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.
**Model "333" STUDIO UNITRON**

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 scuffling feet. The "333" Studio features the patented, world-famous Shure "Uniphase" acoustical network system—a field-proved standard of quality.

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**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.

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**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.
"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: -50 db
150 ohm impedance: -59 db
250 ohm impedance: -59 db
(0 db = 1 milliwatt per 10 microbars)
Polar Pattern: Super-Cardioid (Uni-directional) Response at rear down 12 to 20 db from front.
MAGNETIC CIRCUIT: Uses Alnico V magnet
CASE: Die cast zinc
FINISH: Combination non-reflecting "Bronze-Tone" enamel case with beige aluminum grille.
SWIVEL: New, improved, self-adjusting "positive action" lifetime swivel. Permits tilting the head 45° forward and 70° backward, making it simple to aim the microphone at the source of sound.
SHOCK MOUNT: Special vibration-isolation unit of live rubber construction.
CABLE CONNECTOR: Cannon XL-3-11
CABLE: 20 ft., 2-conductor shielded broadcast type
STAND THREAD: Standard ½"—27 thread
STAND COUPLERS: Adapter for ½" pipe thread or ½"—24 thread available upon request at no extra charge.
SWITCH: Voice-Music Switch to adjust frequency characteristic for optimum performance.
DIMENSIONS: 7½'' high; 1½'' wide; 1½'' deep
NET WEIGHT: 1½ lb.; shipping weight 4 lbs.
OPTIONAL ACCESSORIES: Model S33 Desk Stand, A26C Extension Cable, 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.
IMPEDANCE: Equipped with a multi-impedance switch, furnishing a choice of three impedances—L-30-50 ohms, M-150 ohms, H-250 ohms.
OUTPUT LEVEL: At 50, 150, 250 ohms: -61 db
(0 db = 1 milliwatt per 10 microbars)
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 type 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 ½"—27 thread
STAND COUPLERS: Adapter for ½" pipe thread or ½"—24 thread are available upon request at no extra charge.
DIMENSIONS: 8½" high, 1" diameter
NET WEIGHT: ½ lb., shipping weight 3½ lbs.
OPTIONAL ACCESSORIES: Model S33 Desk Stand, A26C Extension Cable, 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*
150-250 ohms -60 db*
High -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: ½"—24 thread
STAND COUPLERS: Adapter for ½" pipe thread or ½"—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; 1½" wide; 2½" deep
NET WEIGHT: 1½ lb.; shipping weight 3½ lbs.
OPTIONAL ACCESSORIES: Model S33 Desk Stand, A26C Extension Cable, Model A86A Cable-Type Transformer.
GENERAL PURPOSE MICROPHONES

NI-DIRECTIONAL DYNAMIC MICROPHONES

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.

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 3/8"—27 thread and may be mounted on any conventional desk, banquet or floor stand.
SWITCH: On-Off (normally closed)
DIMENSIONS: 7 1/2" high, 1" diameter
NET WEIGHT: 1/2 lb., shipping weight 2 3/4 lbs.
FURNISHED ACCESSORIES: On-Off Switch, with Adapter Plate, A25 type Swivel Adapter, and Lavalier Assembly.
OPTIONAL ACCESSORIES: Model S33B Desk Stand, Model A86A Cable Type Transformer, A28L Lavalier Assembly.

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, 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 3/8"—27 thread, and may be mounted on any conventional desk, banquet or floor stand.
SWITCH: On-Off (normally closed)
DIMENSIONS: 7 1/2" high, 1" diameter
FURNISHED ACCESSORIES: On-Off Switch Adapter plate, A25 type Swivel Adapter.
OPTIONAL ACCESSORIES: Model S33B Desk Stand, A27A Extension Cable, Model A86A Cable Type Transformer and A28L Lavalier Assembly.
GENERAL PURPOSE MICROPHONES

WORLD FAMOUS "UNIDYNE" MICROPHONES

SPECIFICATIONS FOR MODEL 55S

LIST PRICE: $83.00
TYPE: Dynamic
FREQUENCY RESPONSE: 50 to 15,000 cps
OUTPUT LEVEL: L—35-50 ohms —54 db
   (0 db = 1 milliwatt per 10 microbars)
   M—150-250 ohms —55 db
   (0 db = 1 milliwatt per 10 microbars)
   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 the 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 5/8"-27 thread
DIMENSIONS: 73/8" high, 2¾" wide, 3⅜" deep
NET WEIGHT: 33/4 lbs., shipping weight 4⅜ lbs.
OPTIONAL ACCESSORIES: Model S36A Desk Stand, Model A86A Cable Type Transformer, A27A Extension Cable, Models A83B, A84B, A85C, A88A On-Off Switches.

SPECIFICATIONS FOR MODEL 556S

LIST PRICE: $135.00
TYPE: Dynamic
FREQUENCY RESPONSE: 40 to 15,000 cps guaranteed to plus or minus 2½ db.
OUTPUT LEVEL: L—30-50 ohm impedance —54 db
   (0 db = 1 milliwatt per 10 microbars)
   M—150-250 ohm impedance —55 db
   (0 db = 1 milliwatt per 10 microbars)
   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 the 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 5/8"-27 thread
DIMENSIONS: 7¾" high, 2½" wide, 3½" deep
NET WEIGHT: 3½ lbs., shipping weight 4½ lbs.
OPTIONAL ACCESSORIES: Model S33 Desk Stand, Model A86A Cable Type Transformer, A26C Extension Cable.

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 41½% 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.

Model 55S is highly recommended for fine quality public address, theater-stage sound systems, recording and remote broadcasting. It is also the field-proved standard 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.
GENERAL PURPOSE MICROPHONES

The striking-looking new 330 “UNITRON” Microphone has been designed to meet the exacting requirements of professional tape recording and highest quality, indoor public-address systems. The “UNITRON” is basically a member of the Shure Studio Microphone family, similar in appearance and performance to the Model “333”. The “UNITRON” 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. Guaranteed to plus or minus 2½ db.
OUTPUT LEVEL:
50 ohm impedance —59 db*
150 ohm impedance —57 db*
250 ohm impedance —58 db*
*(0 db = 1 milliwatt per 10 microbars)
IMPEDANCE: 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 5/8”-27 thread
DIMENSIONS: 31/2” high, 17/8” wide, 1%” deep
NET WEIGHT: 1½ lb., shipping weight 4 lbs.
OPTIONAL ACCESSORIES: Model S33B Desk Stand A26C Extension Cable, Model A86A Cable-Type Transformer.

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 to 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: $89.50
TYPE: Ribbon
FREQUENCY RESPONSE: 50 to 12,000 cps
OUTPUT LEVEL:
L—30-50 ohm impedance —59.5 db*
M—150-250 ohm impedance —60 db*
H—High —57 db**
*(0 db = 1 milliwatt per 10 microbars)
**(0 db = 1 volt per microbar)
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: 1 lb., shipping weight 3½ lbs.
OPTIONAL ACCESSORIES: Model S36A Desk Stand, Model A86A Cable Type Transformer, A27A Extension Cable, and A83B, A84B, A85C, A88A On-Off Switches.
SPECIFICATIONS FOR MODEL 51

LIST PRICE: $49.50
TYPE: Dynamic
FREQUENCY RESPONSE: 60 to 10,000 cps
OUTPUT LEVEL: L — 35-50 ohm impedance — 53 db*  
M — 150-250 ohm impedance — 52.5 db*  
H — High — 52 db**  

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

IMPEEDANCE: Equipped with a multi-impedance switch, furnishing a choice of 3 impedances—L-35-50 ohms, M-150-250 ohms, H-High

POLAR PATTERN: Semi-directional

MAGNETIC CIRCUIT: Uses Alnico V magnet

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., 2-conductor shielded

STAND THREAD: Standard 5/8”-27 thread

DIMENSIONS: 5x6” high, 3¾” wide, 21/8” deep

NET WEIGHT: 1½ lbs., shipping weight 3½ lbs.

