

SHURE GENERAL CATALOG

No. **60**



SHURE

MICROPHONES AND ELECTRONIC COMPONENTS

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



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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.

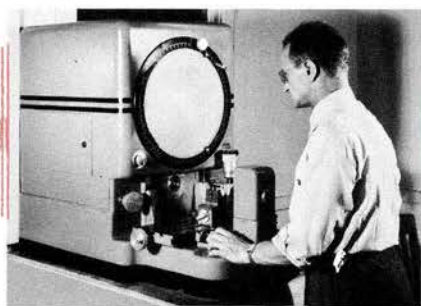
***ENGINEERING FACILITIES**—The most modern anechoic chambers and laboratory equipment, much of it unavailable commercially, have been designed and built by our own engineering laboratory staff.

***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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STUDIO MICROPHONES

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 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 GRADIENT¹ 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 within 2 db in output and 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 $2\frac{1}{2}$ db.

OUTPUT LEVEL: 50 ohm impedance: -60 db
150 ohm impedance: -59 db
250 ohm impedance: -59 db
(0 db = 1 milliwatt per 10 microbars)

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

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 $\frac{5}{8}$ "—27 thread

STAND COUPLERS: Adapter for $\frac{1}{2}$ " pipe thread or $\frac{3}{8}$ "—24 thread available upon request at no extra charge.

SWITCH: Voice-Music Switch to adjust frequency characteristic for optimum performance.

DIMENSIONS: $7\frac{9}{32}$ " high; $1\frac{1}{32}$ " wide; $1\frac{1}{8}$ " deep

NET WEIGHT: $1\frac{1}{2}$ 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 $2\frac{1}{2}$ 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 $\frac{5}{8}$ "—27 thread

STAND COUPLERS: Adapter for $\frac{1}{2}$ " pipe thread or $\frac{3}{8}$ "—24 thread are available upon request at no extra charge.

DIMENSIONS: $8\frac{1}{32}$ " high, 1" diameter

NET WEIGHT: $\frac{1}{2}$ lb., shipping weight $3\frac{1}{4}$ 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 $2\frac{1}{2}$ 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)

IMPEDANCE: Equipped with a multi-impedance switch, furnishing a choice of three impedances—L-30-50 ohms, M-150-250 ohms, H-35,000 ohms.

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: $\frac{5}{8}$ "—27 thread

STAND COUPLERS: Adapter for $\frac{1}{2}$ " pipe thread or $\frac{3}{8}$ "—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; $1\frac{1}{16}$ " wide, $2\frac{1}{16}$ " deep

NET WEIGHT: $1\frac{1}{4}$ lb.; shipping weight $3\frac{1}{4}$ lbs.

OPTIONAL ACCESSORIES: Model S33 Desk Stand, A26C Extension Cable, 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.



Model "315" GRADIENT¹*

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.

Deluxe Recording and Public-Address Microphones

SPECIFICATIONS FOR MODEL 330

LIST PRICE: \$120.00

TYPE: Ribbon

FREQUENCY RESPONSE: 30 to 15,000 cps. Production uniformity 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 ⅝"—27 thread

DIMENSIONS: 3⅞" high, 1⅞" wide, 1⅞" deep

NET WEIGHT: 1½ lb., shipping weight 4 lbs.

OPTIONAL ACCESSORIES: Model S33B Desk Stand A26C
Extension Cable, Model A86A Cable-Type Transformer.

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)

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: 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 ⅝"—27 thread

DIMENSIONS: 6" high, 1⅞" wide, 1⅞" deep

NET WEIGHT: 1 lb., shipping weight 3¼ lbs.

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

*Available in matched sets for stereo recording at no additional cost. (Matched within 2 db in output and response.)

GENERAL PURPOSE MICROPHONES

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 $\frac{5}{8}$ "—27 thread and may be mounted on any conventional desk, banquet or floor stand.
SWITCH: On-Off (normally closed)
DIMENSIONS: $7\frac{1}{32}$ " high, 1" diameter
NET WEIGHT: $\frac{1}{2}$ lb., shipping weight $2\frac{3}{8}$ 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, A26C Extension Cable.

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 $\frac{5}{8}$ "—27 thread, and may be mounted on any conventional desk, banquet or floor stand.
SWITCH: On-Off (normally closed)
DIMENSIONS: $7\frac{7}{32}$ " high, 1" diameter
NET WEIGHT: $\frac{3}{8}$ lb., shipping weight $2\frac{3}{8}$ lbs.
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.



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 within 2 db in output and response.)

GENERAL PURPOSE MICROPHONES

NEW MODEL 545 "UNIDYNE III" MICROPHONE



Model 545 "UNIDYNE III" *

The Shure Model 545 "Unidyne III" is a new addition to the famed family of Unidyne microphones. This striking-looking, compact, slender, uni-directional, moving-coil microphone features wide-range reproduction of voice and music and flexibility of uses as a hand or stand microphone. Recommended for dependable use in fine quality P.A. systems, tape recording, fixed-station communications, etc. Provides highly satisfactory operation under adverse acoustic conditions—reduces or eliminates problems due to feedback and background noise pickup. Permits placement at a distance from the performer 75% greater than possible with omni-directional microphones. The 545 is ideal for installations where it is desired to keep microphone size and weight to a minimum and still retain maximum operating efficiency. The 545 "Unidyne III" is rugged—will operate for years without deviation from its original standards.

SPECIFICATIONS FOR MODEL 545

LIST PRICE: \$85.00

TYPE: Dynamic

FREQUENCY RESPONSE: 50—15,000 cps

OUTPUT LEVEL: LOW: —57 db. (0 db = 1 milliwatt per 10 microbars)

HIGH: —55 db. (0 db = 1 volt per microbar)

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

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

MAGNETIC CIRCUIT: uses Alnico V magnet

CASE: Die cast zinc and "Armo-Dur"

FINISH: Satin chrome and black

CABLE CONNECTOR: Equivalent to Amphenol MC4M plug

CABLE: 18 ft., 3 conductor shielded

STAND THREAD: $\frac{7}{8}$ "—27 thread

DIMENSIONS: Length— $5\frac{1}{8}$ " Diameter— $1\frac{1}{8}$ "

NET WEIGHT: 6/10 lb., Shipping Weight $2\frac{7}{8}$ lbs.

FURNISHED ACCESSORIES: A25 type swivel adapter

OPTIONAL ACCESSORIES: A86A cable type transformer, S33B desk stands



* Available in matched sets for stereo recording at no additional cost. (Matched within 2 db in output and response.)

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)
IMPEDANCE: Equipped with a Multi-Impedance switch, furnishing a choice of 3 impedances—L-35-50 ohms, M-150-250 ohms, H-35,000 ohms.
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 $\frac{5}{8}$ "—27 thread
DIMENSIONS: $7\frac{3}{4}$ " high, $2\frac{3}{16}$ " wide, $3\frac{1}{16}$ " deep
NET WEIGHT: $3\frac{1}{8}$ lbs., shipping weight $4\frac{3}{4}$ 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. Production uniformity guaranteed to plus or minus $2\frac{1}{2}$ 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 $\frac{5}{8}$ "—27 thread
DIMENSIONS: $7\frac{3}{4}$ " high, $2\frac{3}{16}$ " wide, $3\frac{1}{16}$ " deep
NET WEIGHT: $3\frac{3}{8}$ lbs., shipping weight $4\frac{1}{2}$ lbs.
OPTIONAL ACCESSORIES: Model S33B Desk Stand, Model A86A Cable Type Transformer, A26C Extension Cable.



