

1966

SHURE



MICROPHONES • HIGH FIDELITY COMPONENTS

SHURE BROTHERS, INC. 222 HARTREY AVE. EVANSTON, ILLINOIS 60204
CABLE ADDRESS: SHUREMICRO

UNIDYNE III SERIES

THE ONLY CARDIOID MICROPHONES FEATURING
PICKUP PATTERN SYMMETRICAL ABOUT
AXIS AND UNIFORM AT ALL FREQUENCIES

The world's finest moderately priced dynamic cardioid microphone for public-address system use. The Unidyne III approaches the theoretical ideal of the cardioid pickup pattern. This means completely uniform pickup about the axis at all frequencies—in all planes. Remarkably faithful reproduction of the human voice makes the Unidyne III a superior choice for public-address applications. Low frequency characteristics of the Unidyne III eliminate boominess, and make it a favorite for pickup of drums and bass instruments. Striking black and satin chrome finish in compact modern design makes the Unidyne III a stylish addition to any platform. Model 545 is suitable for handheld and/or stand use with Model A25 Swivel Adapter included. Model 545S is mounted on lifetime swivel and includes on-off switch. Model 544 is furnished with cable attached and is designed for gooseneck mountings. 544-G6 includes 6" gooseneck; 544-G12 includes 12" gooseneck; 544-G18 includes 18" gooseneck.

TYPE: Dynamic. FREQUENCY RESPONSE: 50-15,000 cps. 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: $\frac{5}{8}$ " — 27 thread. DIMENSIONS: Length — $5\frac{1}{4}$ ", Diam. — $1\frac{1}{4}$ ". NET WEIGHT: 6/10 lb., Shipping Weight 2 $\frac{7}{8}$ lbs. FURNISHED ACCESSORIES: A25B type swivel adapter. OPTIONAL ACCESSORIES: A95A cable type transformer, S33B desk stand.

Model "545"
Unidyne III *

Model 545S
Unidyne III *

Model 544
Gooseneck
Unidyne III *

Model 546
Broadcast
Unidyne III *

* U.S. Patent D190,864
other Patents Pending

IMPEDANCE TABLE	OUTPUT LEVEL
L-50-250 ohms	—57 db (0 db = 1 milliwatt per 10 microbars) .141 millivolts/microbar
H-High	—55 db (0 db = 1 volt per microbar); 1.760 millivolts/microbar

MODEL	LIST PRICE
545	\$ 85.00
545S	\$ 89.95
544	\$ 80.00
544-G6	\$ 83.00
544-G12	\$ 83.75
544-G18	\$ 85.00

BROADCAST UNIDYNE III

MODEL 546. Ultra compact, unidirectional, distinctive design, weights only 1 lb.! Recommended for critical broadcast and theater-stage sound system operation and highest quality public address and recording applications. Truly uniform cardioid pick-up pattern, symmetrical about axis. Special live-rubber vibration-isolating shock mount. Improved self-adjusting lifetime swivel permits tilting of head 180°. Cannon XL-3-11 connector. 20 ft. 2-conductor shielded broadcast type cable. Head only $1\frac{1}{4}$ " diam., $\frac{5}{16}$ " long. 50-15,000 cps frequency response.

IMPEDANCE TABLE	OUTPUT LEVEL	MODEL	LIST PRICE
L — 50 Ohms	—55 db (0 db = 1 milliwatt per 10 microbars); .079 millivolts/microbar	546	\$135.00
H — 150 Ohms	—55 db (0 db = 1 milliwatt per 10 microbars); .176 millivolts/microbar		

UNIDYNE II SERIES

Famed Throughout the World for Ruggedness and Reliability

The Unidynes are the largest selling microphones throughout the world — used consistently by famed celebrities for those important events where the faithfulness of sound reproduction is critical. A sturdy construction provides immunity of the moving-coil system to abnormal atmospheric conditions and severe mechanical shock. Model 555 is highly recommended for fine quality public address, theater-stage sound systems, recording and remote broadcasting, and low-gain tape recording. It is also the field-proved standard for fixed station use in the police, fire, transportation, forestry and commercial services. Smooth frequency response from 50 to 15,000 cps. Furnished with an 18-foot cable and plug assembly. Model 555SW is same as Model 555 except it has On-Off switch.

Model 556S is specially constructed and tested to meet the requirements of the broadcast and television studio, and is held within close tolerances in frequency response and directivity. It is a moving-coil type microphone with a frequency range of 40 to 15,000 cps, production uniformity guaranteed to plus or minus 2½ db. As a further precaution against mechanical vibration pickup, the 556S is provided with an additional isolation unit, of live rubber construction in combination with the stand connector and a built-in high quality cable connector. Furnished with a 20-foot, high quality, shielded, 2-conductor cable with Cannon plug attached. Both the 555 and the 556S feature the patented "Uniphase" network system. All units include multi-impedance switch for High, Medium or Low Impedance.