OPTIONAL EQUIPMENT: Model S36A Desk Stand, Model A86A Cable Type Transformer, A27A Extension Cable, Models A83B, A84B, A85C, A88A On-Off Switches.

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 microbar)

IMPEEDANCE: High. Recommended load: 1 to 5 megohms

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 3/8”—27 thread

DIMENSIONS: 4” high, 6½” high with connector, 3½” wide, 1¾” deep.

NET WEIGHT: 1½ lb., shipping weight 2½ lbs.

VERSATILE CRYSTAL MICROPHONES

MODEL 777 "SLIM-X" MICROPHONE

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 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, A25 Swivel stand adapter, S38 Desk Stand.
Model 777SA—$35.00 Includes lavalier cord, A25 swivel stand adapter, S38 Desk Stand and "On-Off" switch.
TYPE: Crystal—moisture-proof "Metal Seal" crystal for long operating life.
FREQUENCY RESPONSE: Smooth, peak free from 60 to 10,000 cps.
OUTPUT LEVEL: -62 db (0 db = 1 volt per microbar)
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 5/8"-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" high, 1" diameter.
NET WEIGHT: (Microphone only) 6 oz., shipping weight 1 lb.
OPTIONAL ACCESSORIES: Model S38 Desk Stand, A25 type Swivel Adapter.

SPECIFICATIONS FOR MODEL 708A

LIST PRICE: $31.00
TYPE: Crystal
FREQUENCY RESPONSE: 60 to 10,000 cps
OUTPUT LEVEL: -51 db (0 db = 1 volt per microbar)
IMPEDANCE: High. Recommended Load impedance: 1 to 5 megohms.
POLAR PATTERN: Essentially non-directional.
CASE: Die cast zinc
FINISH: Iridescent gray
SWIVEL: Self-adjusting swivel permits tilting of microphone through an angle of 90°.
CABLE CONNECTOR: Equivalent to Amphenol MC3M plug.
CABLE: 7 ft., single conductor shielded.
STAND THREAD: Standard 3½"—27 thread
DIMENSIONS: 4½" high, 2½" wide, 4¾" deep
NET WEIGHT: With cable; 1 lb, 4 oz., shipping weight with cable 1 lb. 14 oz.
LOW COST ALL PURPOSE CERAMIC & CRYSTAL MICROPHONES

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-directional

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 5/8"-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

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—50-8,000 cps, Model 715—50-10,000 cps

OUTPUT LEVEL: Model 215—56.5 db (0 db = 1 volt per microbar)

IMPEDANCE: High

POLAR PATTERN: Semi-Directional

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

OPTIONAL ACCESSORIES: Model S34B or S36A Desk Stands

Model 76B

The dependable favorite of noted lecturers, teachers and instructors who must be able to move about the platform freely, while addressing the audience. The 76B provides clear, intelligible reproduction of speech.

LIST PRICE: $29.00

TYPE: Crystal

FREQUENCY RESPONSE: 40 to 6,000 cps

OUTPUT LEVEL: -57 db (0 db = 1 volt per microbar)

IMPEDANCE: High. Recommended load—1 to 5 megohms

POLAR PATTERN: Essentially non-directional

FINISH: Iridescent gray

CLIP: Supplied with an alligator clip especially designed to fasten firmly to the lapel or other parts of the wearing apparel

CABLE: 20 ft., single conductor, shielded

DIMENSIONS: 1¼" in diameter, ¾" deep, 1½" deep with clip

OPTIONAL ACCESSORIES: Model S34B Desk Stand

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 Bi-morph 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)

POLAR PATTERN: Semi-directional

CASE: Die cast zinc

FINISH: Iridescent gray case, satin chrome grille

CABLE: 7 ft., single-conductor shielded

STAND THREAD: Standard 5/8"-27 thread

DIMENSIONS: 3½" high, 2½" diameter

OPTIONAL ACCESSORIES: Model S34B Desk Stand
The new 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.
### Model 430 Omni-Directional "Controlled Magnetic" Microphone

<table>
<thead>
<tr>
<th>Specification</th>
<th>Value</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>List Price</strong>:</td>
<td>$38.50</td>
</tr>
<tr>
<td><strong>Type</strong>:</td>
<td>Controlled Magnetic</td>
</tr>
<tr>
<td><strong>Frequency Response</strong>:</td>
<td>60 to 10,000 cps</td>
</tr>
<tr>
<td><strong>Output Level</strong>:</td>
<td>High — 55 db (0 db = 1 volt per microbar), Low — 54 db (0 db = 1 milliwatt per 10 microbars).</td>
</tr>
<tr>
<td><strong>Impedance</strong>:</td>
<td>Equipped with readily changeable pin jacks (no soldering required). Furnishing a choice of two impedances, L—150 to 250 and H—High.</td>
</tr>
<tr>
<td><strong>Polar Pattern</strong>:</td>
<td>Omni-Directional</td>
</tr>
<tr>
<td><strong>Case</strong>:</td>
<td>Impact-resistant polystyrene and die cast zinc.</td>
</tr>
<tr>
<td><strong>Finish</strong>:</td>
<td>Satin chrome and non-reflecting gray.</td>
</tr>
<tr>
<td><strong>Swivel Adapter</strong>:</td>
<td>A Model A25 type swivel adapter is furnished with the microphone. It is self-adjusting and permits the 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>
<tr>
<td><strong>Stand Thread</strong>:</td>
<td>3/4&quot;—27 thread.</td>
</tr>
<tr>
<td><strong>Cable</strong>:</td>
<td>15 ft., 2-conductor shielded.</td>
</tr>
<tr>
<td><strong>Cable Connector</strong>:</td>
<td>Amphenol MC2M</td>
</tr>
<tr>
<td><strong>Switch</strong>:</td>
<td>Press-to-talk switch—normally closed</td>
</tr>
<tr>
<td><strong>Dimensions</strong>:</td>
<td>Length 61/2&quot;, diameter of top portion 1 3/4&quot;, diameter of handle 3/8&quot;.</td>
</tr>
<tr>
<td><strong>Furnished Accessories</strong>:</td>
<td>Switch locking plate for keeping switch in “on” position, Model A25 type Swivel Adapter.</td>
</tr>
<tr>
<td><strong>Optional Accessories</strong>:</td>
<td>Model A86A Cable Type Transformer and Model S38B Desk Stand.</td>
</tr>
</tbody>
</table>

### Model 420 Omni-Directional "Controlled Magnetic" Microphone

<table>
<thead>
<tr>
<th>Specification</th>
<th>Value</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>List Price</strong>:</td>
<td>$30.00</td>
</tr>
<tr>
<td><strong>Type</strong>:</td>
<td>Controlled Magnetic</td>
</tr>
<tr>
<td><strong>Frequency Response</strong>:</td>
<td>60 to 10,000 cps</td>
</tr>
<tr>
<td><strong>Output Level</strong>:</td>
<td>High — 55 db (0 db = 1 volt per microbar), Low — 54 db (0 db = 1 milliwatt per 10 microbars).</td>
</tr>
<tr>
<td><strong>Impedance</strong>:</td>
<td>Equipped with readily changeable pin jacks (no soldering required). Furnishing a choice of two impedances, L—150 to 250 and H—High.</td>
</tr>
<tr>
<td><strong>Polar Pattern</strong>:</td>
<td>Omni-Directional</td>
</tr>
<tr>
<td><strong>Case</strong>:</td>
<td>Impact-resistant polystyrene.</td>
</tr>
<tr>
<td><strong>Finish</strong>:</td>
<td>Non-reflecting gray.</td>
</tr>
<tr>
<td><strong>Cable</strong>:</td>
<td>20 ft., 2-conductor, non-detachable, shielded.</td>
</tr>
<tr>
<td><strong>Dimensions</strong>:</td>
<td>Length 3 3/4&quot;, diameter 1 3/4&quot;.</td>
</tr>
<tr>
<td><strong>Furnished Accessories</strong>:</td>
<td>Lavalier cord and clip assembly. Readily detachable for use of microphone as a hand-held type.</td>
</tr>
<tr>
<td><strong>Optional Accessories</strong>:</td>
<td>Model A86A Cable Type Transformer.</td>
</tr>
</tbody>
</table>