Model "55S" 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.

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.

*Available in matched sets for stereo recording at no additional cost. (Matched within 2 db in output and response.)

GENERAL PURPOSE MICROPHONES



Moderate Cost Public-Address and Recording Microphones

Model 51 "SONODYNE"

The "Sonodyne" is recommended for all general purposes, including public address, wire and tape recording, and similar applications. It is used by bands, instrumentalists and recording artists because of its excellent reproduction of both voice and music. Because of its high output and multi-impedance features, tape recording enthusiasts have used the Sonodyne as an ideal good-quality, moderately-priced replacement for the conventional microphone supplied with tape recorders.



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 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

IMPEDANCE: 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 $\frac{5}{8}$ "—27 thread

DIMENSIONS: $5\frac{3}{16}$ " high, $3\frac{1}{8}$ " wide, $2\frac{1}{8}$ " deep

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

IMPEDANCE: 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 $\frac{5}{8}$ "—27 thread

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

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

OPTIONAL ACCESSORIES: Model S36A Desk Stands, A27A Extension Cable, Models A83B, A84B, A85C, A88A On-Off Switches

VERSATILE CRYSTAL MICROPHONE

MODEL 777 "SLIM-X" MICROPHONE

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 $\frac{5}{8}$ "—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) $4\frac{1}{2}$ " high, 1" diameter.

NET WEIGHT: (Microphone only) 6 oz., shipping weight 1 lb.

OPTIONAL ACCESSORIES: Model S38 Desk Stand, A25 type Swivel Adapter.



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.

THE 777 "SLIM-X" CAN BE REMOVED IN A FLASH—NO TOOLS NECESSARY



To Remove Slim-X From Cradle or Swivel

... Simply Pull Out Like This

... To Replace Simply Re-Insert

Like This



on S38 Desk Stand and Cradle



on Floor Stand



on S38 Desk Stand and A25 Swivel



With Lavalier Cord and Clip

THE 777 "SLIM-X" CAN BE USED IN EVERY POSSIBLE WAY



**MODELS 215 AND 715
STARLITE 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—50-8,000 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

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



**MODEL 710
"REX" MICROPHONE**

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: $\frac{1}{2}$ 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 $\frac{3}{8}$ "—27 thread which fits the conventional floor stand

SWITCH: Model 710S has a built-in, press-to-talk switch

DIMENSIONS: 3 $\frac{3}{4}$ " high, 2 $\frac{1}{16}$ " wide, 1 $\frac{1}{8}$ " deep

OPTIONAL ACCESSORIES: Models S34B or S36A Desk Stands



**MODEL 707A
MICROPHONE**

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)

POLAR PATTERN: Semi-directional

CASE: Die cast zinc

FINISH: Iridescent gray case, satin chrome grille

CABLE: 7 ft., single-conductor shielded

STAND THREAD: Standard $\frac{3}{8}$ "—27 thread

DIMENSIONS: 3 $\frac{1}{4}$ " high, 2 $\frac{5}{32}$ " diameter

OPTIONAL ACCESSORIES: Model S34B Desk Stand



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 $\frac{3}{8}$ "—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: $3\frac{1}{2}$ " high, $2\frac{1}{4}$ " wide, $1\frac{1}{8}$ " deep
NET WEIGHT WITH CABLE: $\frac{7}{8}$ lb., shipping weight $1\frac{1}{2}$ lb.
OPTIONAL ACCESSORIES: Models S34B or S36A Desk Stand

Model 510SLB

Model 510 SLB 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: Built in, normally open, switch to control the microphone circuit. The switch is of the press-to-talk locking or non-locking type
DIMENSIONS: With stand $8\frac{7}{8}$ " high, 5" wide, 7" deep.
NET WEIGHT: $2\frac{1}{4}$ lbs., shipping weight $3\frac{3}{4}$ lbs.
OPTIONAL ACCESSORIES: Model A86A cable type transformer

Model 520SL

and 520SLB "DISPATCHER"
 The Model 520SL is especially recommended for mobile and fixed station use, and is also very suitable for public address, recording, call systems, radio telephone and amateur use, and similar applications. The Model 520SLB is especially recommended for those applications where low impedance microphones are to be used in parallel, balanced-line operation and where long cable lengths are required, or under conditions of severe hum disturbances.

SPECIFICATIONS:
LIST PRICE: Model 520SL: \$45.00
 Model 520SLB: \$49.25
TYPE: Controlled Magnetic
FREQUENCY RESPONSE: 100 to 9,000 cps
OUTPUT LEVEL:
 Model 520SL: -52.5 db (0 db=1 volt per microbar)
 Model 520SLB: -51.0 db (0 db=1 milliwatt with 10 microbars)
IMPEDANCE:
 Model 520SL: High. Recommended load 100,000 ohms or more
 Model 520SLB: 150-250 ohms
POLAR PATTERN: Semi-directional
CASE: Die cast zinc
FINISH: Metallic green with satin chrome handle and grille
CABLE CONNECTOR:
 Model 520SL: Equivalent to Amphenol MC3M plug
 Model 520SLB: Equivalent to Amphenol MC4M plug
CABLE:
 Model 520SL: 7 ft. high-quality 2 conductor shielded
 Model 520SLB: 7 ft. high-quality 4 conductor (2 conductors shielded)

SWITCH: Equipped with grip-to-talk switch, similar to Shure A88A.
Model 520SL: DPST—normally closed—normally open
Model 520SLB: DPST—normally open—normally open
DIMENSIONS: With stand $9\frac{3}{8}$ " high, 5" wide, 7" deep
NET WEIGHT WITH CABLE: $2\frac{1}{2}$ lbs. shipping weight 5 lbs.
OPTIONAL ACCESSORIES: Model 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)
 Model 520B: -51.0 db (0 db=1 milliwatt with 10 microbars)
IMPEDANCE: Model 520—High. Recommended load 100,000 ohms or more.
 Model 520B: 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., 2 conductor shielded
STAND THREAD: Standard $\frac{3}{8}$ "—27 thread
DIMENSIONS: Diameter $2\frac{1}{2}$ ", overall length $3\frac{1}{4}$ "
NET WEIGHT: $1\frac{1}{8}$ lb. (with 7 ft. cable), shipping weight $1\frac{1}{2}$ lb.
OPTIONAL ACCESSORIES: Models S34B or S36A Desk Stands, Model A86A cable type transformer (for use only with Model 520B)

THE "Commando" SERIES



"CONTROLLED MAGNETIC" GENERAL PURPOSE MICROPHONES

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.

