, 1½" thick

**NET WEIGHT:** 12 oz., packaged weight 1 lb., 8 oz.
**MICROPHONE ACCESSORIES**

**MICROPHONE SWITCHES**

**“GRIP-TO-TALK SLIDE-TO-LOCK” SWITCH**

Heavy-Duty Switch withstands the most severe field requirements of paging and dispatching systems. Ideal for Police, Taxicab, Railroad, Airport, Bus Truck, and all emergency communications work. Can be used with Shure connector-type crystal, dynamic and carbon microphones of any impedance. Fits handily on Shure S36A Desk Stand. Rich satin chrome finish.

MODEL A88A

LIST PRICE $12.50

**ON-OFF PRESS-TO-TALK SWITCHES**

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

Model A83B. Rotary-type “On-Off” switch, microphone shorted in “off” position. When “turned on,” it stays on until turned off.

MODEL A83B

LIST PRICE $11.00


MODEL A84B

LIST PRICE $11.00


MODEL A85C

LIST PRICE $11.50

**CABLE-TYPE TRANSFORMER**

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

**SPECIFICATIONS FOR MODEL A86A**

LIST PRICE: $17.50

FREQUENCY RESPONSE: 20 to 20,000 cps plus or minus 1 db

IMPEedANCE: Matches 35-50 ohm and 150-250 ohm microphones to high impedance amplifier input

CASE: Compact, sturdy and magnetically shielded steel

FINISH: Two-tone gray

CABLE: 2 ft.

DIMENSIONS: 2½” long, 1⅜” diameter

NET WEIGHT: ¼ lb., packaged weight 1 lb.

**DESK STANDS**

**TAKE-APART STAND**

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

MODEL S34B

LIST PRICE $4.50

**BROADCAST DESK STAND**

Model S33. Baked Bronze Finish. For use with Models 300, 333, 525 and 535.

MODEL S33B—Same as S33—in black finish. For use with Model 330, 530, 544, 545, 546, 556S, 415, 425 and 430.

LIST PRICE $15.00

**MODERN DESK STAND**

Model S36A. Streamlined gray Desk Mount fits all Shure connector-type microphones including 51, 51S, 55S, 315, 737A and 708A. Accommodates A25-type swivel adapter. Metal handle adapter provided for mounting models 440, 510, 520, 710 and 707A. Ideal for use with the Shure switches listed on this page.

MODEL S36A

LIST PRICE $6.50

**SPECIAL STAND**

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

Model S38 (Bronze) for use with 777 Series microphones.

Model S38B (Black) for use with “Commando” microphone Models 415 and 430.

MODELS S38 AND S38B

LIST PRICE $4.50

**SWIVEL ADAPTER**

Model A25 (Bronze). To be used with model 525, 535 and 777 series microphones—For use with standard desk or floor stand.

Model A25B (Black). To be used with models 530, 415, 425, 430 and 545 microphones—For use with standard desk or floor stand.

MODELS A25 AND A25B

LIST PRICE $5.50

**LAVALIER ASSEMBLY**

Model A28L. For use with Slendyne Model 525, 530 and 535.

MODEL A28L

LIST PRICE $4.50

Model A34L. For use with Commando Models 415, 420 and 430.

MODEL A34L

LIST PRICE $3.50

Model A37L. For use with Slim-x 777 series.

MODEL A37L

LIST PRICE $1.00
**Cutter-Cartridge for Model W78w**


<table>
<thead>
<tr>
<th>MODEL NO.</th>
<th>ILLUSTR.</th>
<th>TYPE</th>
<th>LIST PRICE</th>
<th>OUTPUT LEVEL</th>
<th>MIN. NEEDLE FORCE</th>
<th>RESPONSE TO</th>
<th>NET WEIGHT</th>
<th>SHURE NEEDLE NO.</th>
<th>NEEDLE LIST PRICE</th>
</tr>
</thead>
<tbody>
<tr>
<td>WC20 #</td>
<td>Fig. C</td>
<td>Ceramic</td>
<td>$9.50</td>
<td>.58V</td>
<td>2½-3 grams</td>
<td>12,000 cps</td>
<td>2½ grams</td>
<td>A20S</td>
<td>$3.50</td>
</tr>
<tr>
<td>W21**</td>
<td>Fig. B</td>
<td>Crystal</td>
<td>8.90</td>
<td>1.5V</td>
<td>6 grams</td>
<td>10,000 cps</td>
<td>4½ grams</td>
<td>A63MG</td>
<td>1.50</td>
</tr>
<tr>
<td>W31AR</td>
<td>Fig. A</td>
<td>Crystal</td>
<td>7.50</td>
<td>2.1V</td>
<td>7 grams</td>
<td>7,500 cps</td>
<td>5½ grams</td>
<td>A53MG</td>
<td>1.50</td>
</tr>
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</table>