### Model 415 Omni-Directional "Controlled Magnetic" Microphone

<table>
<thead>
<tr>
<th>Specification</th>
<th>Value</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>List Price</strong>:</td>
<td>$27.50</td>
</tr>
<tr>
<td><strong>Type</strong>:</td>
<td>Controlled Magnetic</td>
</tr>
<tr>
<td><strong>Frequency Response</strong>:</td>
<td>60 to 10,000 cps</td>
</tr>
<tr>
<td><strong>Output Level</strong>:</td>
<td>-55 db (0 db = 1 volt per microbar)</td>
</tr>
<tr>
<td><strong>Impedance</strong>:</td>
<td>High</td>
</tr>
<tr>
<td><strong>Polar Pattern</strong>:</td>
<td>Omni-Directional</td>
</tr>
<tr>
<td><strong>Case</strong>:</td>
<td>Impact-resistant polystyrene—die cast zinc</td>
</tr>
<tr>
<td><strong>Finish</strong>:</td>
<td>Non-reflecting gray and satin chrome.</td>
</tr>
<tr>
<td><strong>Swivel Adapter</strong>:</td>
<td>Furnished with Model A25 type swivel Adapter. It is self-adjusting and permits the 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>
<tr>
<td><strong>Cable</strong>:</td>
<td>7 ft. non-detachable single conductor shielded.</td>
</tr>
<tr>
<td><strong>Stand. Thread</strong>:</td>
<td>With swivel adapter, standard 3/4&quot;—27 thread, and may be mounted on any conventional desk, banquet or floor stand.</td>
</tr>
<tr>
<td><strong>Dimensions</strong>:</td>
<td>Length 6 1/2&quot;, diameter of head 1 3/4&quot;, diameter of handle 3/8&quot;.</td>
</tr>
<tr>
<td><strong>Accessories Furnished</strong>:</td>
<td>Model A25 type Swivel Adapter.</td>
</tr>
<tr>
<td><strong>Optional Accessories</strong>:</td>
<td>Model S38B Desk Stand.</td>
</tr>
</tbody>
</table>
CONTROLLED MAGNETIC MICROPHONES

The “Hercules” is a hand-held unit, ideal for general purpose use in tropical countries and in all coastal areas where heat and humidity are a problem. The “510” provides ruggedness, clear reproduction and high output for public address, communications and recording, wherever high speech intelligibility is vital. It is recommended for Announcing; Mobile Public Address Systems; Communications; Home Recording; and Intercom Systems. The Hercules can be used either indoors or outdoors, fits snugly in the hand, or sits firmly on a desk. Furnished with stand adapter.

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. fabric-covered, single conductor, shielded

STAND THREAD: Standard 5/8"-27 thread

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

NET WEIGHT WITH CABLE: 3/4 lb., shipping weight 1 1/2 lb.

OPTIONAL ACCESSORIES: Models S34B or S36A Desk Stand

The “Dispatcher” is designed to handle the most severe field requirements of paging and dispatching systems. It is wired to operate both microphone and relay circuits. The “Dispatcher” is ideal for police, taxi-cab, railroad, airport, bus, truck, and all emergency communications work where dependability is vital. Large grip-bar assures positive contact. Complete assembly furnished as illustrated.

SPECIFICATIONS: Model 520SL

LIST PRICE: $42.50

TYPE: Controlled Magnetic

FREQUENCY RESPONSE: 100 to 9,000 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 with satin chrome handle and grille

CABLE CONNECTOR: Equivalent to Amphenol MC3M plug

CABLE: 7 ft. high-quality 2 conductor shielded

SWITCH: Equipped with grip-to-talk switch, similar to Shure A88A.

DIMENSIONS: With stand 9 3/4" high, 5" wide, 7" deep

NET WEIGHT WITH CABLE: 2 1/2 lbs., shipping weight 5 lbs.

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: Models 520-520B

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), Model 520B: -51 db (0 db = 1 milliwatt per 10 microbars)

IMPEDANCE: Model 520—High. Recommended load 100,000 ohms or more. Model 520B—Recommended load 150-250 ohms

POLAR PATTERN: Semi-directional

CASE: Die cast zinc

FINISH: Metallic green with satin chrome grille

CABLE: Model 520—7 ft., single conductor shielded. Model 520B—7 ft., two conductor shielded

STAND THREAD: Standard 5/8"-27 thread

DIMENSIONS: Diameter 2 3/8", overall length 3 3/4"

NET WEIGHT: 1 1/2 lb. (with 7 ft. cable), shipping weight 1 1/2 lb.

OPTIONAL ACCESSORIES: Models S34B or S36A Desk Stands. Model A86A cable type transformer (for use with Model 520B)
**Model 505B**

505B, 505K "RANGER"

The Shure "Ranger" is recommended for those applications where long lines are used, and a rugged hand-held microphone is needed. It is ideal for outdoor public address (sports arenas, athletic fields, carnivals, etc.). The "Ranger is designed for high speech intelligibility. Easy to use, fits snugly in the palm of the hand. (Note: In addition to being a direct replacement for the General Electric EM10A, the Model 505K is also ideally suited for those applications requiring a unit with a coiled cord.)

**SPECIFICATIONS**

**FOR MODELS 505B, 505C**

- **LIST PRICE:** $32.00
- **TYPE:** Controlled Magnetic
- **FREQUENCY RESPONSE:** 200 to 8,000 cps
- **OUTPUT LEVEL:** Model 505B -50 db (0 db = 1 milliwatt per 10 microbars)
  - Model 505C -50.5 db (0 db = 1 volt per microbar)
- **IMPEDANCE:** Model 505B, 150-250 ohms
  - Model 505C, High. Recommended load 100,000 ohms or more
- **POLAR PATTERN:** Semi-Directional
- **CASE:** Die cast zinc
- **FINISH:** Blue gray--Wrinkle Enamel
- **CABLE:** Tinsel 5½ ft. extended, 3 conductor (1-conductor shielded) coiled cord
- **SWITCH:** A double-pole, single-throw, leaf-type switch to control the microphone circuit and to control an external relay or switching circuit.
- **DIMENSIONS:** 3⅛" high, 2¾" wide, 2½" deep
- **NET WEIGHT:** 1½ lb., shipping weight 1½ lb.

**Model 505T**

505T "RANGER"

The Model 505T "Ranger" is 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. The 505T does not require batteries or extra power supplies. The 505T provides remarkable speech clarity and it is free from the ageing common to carbon microphones used under conditions of vibration. Model 505T is 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 505T**

- **LIST PRICE:** $48.50
- **TYPE:** Controlled Magnetic (with TRANSISTOR AMPLIFIER)
- **FREQUENCY RESPONSE:** 200 to 4,000 cps
- **OUTPUT LEVEL:** -1 db loaded with 500 ohms (0 db = 1 milliwatt per 100 microbars)
- **POLAR PATTERN:** Semi-Directional
- **IMPEDANCE:** 100,000 ohms or more
- **DIMENSIONS:** 3⅛" high, 2¾" wide, 2½" deep
- **NET WEIGHT:** 1½ lb., shipping weight 1½ 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 db = 1 milliwatt per 100 microbars)
- **POLAR PATTERN:** Semi-directional
CARBON COMMUNICATIONS MICROPHONES

MODEL 100 SERIES MICROPHONES

SPECIFICATIONS FOR MODEL 100 SERIES

LIST PRICE: Model 101C; $30.00 and 102C; $30.00
Model 101E; $33.00 and 102E; $33.00
Model 103; $31.00

TYPE: Carbon

FREQUENCY RESPONSE: 300 to 4,000 cps

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

IMPEDANCE: Recommended load: 50 to 100 ohms

POLAR PATTERN: Semi-directional

CASE: Die cast zinc

FINISH: Blue gray—Wrinkle Finish

CABLE: 11" retracted and 5' extended cable
Model 101C and 102C—Standard Coiled Cord
Model 101E—Tinsel Coiled Cord with Amphenol MC4M Connector
Model 102E—Tinsel Coiled Cord with spade lugs
Model 103—Standard Coiled Cord with Amphenol MC4M Connector

SWITCH: All models equipped with heavy-duty, push-to-talk switch

SWITCH ARRANGEMENT: Models 101C and 101E—2-wire Relay Switch normally open (no microphone switch)
Models 102C and 102E—Relay normally open, Microphone switch normally open
Model 103—2-wire Relay Switch normally open (no microphone switch)

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

NET WEIGHT: 1 lb., shipping weight 1 lb., 6 oz.