SPECIFICATIONS FOR "COMMANDO" MODELS 415, 420 AND 430

	415	420	430
List Price:	\$27.50	\$30.00	\$38.50
Type:	CONTROLLED MAGNETIC		
Frequency Response:	60 to 10,000 c.p.s.		
Impedance:	High	Equipped with readily changeable pin jacks (no soldering required) furnishing a choice of two impedances: H — High and L — 150 to 250	
Output Level:	High - 52 db (0 db = 1 volt per microbar) Low - 52 db (0 db = 1 milliwatt per 10 microbars)		
Polar Pattern:	OMNI-DIRECTIONAL		
Case:	Impact-resistant polystyrene and die cast zinc.	Impact-resistant polystyrene.	Impact-resistant polystyrene and die cast zinc.
Finish:	Non-reflecting gray and satin chrome.	Non-reflecting gray	Non-reflecting gray and satin chrome.
Cable:	7' non-detachable single conductor shielded	20' non-detachable, 2 conductor, shielded	15' 2 conductor shielded with Amphenol MC2M connector for attaching to microphone.
Switch:	None	None	Press-to-talk switch—normally closed
Dimensions:	Length 6 $\frac{1}{2}$ " Diameter of head 1 $\frac{3}{4}$ " Diameter of handle $\frac{1}{8}$ "	Length 3 $\frac{1}{2}$ " Diameter 1 $\frac{3}{4}$ "	Length 6 $\frac{3}{4}$ " Diameter of head 1 $\frac{3}{4}$ " Diameter of handle $\frac{1}{8}$ "
Net Weight:	$\frac{1}{2}$ lb.	$\frac{1}{4}$ lb.	1 lb. (with 15' cable)
Shipping Weight:	1 lb.	$\frac{1}{2}$ lb.	1 $\frac{1}{2}$ lb.
Furnished Accessories:	Model A25B Self-adjusting Swivel Adapter with standard $\frac{3}{16}$ "-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.	Lavalier Cord and clip assembly. Readily detachable for use of microphone as a hand-held type.	Switch locking plate for keeping switch in "on" position. Model A25B Self-adjusting Swivel Adapter with standard $\frac{3}{16}$ "-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.
Optional Accessories:	Model S38B Desk Stand	Model A86A Cable Type Transformer	Model A86A Cable Type Transformer and Model S38B Desk Stand.

SPECIAL PURPOSE MICROPHONES

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

Model 405 SERIES

The Shure Controlled Magnetic "Ten-Four" 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 "Ten-Four" 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-2, the Model 405K is also ideally suited for those applications requiring a unit with a coiled cord.)



SPECIFICATIONS FOR MODELS 405B, 405C, 405K AND 405KB

	Model 405B	Model 405C	Model 405K	Model 405KB
List Price	\$32.00		\$37.50	
Type	C O N T R O L L E D M A G N E T I C			
Frequency Response	200 to 8,000 cps			
Output level	-50 db (0 db=1 millivolt per 10 microbars)	-50.5 db (0 db=1 volt per microbar)	-50.5 db (0 db=1 volt per microbar)	-50 db (0 db=1 millivolt per 10 microbar)
Impedance	150-250 ohms	High. Recommended load 100,000 ohms or more		150-250 ohms
Polar Pattern	S E M I - D I R E C T I O N A L			
Case	High impact gray "Armo-Dur"			
Cable	5 ft. strand d copper 4 conductor (2 cond. shielded)	5 ft. stranded copper 3 conductor (1 cond. shielded)	5 1/4 ft. extended tinsel, 3 conductor (1 cond. shielded) Coiled Cord with Amphenol MC4M plug attached	
Switch	Double pole, single throw normally closed, normally open Leaf-type switches to control the microphone circuit and to control an external relay or switching circuit.		Double pole, single throw normally open, normally open	
Dimensions	3 1/8" high 2 5/8" wide, 1 49/64" deep			
Net Weight	3/4 lb.			
Shipping Weight	1 lb.			
Furnished Accessories	Mounting bracket for permanent placement with the associated equipment.			
Optional Accessories	Model A86A cable type transformer			Model A86A cable type transformer

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 500 ohms (0 db=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: 3 1/8" high, 2 5/8" wide, 1 49/64" deep.

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

Model R5T

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

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

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 communi-

cations 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.

	Armo-Dur 104A Suggested replacement for: 102C, 102E		104B Suggested replacement for: 101C, 101E, 103	101C	101E	Die-Cast 102C	102E	103	
List Price:	\$30.00	\$30.00	\$30.00	\$33.00	\$30.00	\$33.00	\$31.00		
Type:	Carbon	Carbon	Carbon	Carbon	Carbon	Carbon	Carbon		
Frequency Response:	300 to 4,000 c.p.s.								
Output Level:	5 db below 1 volt for 100 microbar speech signal								
Impedance:	Recommended load: 50 to 100 ohms								
Polar Pattern:	Semi-directional								
Case:	High-Impact "Armo-Dur"			Die Cast Zinc					
Finish:	Gray			Blue Gray—Wrinkle Finish					
C bts:	11" retracted and 5' extended cable Copper coiled cord with trimmed and tinned leads					Tinsel coil cord with Amphenol MC4M Plug	Copper coil cord with trimmed and tinned leads	Tinsel coil cord with spade lugs	Copper coil cord with Amphenol MC4M Plug
Switch:	DPST normally open switch to control microphone & relay		SPST normally open relay switch (no microphone switch)			DPST normally open switch to control microphone and relay.		SPST normally open relay switch (no microphone switch)	
Dimensions:	3 1/4" high, 2 3/4" wide, 1 4/16" deep			3 1/4" high, 2 3/4" wide, 2 1/32" deep					
Net Weight:	3/4 lb.			1 lb.					
Shipping Weight:	7/8 lb.			1 3/8 lb.					

Coiled Cord Sets

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

Model	List Price	Type	Conductors	Termination	Usage
C10C	\$12.00	Tinsel	3 conductor, 1 conductor shielded	Trimmed and tinned leads and Amphenol MC4M plug	With General Electric EM10A and Shure 505K Microphones (Die cast zinc case). May also be used as coiled cord replacement with Models 505B and 505C.
C11C	\$12.00	Tinsel	3 conductor, 1 conductor shielded	Trimmed and tinned leads and Amphenol MC4M plug	With General Electric EM10A-2 and Shure 405K Microphones ("Armo-Dur" case). May also be used as coiled cord replacement with Models 405B and 405C.
C15C	\$ 6.25	Copper	4 conductor, unshielded	Trimmed and tinned leads	With 405T, 505T, "CB" and "100" Series Microphones. May also be used as coiled cord replacement with Models 405B and 505B Microphones.
C16C	\$ 9.50	Tinsel	4 conductor, unshielded	Trimmed and tinned leads and Amphenol MC4M plug	With General Electric equipment.
C17C	\$ 7.75	Tinsel	4 conductor, unshielded	Trimmed and tinned leads with spade lugs	With Motorola equipment.
C18C	\$ 9.50	Copper	4 conductor, unshielded	Trimmed and tinned leads and Amphenol MC4M plug	With Motorola equipment.
C19C	\$ 9.50	Tinsel	4 conductor, unshielded	Trimmed and tinned leads and Amphenol MC4M plug	With Motorola equipment.

MICROPHONE

Designed for use with small portable and mobile transmitters. Only 2" in diameter and 1 1/2" thick. Has same operating characteristics as "100 Series" Carbon Microphones. Replacement for Mfgs. 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, 1 1/2" thick

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

SPECIAL PURPOSE MICROPHONES



"COMMANDO"



"UNIDYNE III"

Model 425 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 gooseneck and mounting flange.