**Fine Groove Cartridges For 33⅓, 45 RPM Records**

<table>
<thead>
<tr>
<th>MODEL NO.</th>
<th>ILLUSTR.</th>
<th>TYPE</th>
<th>LIST PRICE</th>
<th>OUTPUT LEVEL</th>
<th>MIN. NEEDLE FORCE</th>
<th>RESPONSE TO</th>
<th>NET WEIGHT</th>
<th>SHURE NEEDLE NO.</th>
<th>NEEDLE LIST PRICE</th>
</tr>
</thead>
<tbody>
<tr>
<td>WC66</td>
<td>Fig. H</td>
<td>Ceramic</td>
<td>$14.50</td>
<td>.5V</td>
<td>4-6 grams</td>
<td>15,000 cps</td>
<td>7 grams</td>
<td>A6S</td>
<td>5.95</td>
</tr>
<tr>
<td>WC105</td>
<td>Fig. N</td>
<td>Ceramic</td>
<td>9.50</td>
<td>.7V</td>
<td>4-6 grams</td>
<td>10,000 cps</td>
<td>7 grams</td>
<td>A105</td>
<td>3.50</td>
</tr>
<tr>
<td>WC106</td>
<td>Fig. H</td>
<td>Ceramic</td>
<td>14.00</td>
<td>.7V</td>
<td>7 grams</td>
<td>12,000 cps</td>
<td>7 grams</td>
<td>A106</td>
<td>28.00</td>
</tr>
</tbody>
</table>

**Turnover Cartridges For 33⅓, 45, and 78 RPM Records**

<table>
<thead>
<tr>
<th>MODEL NO.</th>
<th>ILLUSTR.</th>
<th>TYPE</th>
<th>LIST PRICE</th>
<th>OUTPUT LEVEL</th>
<th>MIN. NEEDLE FORCE</th>
<th>RESPONSE TO</th>
<th>NET WEIGHT</th>
<th>SHURE NEEDLE NO.</th>
<th>NEEDLE LIST PRICE</th>
</tr>
</thead>
<tbody>
<tr>
<td>W22</td>
<td>Fig. D</td>
<td>Crystal</td>
<td>$9.50</td>
<td>1.2V</td>
<td>8 grams</td>
<td>10,000 cps</td>
<td>4½ grams</td>
<td>A55MG</td>
<td>2.50</td>
</tr>
<tr>
<td>W22-T</td>
<td>Fig. E</td>
<td>Crystal</td>
<td>10.90</td>
<td>1.4V</td>
<td>8 grams</td>
<td>10,000 cps</td>
<td>12½ grams</td>
<td>A65MG</td>
<td>2.50</td>
</tr>
<tr>
<td>WC24</td>
<td>Fig. F</td>
<td>Ceramic</td>
<td>8.75</td>
<td>0.6V</td>
<td>8 grams</td>
<td>7,000 cps</td>
<td>4½ grams</td>
<td>A53MG</td>
<td>1.50</td>
</tr>
<tr>
<td>WC24-T</td>
<td>Fig. G</td>
<td>Ceramic</td>
<td>9.25</td>
<td>0.6V</td>
<td>8 grams</td>
<td>7,000 cps</td>
<td>12½ grams</td>
<td>A53MG</td>
<td>1.50</td>
</tr>
<tr>
<td>WC25</td>
<td>Fig. K</td>
<td>Ceramic</td>
<td>9.50</td>
<td>.7V</td>
<td>8 grams</td>
<td>7,000 cps</td>
<td>6 grams</td>
<td>A65MG</td>
<td>2.50</td>
</tr>
<tr>
<td>W22T §</td>
<td>Fig. L</td>
<td>Crystal</td>
<td>8.50</td>
<td>3V</td>
<td>10-15 grams</td>
<td>5,000 cps</td>
<td>7 grams</td>
<td>A69A</td>
<td>2.50</td>
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**All Purpose Single Needle Cartridges For 33⅓, 45, 78 RPM Records**