REPLACEMENT CHART

<table>
<thead>
<tr>
<th>Manufacturers Models</th>
<th>Replacement Model</th>
</tr>
</thead>
<tbody>
<tr>
<td>CB10, CB10B, CB10C, CB10D, CB15, CB15D</td>
<td>101C</td>
</tr>
<tr>
<td>CB10E</td>
<td>101E</td>
</tr>
<tr>
<td>CB10F, CB10G, CB10H, CB10I</td>
<td>102C</td>
</tr>
<tr>
<td>CB10J, CB10K, CB10L, CB10M, CB10N, CB10O</td>
<td>102E</td>
</tr>
</tbody>
</table>

COILED CORD SETS

Tinsel coiled cord with trimmed and tinned leads and Amphenol MC4M Connector attached for use with General Electric EM10A and 505K Microphones.

MODEL: C10C

List Price: $12.00

STANDARD COPPER COILED CORD with trimmed and tinned leads. Used with 502T, "CB" and "100" Series Microphones.

MODEL: C15C

List Price: $6.25

TINSEL COILED CORD with Amphenol MC4M Connector for use with General Electric equipment.

MODEL: C16C

List Price: $9.50

TINSEL COILED CORD with spade lugs for use in Motorola equipment.

MODEL: C17C

List Price: $7.75

STANDARD COILED CORD with Amphenol MC4M Connector for use with Motorola equipment.

MODEL: C18C

List Price: $9.50

TINSEL COILED CORD with Amphenol MC4M Connector for use with Motorola equipment.

MODEL: C19C

List Price: $9.50

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.

Coiled Cord Sets

Coiled Cord replacement for Shure "100" and "CB" Series Microphones vary from model to model. For specific models see listing below.

<table>
<thead>
<tr>
<th>MODEL</th>
<th>CABLE</th>
<th>MODEL</th>
<th>CABLE</th>
<th>MODEL</th>
<th>CABLE</th>
</tr>
</thead>
<tbody>
<tr>
<td>CB10</td>
<td>C15C</td>
<td>CB102F</td>
<td>C19C</td>
<td>101B</td>
<td>C15C</td>
</tr>
<tr>
<td>CB10B</td>
<td>C15C</td>
<td>CB10E</td>
<td>C15C</td>
<td>101E</td>
<td>C15C</td>
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<tr>
<td>CB10D</td>
<td>C15C</td>
<td>CB115</td>
<td>C15C</td>
<td>102B</td>
<td>C15C</td>
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<td>CB10E</td>
<td>C15C</td>
<td>CB15B</td>
<td>C15C</td>
<td>102C</td>
<td>C15C</td>
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<tr>
<td>CB10F</td>
<td>C15C</td>
<td>CB15C</td>
<td>C15C</td>
<td>102D</td>
<td>C15C</td>
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<td>CB12</td>
<td>C15C</td>
<td>CB15D</td>
<td>C15C</td>
<td>103</td>
<td>C15C</td>
</tr>
<tr>
<td>CB12A</td>
<td>C15C</td>
<td>CB15F</td>
<td>C18C</td>
<td></td>
<td></td>
</tr>
<tr>
<td>CB12B</td>
<td>C15C</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>CB12D</td>
<td>C18C</td>
<td>T01A</td>
<td>C15C</td>
<td>103</td>
<td>C18C</td>
</tr>
</tbody>
</table>
### Sound Level Microphone

**Model 98B99**

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 “Humi-Seal” foil wrap. Features uniform frequency response; high sensitivity; high acoustical and electromagnetic induction; freedom from electrostatic response; high sensitivity; high acoustical and industrial problems. No external terminal resistance employed.

Model 98B99

**SPECIFICATIONS FOR MODEL 98B99**

**LIST PRICE:** $97.50

**TYPE:** Crystal

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

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

**POLAR PATTERN:** Omni-directional

**CASE:** Die cast zinc

**FINISH:** Satin chrome

**CABLE CONNECTOR:** Cannon XL-3-11

**DIMENSIONS:** 1 1/8” diameter, 2 5/8” long

**NET WEIGHT:** 3.8 oz.

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### Vibration Pickup

**Model 61B**

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. Triple moisture-sealed Grafoil Bimorph Crystal element. The Model 61B may be fastened to an object or used with the furnished extension rod for point-to-point tests.

Model 61B

**SPECIFICATIONS FOR MODEL 61B**

**LIST PRICE:** $97.50

**TYPE:** Crystal

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

**INTERNAL IMPEDANCE:** Equivalent to .005 microfarad capacitor. Recommended Load: ½ to 5 megohms

**CASE:** Die cast aluminum

**FINISH:** Baked black enamel

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

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

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### Microphone Replacement Cartridges

**Model R10**


Model R10

**LIST PRICE:** $8.50

**TYPE:** Controlled Magnetic

**FREQUENCY RESPONSE:** MCI—400 to 3,000 cps, MC20—400 to 4,500 cps, MC30—400 to 3,500 cps

**OUTPUT LEVEL:** MC11—−71 db (0 db = 1 volt per microbar), MC20—−75 db (0 db = 1 volt per microbar), MC30—−76 db (0 db = 1 volt per microbar)

**IMPEDANCE:** MC11—1,000 ohms, MC20—1,100 ohms, MC30—1,850 ohms

**CASE:** Brass

**FINISH:** Cadmium plated

**TERMINALS:** MC11—Eyelet Solder Type, MC20—1/16” flexible lead type, MC30—Eyelet solder terminals

**DIMENSIONS:** MC11 (circular) 3/16” diameter, 3/8” thick, MC20 (rectangular) 3/8” wide, 3/8” long, 3/8” thick, 3/8” thick, MC30 (rectangular) 5/8” wide, 5/8” long, 2 5/8” thick

**NET WEIGHT:** MC11—12 1/2 grams, MC20—9.6 grams, MC30—3.7 grams

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### Low Impedance Microphone Cartridge

**Model R5B**

Model R5B is the replacement cartridge for cartridges used in microphone models 503B and 520B. Model R5B is physically identical to Model R5; but low impedance (150 to 250 ohms). Can be used in any R5 applications which require a low impedance cartridge.

Model R5B

**LIST PRICE:** $11.00

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### Microphone Replacement Cartridges

**Model 99A186**

The Model 99A186 replacement cartridge assembly for the 777 Series Slim-X Microphones. Crystal element metal-sealed for long life under adverse conditions of heat and humidity. Requires only one solder connection.

Model 99A186

**LIST PRICE:** $10.00

**MODEL R5**

Direct replacement for cartridges used in the following Shure microphone models: 501C, 510MD, 510S, 520, 5205L and 505C. Also ideal for replacement of crystal cartridges in Shure cases of the Model 707A and 708A Series, where heat and humidity are a problem. Supplied with rubber mounting ring.

Model R5

**LIST PRICE:** $11.00

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### Small Controlled Magnetic Microphones

The MC Series of small microphones are specially designed for use in vacuum-tube devices, such as small, compact hearing-aid 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.