Model "555"
Unidyne

Model "556S"
Broadcast

IMPEDANCE TABLE	OUTPUT LEVEL
L-35-50 ohms	—54 db (0 db = 1 milliwatt per 10 microbars); .063 millivolts/microbar
M-150-250 ohms	—55 db (0 db = 1 milliwatt per 10 microbars); .125 millivolts/microbar
H-High	—57 db (0 db = 1 volt per microbar); 1.410 millivolts/microbar

MODEL	LIST PRICE
556S	\$135.00
555	\$ 83.00
555SW	\$ 85.00

All Shure Dynamic, Controlled Magnetic, and Ceramic Microphones are eligible for FCDA purchases.

All Shure Unidyne Microphones available in matched pairs for Stereo Recording at no additional costs.

† Available in Gold finish for \$10 additional (List Price)

UNIDYNE A MICROPHONES

IN THE QUALITY TRADITION OF THE UNIDYNE FAMILY

NEW!



580
Stand Mounted

580
Hand Held

The Unidyne A offers unidirectional problem-solving ability at an omnidirectional price! Solves feedback problems in low-budget sound systems. Very effective cardioid pickup pattern—symmetrical about axis at all frequencies. Uniform response from 50 to 12,000 cps. Rugged Dynamic cartridge is shock-mounted for quiet operation. Built-in ON-OFF switch with provisions for locking switch in ON position. Versatile: use it on a stand, or in the hand, indoors or out. With swivel adaptor ($\frac{5}{8}$ " stand thread). Case is satin chrome with black "Armour-Dur" cap and stainless steel grille. Easily field serviced, if required. 15-foot attached shielded cable with rubber strain relief.

MODEL 580 SB. Low impedance (150 to 250 ohms). Output: -57db (0 db = 1 milliwatt per 10 microbars). **\$52.00 List.**

MODEL 580 SA. High impedance. Output: -56.5 db (0 db = 1 volt per microbar). **\$59.00 List.**

MATCHED PAIRS—UNIDYNE A

Matched within 2 db in both frequency response and output for stereo recording. High impedance models with plugs attached to fit most tape recorders. Boxed as a pair.

MODEL 580 SA MP—\$118.00 List.

DYNAMIC LAVALIER MICROPHONES

NEW 570S—ONLY PROFESSIONAL LAVALIER MICROPHONE WITH SWITCH—MODEL 570—WITHOUT SWITCH

FINEST PERFORMING PROFESSIONAL QUALITY DYNAMIC LAVALIER MICROPHONE—REGARDLESS OF PRICE! Designed for lavalier use in television, for lectures, etc. Features special "shaped" response for superior lavalier performance. Reduces pickup of clothing and cable noise. Designed for inconspicuous use with "Flex-Grip" lavalier assembly—the most versatile available. "Flex-Grip" design holds microphone firmly, yet permits easy and quick removal. Lavalier clip opens right or left or can be removed. Lightweight, flexible 30 ft. microphone cable attached. Non-reflecting gray metal case with stainless steel grille.

SPECIFICATIONS — ELEMENT TYPE: Dynamic. FREQUENCY RESPONSE: 50-12,000 cps, shaped for optimum lavalier performance, with rising response to 6,000 cps. DIAPHRAGM: Shure Duracoustic. POLAR PATTERN: Omnidirectional. MAGNETIC CIRCUIT: Uses Alnico V Magnet. CASE FINISH: Non-reflecting gray. CABLE: 30' two-conductor shielded. DIMENSIONS: $\frac{3}{4}$ " diameter, $2\frac{1}{2}$ " over-all length, NET WEIGHT: Model 570, 2 ounces (less cable). Model 570S, $3\frac{1}{2}$ ounces. FURNISHED ACCESSORIES: Model A57L "Flex-Grip" lavalier cord, and belt clip for cable. OPTIONAL ACCESSORIES: Model A95A Transformer.

IMPEDANCE — 150 Ohms — to match all low impedance inputs; 50 to 250 Ohms.

OUTPUT LEVEL — 59 db (0 db = 1 Milliwatt per 10 microbars); .094 millivolts/microbar.

MODEL 570 LIST PRICE \$95.00 . . . MODEL 570S LIST PRICE \$105.00.