<table>
<thead>
<tr>
<th>MODEL NO.</th>
<th>ILLUSTR.</th>
<th>TYPE</th>
<th>LIST PRICE</th>
<th>OUTPUT LEVEL</th>
<th>MIN. NEEDLE FORCE</th>
<th>RESPONSE TO</th>
<th>NET WEIGHT</th>
<th>SHURE NEEDLE NO.</th>
<th>NEEDLE LIST PRICE</th>
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<tbody>
<tr>
<td>W26</td>
<td>Fig. B</td>
<td>Crystal</td>
<td>$6.50</td>
<td>.87V</td>
<td>8 grams</td>
<td>8,000 cps</td>
<td>4½ grams</td>
<td>A67U</td>
<td>2.50</td>
</tr>
<tr>
<td>WC38</td>
<td>Fig. A</td>
<td>Ceramic</td>
<td>7.50</td>
<td>.92V</td>
<td>9 grams</td>
<td>10,000 cps</td>
<td>5½ grams</td>
<td>A58U</td>
<td>1.50</td>
</tr>
<tr>
<td>W66B</td>
<td>Fig. O</td>
<td>Crystal</td>
<td>7.00</td>
<td>2.0V</td>
<td>8 grams</td>
<td>4,500 cps</td>
<td>12 grams</td>
<td>A66U</td>
<td>1.50</td>
</tr>
<tr>
<td>W70</td>
<td>Fig. P</td>
<td>Crystal</td>
<td>4.95</td>
<td>3.0V</td>
<td>10-15 grams</td>
<td>5,000 cps</td>
<td>16 grams</td>
<td>A77U</td>
<td>1.50</td>
</tr>
</tbody>
</table>

**Standard Cartridges For 78 RPM Records**

<table>
<thead>
<tr>
<th>MODEL NO.</th>
<th>ILLUSTR.</th>
<th>TYPE</th>
<th>LIST PRICE</th>
<th>OUTPUT LEVEL</th>
<th>MIN. NEEDLE FORCE</th>
<th>RESPONSE TO</th>
<th>NET WEIGHT</th>
<th>SHURE NEEDLE NO.</th>
<th>NEEDLE LIST PRICE</th>
</tr>
</thead>
<tbody>
<tr>
<td>W65N</td>
<td>Fig. N</td>
<td>Crystal</td>
<td>$10.00</td>
<td>4.3V</td>
<td>1 oz.</td>
<td>10,600 cps</td>
<td>12 grams</td>
<td>A66D</td>
<td>3.50</td>
</tr>
<tr>
<td>W68P</td>
<td>Fig. O</td>
<td>Crystal</td>
<td>7.50</td>
<td>1.5V</td>
<td>1 oz.</td>
<td>4,500 cps</td>
<td>Dual WL 25 grams or 12 grams</td>
<td>A62A</td>
<td>1.50</td>
</tr>
<tr>
<td>W78R</td>
<td>Fig. M</td>
<td>Crystal</td>
<td>5.55</td>
<td>4.0V or 2.0V</td>
<td>1 oz.</td>
<td>6,000 cps</td>
<td>Dual WL 25 grams or 12 grams</td>
<td>None</td>
<td>None</td>
</tr>
</tbody>
</table>

*With .453 Mount for Oak Changer.
**Cutter-Cartridge for Wilcox-Gay "Recordette." Equipped with bifurcated needle.
†Dual-Weight Cartridge. With weight-slug, net weight 25 grams. Without weight-slug, net weight 12 grams.
‡Dual-Weight Cartridge. Has same weight as Model WC66, with same net weight differential. In addition, Model W78 has capacitor furnished as accessory. Without capacitor, output is 4.0 volts. With capacitor, output is 1.5 volts, and 12 grams D for Columbia 16⅔ High Fidelity Records.
§With .453 Mount for Oak Changer.
¶With .453 Mount for Oak Changer.
∥Model W72 has a slip-on Capacitor furnished as an accessory. With the Capacitor, output is 4 volts for 78 RPM, 3 volts for 33⅓, 45 RPM. Without the Capacitor, output is 2 volts for 78 RPM, 1.5 volts for 33⅓, 45 RPM.
+Top mounting for Magnavox cartridge replacement.
MAGNETIC RECORDING HEADS