MC11 (Circular)

**LIST PRICE:** $12.50

MC20 (Rectangular)

**LIST PRICE:** $14.00

MC30 (Rectangular)

**LIST PRICE:** $20.00

**SPECIFICATIONS FOR MODELS**

MC11, MC20 and MC30

**LIST PRICE:**

MC11—$12.50

MC20—$14.00

MC30—$20.00

**TYPE:** Controlled Magnetic

**FREQUENCY RESPONSE:** MC11—400 to 3,000 cps, MC20—400 to 4,500 cps, MC30—400 to 3,500 cps

**OUTPUT LEVEL:** MC11—−71 db (0 db = 1 volt per microbar), MC20—−75 db (0 db = 1 volt per microbar), MC30—−76 db (0 db = 1 volt per microbar)

**IMPEDANCE:** MC11—1,000 ohms, MC20—1,100 ohms, MC30—1,850 ohms

**CASE:** Brass

**FINISH:** Cadmium plated

**TERMINALS:** MC11—Eyelet Solder Type, MC20—1/16” flexible lead type, MC30—Eyelet solder terminals

**DIMENSIONS:** MC11 (circular) 3/16” diameter, 3/8” thick, MC20 (rectangular) 3/8” wide, 3/8” long, 3/8” thick, 3/8” thick, MC30 (rectangular) 5/8” wide, 5/8” long, 2 5/8” thick

**NET WEIGHT:** MC11—12 1/2 grams, MC20—9.6 grams, MC30—3.7 grams

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### Special Purpose Microphones

**Microphone Replacement Cartridge**

**MODEL R10**


**LIST PRICE:** $8.50

**TYPE:** Controlled Magnetic

**FREQUENCY RESPONSE:** MCI—400 to 3,000 cps, MC20—400 to 4,500 cps, MC30—400 to 3,500 cps

**OUTPUT LEVEL:** MC11—−71 db (0 db = 1 volt per microbar), MC20—−75 db (0 db = 1 volt per microbar), MC30—−76 db (0 db = 1 volt per microbar)

**IMPEDANCE:** MC11—1,000 ohms, MC20—1,100 ohms, MC30—1,850 ohms

**CASE:** Brass

**FINISH:** Cadmium plated

**TERMINALS:** MC11—Eyelet Solder Type, MC20—1/16” flexible lead type, MC30—Eyelet solder terminals

**DIMENSIONS:** MC11 (circular) 3/16” diameter, 3/8” thick, MC20 (rectangular) 3/8” wide, 3/8” long, 3/8” thick, 3/8” thick, MC30 (rectangular) 5/8” wide, 5/8” long, 2 5/8” thick

**NET WEIGHT:** MC11—12 1/2 grams, MC20—9.6 grams, MC30—3.7 grams
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
LIST PRICE $5.00
MODEL A84B
LIST PRICE $11.00
MODEL A85C
LIST PRICE $11.00

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
IMPEDANCE: Matches 35-50 ohm and 150-250 ohm microphones to high impedance amplifier input
CASE: Compact, sturdy and magnetically shielded steel
FINISH: Two-tone gray
CABLE: 2 ft.
DIMENSIONS: 7%" long, 15%" diameter
NET WEIGHT: 1¼ lbs., shipping weight 1¾ lbs.

MICROPHONE EXTENSION CABLES
Here, for the first time, is an easy, convenient way to add extra lengths of cable. These 25-foot extension cables can be attached to existing cables without the use of tools—wiring—or soldering.
The A26C, 25 feet long, is a two-conductor, shielded cable with Cannon XL-3-11 and XL-3-12 plugs. It will fit the following Shure microphones and their respective cables: 556B, 525, 530, 300, 330 and 333. LIST PRICE $15.00

DESK STANDS

TAKE-APART STAND
Model S34B. Handy low-cost 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.
MODEL S34B
LIST PRICE $4.50

BROADCAST DESK STAND
Model S33. Baked Bronze Finish. For use with Models 300, 333, 525.
MODEL S33
LIST PRICE $15.00
MODEL S33B—Same as S33—in black finish. For use with Models 330, 330, 535, 556S, 415 and 430. LIST PRICE $15.00

MODERN DESK STAND
Model S36A. Streamlined Desk Mount fits all Shure connector-type microphones. Adapter provided for mounting other type microphones. Ideal for use with Model A88A switch. The S36A is designed for use with all Shure microphones except the 505 Series, 100 Series, 76B and 420 Microphones. 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 adaptor to stand base.
Model S38 for use with 777 Series microphones.
Model S38B for use with "Commando" microphone Models 415 and 430.
MODELS S38 AND S38B
LIST PRICE $4.50

SWIVEL ADAPTER
Model A25. To be used with Slendyne Models 525, 530 and 535, 777 Series and Commando Models 415 and 430—for use with standard desk or floor stand.
MODEL A25
LIST PRICE $5.50

LAVALIER ASSEMBLY
Model A28L. For use with Slendyne Model 535.
MODEL A28L
LIST PRICE $4.50
### Magnetic Recording Heads

#### 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 Recording Coil</th>
</tr>
</thead>
<tbody>
<tr>
<td>815 (Fig. A)</td>
<td>3.75&quot; per sec</td>
<td>25KC DC</td>
<td>.05 ma</td>
<td>1.25 ma</td>
<td>27 ma</td>
<td>750 ohm at 25KC</td>
<td>1450 ohm at 1000 cps</td>
</tr>
<tr>
<td>815H (Fig. A)</td>
<td>3.75&quot; per sec</td>
<td>25KC DC</td>
<td>.03 ma</td>
<td>.75 ma</td>
<td>27 ma</td>
<td>750 ohm at 25KC</td>
<td>180 ohm</td>
</tr>
<tr>
<td>816 (Fig. B)</td>
<td>3.75&quot; per sec</td>
<td>25KC DC</td>
<td>.06 ma</td>
<td>.84 ma</td>
<td>27 ma</td>
<td>750 ohm at 25KC</td>
<td>5800 ohm 1000 cps</td>
</tr>
<tr>
<td>817 (Fig. C)</td>
<td>3.75&quot; per sec</td>
<td>25KC DC</td>
<td>.06 ma</td>
<td>.82 ma</td>
<td>27 ma</td>
<td>750 ohm at 25KC</td>
<td>556 ohm</td>
</tr>
<tr>
<td>TR30 &amp; TR35 (Fig. E &amp; Fig. F)</td>
<td>3.75&quot; per sec</td>
<td>25KC 50KC DC</td>
<td>.05 ma 50KC DC .06 ma 50KC DC</td>
<td>1.25 ma 50KC DC .75 ma 50KC DC</td>
<td>27 ma 50KC DC</td>
<td>750 ohm at 25KC 1800 ohm at 1000cps</td>
<td></td>
</tr>
<tr>
<td>TE2 (Fig. C)</td>
<td>3.75&quot; per sec</td>
<td>25KC DC</td>
<td>.05 ma</td>
<td>.75 ma</td>
<td>27 ma</td>
<td>750 ohm at 25KC</td>
<td>180 ohm</td>
</tr>
<tr>
<td>TE2 &amp; TE35 (Fig. C)</td>
<td>3.75&quot; per sec</td>
<td>25KC 50KC DC</td>
<td>.05 ma 50KC DC .06 ma 50KC DC</td>
<td>1.25 ma 50KC DC .75 ma 50KC DC</td>
<td>27 ma 50KC DC</td>
<td>750 ohm at 25KC 1800 ohm at 1000cps</td>
<td></td>
</tr>
<tr>
<td>TRC10 (Fig. G)</td>
<td>7.5&quot; per sec</td>
<td>75KC DC</td>
<td>.34 ma</td>
<td>1.0 ma</td>
<td>27 ma</td>
<td>750 ohm at 25KC</td>
<td>4000 ohm 1000 cps</td>
</tr>
</tbody>
</table>

* Determined in accordance with RTMA Standard REC-184 August 1949.
** Erase current chosen for 50 db Erasure of Saturated 400 C.P.S. Recording.
---