570S



570 LAVALIER

MODEL 560 DYNAMIC LAVALIER

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

SPECIFICATIONS — FREQUENCY RESPONSE: Specially adapted to give optimum performance for lavalier use. DIAPHRAGM: Shure Duracoustic. CABLE: Non-detachable 18 ft., two-conductor shielded. CASE: Non-reflecting, black satin finished all-metal case with stainless steel grille. DIMENSIONS: $3\frac{9}{32}$ " long by $1\frac{1}{8}$ " diameter. NET WEIGHT: 5 ounces; packaged weight: 13 ounces.

IMPEDANCE TABLE	OUTPUT LEVEL
150-250 Ohms	-55.5 db (0 db = 1 Milliwatt per 10 microbars); .149 millivolt/microbar
High	-56.5 db (0 db = 1 volt per microbar); 1.33 millivolt/microbar

MODEL	LIST PRICE
560	\$42.50



560 Lavalier

SHURE

QUALITY OMNIDIRECTIONAL MICROPHONES

NEW MODELS 533SA AND 533SB SPHER-O-DYNE

The only microphone of its quality and type at this low price! A small, rugged microphone series featuring flat response for faithful reproduction of voice and music. A "natural" for entertainers, interviewers, singers, and rock-'n'-roll groups. Spherical screen provides protection from pop, blast, and wind—eliminates explosive breath sounds. Permits singers or other performers who strive for an intimate mood to "hug" the mike. Adaptable to hand or stand use. "ON-OFF" switch included, with optional locking cover plate. All-metal case is finished in satin chrome. Provided complete with Model A25B Swivel Stand Adapter, and 15 foot cable. Model 533SA is high impedance, with Amphenol type MC1F connector attached to 15-ft. one-conductor shielded cable. Model 533SB is low impedance, with Amphenol type MC2M connector attached to 15-ft. two-conductor cable.

SPECIFICATIONS

List Price Model 533SA \$50.00—Model 533SB \$47.50—Type: Dynamic; Frequency Response: 40 to 11,000 cps; Polar Pattern: Omnidirectional; Impedance: Model 533SB 150 to 250 ohms, Model 533SA High Impedance; Output Level: Model 533SA High Impedance —54.5db* (1.88 millivolt/microbar), Model 533SB Low Impedance —55.5db** (.149 millivolt/microbar); Switch: Built-on "ON-OFF" switch with lockplate furnished. Swivel Adapter: Positive action to fit $\frac{5}{8}$ " - 27 strand thread.

Dimensions: $6\frac{1}{32}$ " x $2\frac{1}{16}$ " in diameter.

Net Weight Less Cable: 11 oz.

* 0 db = 1 volt per microbar

** 0 db = 1 milliwatt with 10 microbars

NEW MODEL 571 OMNIDYNE MINIATURE MICROPHONE

For hand-held and stand use. Similar to Model 570 in size and appearance, but has smooth peak-free response from 50 to 10,000 cps for voice applications where a small, inconspicuous microphone should be used. Use in hand, on stand, hang over stage, conceal in studio and other broadcast, motion picture, theatrical and public address applications. Model A57R swivel adapter included.

IMPEDANCE matches all low impedance inputs 50—250 ohms.

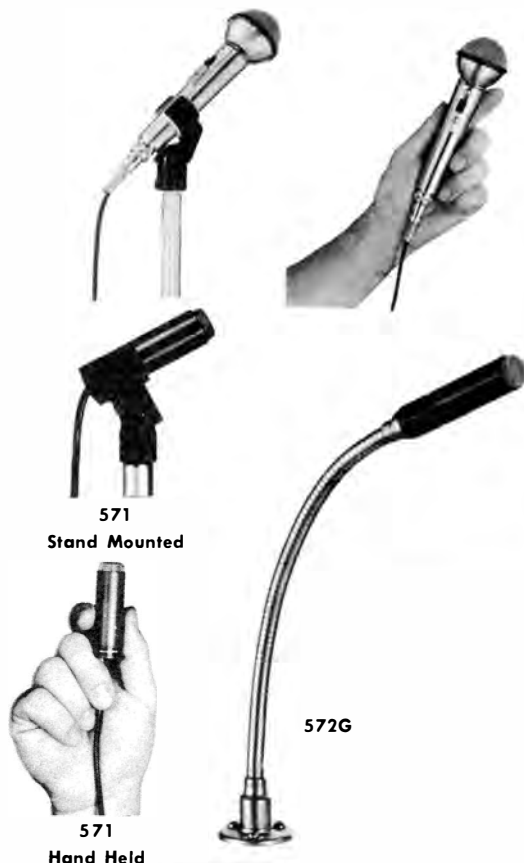
OUTPUT: —60.5 db (0 db = 1 millivolt per 10 microbars); .085 millivolts/microbars.