Fig. A
Record-Playback-Erase

Fig. B
Record-Playback Also Erase

Fig. C
Stereo Record-Playback

Fig. D
Stereo Record Monaural Record-Erase

Fig. E
Erase Only

Fig. F
Stereo Record-Playback

TECHNICAL DATA—MAGNETIC TAPE AND WIRE RECORDING HEADS

<table>
<thead>
<tr>
<th>Model</th>
<th>Recording Speed</th>
<th>Bias &amp; Erase Frequency</th>
<th>Std. Recording Level</th>
<th>Operating Bias Current</th>
<th>Erase* Current</th>
<th>Impedance Erase Coil</th>
<th>Impedance Record-Playback Coil</th>
</tr>
</thead>
<tbody>
<tr>
<td>815 (Fig. A)</td>
<td>3.75&quot; / per sec</td>
<td>25 KC</td>
<td>.05 ma</td>
<td>1.25 ma</td>
<td>27 ma</td>
<td>750 ohm at 25 KC</td>
<td>1450 ohm at 1000 cps</td>
</tr>
<tr>
<td>815H (Fig. A)</td>
<td>3.75&quot; / per sec</td>
<td>50 KC</td>
<td>.05 ma</td>
<td>1.25 ma</td>
<td>27 ma</td>
<td>750 ohm at 50 KC</td>
<td>1450 ohm at 1000 cps</td>
</tr>
<tr>
<td>816</td>
<td>3.75&quot; / per sec</td>
<td>DC</td>
<td>.05 ma</td>
<td>.35 ma</td>
<td>25 ma</td>
<td>12 ohm</td>
<td>180 ohm</td>
</tr>
<tr>
<td>817 (Fig. B)</td>
<td>3.75&quot; / per sec</td>
<td>100 KC</td>
<td>.05 ma</td>
<td>.35 ma</td>
<td>25 ma</td>
<td>12 ohm</td>
<td>180 ohm</td>
</tr>
<tr>
<td>TE11C-J</td>
<td>7.5&quot; / per sec</td>
<td>50 KC</td>
<td>.05 ma</td>
<td>.35 ma</td>
<td>25 ma</td>
<td>1200 ohm at 25 KC</td>
<td>3300 ohm at 1000 cps</td>
</tr>
<tr>
<td>TE20-J (Fig. E)</td>
<td>3.75&quot; / per sec</td>
<td>50 KC</td>
<td>.05 ma</td>
<td>.35 ma</td>
<td>25 ma</td>
<td>1200 ohm at 25 KC</td>
<td>3300 ohm at 1000 cps</td>
</tr>
<tr>
<td>TK41-J (Fig. D)</td>
<td>7.5&quot; / per sec</td>
<td>65 KC</td>
<td>.05 ma</td>
<td>.35 ma</td>
<td>25 ma</td>
<td>1200 ohm at 65 KC</td>
<td>3300 ohm at 1000 cps</td>
</tr>
<tr>
<td>TR21C-J (Fig. C)</td>
<td>7.5&quot; / per sec</td>
<td>75 KC</td>
<td>.05 ma</td>
<td>.35 ma</td>
<td>25 ma</td>
<td>1200 ohm at 75 KC</td>
<td>3300 ohm at 1000 cps</td>
</tr>
<tr>
<td>TR20-J</td>
<td>7.5&quot; / per sec</td>
<td>50 KC</td>
<td>.05 ma</td>
<td>.35 ma</td>
<td>25 ma</td>
<td>1200 ohm at 50 KC</td>
<td>3300 ohm at 1000 cps</td>
</tr>
<tr>
<td>TR54-J (Fig. F)</td>
<td>7.5&quot; / per sec</td>
<td>75 KC</td>
<td>.05 ma</td>
<td>.35 ma</td>
<td>25 ma</td>
<td>1200 ohm at 75 KC</td>
<td>3300 ohm at 1000 cps</td>
</tr>
</tbody>
</table>

*Erase current chosen for 50 db Erasure of Saturated 400 C.P.S. Recording.

RECORDING HEAD DIMENSIONS

<table>
<thead>
<tr>
<th>Modes</th>
<th>815, 815H (Fig. A), 816</th>
<th>Width .324&quot;</th>
<th>Depth .131&quot;</th>
<th>Height .695&quot;</th>
</tr>
</thead>
<tbody>
<tr>
<td>Model</td>
<td>815-J (Fig. B)</td>
<td>Width .655&quot;</td>
<td>Depth .836&quot;</td>
<td>Height .765&quot;</td>
</tr>
</tbody>
</table>

NUMERICAL LIST OF SHURE TAPE HEADS USED IN ORIGINAL EQUIPMENT

<table>
<thead>
<tr>
<th>Model</th>
<th>ILLUSTR.</th>
<th>LIST PR.</th>
<th>DESCRIPTION</th>
<th>OPERATING DATA</th>
</tr>
</thead>
<tbody>
<tr>
<td>815</td>
<td>Not Shown</td>
<td>$20.00</td>
<td>Wire Recording Head.</td>
<td>See 815</td>
</tr>
<tr>
<td>816</td>
<td>Fig. B</td>
<td>9.00</td>
<td>Upper track recording, Low impedance record-playback coil.</td>
<td>See 815</td>
</tr>
<tr>
<td>817</td>
<td>Fig. B</td>
<td>9.00</td>
<td>Upper track recording, High impedance record-playback coil.</td>
<td>See 815</td>
</tr>
<tr>
<td>818</td>
<td>Fig. B</td>
<td>9.00</td>
<td>Upper track recording, High impedance record-playback coil.</td>
<td>See 815</td>
</tr>
<tr>
<td>819</td>
<td>Fig. B</td>
<td>9.00</td>
<td>Stereo Head Kit to convert magnetic tape recorder to stereophonic playback and monaural recording. For Revere Models T-1, T-11, T-20, T-700, T-700D, T-800, T-800D, T-900, T-1000, T-1000C, T-1200, T-1200C.</td>
<td>See TK41-J</td>
</tr>
<tr>
<td>TR21C-J</td>
<td>Fig. C</td>
<td>11.00</td>
<td>0.93&quot; record track width. Record-playback coil.</td>
<td>11.00</td>
</tr>
<tr>
<td>TR21D-J</td>
<td>Fig. D</td>
<td>17.00</td>
<td>2 track stereophonic record/playback head, 1.074&quot; width (0.1 mm gap).</td>
<td>11.00</td>
</tr>
<tr>
<td>TR40-J</td>
<td>Fig. F</td>
<td>15.00</td>
<td>4 track stereophonic record/playback head, 0.409&quot; width (0.1 mm gap).</td>
<td>11.00</td>
</tr>
</tbody>
</table>