Model 425-G12—\$33.75. Includes 12" flexible gooseneck and mounting flange.

Model 425-G18—\$35.00. Includes 18" flexible gooseneck 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 3 $\frac{1}{4}$ ", diameter 1 $\frac{3}{4}$ ".

OPTIONAL ACCESSORIES: Model A86A Cable Type Transformer.
Model A25 Swivel Adapter.

Models 440-440SL MICROPHONES

The response characteristic of these microphones has been tailored to meet the demands of radio communications. These microphones are especially suited for single-sideband broadcast. The rising response characteristic with sharp cutoff below 300 and above 3000 cps. eliminates the need for audio filters.

SPECIFICATIONS: Model 440 — Model 440SL

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: Semi-directional.

CASE: Die-cast zinc.

FINISH: 440—Satin Chrome.

440SL—Satin Chrome with gray base.

CABLE CONNECTOR: 440SL—Equivalent to Amphenol MC3M plug.

Model 544 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 gooseneck and mounting flange.

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

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

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

FURNISHED ACCESSORIES: Gooseneck adapter.

OPTIONAL ACCESSORIES: A86A cable type transformer, S33B desk stand, A25B swivel adapter.



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 $\frac{5}{8}$ "—27 thread.

DIMENSIONS: 440—2 $\frac{1}{2}$ " diameter, 3 $\frac{1}{4}$ " overall length.

440SL—9 $\frac{3}{8}$ " high, 5" wide, 7" deep (with stand).

NET WEIGHT: 440—1 $\frac{1}{8}$ lbs., shipping weight 1 $\frac{1}{2}$ lbs.

440SL—2 $\frac{1}{2}$ lbs., shipping weight 5 lbs.

OPTIONAL ACCESSORIES: 440—Models S34B or S36A Desk Stands.

SPECIAL PURPOSE MICROPHONES

MICROPHONE REPLACEMENT CARTRIDGES



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 impedance; freedom from electrostatic and electromagnetic induction.

Model 98B99 List Price \$110.00

SPECIFICATIONS FOR MODEL 98B99
LIST PRICE: \$110.00

TYPE: Crystal

FREQUENCY RESPONSE: 30-15,000 cps

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

POLAR PATTERN: Omni-directional

CASE: Brass screw machine.

FINISH: Satin chrome

CABLE CONNECTOR: Cannon XL-3-II

DIMENSIONS: 1 1/8" diameter, 2 3/4" 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 resistance employed.

INTERNAL IMPEDANCE: 61B—Equivalent to .005 microfarad capacitor. Recommended load: 1/2 to 5 megohms. 61C—Equivalent to .010 microfarad capacitor. Recommended load: 1/4 to 5 megohms.

CASE: Die-cast aluminum.

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.

MICROPHONE REPLACEMENT CARTRIDGE 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 is the replacement cartridge for cartridges used in microphone models: CB20, CB21, CB50 and 115.

Model 99A149 List Price \$8.50

CRYSTAL MICROPHONE 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—48 db below 1 volt per microbar. Supplied with rubber mounting rings and installation instructions.

Model R7 List Price \$8.25

SLIM-X MICROPHONE CARTRIDGE

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

CONTROLLED MAGNETIC MICROPHONE MODEL R5

Direct replacement for cartridges used in the following Shure microphone models: 510C, 510MD, 510S, 520, 520SL, 505C, 505K, 405C and 405K. 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

LOW IMPEDANCE MICROPHONE CARTRIDGE 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 (150 to 250 ohms). Can be used in any R5 applications which require a low impedance cartridge.

Model R5B List Price \$11.00

SMALL CONTROLLED MAGNETIC MICROPHONES

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

The MC Series of microphones have also proven to be extremely useful in concealed microphone applications.

MC11-J (Circular) List Price: \$12.50

MC20-J (Rectangular) List Price: \$14.00

MC30-J (Rectangular) List Price: \$20.00

SPECIFICATIONS FOR MODELS
MC11, MC20 and MC30

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 1/2" flexible lead type, MC30—Eyelet solder terminals

DIMENSIONS: MC11 (circular) 1 1/4" diameter, 3/4" thick, MC20 (rectangular) 1 1/4" wide, 3/4" long, 3/4" thick, MC30 (rectangular) .5" wide, .5" long, .265" thick

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



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. When "turned on," it stays on until turned off.

MODEL A83B

LIST PRICE \$11.00

Model A84B. Momentary Press-to-Talk "On-Off" switch. Press—it's on, release—it's off.

MODEL A84B

LIST PRICE \$11.00

Model A85C. Momentary Press-to-Talk Relay-Type switch same as above, but has extra contacts to provide for relay operation.

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 littings 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: 2 3/8" long, 1 5/8" diameter

NET WEIGHT: 1 1/4 lbs., shipping weight 1 7/8 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: 556S, 525, 530, 300, 330 and 333.

LIST PRICE \$15.00

The A27A, 25 feet long, is a two-conductor, shielded cable with Amphenol MC3M and MC3F plugs. It will fit Shure microphone models: 55S, 535, 315, 737A, 708A, 51, 520SL and their respective cables.

LIST PRICE \$11.00

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.

MODEL S34B

LIST PRICE \$4.50

BROADCAST DESK STAND

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

LIST PRICE \$15.00

MODEL S33B—Same as S33—in black finish. For use with Model 330, 530, 535, 545, 556S, 415, 425 and 430.

LIST PRICE \$15.00

MODERN DESK STAND

Model S36A. Streamlined gray Desk Mount fits all Shure connector-type microphones. 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 adaptor 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 and 777 series microphones—For use with standard desk or floor stand.

Model A25B (Black). To be used with models 530, 535, 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 Slenidine Model 535.

MODEL A28L

LIST PRICE \$4.50

"Twin Lever" CARTRIDGES • NEEDLES • REPLACEMENT KITS



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 their level 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

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 cps. 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 fine 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

MODEL	ILLUSTRATION	DESCRIPTION	LIST PRICE	
A6S	Fig. B	Std. and MG Sapphire†	\$ 5.95	Fig. A
A9††	Fig. B	Std. and MG Sapphire†	3.50	"MUTED STYLUS"
A10S	Fig. B	Std. and MG Sapphire†	3.50	
A10DS	Fig. B	MG Diamond, Std. Sapphire†	28.00	Fig. B
A20S	Fig. E	.0003 (3/10 mil) Sapphire†	3.50	"TWIN-LEVER"
A52A	Fig. C	Strl. Osmium	1.50	
A53MG	Fig. C	MG Osmium	1.50	Fig. C
A56U**	Fig. C	All Purpose Osmium Unipoint	1.50	"DIRECT DRIVE"
A58U***	Fig. C	All Purpose Osmium Unipoint	1.50	
A61A	Fig. A	Std. Sapphire†	2.50	Fig. D
A62A	Fig. A	Std. Osmium	1.50	"CUTTER PLAYBACK"
A63MG	Fig. A	MG Osmium	1.50	
A64MG*		MG Osmium	2.00	Fig. E
A65MG	Fig. A	MG Sapphire†	2.50	"HIGHWAY HI-FI"
A66U	Fig. A	All Purpose Osmium Unipoint	1.50	
A67U	Fig. A	All Purpose Sapphire Unipoint†	2.50	Fig. F
A68D	Fig. D	Osm. Playback Needle- Stelite Cutting Stylus	3.50	"PUSH-IN TYPE"
A69A	Fig. F	MG Sapphire†	2.50	
A70A	Fig. F	Std. Sapphire†	2.50	
A77U #		All Purpose Osmium Unipoint	1.50	

*Standard Bent Shaft Needle Not Illustrated.