### Recording Head Dimensions

**Model 817 (Fig. C)**
- Width: .552" Depth: .5" Height: .755"

**Model TR21C (Fig. G)**
- Width: .600" Depth: .21" Height: .755"

### Numerical List of SHURE Tape Heads Used in Original Equipment

<table>
<thead>
<tr>
<th>Model</th>
<th>Illustr.</th>
<th>List P#</th>
<th>Description</th>
<th>Operating Data</th>
</tr>
</thead>
<tbody>
<tr>
<td>812</td>
<td>Fig. D</td>
<td>$20.00</td>
<td>Wire Recording Head.</td>
<td>Not Shown</td>
</tr>
<tr>
<td>815</td>
<td>Fig. A</td>
<td>15.00</td>
<td>Upper track recording. Low impedance record-playback coil.</td>
<td>See 815</td>
</tr>
<tr>
<td>815H</td>
<td>Fig. A</td>
<td>15.00</td>
<td>Upper track recording. High impedance record-playback coil.</td>
<td>See 815H</td>
</tr>
<tr>
<td>817</td>
<td>Fig. C</td>
<td>9.00</td>
<td>.093&quot; record track width. Low impedance record-playback coil.</td>
<td>See 817</td>
</tr>
<tr>
<td>TR3B</td>
<td>Fig. A</td>
<td>17.00</td>
<td>Upper track recording with 14-inch completely insulated leads. Cinch Plug attached.</td>
<td>See 815*</td>
</tr>
<tr>
<td>TR5N</td>
<td>Fig. A</td>
<td>16.00</td>
<td>Special Shield. Special Leads. Special Plug.</td>
<td>See 815*</td>
</tr>
<tr>
<td>TR6Z-2</td>
<td>Fig. A</td>
<td>18.50</td>
<td>Upper track recording. High impedance record-playback coil.</td>
<td>See 815H</td>
</tr>
<tr>
<td>TR6</td>
<td>Fig. B</td>
<td>12.00</td>
<td>Lower track recording. Low impedance record-playback coil.</td>
<td>See 816</td>
</tr>
<tr>
<td>TR6Q</td>
<td>Fig. B</td>
<td>12.00</td>
<td>Lower track recording. Low impedance record-playback coil.</td>
<td>See 816</td>
</tr>
<tr>
<td>TR6H</td>
<td>Fig. B</td>
<td>12.00</td>
<td>Upper track recording. High impedance record-playback coil.</td>
<td>See 816</td>
</tr>
<tr>
<td>TR16</td>
<td>Fig. C</td>
<td>9.00</td>
<td>.093&quot; record track width. High impedance record-playback coil.</td>
<td>Not Shown</td>
</tr>
<tr>
<td>TR28</td>
<td>Fig. C</td>
<td>11.00</td>
<td>.093&quot; record track with (.1 mil gap). High impedance record-playback coil.</td>
<td>Not Shown</td>
</tr>
<tr>
<td>TR30</td>
<td>Fig. C</td>
<td>20.00</td>
<td>Microgap. .063&quot; record track width (.1 mil gap). 500 mH inductance.</td>
<td>See TR30</td>
</tr>
<tr>
<td>TE2</td>
<td>Fig. C</td>
<td>7.00</td>
<td>Erase head. .156&quot; erase track width.</td>
<td>See TE2</td>
</tr>
<tr>
<td>TE30</td>
<td>Fig. F</td>
<td>20.00</td>
<td>Microgap. .110&quot; erase track width.</td>
<td>See TE30</td>
</tr>
<tr>
<td>TE21C</td>
<td>Fig. F</td>
<td>20.00</td>
<td>Microgap. .110&quot; erase track width.</td>
<td>See TE2</td>
</tr>
<tr>
<td>TR21C</td>
<td>Fig. G</td>
<td>14.00</td>
<td>.093&quot; Record Track Width. Record-Playback Coil.</td>
<td>See TR21C</td>
</tr>
</tbody>
</table>

*Operating data only. 815 does not replace.
**Operating data only. 816 does not replace.

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Note: For replacement information, write for free Replacement Manual No. RM-58
**IMPROVE THE QUALITY OF ALL CONVENTIONAL HOME PHONOGRAPHs!**

We make these strong claims: the "Twin-Lever" Series of Improvement Cartridges are the finest replacement cartridges ever developed. They set a new high, leaving all other replacement cartridges far behind in terms of tone superiority... individual needle compliance for superior standard and fine-groove response... unique needle shift design. Needle replacement is fast and easy. No tools are needed. Cartridges do not have to be removed from tone arms.

---

**REPLACEMENT KITS**

**RK-58 REPLACEMENT KIT**

3 CARTRIDGES REPLACE 92!

The RK-58 contains the models WC6, WC6TM and W9—all "Twin-Lever" cartridges—plus a FREE A6S needle assembly which will replace the existing needles in the model WC6 or model WC6TM. (For complete technical features see page 21.)

List Price $38.50

**RK-56 REPLACEMENT KIT**

3 CARTRIDGES REPLACE 217!

The RK-56 contains the models WC10, W70 and W72.  
(For complete technical features see page 21.)

List Price $22.95

**RK-54 REPLACEMENT KIT**

3 CARTRIDGES REPLACE 192!

The RK-54 contains the models W22, W26 and W78.  
(For complete technical features see page 21.)

List Price $21.55

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**MODEL WC10:**

This 3-speed dual-needle cartridge replaces and out-performs 157 3-speed, plastic cased, ceramic and crystal, turnover and single needle cartridges! See page 21 for technical information.

List Price $9.50

**MODEL W9:**

For the first time...a five-volt phono cartridge with response to 10,000 cpm. For improvement-replacement applications! This 3-speed, dual-needle, dual-voltage, crystal cartridge replaces and out-performs 69 high output cartridges. Dramatically improves the sound of low cost, low-gain phonographs. See page 21 for technical information.

List Price $9.50

**MODEL WC6:**

This 3-speed, dual-needle ceramic cartridge is recommended as the finest quality replacement-improvement for all other ceramic cartridges with plastic cases. With the WC6 you can actually improve the reproduction of even the finest quality ceramic cartridges which are currently used for high fidelity applications! See page 21 for technical information.

List Price $14.50

---

**The "MUSIC LOVERS CARTRIDGE"**

for High Fidelity Systems

The "Music Lovers" Cartridge is a three-speed ceramic cartridge that reproduces all records sharply and clearly.

It is equipped for mechanical interchangeability with magnetic pickups, and for direct connection to magnetic inputs of amplifiers, thus allowing the full advantages of compensation circuits.

- Model ML44 (SS)  
  List Price $13.95
- Model ML44 (DS)  
  List Price $38.95
- Model ML44 (DD)  
  List Price $57.90