*Operating data only. 815 does not replace.
True high fidelity sound re-creation, begins at the source of sound. Just as a camera is no better than its lens, a phonograph is no better than its cartridge. The cartridge must translate record groove undulations into precise electrical impulses—without addition, subtraction or distortion of the most subtle nuances. Finest quality components at the source result in an amazing realism and accuracy of sound that makes listening to true high fidelity a genuinely rewarding experience for the music lover.
**STEREO LINE PREAMPLIFIER**

High quality, low noise, stereo line pre-amplifier providing additional gain for use with magnetic stereo phon cartridges and microphones. Provides flat output response from 30 to 80,000 cps ±1 db. Low output impedance permits use of longer cable lengths (up to 50 feet) without loss of gain or deterioration in response when used with magnetic phon cartridges, microphones, etc.

**SPECIFICATIONS FOR MODEL M60**

Net Price: $19.95

Gain: 17 db or 7 to 1 (5 mv. input gives 35 mv. output). Circuit change information provided to give one-third and two-thirds output.

Impedance: Input—47,000 ohms. —Output—5,000 ohms.

Hum & Noise: Nominal 64 db below rated output.

Dimensions: 5 3/4" x 2 1/4" x 3 3/4".

Net Weight: 2 lbs.

**STEREO CONVERSION PREAMPLIFIER**

Provides equalization with amplification for conversion of ceramic inputs to magnetic inputs. Gives smoother, more natural sound. As an added feature, 60 db of amplification without equalization is also provided. Permits the use of a magnetic cartridge with "package" consoles supplied with a ceramic cartridge. Also provides pre-amplification and equalization functions for other inputs (phono, tape, microphone).

**SPECIFICATIONS FOR MODEL M65**

Net Price: $24.00

Gain: Phono: 44 db (5 mv input produces .76 v. output)

 specials: 45 db (5 mv input produces .88 v. output)

Weight: 40 db (5 mv input produces .50 v. output)

Microphone: 63 db (2 mv input produces 2.8 v. output)

Frequency Response: ±1.5 db of each function's nominal characteristic from 25 cps to 15,000 cps.

Equalization: Phono: RIAA equalization (with additional treble boost of approximately 3 db at 10,000 cps to complement the high frequency characteristic of most magnetic cartridges).

Special: A Shure-developed magnetic phono equalization circuit for use with high impedance amplifiers normally used with ceramic phon cartridges.

Tape: NARTB equalization.

Microphone: Flat response. ±3 db from 20 to 12,000 cps.

Input Impedance: 47,000 ohms (all functions).

Output Impedance: Low output impedance (less than 5000 ohms at 10,000 cps for phono, special and tape functions).

Channel Separation: 40 db.

Channel Balance: ±1 db at 1000 cps.

Hum-Noise: 50 db below rated output.

Overall Dimensions: Length 6 3/4"; Width 3 1/2"; Height 3 3/4".

Net Weight: 1 lb. 14 oz.

**BROADCAST STEREO EQUALIZER**

Compensates output of stereo and monophonic magnetic cartridges for flat, RIAA and roll-off responses, when used with inputs designed for low impedance microphones.

**SPECIFICATIONS FOR MODEL M66**

Net Price: $60.00

Frequency Response Deviation (with all Shure Stereo Cartridges): 30 to 20,000 cps ±1 db.

30 DB Channel Separation: 30 to 20,000 cps.

Low Output Impedance: 250 ohms. Provision for 125 & 500 ohms.

Circuit: 9-terminal network—3-terminal input, 4-terminal balanced output with two convenient Shield terminals for unbalanced input.

Insertion Loss: Approximately 28 db. (varies with frequency and impedance.)

Furnished Accessories: Supplied with escutcheon, mounting bolts, L-shaped mounting bracket, and long control shafts for mounting through varying panel thicknesses up to 1 1/2 inches.

Dimensions: 7 3/4" x 3 1/2" x 3" overall.