**Used in Cartridge Models PC10 and WC368.

***Used in Models PC12 and WC38.

-Standard Straight Shaft Needle Not Illustrated.

†High-quality commercial-type synthesized sapphire specially designed for long operating life.

††Cannot be replaced by A10S or N4 series needles.

Crystal and Ceramic Cartridges manufactured under Shure Patents and Patents Pending.

CRYSTAL and CERAMIC PICKUP CARTRIDGES

Fine Groove Cartridges For 33 1/3, 45 RPM Records

MODEL NO.	ILLUSTRATION	TYPE	LIST PRICE	OUTPUT LEVEL	MIN. NEEDLE FORCE	RESPONSE TO	NET WEIGHT	SHURE NEEDLE NO.
WC20 #	Fig. C	Ceramic	\$ 9.50	.58V	2 1/2-3 grams	12,000 cps	2 1/4 grams	A20S
W21F*	Fig. B	Crystal	7.75	1.5V	6 grams	10,000 cps	4 1/4 grams	A63MG
W31AR	Fig. A	Crystal	6.50	2.1V	7 grams	7,500 cps	5 1/2 grams	A53MG

"Twin-Lever" Cartridges For 33 1/3, 45 And 78 RPM Records

MODEL NO.	ILLUSTRATION	TYPE	LIST PRICE	OUTPUT LEVEL		MIN. NEEDLE FORCE	RESPONSE TO	NET WEIGHT	SHURE NEEDLE NO.
				MG.	STD.				
WC6 \$	Fig. H	Ceramic	\$14.50	.5V	.7V	4-6 grams	15,000 cps	7 grams	A6S
WC6TM* Top Mount	Fig. R	Ceramic	\$14.50	.5V	.7V	4-6 grams	15,000 cps	7 grams	A6S
W8 \$	Fig. J	Crystal	9.50	3.5V	5.0V	11 grams	10,000 cps	7 grams	A9
WC10 \$	Fig. H	Ceramic	9.50	.78V	1.0V	7 grams	12,000 cps	7 grams	A10S
WC10D \$	Fig. H	Ceramic	34.00	.78V	1.0V	7 grams	12,000 cps	7 grams	A10DS

Turnover Cartridges For 33 1/3, 45, And 78 RPM Records

MODEL NO.	ILLUSTRATION	TYPE	LIST PRICE	OUTPUT LEVEL		MIN. NEEDLE FORCE	RESPONSE TO	NET WEIGHT	SHURE NEEDLE NO.	
				MG.	STD.				MG.	STD.
W22	Fig. D	Crystal	\$ 9.50	1.2V	1.4V	8 grams	10,000 cps	4 1/2 grams	A65MG	A61A
W22-T	Fig. E	Crystal	10.00	1.2V	1.4V	8 grams	10,000 cps	12 1/2 grams	A65MG	A61A
WC24	Fig. F	Ceramic	8.75	0.6V	0.6V	8 grams	7,000 cps	4 1/2 grams	A53MG	A52A
WC24-T	Fig. G	Ceramic	9.25	0.6V	0.6V	8 grams	7,000 cps	12 1/2 grams	A53MG	A52A
WC25	Fig. K	Ceramic	9.50	.65V	.7V	8 grams	7,000 cps	6 grams	A65MG	A61A
W72 †§	Fig. L	Crystal	8.50	3V	4V	10-15 grams	5,000 cps	7 grams	A69A	A70A

All Purpose Single Needle Cartridges For 33 1/3, 45, 78 RPM Records

MODEL NO.	ILLUSTRATION	TYPE	LIST PRICE	OUTPUT LEVEL		MIN. NEEDLE FORCE	RESPONSE TO	NET WEIGHT	SHURE NEEDLE NO.
				MG.	STD.				
W26	Fig. B	Crystal	\$ 6.50	.87V	1.0V	8 grams	8,000 cps	4 1/2 grams	A67U
WC38	Fig. A	Ceramic	6.50	.9V	.92V	9 grams	10,000 cps	5 1/2 grams	A58U
W66B	Fig. O	Crystal	7.00	2.0V	2.3V	8 grams	4,500 cps	12 grams	A66U
W70	Fig. P	Crystal	4.95	3.0V	3.8V	10-15 grams	5,000 cps	16 grams	A77U

Standard Cartridges For 78 RPM Records

MODEL NO.	ILLUSTRATION	TYPE	LIST PRICE	OUTPUT LEVEL	MIN. NEEDLE FORCE	RESPONSE TO	NET WEIGHT	SHURE NEEDLE NO.
W56N **	Fig. N	Crystal	\$ 8.50	4.3V	1 oz.	10,000 cps	12 grams	A68D
W68 †	Fig. O	Crystal	7.50	1.6V	1 oz.	4,500 cps	Dual Wt. 25 grams or 12 grams	A62A
W78 ‡	Fig. M	Crystal	5.55	4.0V or 2.0V	1 oz.	6,000 cps	Dual Wt. 25 grams or 12 grams	None

*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-slug as Model W68, 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 2.0 volts.

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

¶For Columbia 16 2/3 Highway Hi-Fi Records.

‡Model W9 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; 2.5 volts for 78 RPM.

†Model W72 has a slip-on Capacitor furnished as an 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.