LIST PRICE: \$95.00

NEW MODEL 572G OMNIDYNE MICROPHONE COMPLETE WITH ULTRA-QUIET FLEXIBLE ARM

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

Model 572G list price \$110.00



MODEL 550S— "PROBE-DYNAMIC"

A new rugged, high quality Dynamic Microphone designed for use in top-quality sound reinforcement applications. Features smooth, wide-range response from 50-15,000 cps. Excellent for pickup of voice and music. Performance and appearance characteristics make the "Probe-Dynamic" a wise choice for use in meeting rooms, auditoriums, for tape recording or wherever a quality omnidirectional microphone is required, and moderate cost is an important consideration. Dual impedance. Comes complete with on-off switch, swivel and 18 ft. 2-conductor cable. Model 550S in satin chrome finish. Model 550S(Gold) in gold finish. Available in matched pairs for stereo recording. (Matched to ± 1 db in level and $1\frac{1}{2}$ db in frequency response.)

List Price: Model 550S \$69.00
Model 550S (Gold) \$79.00

Type: Dynamic

Frequency Response:

Output:

50 to 15,000 cps
—57.5 db — low imp.
—58.5 db — high imp.
(0 db = 1 volt/microbar); 1.18 millivolts/microbar

Impedance:

Diaphragm:

Case:

Dual: Choice of 50 to 250 ohms and High Shure Duraacoustic Model 550S
Satin finished chrome case, stainless steel mesh grille
Model 550S (Gold)
Gold finished case and grille

Dimensions: (not including swivel)
Net Weight: (less cable)

$1\frac{1}{2}$ " diameter, $6\frac{1}{2}$ " long
15 oz.



SONODYNE II

MODEL 540S. A compact, modernistic microphone with high output dynamic element at moderate cost. The "Sonodyne II" features adjustable frequency response which allows the user to tailor the microphone to the application—One of the most versatile microphones on the market! High output Dynamic element Omni-Directional pick-up pattern. Frequency response: 60 to 10,000 cps with provisions for altering response for voice intelligibility in paging and communications systems. Reliable on-off switch. Model 540 also available without switch. Improved positive action lifetime swivel permits tilting head 150°. 15 ft. 2-conductor shielded cable, equivalent to Amphenol MC3M connector.

IMPEDANCE TABLE	OUTPUT LEVEL
L—50-250 Ohm	—56.5 db (0 db = 1 Milliwatt per microbar); .141 millivolts/microbar
H—High	—55 db (0 db = 1 volt per microbar); 1.76 millivolts/microbar

LIST PRICE

Model 540S (with switch)	\$49.95
Model 540 (without switch)	\$47.95



SONODYNE

MODEL 51. The "Sonodyne" is ideal for all general purposes, including public address, wire and tape recording, and similar applications. Ideal high-quality, moderately-priced replacement for the conventional microphone supplied with tape recorders. The wide range frequency response is 60 to 10,000 cps. This rugged microphone is one of the pressure type, with conventional semi-directional characteristics, and it may be used for close-talking without undue low frequency emphasis. Multi-impedance—for low, medium and high impedance. Has built-in receptacle and a 15-foot, two-conductor shielded cable with microphone plug attached. Satin chrome finish. Model 51S is same as Model 51 except it has on-off switch.

IMPEDANCE TABLE	OUTPUT LEVEL
L—35-50 Ohms	—52.0 db (0 db = 1 Milliwatt per 10 microbars); .089 millivolts/microbar
M—150-250 Ohms	—52.5 db (0 db = 1 Milliwatt per 10 microbars); .238 millivolts/microbar
H—High	—49.5 db (0 db = 1 volt per microbar); 2.510 millivolts/microbar

LIST PRICE

51	\$49.50
51S	\$51.50

SLIM DYNAMIC PROBE MICROPHONES

SHURE

MODEL 578 OMNIDYNE ULTRA SLIM PROBE

No Change in Pickup Pattern or Sensitivity from 50-17,000 cps

An outstanding omnidirectional public address microphone combining striking modern ultra-slim ($\frac{3}{4}$ " diameter) design with exceptional performance, proved in severe field testing. Inconspicuous because of slender shape. Smooth, natural response from 50 to 17,000 cps. Built-in wire mesh "pop" filter reduces breath noises. Extremely rugged construction makes the Omnidyne an excellent choice for quality P.A. use indoors and outdoors. Satin chrome steel case provides magnetic shielding as well as good looks. Model 578S is mounted on swivel-switch assembly with attached Cannon XL3-11 cable connector. Model 578 has exceptional "feel" and "balance" making it ideal for hand-held use. Dual impedance. Complete with "On-Off" switch and special slip-in swivel stand adapter. Locking switch plate is included to lock switch in "On" position. Available in Matched Pairs for Stereo Recording (Matched to plus or minus 1 db in level and $1\frac{1}{2}$ db in frequency response).