3 1/2" x 3 1/2" x 3" excluding control shafts.

Net Weight: 15 lbs.

**MODEL M3LS STEREO CARTRIDGE**

The M3LS Stereo Cartridge is an individually selected and tested laboratory standard M3D Stereo Professional Dynetic Phono Cartridge. Each M3LS, its corresponding box, individual response curve and specifications are serially numbered. The M3LS is especially suited for: (1) Laboratory measurements. (2) Cross-checking & calibration of associated high fidelity components. (3) Checking master recordings.

Each cartridge carries a 3-year guarantee (not including needle wear or damage to needle from abuse or mishandling.)

**SPECIFICATIONS FOR MODEL M3LS**

Net Price: Model M3LS—$75.00

Model M3LS Replacement Stylus—$25.00 (NOTE: M3LS must be returned to Shure factory for installation of replacement stylus. At this time, new calibration curve and specifications will be issued as part of replacement stylus charge).

Channel Separation: 23 db minimum at 1 KC; 15 db minimum at 10 KC.

Channel to Channel Balance: 1.5 db maximum (1 KC on monaural record).

Frequency Response: 30 to 15,000 cps ± 2 db.

Output Voltage: 5.0 mv ± 2 db per channel at 1,000 cps.

Recommended Load Impedance: 47,000 ohms.

Compliance: 4.4 x 10^-6 centimeters per dyne minimum; 7.3 x 10^-6 centimeters per dyne maximum at 80° F.

Tracking Force: 3 to 4 grams.

Inductance: 420 millihenrys.

DC Resistance: 280 ohms.

Terminals: 4 terminals. Adaptable to 3 terminal arms.

Mounting Standard: Overall 3 1/2" centers.

Stylus: .0007" diamond stylus.
### SPECIFICATIONS

**The M3D Stereo Professional**

- **Compliance:** Vertical, Lateral 3.0 x 10^-6 centimeters per dyne.
- **Channel Separation:** at moderate who wants a quality Stereo Phono Cartridge.
- **Frequency Response:** 20 to 15,000 cps.
- **Output Voltage:** 5 mv per channel at 1000 cps.
- **Recommended Load Impedance:** 47,000 ohms.
- **Sensitivity:** Output Voltage: 5 mv per channel at 1000 cps. Model characteristics. D.C. Resistance: 280 ohms.
- **Frequency Response:** 20 to 15,000 cps.
- **Tracking Force:** 5 to 8 grams.
- **Inductance:** 420 millihenrys.
- **D.C. Resistance:** 280 ohms.
- **Terminals:** 4 terminals. Adaptable to 3 terminal arms.
- **Mounting:** Standard 5/8" and 7/8" centers.
- **Stylus:** .0007" diamond stylus.
- **Model M3D Stereo Dynamic cartridge...including .0007" diamond stylus.**
- **Audiophile Net:** $16.50
- **Model M3D Stereo Stylus assembly for M3D, including .0007" diamond.**
- **Audiophile Net:** $8.25
- **Model N3D Stereo Stylus assembly for M3D, including .0007" diamond.**
- **Audiophile Net:** $12.00

### The M7D Stereo Custom Dynetic

- **Compliance:** Vertical, Lateral 3.5 x 10^-6 centimeters per dyne.
- **Frequency Response:** 20 to 15,000 cps.
- **Output Voltage:** 5 mv per channel at 1000 cps.
- **Recommended Load Impedance:** 47,000 ohms.
- **Sensitivity:** Output Voltage: 5 mv per channel at 1000 cps. Model characteristics. D.C. Resistance: 280 ohms.
- **Frequency Response:** 20 to 15,000 cps.
- **Tracking Force:** 4 to 7 grams.
- **Inductance:** 420 millihenrys.
- **D.C. Resistance:** 280 ohms.
- **Terminals:** 4 terminals. Adaptable to 3 terminal arms.
- **Mounting:** Standard 5/8" and 7/8" centers.
- **Stylus:** .0007" diamond stylus.
- **Model M7D Custom Stereo Dynamic cartridge...including .0007" diamond stylus.**
- **Audiophile Net:** $24.00
- **Model W7D Stereo Stylus assembly for M7D, including .0007" diamond.**
- **Audiophile Net:** $11.00