* Top mounting for Magnavox cartridge replacement

Note: For replacement information, write for free Replacement Manual No. RM-59



Fig. A



Fig. B



Fig. C



Fig. D



Fig. E



Fig. F



Fig. G



Fig. H



Fig. I



Fig. J



Fig. K



Fig. L



Fig. M



Fig. N



Fig. O



Fig. P



Fig. R

MAGNETIC RECORDING HEADS



TECHNICAL DATA—MAGNETIC TAPE AND WIRE RECORDING HEADS

Model	Recording Speed	Bias & Erase Frequency	Std. Recording Level	Operating Bias Current	Erase* Current	Impedance Erase Coil	Impedance Record-Playback Coil
815 (Fig. A)	3.75" per sec 7.5" per sec 3.75" per sec	25KC 50KC DC	.05 ma .05 ma .095 ma	1.25 ma 1.5 ma .35 ma	27 ma 30 ma 25 ma	750 ohm at 25KC 1300 ohm at 50KC 12 ohm	1450 ohm at 1000 cps 1450 ohm at 1000 cps 180 ohm
815H (Fig. A)	3.75" per sec 7.5" per sec 3.75" per sec	25KC DC	.03 ma .056 ma	.72 ma .24 ma	27 ma 25 ma	750 ohm at 25KC 12 ohm	5800 ohm at 1000 cps 556 ohm
816 (Fig. B)	3.75" per sec 7.5" per sec 3.75" per sec	25KC DC	.03 ma .07 ma	.80 ma .26 ma			5500 ohm at 1000 cps 556 ohm
817 (Fig. C)	3.75" per sec 7.5" per sec 3.75" per sec	25KC DC	.06 ma .175 ma	3.6 ma .42 ma			1860 ohm at 1000 cps 180 ohm
TE2-J (Fig. C) Without case	3.75" per sec 7.5" per sec 3.75" per sec	25KC 50KC DC			30 ma 35 ma 25 ma	750 ohm at 25KC 1300 ohm at 50KC 12 ohm	
TE11C-J (Fig. D)	7.5" per sec 7.5" per sec 7.5" per sec	50KC 75KC 100KC			25 ma 26 ma 26 ma	1700 ohm at 50KC 2250 ohm at 75KC 2670 ohm at 100KC	
TR21C-J (Fig. E)	7.5" per sec	75KC	.040 ma	1.0 ma			4000 ohm at 1000 cps
TR40-J (Fig. F)	7.5" per sec	75KC	.05 ma	.6 ma			4000 ohm at 1000 cps
TK41-J (Fig. G) Upper Channel Lower Channel Erase	7.5" per sec 7.5" per sec 7.5" per sec	65KC 65KC 65KC	.08 ma	1.25 ma	50 ma	2100 ohm at 65KC	1150 ohm at 1000 cps 3300 ohm at 1000 cps

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

Recording Medium—Minnesota Mining & Mfg. Co., Tape No. 111
Pressure Pad Force (Area—.025 sq. in.) Two Ounces.

RECORDING HEAD DIMENSIONS

Models 815, 815H (Fig. A) & 816 (Fig. B) Width 1.240" Depth 1.031" Height .695"	Model TE2-J (Fig. C) Width .516" Depth .830" Height .715"	Model TR21C-J (Fig. E) Width .600" Depth .821" Height .775"
Model 817 (Fig. C) Width .552" Depth .830" Height .765"	Model TE11C-J (Fig. D) Width .366" Depth .641" Height .468"	Model TR40-J (Fig. F) Width .633" Depth .875" Height .469"

NUMERICAL LIST OF SHURE TAPE HEADS USED IN ORIGINAL EQUIPMENT

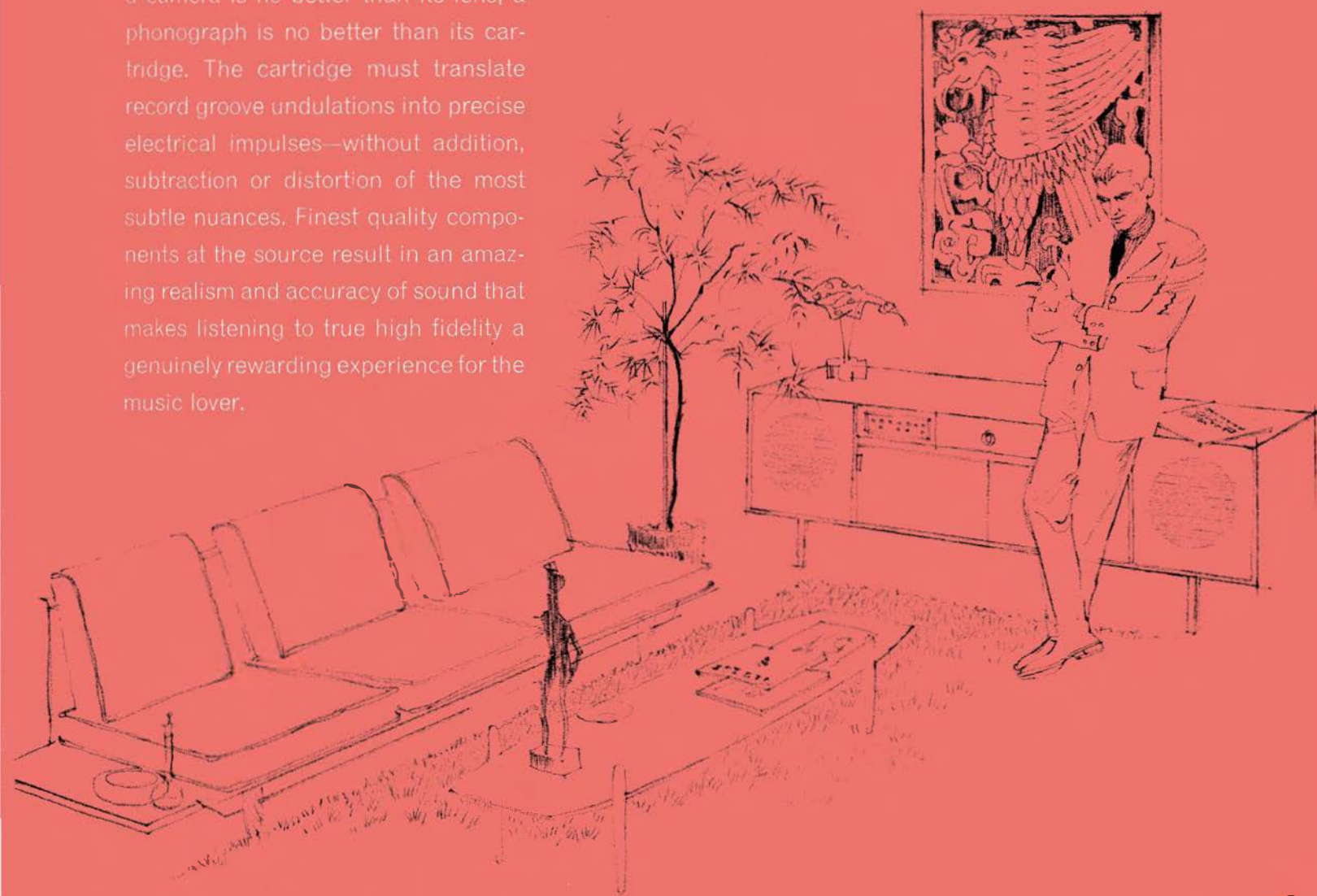
Model	ILLUSTR.	LIST PR.	DESCRIPTION	OPERATING DATA
812	Not Shown	\$20.00	Wire Recording Head.	Not Shown
815	Fig. A	15.00	Upper track recording. Low impedance record-playback coil.	See 815
815H	Fig. A	15.00	Upper track recording. High impedance record-playback coil.	See 815H
816	Fig. B	12.00	Upper track recording. High impedance record-playback coil.	See 816
817	Fig. C	9.00	.093" record track width. Low impedance record-playback coil.	See 817
TE2-J	Fig. C	7.00	Erase head .116" erase track width.	See TE2-J
TE11C-J	Fig. D	12.00	Erase head .132" erase track width.	See TE11C-J
TK41-J	Fig. G	57.50	Stereo Head Kit to convert magnetic tape recorder to stereophonic playback and monaural recording. For Revere Models T-10, T-11, TR-20, T-700, T-7000, TR-800, TR-800D, T-900, TR-1000, T-1100, TR-1200, T-70, 100. For Wollensak Model T-1500.	See TK41-J
TR5B-J	Fig. A	17.00	Upper track recording with 14-inch completely insulated leads. Cinch plug attached.	See 815*
TR5N-J	Fig. A	16.00	Special Shield. Special Leads. Special Plug.	See 815*
TR5Z-2J	Fig. A	18.50	Upper track recording. High impedance record-playback coil.	See 815H
TR6-J	Fig. B	12.00	Lower track recording. Low impedance record-playback coil.	Not Shown
TR16-J	Fig. C	9.00	.093" record track width. High impedance record-playback coil.	Not Shown
TR21C-J	Fig. E	14.00	.093" record track width. Record-playback coil.	See TR21C-J
TR26-J	Fig. C	11.00	.093" record track width (1/4 mil gap). High impedance record-playback coil.	Not Shown
TR40-J	Fig. F	35.00	Stereophonic record/playback head. Two tracks .074" width (0.2 mil gap).	See TR40-J

*Operating data only. 815 does not replace

Shure
high-fidelity
stereo products

THE ALL-IMPORTANT SOURCE OF SOUND

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.