SPECIFICATIONS — FREQUENCY RESPONSE: 50-17,000 cps. Furnished with swivel adapter having $\frac{5}{8}$ "-27 thread. CABLE: 18' — three-conductor shielded. SWITCH: Supplied with "On-Off" switch and optional cover plate. DIMENSIONS: $\frac{3}{4}$ " diameter, $7\frac{3}{8}$ " overall length. NET WEIGHT: 7 ounces (less cable).

IMPEDANCE	OUTPUT LEVEL
200 Ohms	—60 db (0 db = 1 Milliwatt per 10 microbars); .100 millivolts/microbar
High	—59 db (0 db = 1 Milliwatt per microbar); 1.11 millivolts/microbar

MODEL 578†

. . . MODEL 578S†

†Available in Gold finish



578S Stand Mounted

578 Hand Held

MODEL 576 OMNIDIRECTIONAL DYNAMIC

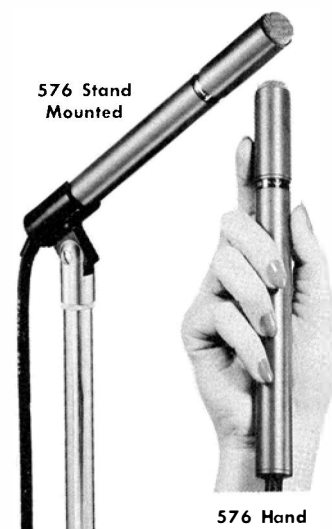
Super-smooth Response Avoids Feedback Common with other Omnidirectionals

A superb, dynamic probe microphone designed for television, radio broadcasting and supercritical public address applications. Superior for ruggedness and performance under typical broadcasting conditions. Features smooth, natural, wide-range response from 40-20,000 cps for authentic pickup of voice or music. Dual impedance, 50 and 150 ohms. The 576 is an ideal hand-held microphone because of its unique "feel" and "balance". Rugged steel case provides effective magnetic shielding as well as good looks. Finished in non-reflecting gray with stainless steel grill. Available in matched pairs for stereo broadcasting and recording (Matched to plus or minus 1 db in level and $1\frac{1}{2}$ db in frequency response.)

SPECIFICATIONS — FREQUENCY RESPONSE: 40-20,000 cps. CASE FINISH: Non-reflecting gray. SWIVEL ADAPTER: Furnished with Model A57S Swivel Adapter having $\frac{5}{8}$ "-27 thread. CABLE: 25' three-conductor shielded broadcast cable. DIMENSIONS: $\frac{3}{4}$ " diameter, $5\frac{3}{8}$ " overall length. NET WEIGHT: 7 ounces (less cable).

IMPEDANCE	OUTPUT LEVEL
50 Ohms	—60 db (0 db = 1 Milliwatt per 10 microbars); .050 millivolts/microbar
150 Ohms	—60 db (0 db = 1 Milliwatt per 10 microbars); .095 millivolts/microbar

MODEL 576 LIST PRICE \$175.00.



576 Stand Mounted

576 Hand Held

MODEL 535 SLENDYNE MICROPHONE

A one-inch diameter quality dynamic omnidirectional microphone proved in rugged use for years of dependable service. With response from 60 to 13,000 cps. Choice of high or low impedance with combination impedance and On-Off switch. Supplied with optional cover plate to prevent tampering. Complete with swivel stand adapter and 18' two conductor shielded cable connected to microphone with MC3F Type Connector. Output: low impedance, —61 db (0 db equal 1 milliwatt per 10 microbars); .071 millivolts/microbar. High impedance, —61 db (0 db equal 1 volt per microbar); .890 millivolts/microbar.

MODEL 535 LIST PRICE \$72.50.



MONOPLEX

The only Super-Cardioid Crystal Microphone made — far superior to conventional Crystal Microphones! Excellent for high-quality public address, communications, recording, and similar applications. Excellent solution for feedback problems! Moistureproof "Metal Seal" crystal for long operating life. Case pivots at rear, can be pointed toward desired sound or upwards for horizontal plane pickup. Has 15 ft. shielded cable. Rich satin chrome finish. High impedance.