### The M3D Stereo Professional Dynetic

- **Compliance:** Vertical, Lateral 4.0 x 10^-6 centimeters per dyne.
- **Frequency Response:** 20 to 15,000 cps.
- **Output Voltage:** 5 mv per channel at 1000 cps.
- **Recommended Load Impedance:** 47,000 ohms.
- **Sensitivity:** Output Voltage: 5 mv per channel at 1000 cps. Model characteristics. D.C. Resistance: 280 ohms.
- **Frequency Response:** 20 to 15,000 cps.
- **Tracking Force:** 3 to 6 grams.
- **Inductance:** 420 millihenrys.
- **D.C. Resistance:** 280 ohms.
- **Terminals:** 4 terminals. Adaptable to 3 terminal arms.
- **Mounting:** Standard 5/8" centers.
- **Stylus:** .0007" diamond stylus.
- **Model M3D Professional Stereo Dynamic cartridge...including .0007" diamond stylus.**
- **Audiophile Net:** $22.50
- **Model N3D Stereo Stylus assembly for M3D, including .0007" diamond.**
- **Audiophile Net:** $11.00

### For those who prefer monophonic cartridges

- **Model M5D—has .01\" diamond for use with micro-groove records, 33\%/2, 45 r.p.m.**
- **Model M6S—has .027\" sapphire for use with standard records, 78 r.p.m.**
- **Model M5D Monophonic Professional Dynetic Phonograph Cartridge for LP records including M5D .01\" diamond stylus.** **Audiophile Net:** $27.50
- **Model M6S Monophonic Professional Dynetic Phonograph Cartridge for 78 rpm records including M6S .027\" sapphire stylus.** **Audiophile Net:** $15.00
- **Model N5D Monophonic Professional Dynetic stylus with .001\" diamond tip.** **Audiophile Net:** $16.50
- **Model N6S Monophonic Professional Dynetic stylus with .0027\" sapphire tip.** **Audiophile Net:** $5.00
NEW HIGH FIDELITY PHONOGRAPH CARTRIDGES

...for Utmost Performance in superior high fidelity systems

NEW SHURE STEREO DYNETIC PHONO CARTRIDGES featuring
THE INCREDIBLY COMPLIANT N21D TUBULAR, DIAMOND STYLUS

To meet the overwhelming demand for a separate stereo cartridge that will enable tracking at extremely low pressures (2-2½ grams), Shure announces these worthy additions to the incomparable family of Stereo Dynetics.

SPECIFICATIONS:
Channel Separation: More than 20db at 1000 cps.
Frequency Response: 20 to 20,000 cps.
Output Voltage: 4 mv per channel at 1000 cps.
Recommended Load Impedance: 47,000 ohms.
Compliance: Vertical, Lateral 9.0 x 10^-6 centimeters per dyne.
Tracking Force: 2 grams optimum. Forces greater than 2½ grams should not be used.
Inductance: 420 millihenrys.
D. C. Resistance: 280 ohms.
Terminals: 4 terminals. Adaptable to 3 terminal arms.
MOUNTING: Standard ¾" and ⅞" centers.
STYLUS: .0007" diamond stylus.

Model M7D Custom Stereo Dynetic cartridge ... including Model N21D, .0007" diamond stylus. Audiophile Net: $36.75
Model N21D Stereo Stylus assembly for M7D, including .0007" diamond. Audiophile Net: $24.75

Model M3D Professional Stereo Dynetic cartridge...
Inductance: 420 millihenrys.
D. C. Resistance: 280 ohms.
Terminals: 4 terminals. Adaptable to 3 terminal arms.
MOUNTING: Standard ½" centers.
STYLUS: .0007" diamond stylus.

Model M3D Professional Stereo Dynetic cartridge... including Model N21D, .0007" diamond stylus. Audiophile Net: $47.25
Model N21D Stereo Stylus assembly for M3D, including .0007" diamond. Audiophile Net: $24.75

CAUTION: These cartridges are to be used only in manual tone arms and record changer arms capable of tracking at two grams pressure. For those applications calling for tracking forces in excess of 2½ grams, you should select either the Shure M3D, M7D or M8D cartridge (see page 25).

Since a stereo cartridge is only as good as the tone arm which houses it, Shure offers the premium-quality Professional Tone Arm (M232 & M236) with either of the above cartridges installed. This perfect "marriage" of separate tone arm and cartridge insures top quality at reasonable cost.

Audiophile Net
• Model M232 Professional Tone Arm with an M7D Cartridge and N21D Tubular Stylus installed.............$66.70
• Model M236 Professional Tone Arm with an M7D Cartridge and N21D Tubular Stylus installed.............$68.70
• Model M232 Professional Tone Arm with an M3D Cartridge and N21D Tubular Stylus installed.............$77.20
• Model M236 Professional Tone Arm with an M3D Cartridge and N21D Tubular Stylus installed.............$79.20

THE ABOVE MODELS ARE PRE-BALANCED . . . ALSO PRE-SET FOR TRACKING AT TWO GRAMS PRESSURE, THE CORRECT TRACKING FORCE FOR OPTIMUM PERFORMANCE.
The Shure M232 and M236 Professional Tone arm is a premium-quality independent tone arm that accepts practically all cartridges (Stereo and Monophonic) and permits their maximum potential performance characteristics to be utilized. Features precision ball bearings at all pivot points, plug-in head with positive-alignment lock, variable height adjustment. Pays for itself in reduced record wear and damage. Ingeniously simple and unprecedented combination of adjustments give instant, positive, VISUAL control over balance (without altering overall arm length), tracking force (0—8 grams), and overhang. Floats the needle over the record... smoothly—without “drag”—without “skip”—without unnecessary (and ruinous) force. Furnished with cable having plug on each end to simplify and speed up installation (eliminates soldering).