NEW STEREO LINE PRE-AMPLIFIER

High quality, low noise, stereo line pre-amplifier providing additional gain for use with magnetic stereo phono cartridges and microphones. Additional gain also can be provided from tape recorder outputs on standard pre-amplifier to improve quality of recording. Provides flat output response from 30 to 80,000 cps $\pm 1/2$ 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 phono 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: 64 db below rated output.

DIMENSIONS: $5\frac{7}{8}$ " x $2\frac{1}{8}$ " x $3\frac{3}{8}$ ".

NET WEIGHT: 2 lbs.

NEW 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 output.

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 $1\frac{1}{2}$ inches.

DIMENSIONS: $7\frac{5}{8}$ x $3\frac{1}{2}$ " x 3" overall.

$5\frac{1}{2}$ " x $3\frac{1}{2}$ " x 3" excluding control shafts.

NET WEIGHT: $14\frac{1}{10}$ lbs.

NEW 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

(Based on Westrex 713, 714 Record):

NET PRICE: Model M3LS—\$75.00

Model N3LS Replacement Stylus—\$25.00 (NOTE: M3LS must be returned to Shure factory for installation of replacement stylus. At this time, new calibration curve and speci-

cations will be issued as part of replacement stylus charge).

CHANNEL SEPARATION: 23db 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: 6.5 mv ± 2 db per channel at 1,000 cps.

RECOMMENDED LOAD IMPEDANCE: 47,000 ohms.

COMPLIANCE: 4.4×10^{-8} centimeters per dyne minimum; 7.3×10^{-6} centimeters per dyne maximum at 80°F.

TRACKING FORCE: 3 to 6 grams.

INDUCTANCE: 400 millihenrys.

DC RESISTANCE: 400 ohms.

TERMINALS: 4 terminals. Adaptable to 3 terminal arms.

MOUNTING: Standard $\frac{1}{2}$ " centers.

STYLUS: .0007" diamond stylus.

WORLD ACCLAIMED SHURE

Stereo Dynetic

COMPATIBLE PHONOGRAPH CARTRIDGES

... for full dimensional realism with record changers or transcription arms

Painstakingly tested, proved, perfected—these superb Shure Stereo Dynetic moving-magnet cartridges are designed specifically to satisfy the critical ear of the most discriminating music lover...the most exacting audiophile. They separate disc stereo sound channels

with incisive clarity. They are singularly smooth throughout the normally audible spectrum...and they are superior to other separate stereo cartridges in the re-creation of clean lows, true-to-performance mid-ranges and brilliant highs. Completely compatible!

PROFESSIONAL

Stereo Dynetic

The M3D Stereo Professional Dynetic is the premium stereo phono cartridge. It reflects quality control of a high order, based on critical tolerances in all performance characteristics.

SPECIFICATIONS:

Channel Separation: More than 20db at 1000 cps.

Frequency Response: 20 to 15,000 cps (± 3 db).

Output Voltage: 5 mv per channel at 1000 cps.

Recommended Load Impedance: 47,000 ohms.

Compliance: Vertical, Lateral 4.0×10^{-6} centimeters per dyne.

Tracking Force: 3 to 6 grams.

Inductance: 400 millihenrys.

D. C. Resistance: 400 ohms.

Terminals: 4 terminals. Adaptable to 3 terminal arms.

MOUNTING: Standard $\frac{1}{2}$ " centers.

STYLUS: .0007" diamond stylus.

Model M3D Professional Stereo Dynetic cartridge... including .0007" Diamond Stylus.

Audiophile Net: \$45.00

Model N3D Stereo Stylus assembly for M3D, including .0007" Diamond.

Audiophile Net: \$22.50



Model M3D

CUSTOM

Stereo Dynetic

The M7D Stereo Custom Dynetic is designed for the economy-conscious consumer who wants a quality Stereo Phono Cartridge at moderate cost.

SPECIFICATIONS:

Channel Separation: More than 20db at 1000 cps.

Frequency Response: 20 to 15,000 cps.

Output Voltage: 5 mv per channel at 1000 cps.

Recommended Load Impedance: 47,000 ohms.

Compliance: Vertical, Lateral 3.5×10^{-6} centimeters per dyne.

Tracking Force: 4 to 7 grams.

Inductance: 400 millihenrys.

D. C. Resistance: 400 ohms.

Terminals: 4 terminals. Adaptable to 3 terminal arms.

MOUNTING: Standard $\frac{1}{2}$ " and $\frac{7}{16}$ " centers.

STYLUS: .0007" diamond stylus.

Model M7D Custom Stereo Dynetic cartridge... including .0007" diamond stylus.

Audiophile Net: \$24.00

Model N7D Stereo Stylus assembly for M7D, including .0007" diamond.

Audiophile Net: \$12.00



Model M7D

MONOPHONIC

Dynetic

FOR THOSE WHO PREFER MONOPHONIC CARTRIDGES WITH MONOPHONIC RECORDS, Shure offers the outstanding Model M5D Professional Dynetic.

SPECIFICATIONS:

Frequency Response: 20 to 20,000 cps.

Sensitivity: Output at 1,000 cycles—21 millivolts for 10 cms/sec.

Recommended Load Impedance: 27,000 ohms.

Compliance: 3×10^{-6} centimeters per dyne.

Tracking Force: 2 to 6 grams.

Inductance: 350 millihenrys.

D. C. Resistance: 440 ohms.

Model M5D—has .001" diamond for use with micro-groove records, 33 $\frac{1}{3}$, 45 r.p.m.

Model M6S—has .0027" sapphire for use with standard records, 78 r.p.m.

Model M5D Monophonic Professional Dynetic Phono Cartridge for LP records including N5D .001" diamond stylus. Audiophile Net: \$27.50

Model M6S Monophonic Professional Dynetic Phono Cartridge for 78 rpm records including N6S .0027" sapphire stylus.

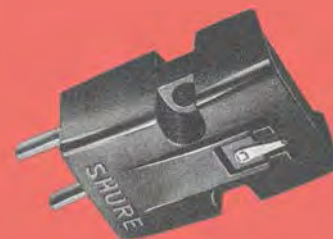
Audiophile Net: \$15.00

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



Model M5D

...THE INCOMPARABLE SHURE STUDIO

Stereo

"INTEGRATED"



...FOR STEREO

NOTE: While the Shure Stereo Studio Dynetic is completely compatible for excellent reproduction of both stereophonic and monophonic records, a monophonic Studio Dynetic cartridge is available for those music lovers who prefer its lighter, 1-gram tracking of monophonic records. If you are one of these perfectionists, you will be pleased to know that, with the Shure Stereo Studio Dynetic, you can change in 3 seconds from a Stereophonic to a Monophonic Cartridge (or vice versa). No tools are needed—you simply pull out one cartridge and plug in the other!