---

**PHONOGRAPH PICKUP NEEDLES**

<table>
<thead>
<tr>
<th>MODEL</th>
<th>ILLUSTRATION</th>
<th>DESCRIPTION</th>
<th>LIST PRICE</th>
</tr>
</thead>
<tbody>
<tr>
<td>A15</td>
<td>Fig. B</td>
<td>Std. and MG Sapphire</td>
<td>$5.90</td>
</tr>
<tr>
<td>A15T</td>
<td>Fig. B</td>
<td>Std. and MG Sapphire</td>
<td>$5.90</td>
</tr>
<tr>
<td>A16S</td>
<td>Fig. B</td>
<td>Std. and MG Sapphire</td>
<td>$5.90</td>
</tr>
<tr>
<td>A16GS</td>
<td>Fig. B</td>
<td>MG Diamond, Std. Saphire</td>
<td>$18.00</td>
</tr>
<tr>
<td>A16S</td>
<td>Fig. E</td>
<td>WC2/3/32 mg Saphire</td>
<td>$3.50</td>
</tr>
<tr>
<td>A52A</td>
<td>Fig. C</td>
<td>Std. Saphire</td>
<td>$1.90</td>
</tr>
<tr>
<td>A53MG</td>
<td>Fig. C</td>
<td>MG Orinum</td>
<td>$1.50</td>
</tr>
<tr>
<td>A560**</td>
<td>Fig. C</td>
<td>All Purpose Orinum Unipoint</td>
<td>$3.50</td>
</tr>
<tr>
<td>A560**</td>
<td>Fig. C</td>
<td>All Purpose Orinum Unipoint</td>
<td>$3.50</td>
</tr>
<tr>
<td>A56A</td>
<td>Fig. A</td>
<td>Std. Saphire</td>
<td>$2.50</td>
</tr>
<tr>
<td>A56A</td>
<td>Fig. A</td>
<td>Std. Orinum</td>
<td>$1.75</td>
</tr>
<tr>
<td>A56MG</td>
<td>Fig. A</td>
<td>MG Orinum</td>
<td>$2.50</td>
</tr>
<tr>
<td>A56MG</td>
<td>Fig. A</td>
<td>MG Orinum</td>
<td>$2.00</td>
</tr>
<tr>
<td>A56U</td>
<td>Fig. A</td>
<td>All Purpose Orinum Unipoint</td>
<td>$1.50</td>
</tr>
<tr>
<td>A56U</td>
<td>Fig. A</td>
<td>All Purpose Orinum Unipoint</td>
<td>$1.50</td>
</tr>
<tr>
<td>A56D</td>
<td>Fig. D</td>
<td>Gom. Playback Needle - Stable Cutting Style</td>
<td>$3.50</td>
</tr>
<tr>
<td>A56A</td>
<td>Fig. F</td>
<td>MG Saphire</td>
<td>$2.50</td>
</tr>
<tr>
<td>ARCA</td>
<td>Fig. F</td>
<td>Std. Saphire</td>
<td>$2.50</td>
</tr>
<tr>
<td>A7LU</td>
<td>All Purpose Orinum Unipoint</td>
<td>$1.50</td>
<td></td>
</tr>
</tbody>
</table>

*Standard Red Shall Needle Not Illustrated.  
**Used in Cartridge Models P212 and WC6B.  
***Used in Models P212 and WC6.  
****Standard Straight Needle Not Illustrated.  
*****High-quality diamond-type synthetics for use in high-fidelity work.  
******Cannot be replaced by A56S or MG series needles.  
*******Crystal and Diamond Cartridges manufactured under U.S. Patents and Trade Marks.
### Fine Groove Cartridges For 33 1/3, 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>
</tr>
</thead>
<tbody>
<tr>
<td>WC26</td>
<td>Fig. C</td>
<td>Ceramic</td>
<td>$6.50</td>
<td>1.87V</td>
<td>8 grams</td>
<td>10,000 cps</td>
<td>4 1/2 grams</td>
<td>WC26</td>
</tr>
<tr>
<td>WC11*</td>
<td>Fig. B</td>
<td>Crystal</td>
<td>7.75</td>
<td>1.5V</td>
<td>6 grams</td>
<td>10,000 cps</td>
<td>4 1/2 grams</td>
<td>WC11*</td>
</tr>
<tr>
<td>WC11A</td>
<td>Fig. A</td>
<td>Crystal</td>
<td>6.50</td>
<td>2.2V</td>
<td>7 grams</td>
<td>7,000 cps</td>
<td>5 1/2 grams</td>
<td>WC11A</td>
</tr>
</tbody>
</table>

*Note: For replacement information, write for free Replacement Manual No. RM-58*

### "Twin-Lever" Cartridges For 33 1/3, 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>
</tr>
</thead>
<tbody>
<tr>
<td>WC1</td>
<td>Fig. H</td>
<td>Ceramic</td>
<td>$14.50</td>
<td>3.3V</td>
<td>4-6 grams</td>
<td>15,000 cps</td>
<td>7 grams</td>
<td>WC1</td>
</tr>
<tr>
<td>WC15T</td>
<td>Fig. R</td>
<td>Ceramic</td>
<td>$14.50</td>
<td>3.3V</td>
<td>4-6 grams</td>
<td>15,000 cps</td>
<td>7 grams</td>
<td>WC15T</td>
</tr>
<tr>
<td>WC10</td>
<td>Fig. J</td>
<td>Crystal</td>
<td>9.50</td>
<td>3.5V</td>
<td>11 grams</td>
<td>10,000 cps</td>
<td>7 grams</td>
<td>WC10</td>
</tr>
<tr>
<td>WC10D</td>
<td>Fig. H</td>
<td>Ceramic</td>
<td>34.00</td>
<td>7.8V</td>
<td>10-15 grams</td>
<td>12,000 cps</td>
<td>7 grams</td>
<td>WC10D</td>
</tr>
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</table>

### Turnover Cartridges For 33 1/3, 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>
</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>4 1/2 grams</td>
<td>W22</td>
</tr>
<tr>
<td>W22T</td>
<td>Fig. E</td>
<td>Crystal</td>
<td>10.00</td>
<td>1.2V</td>
<td>8 grams</td>
<td>10,000 cps</td>
<td>12 1/2 grams</td>
<td>W22T</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>4 1/2 grams</td>
<td>WC24</td>
</tr>
<tr>
<td>WC24T</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>12 1/2 grams</td>
<td>WC24T</td>
</tr>
<tr>
<td>WC35</td>
<td>Fig. K</td>
<td>Ceramic</td>
<td>9.50</td>
<td>0.65V</td>
<td>8 grams</td>
<td>7,000 cps</td>
<td>6 grams</td>
<td>WC35</td>
</tr>
<tr>
<td>WC7 + g</td>
<td>Fig. L</td>
<td>Crystal</td>
<td>8.50</td>
<td>3V</td>
<td>16-19 grams</td>
<td>5,000 cps</td>
<td>7 grams</td>
<td>WC7 + g</td>
</tr>
</tbody>
</table>

### All Purpose Single Needle Cartridges For 33 1/3, 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>
</tr>
</thead>
<tbody>
<tr>
<td>W26</td>
<td>Fig. B</td>
<td>Crystal</td>
<td>$6.50</td>
<td>0.87V</td>
<td>8 grams</td>
<td>8,000 cps</td>
<td>4 1/2 grams</td>
<td>W26</td>
</tr>
<tr>
<td>W28A</td>
<td>Fig. A</td>
<td>Ceramic</td>
<td>6.50</td>
<td>0.82V</td>
<td>9 grams</td>
<td>10,000 cps</td>
<td>5 1/2 grams</td>
<td>W28A</td>
</tr>
<tr>
<td>W60B</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>W60B</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>W70</td>
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</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>
</tr>
</thead>
<tbody>
<tr>
<td>W54N**</td>
<td>Fig. N</td>
<td>Crystal</td>
<td>$8.50</td>
<td>4.3V</td>
<td>1 oz</td>
<td>10,000 cps</td>
<td>12 grams</td>
<td>W54N**</td>
</tr>
<tr>
<td>W6A†</td>
<td>Fig. O</td>
<td>Crystal</td>
<td>7.50</td>
<td>1.6V</td>
<td>1 oz</td>
<td>4,500 cps</td>
<td>Dual Wt, 25 grams or 12 grams</td>
<td>W6A†</td>
</tr>
<tr>
<td>W70†</td>
<td>Fig. M</td>
<td>Crystal</td>
<td>5.55</td>
<td>4.0V or 2.8V</td>
<td>1 oz</td>
<td>6,000 cps</td>
<td>Dual Wt, 25 grams or 12 grams</td>
<td>None</td>
</tr>
</tbody>
</table>

*With 423 Mount for Oak Changer.

**Cutter-Cartridge for Wilcox-Grey "Recordette." Equipped with bifurcated needle.


-Dual-Weight Cartridge. Has some weight-slug as Model WC8, with some net weight differential. In addition, Model W78 has capactor furnished as accessory. Without capacitor, output is 4.0 volts. With capacitor, output is 2.0 volts.