**SPECIFICATIONS: MODELS M232 - M236 PROFESSIONAL TONE ARMS**

**NET PRICE:** TONE ARM M232, for 12” records ........................................... $29.95  
 TONE ARM M236, for 16” records .................................................. $31.95  
 Model A23H Extra Plug-In Head ...................................................... $ 2.40

**FURNISHED ACCESSORIES:** Arm rest, mounting template, mounting hardware, 4 ft. cable assembly.  

**DIMENSIONS:**  
M232—12½” long  
M236—14½” long  

**NET WEIGHT:**  
M232 1 lb.  
M236 1½ lbs.
The incomparable SHURE INTEGRATED TONE ARM AND CARTRIDGE... cannot scratch records

...for critical broadcast and recording applications

The overwhelming first choice of perfectionists who appreciate the full importance of "integrated" tone-arm and cartridge to optimum stereo performance. Tracks at incredibly light 1½-2½ grams—with unparalleled fidelity... absolutely minimizes record wear, and CANNOT scratch records! We urge you to make listening tests of this unit before buying any stereo cartridge or arm—you'll hear the difference.

The Studio Stereo Dynetic has a special advantage for those music lovers who like to "index." The cartridge stylus is placed far in front, making it extremely easy for you to position the stylus on the exact spot of the record you want to play.

Still another feature of the Studio Stereo Dynetic is the fact that the stylus can be changed in the home—without tools—within ten seconds.

AUDIOPHILE TECHNICAL INFORMATION

<table>
<thead>
<tr>
<th>SPECIFICATIONS</th>
<th>STEREOPHONIC M216; M212</th>
<th>MONOPHONIC M16; M12</th>
</tr>
</thead>
<tbody>
<tr>
<td>Tracking Force</td>
<td>1½-2½ grams</td>
<td>1.2 grams</td>
</tr>
<tr>
<td>Frequency Response</td>
<td>20-20,000 cps ± 2½ db</td>
<td>20-20,000 ± 2 db</td>
</tr>
<tr>
<td>Channel Separation</td>
<td>45.5 mv per channel (On Westrex /4 Test Record)</td>
<td>14 mv for 10 cm/sec</td>
</tr>
<tr>
<td>Sensitivity: Output at 1000 cpos</td>
<td>47,000 ohms</td>
<td>10,000 ohms</td>
</tr>
<tr>
<td>Recommended load impedance</td>
<td>9 x 10⁻⁶ cms/dyne</td>
<td>8 x 10⁻⁶ cms/dyne</td>
</tr>
<tr>
<td>Compliance: Vertical: Lateral</td>
<td>400 millihenrys</td>
<td>130 millihenrys</td>
</tr>
<tr>
<td>Inductance</td>
<td>600 ohms</td>
<td>180 ohms</td>
</tr>
<tr>
<td>D.C. Resistance</td>
<td>1.3 milligrams</td>
<td>1.25 milligrams</td>
</tr>
<tr>
<td>Needle-tip Mass</td>
<td>.0007* diamond</td>
<td>.0007* diamond</td>
</tr>
<tr>
<td>Stylus</td>
<td>*applies to stereo units only</td>
<td></td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>DIMENSIONS</th>
<th>Model M216</th>
<th>Model M16</th>
</tr>
</thead>
<tbody>
<tr>
<td>Over-all length:</td>
<td>11½&quot;</td>
<td>11½&quot;</td>
</tr>
<tr>
<td>Stylus tip to center of arm base:</td>
<td>11&quot;</td>
<td>8½&quot;</td>
</tr>
<tr>
<td>Arm base diameter:</td>
<td>2&quot;</td>
<td>2&quot;</td>
</tr>
<tr>
<td>Range of height adjustment:</td>
<td>1½&quot;</td>
<td>1½&quot;</td>
</tr>
<tr>
<td>Arm pivot to turntable center:</td>
<td>10½&quot;</td>
<td>8½&quot;</td>
</tr>
<tr>
<td>Net weight (arm and cartridge):</td>
<td>11.1 oz</td>
<td>10.6 oz</td>
</tr>
</tbody>
</table>

SHURE BROTHERS, INC. • 222 HARTREY AVENUE • EVANSTON, ILLINOIS, U.S.A.
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