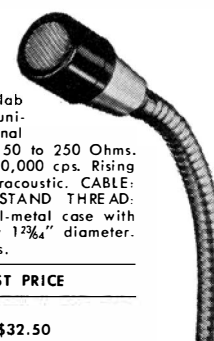
MODEL	OUTPUT	LIST PRICE
737A	—53 db (0 db = 1 volt per microbar); 2.510 millivolts/microbar	\$46.00



MODEL 561 DYNAMIC GOOSENECK

Compact, high quality, tamper-proof dynamic microphone with attached cable and standard $\frac{5}{8}$ "-27 thread for direct mounting on flexible gooseneck or fixed pipe. Extremely rugged, dynamic cartridge (Model R50) easily replaced in field. Excellent voice response for language lab systems, paging applications, base-station communications and talk-back and cuing from professional control-room installations. Low impedance. Matches 50 to 250 Ohms. **SPECIFICATIONS**—FREQUENCY RESPONSE: 40 to 10,000 cps. Rising characteristic to 4500 cps. DIAPHRAGM: Shure Duracoustic. CABLE: Non-detachable 4 ft., two-conductor shielded. STAND THREAD: $\frac{5}{8}$ "-27. CASE: Black and chrome satin finished all-metal case with stainless steel grille. DIMENSIONS: $2\frac{1}{4}$ " long by $1\frac{3}{4}$ " diameter. NET WEIGHT: 5 ounces, packaged weight: 9 ounces.

OUTPUT LEVEL	LIST PRICE
—56.0 db (0 db = 1 Milliwatt per 10 microbars); 1.41 millivolts/microbar	\$32.50



Gooseneck not included.

RIBBON MICROPHONES

The characteristically wide-range response of the ribbon element has made it the most widely used type of microphone for broadcasting and professional recording. Shure engineers have designed remarkable ruggedness* into Shure ribbon microphones, making them an excellent choice for any indoor application where highest quality response is required.

*Shure ribbon microphones actually have been used "to pound nails" and subjected to severe drop tests — without affecting the performance characteristics.



Model "333"
Studio Uni-Ron *



Model "330"
"Professional Uni-Ron" *



Model "300"
Studio
Gradient †



Model "315"
Gradient †

STUDIO UNI-DIRECTIONAL RIBBON MICROPHONE

This small, ultra-cardioid "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 ultra-cardioid, uni-directional — greatly reduces the pickup of random noise energy to solve feedback problems. Following are the features that make the "333" Studio so outstanding in performance, so dependable in operation: (1) patented, world-famous "Uniphase" system; (2) a true ultra-cardioid pickup pattern; (3) ribbon transducer provides extended smooth response, production uniformity guaranteed to plus or minus 2½ db, 30-15,000 cps; (4) multi-impedance switch; (5) voice-music switch; (6) anti-"PFF" filter screen; (7) Shure self-adjusting "lifetime" swivel; (8) high output; (9) sturdy, one-piece metal case; (10) vibration-isolation unit mounted in live rubber; (11) Cannon XL connector. Head dimensions: Width, 1½"; height, 3¼"; depth, 1¾".

IMPEDANCE TABLE	OUTPUT LEVEL
L — 50 Ohms	—60 db (0 db = 1 Milliwatt per 10 microbars); .049 millivolts/microbar
M — 150 Ohms	—58.5 db (0 db = 1 Milliwatt per 10 microbars); .089 millivolts/microbar
H — 250 Ohms	—58.5 db (0 db = 1 Milliwatt per 10 microbars); .111 millivolts/microbar

MODEL	LIST PRICE
"333"	\$250.00

P.A. UNI-DIRECTIONAL RIBBON MICROPHONE

Designed to meet the exacting requirements of professional tape recording and highest quality indoor public-address systems where highest quality is essential, yet cost is a factor. Supercardioid pickup pattern. 30 to 15,000 cps. The Professional "Uni-Ron" is equipped with multi-impedance (50, 150 and 250 ohms) switch, life-time swivel, vibration-isolation shock mount, Cannon XL-3-11 cable connector, 20 ft. 2-conductor shielded broadcast-type cable. Satin-chrome finish with natural anodized aluminum grille.

IMPEDANCE TABLE	OUTPUT LEVEL
L — 50 Ohms	—60 db (0 db = 1 Milliwatt per 10 microbars); .049 millivolts/microbar
M — 150 Ohms	—58.5 db (0 db = 1 Milliwatt per 10 microbars); .089 millivolts/microbar
H — 250 Ohms	—58.5 db (0 db = 1 Milliwatt per 10 microbars); .111 millivolts/microbar

MODEL	LIST PRICE
"330"	\$120.00

STUDIO BI-DIRECTIONAL GRADIENT MICROPHONE

Rugged, high fidelity, multi-impedance microphone is widely used for television, radio broadcasting, professional recording and high-fidelity uses. The "300" reduces reverberation and the pickup of random noise by 66%. Combines the best features of conventional velocity microphones with advanced acoustic design — including an anti-"PFF" filter screen. Its bi-directional polar pattern is effective over a broad frequency range. Provides sound pickup at the front and rear of the microphone, but greatly reduces pickup at the sides. Can be placed at a much greater distance from the performer than is possible with omni-directional microphones! Non-reflecting "Baked Bronze" finish. Readily accessible Voice-Music switch, vibration-isolation unit mounted in live rubber, and a multi-impedance switch, providing low, medium and high impedance. Extended response, production uniformity guaranteed to plus or minus 2½ db, 40-15,000 cps. Furnished with a 20-foot two-conductor, rubber-covered, shielded cable with Cannon XL-3-11 connector attached.