SPECIAL FEATURES

1. MINIMIZES RECORD AND NEEDLE WEAR

Incredibly light tracking—1½ to 2½ gms.—reduces record and needle wear to absolute minimum.

2. MAXIMUM RECORD REPRODUCTION AND PROTECTION

Shure Studio Dynetic permits 3-second interchange of Stereophonic and Monophonic Dynetic cartridges. (Leading audio authorities recommend fine quality monophonic cartridges for the ultimate in monophonic record reproduction and record protection. See No. 10 below.)

3. DYNETIC PRINCIPLE

Moving magnet within stationary coils. High permeability shield and hum-bucking arrangement of coils prevent pickup of hum.

4. FRICTION FREE SUSPENSION

Jewel bearings throughout. Cartridge is pivoted on sleeve and cap jeweled bearings. Arm pivot is a ruby thrust bearing.

5. SAFETY CONTROL

Provides for remote retraction of the cartridge and stylus without danger or damage to record and stylus from careless handling.

6. 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.

7. GEOMETRIC CONFIGURATION

Arm is reinforced, tapered channel of durable aluminum. Dynetic principle permits off-setting the stylus to provide proper tracking angle.

8. 10-SECOND STYLUS REPLACEMENT

Stylus replacement is exceptionally simple and fast—requires no special skill or tools. Unique design assures correct positioning.

9. EASE OF INSTALLATION

The Stereo Studio Dynetic can be used with any high quality transcription type turntable. Arm can be installed on all conventional mounting boards with exceptional ease.

10. UNEQUALLED COMPATIBILITY

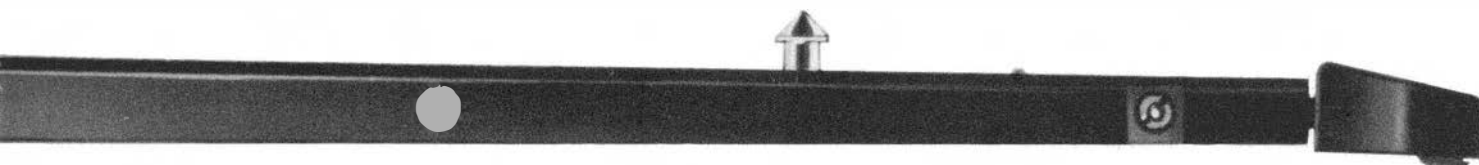
Both models M216 and M212 play stereo discs stereophonically, monophonic discs monophonically, stereo discs monophonically. For perfectionists who demand the ultimate in monophonic record reproduction and protection, the Shure Studio Dynetic monophonic cartridge (Model M1) can be used in place of the stereophonic cartridge (Model M-21). (See No. 2 above.)

11. PRECISION PRODUCTION

Stereo Studio Dynetic "Integrated" tone arms and cartridges are manufactured under critical tolerances in all performance characteristics and are individually tested electrically, acoustically and mechanically. Each unit must meet or exceed all specifications and standards before it is approved for packaging and shipment.



TONE ARM AND CARTRIDGE



PERFECTIONISTS

... 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

SPECIFICATIONS	STEREOPHONIC M216; M212	MONOPHONIC M16; M12
Tracking Force	1½-2½ grams	1-2 grams
Frequency Response	20-20,000 cps $\pm 2\frac{1}{2}$ db	20-20,000 ± 2 db
Channel Separation	over 20 db at 1000 cps	•
Sensitivity: Output at 1000 cps	4.5 mv per channel (On Westrex ¼ Test Record)	14 mv for 10 cms/sec
Recommended load impedance	50,000 ohms	10,000 ohms
Compliance: (Vertical,* Lateral)	9×10^{-6} cms/dyne	8×10^{-6} cms/dyne
Inductance	400 millihenrys	130 millihenrys
D.C. Resistance	600 ohms	180 ohms
Needle tip Mass	1.3 milligrams	1.25 milligrams
Stylus	.0007" diamond	.0007" diamond

*applies to stereo units only

DIMENSIONS	Model M216 Model M16	Model M212 Model M12
Over-all length:	14¾"	11¾"
Stylus tip to center of arm base:	11"	8½"
Arm base diameter:	2"	2"
Range of height adjustment:	1½"	1½"
Arm pivot to turntable center:	10½"	8¾"
Net weight (arm and cartridge):	11.1 oz.	10.6 oz.

CATALOG NUMBERS, PRICES

STEREOPHONIC UNITS

Model M216—Studio Stereo Dynetic for records up to 16" including M21 cartridge with .0007" Diamond Stylus Audiophile Net: \$89.50

Model M212—Studio Stereo Dynetic for records up to 12" including M21 cartridge with .0007" Diamond Stylus. Audiophile Net: \$89.50

Model M21—Studio Stereo Dynetic Cartridge with .0007" Diamond Stylus. Audiophile Net: \$49.50

Model N21—Replacement Stereophonic stylus assembly for Model M21, M216, M212; .0007" Diamond tip. Audiophile Net: \$24.75

Model A30C—Stereo Cable Assembly for connecting M212 or M216 to preamplifier and amplifiers. Assures maximum performance and greatest ease of installation. Audiophile Net: \$1.95

MONOPHONIC UNITS

Model M16—Monophonic Studio Dynetic for records up to 16" including M1 cartridge with .0007" Diamond Stylus. Audiophile Net: \$79.50

Model M12—Monophonic Studio Dynetic for records up to 12" including M1 cartridge with .0007" Diamond Stylus. Audiophile Net: \$79.50

Model M1—Monophonic Studio Dynetic Cartridge for LP records with .0007" Diamond Stylus. Audiophile Net: \$42.00

Model M2—Monophonic Studio Dynetic Cartridge for 78 rpm records with .0027" Diamond Stylus. Audiophile Net: \$42.00

Model N1—Replacement Monophonic Studio Dynetic Stylus with .0007" Diamond tip. Audiophile Net: \$21.00

Model N2—Replacement Monophonic Studio Dynetic Stylus with .0027" Diamond tip. Audiophile Net: \$21.00

Model A29R—Adapter Plate for use with Model M12 or M212 for mounting purposes with the Rek-O-Kut turntable. Audiophile Net: \$2.40

FOR
THE
CRITICAL
EAR...

THE NEW SHURE

Professional TONE ARM



The Shure M232 and M236 Professional Tone Arm is a new, 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	M236
1 lb.	1½ lbs.

SHURE BROTHERS, INC.

222 HARTREY AVENUE • EVANSTON, ILLINOIS, U.S.A.

Phone: DAVis 8-9000 • Chicago Phone: SHeldrake 3-1600 • Cable Address: SHUREMICRO

For information on the superlative Shure “Integrated” Stereo Studio Dynetic Tone Arm, see pages 26, 27.

Printed in U.S.A.