-Not a turnover type. Needles are set into tracking position by ingenious "Twin Lever" needle shift system.

-Model WC8 has capacitor furnished as accessory. Without capacitor, output is as shown above. With capacitor, output is 1.7 volts for 33 1/3, 45 RPM, 1.5 volts for 78 RPM.

†Model W72 has a slip-on capacitor furnished as accessory. With the Capacitor, output is 2 volts for 78 RPM, 1.5 volts for 33 1/3, 45 RPM, Without the capacitor, output is 4 volts for 78 RPM, 3 volts for 33 1/3, 45 RPM.

To mount, please consult Magnovox cartridge replacement.

Note: For replacement information, write for free Replacement Manual No. RM-58
... This is the remarkable Phono Reproducer that tracks at 1 GRAM -- actually makes it impossible to scratch records!

It has long been recognized that elimination of record and stylus wear requires that tracking force be reduced below the level of 2 grams. However, attempts to utilize conventional cartridges and arms with these extremely light forces were uniformly unsatisfactory, providing the need for a completely new basic-research approach to a practical, integrated arm and cartridge-developed specifically for use at a tracking force of 1 gram. As a result of such a research program, carried out in the Shure Acoustical Development Laboratories, the Studio Dynetic Phono Reproducer came into being.

The Studio Dynetic will track at 1 gram—without any sacrifice of those other features so necessary for truly highest quality reproduction of the sound from your phonograph records—not just on the first few playings—but on the one hundredth or one thousandth playing. Even delicate “Lacquer Masters” can be played with complete safety, eliminating the need for “deep-freezing” to achieve record hardening.

**Model M16** — Studio Dynetic Phono Reproducer including M1 cartridge with .0007” Diamond Stylus. (For playing records up to 16”) Net Price: $79.50

**Model M12** — Studio Dynetic Phono Reproducer including M1 cartridge with .0007” Diamond Stylus. (For playing records up to 12”) Net Price: $79.50

**Model M1** — Studio Dynetic Cartridge for LP records with .0007” Diamond Stylus. Net Price: $42.00

**Model M2** — Studio Dynetic Cartridge for 78 rpm records with .0027” Diamond tip. Net Price: $42.00

**Model N1** — Studio Dynetic Stylus with .0007” Diamond tip. Net Price: $21.00

**Model N2** — Studio Dynetic Stylus with .0027” Diamond tip. Net Price: $21.00

**Model A29R** — Adapter Plate for use with Model M12 for mounting purposes with the Rek-O-Kut turntable. Net Price: $2.40

**SPECIAL FEATURES**

1. **Dynetic Principle:**
   A moving magnet within a stationary coil. High permeability shield and hum-bucking arrangement of coil prevents pick up of hum.

2. **Friction Free Suspension:**
   Jewel bearings throughout. Cartridge is pivoted on sleeve and cap jeweled bearings. Arm pivot is a ruby thrust bearing.

3. **Safety Control:**
   Provides for remote retraction of the cartridge and stylus without danger of damage to record and stylus from careless handling.

4. **Dynamic Damping:**
   Arm counterbalance floats on a damped suspension bar. This system provides critical damping (even in the subsonic range) without impeding normal motions of the arm.

5. **Geometric Configuration:**
   Arm is reinforced, tapered channel of durable aluminum. Dynetic principle permits off-setting the stylus to provide proper tracking angle—avoiding the complications of curved tone arms or offset cartridges.

6. **Ease of Installation:**
   The Studio Dynetic can be used with any high quality transcription type turntable. Only one hole must be drilled to install the arm on conventional mounting boards. Exceptional ease of height adjustment.

7. **Laboratory Production:**
   Each Studio Dynetic Phono Reproducer is custom-produced in a special Shure engineering laboratory—and is individually tested electrically, acoustically and mechanically. Each unit must meet all specifications and standards before it is approved for packaging and shipment.

**SPECIFICATIONS:**

- Tracking Force: 1 gram
- Frequency Response: 20 to 20,000 cps plus or minus 2 db
- Sensitivity: Output at 1000 cycles—14 millivolts for 10 cms/sec
- Recommended Input Impedance: 10,000 ohms
- Inductance: 130 millihenrys
- DC Resistance: 180 ohms
- Stylus: .0007” Diamond
- Needle Compliance: 7 x 10^-6
- Needle Tip Mass: 1.25 milligrams

**DIMENSIONS:**

<table>
<thead>
<tr>
<th>Model</th>
<th>Model M16</th>
<th>Model M12</th>
</tr>
</thead>
<tbody>
<tr>
<td>Over-all length:</td>
<td>14 3/4”</td>
<td>11 5/8”</td>
</tr>
<tr>
<td>Stylus tip to center of arm base:</td>
<td>11”</td>
<td>8 1/2”</td>
</tr>
<tr>
<td>Arm base diameter:</td>
<td>2”</td>
<td>2”</td>
</tr>
<tr>
<td>Range of height adjustment:</td>
<td>1 3/4”</td>
<td>1 3/8”</td>
</tr>
<tr>
<td>Arm pivot to turntable center:</td>
<td>10 3/4”</td>
<td>8 1/4”</td>
</tr>
<tr>
<td>Net weight (arm and cartridge):</td>
<td>11.1 oz.</td>
<td>10.6 oz.</td>
</tr>
</tbody>
</table>
... FOR HIGH FIDELITY ENTHUSIASTS
WHO WANT PERFORMANCE THAT
SURPASSES ANY OTHER
SEPARATE CARTRIDGE

The new Shure Professional Dynetic Phono Cartridge
is for use in record-changers and transcription-type
arms—installations where premium quality is para-
mount. It is rapidly becoming known among critical
music lovers as the pre-eminent high fidelity monaural
phono cartridge.

SPECIAL FEATURES

1. The heralded dynetic principle of moving-magnet
   reproduction.

2. High compliance and low effective needle mass
   provide excellent tracking with minimum record
   wear and minimum distortion.

3. Completely eliminates magnetic attraction to steel
   (changer) turntables.

4. Surpresses magnetic hum induced from external
   hum fields.

5. Needle replacement is exceptionally simple and
   fast. No tools are required—and you can replace
   the needle right in your home, without even
   removing the cartridge from the tone arm.

6. Reproduces everything on the record—clearly and
   with superlative definition—far superior to con-
   ventional magnetic high fidelity cartridges.

7. High degree of both vertical and lateral compli-
   ance making it possible for you to play your
   records with an absolute minimum of needle talk
   and wear.

Model M5D—Professional Dynetic Phono Car-
tridge for LP records including N5D
.001" diamond stylus.

   Net Price: $27.50

Model M6S—Professional Dynetic Phono Car-
tridge for 78 rpm records including
N6S .003" Sapphire stylus.

   Net Price: $15.00

Model N5D—Professional Dynetic Stylus with
.001" diamond tip.

   Net Price: $16.50

Model N6S—Professional Dynetic Stylus with
.003" sapphire tip.

   Net Price: $5.00

SPECIFICATIONS:

FREQUENCY RESPONSE: 20 to 20,000 cps
SENSITIVITY: Output at 1,000 cycles—21 milli-
volts for 10 cms/sec.
RECOMMENDED LOAD IMPEDANCE: 27,000 ohms
COMPLIANCE: 3 x 10^-4 centimeters per dyne
TRACKING FORCE: 2 to 6 grams
INDUCTANCE: 350 millihenries
DC RESISTANCE: 440 ohms
WEIGHT: 12.4 grams

Model M5D—for use with micro-groove
records, 331/3-45 r.p.m.

Model M6S—for use with standard records,
78 r.p.m.
The quality products in the Shure line of microphones...high fidelity reproducers...replacement phonograph cartridges...magnetic recording heads...and electronic components are available at the authorized Shure Distributor indicated below.

SHURE BROTHERS, INC., 222 HARTREY AVENUE, EVANSTON, ILLINOIS