IMPEDANCE TABLE	OUTPUT LEVEL
L — 30- 50 Ohms	—60.5 db (0 db = 1 Milliwatt per 10 microbars); .043 millivolts/microbar
M — 150-250 Ohms	—59 db (0 db = 1 Milliwatt per 10 microbars); .105 millivolts/microbar
H — High	—57.5 db (0 db = 1 volt per microbar); 1.52 millivolts/microbar

MODEL	LIST PRICE
"300"	\$150.00

P.A. BI-DIRECTIONAL GRADIENT MICROPHONE

Features frequency response of 50 to 12,000 cps — will reproduce voice and music in a clear, natural tonal quality in auditoriums, night clubs, schools and churches. Provides unusual freedom of motion on the platform. Bi-directional "Fig. 8" pickup pattern extends over a broad frequency range — permits the sound system to be operated at a level almost 6 db higher than is possible with non-directional (omni-directional) microphones! Greatly reduces reverberation and the pickup of random noises to control feedback. It is "PFF"-proof — filters out the "PFF"-type noises often heard over conventional microphones. Dimensions: 6" x 1¼" wide x 1½" deep. Furnished with 18-foot, high quality, two conductor, shielded cable with the equivalent of the Amphenol 91-MC3M plug. Model "315S" is same as model "315" but has On-Off switch.

IMPEDANCE TABLE	OUTPUT LEVEL
L — 35- 50 Ohms	—62 db (0 db = 1 Milliwatt per 10 microbars); .035 millivolts/microbar
M — 150-250 Ohms	—61 db (0 db = 1 Milliwatt per 10 microbars); .089 millivolts/microbar
H — High	—58.5 db (0 db = 1 volt per microbar); 1.15 millivolts/microbar

MODEL	LIST PRICE
"315"	\$89.50
"315S"	\$91.50

* U. S. Patent D178,018
† U. S. Patent D171,055

LOW COST MICROPHONES

SHURE

UNIPLEX UNIDIRECTIONAL CERAMIC MICROPHONE

A budget-priced microphone incorporating the same "Uniphase" system found in higher priced Shure Unidirectional microphones. The ideal solution to feedback problems in low cost public address systems. Good voice reproduction for home recording and paging applications. Reliable, rugged ceramic cartridge performs at temperatures from -40° to 170°F. Available in four models, all with metal, die-cast case. Lightweight and versatile, it can be used as a hand-held or stand-mounted unit in Models 245S (with switch) and 245 (without switch). Model 245G is supplied with cable attached for gooseneck mounting.

SPECIFICATIONS — Type: Ceramic. **FREQUENCY RESPONSE:** 50 to 7,000 cps. **OUTPUT LEVEL:** -59 db (0 db = 1 volt per microbar); 1.100 millivolts/microbar. **IMPEDANCE:** High. Recommended load impedance: 1 to 5 megohms. **POLAR PATTERN:** Cardioid (unidirectional). **CASE:** Die-cast zinc. **CABLE AND CONNECTORS:** Models 245 and 245S provided with 15' (4.6 m) single-conductor shielded cable with a plug (equivalent of Amphenol MCIF) for attaching cable to microphone. Models 245G and 245GS: 7' (2.1 m) single-conductor shielded cables attached to microphone. **SWITCHES:** Models 245S and 245GS have built-in "On-Off" switch. **STAND THREAD:** Models 245 and 245S provided with Model A25B swivel adapter with 3/8"-27 thread for use with S38B Desk Stand, or any convenient desk or floor stand. Models 245G and 245GS are especially designed for use with flexible goosenecks having a 3/8"-27 thread or for customized installation where a concealed cable is desired. **DIMENSIONS** (Microphone only): 4 3/8" (119.9 mm) high, 1 1/8" (28.6 mm) diameter. **NET WEIGHT:** (microphone only): 3/8 lb., packaged weight 3/4 lb. **OPTIONAL ACCESSORIES:** Model S38B Microphone Stand.

MODEL	DESCRIPTION	LIST PRICE
245	With A25B swivel-stand adapter, removable cable	\$35.00
245S	Same as 245 with on-off switch	\$37.00
245G*	Gooseneck version with fixed cable, no adapter	\$30.00
245GS*	Same as 245G with on-off switch	\$32.00

Imagine — SHURE Unidirectional Microphones at these Moderate Prices!



245 with S38B stand

*Gooseneck not included

WIDE-RANGE "VERSADYNE" AND "VERSAPLEX" MICROPHONES

Smooth response makes these units a "best-buy" for general public address, home recording and call-system use where both performance and economy are important. High-performance dynamic cartridge is unaffected by temperature and humidity variations. Choice of high or low impedance dynamic or high impedance ceramic models each complete with switch plus stand adapter and lavalier cord. Small size and light weight, this unit is equally adaptable to hand-held, stand-mounted or lavalier use. Model 575S and 275S feature high impedance and high output, for applications where only a moderate length of cable is required. The low impedance, Model 575SB is designed for use in installations where long cable lengths are required, or for use with transistor amplifiers requiring a medium or low impedance microphone.

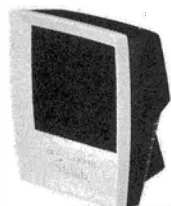
LIST PRICE	MODEL 575S "VERSADYNE"	MODEL 575SB "VERSADYNE"	MODEL 275S "VERSADYNE"
	\$24.00	\$21.00	\$15.00
TYPE	DYNAMIC		CERAMIC
FREQUENCY RESPONSE	40 to 15,000 cps		40 to 12,000 cps
OUTPUT LEVEL	-59 db (0 db = 1 volt per microbar); 1.110 millivolts/microbar	-62 db (0 db = 1 Milliwatt per 10 microbars); .071 millivolts/microbar	-59.5 db (0 db = 1 volt per microbar); 1.050 millivolts/microbar
IMPEDANCE	High: 100,000 Ohms or Higher	150-250 Ohms	High: 1 to 5 Megohms Recommended
FINISH	Black high-impact plastic body with satin anodized cap and stainless steel grille		
DIMENSIONS	4 3/4" long x 1 1/4" diam.		

Surprising Quality for these Low Prices.



Models 275S - 575S

U.S. Patent D196, 919



"STARLITE" Models 215 and 715

Beautifully designed economy microphone for voice reproduction. Can be held in the hand, or used on a desk with built-in stand. Semi-directional, high impedance; impact resistant polystyrene cases.

Model 215, a ceramic unit, has a response from 50-8000 cps; Model 715, a crystal unit, has a response range from 50-10,000 cps. Both supplied with 5 ft. fabric covered single conductor shielded cable.

MODEL	OUTPUT	LIST PRICE
215 Ceramic	-56.5 db (0 db = 1 volt per microbar); 1.480 millivolts/microbar	\$8.00
715 Crystal	-50 db (0 db = 1 volt per microbar); 3.150 millivolts/microbar	\$8.00

"SLIM-X" MODEL 777

The "777" Slim-X Microphones are rugged little microphones weighing only 6 ounces. They use a "Metal Seal" crystal for long operating life under adverse conditions of heat and humidity. Designed for good-quality voice reproduction, their versatility and "hand-ability" make them ideal for use by lecturers, announcers, instructors, and Hams; and for home recorders. Smooth response from 60 to 10,000 cps. Output -62 db (0 db = 1 volt per microbar).



MODEL	TYPE	LIST PRICE
777	Includes Lavalier cord, molded stand adapter	\$25.00
777S	Same as 777 with on-off switch	\$27.00

"HERCULES" AND "REX" MICROPHONES

MODELS 410S, 510, 510S, 710 and 710S

"Hercules" Controlled Magnetic and "Rex" Crystal Microphones are all low cost, high impedance units ideal for home recording, amateur radio, and budget public-address applications.

Models 510C and 510S, 710A and 710S are designed for use in the hand as well as secure placement on desk or table. They also include stand adapters having 3/8"-27 thread which fit the conventional floor or table stands. Model 410S has an adapter with 3/8"-27 thread mounted on the microphone for concealed cable mounting on flexible gooseneck or customized installation. Model 510S, 410S and 710S have On-Off switch. Other models have no switch.

"Hercules" Models 510C, 510S, and 410S are rugged Controlled Magnetic types which maintain performance qualities under extremes of temperature and humidity. Frequency response 100 to 7,000 cps for excellent voice reproduction. High impedance, output -52.5 db (0 db equal 1 volt per microbar).

"Rex" Models 710A and 710S have crystal elements with a frequency response of 60 to 9,000 cps. Output is -50 db (0 db equal 1 volt per microbar). All models provided with 7-foot fabric-covered, single-conductor, shielded cable.

List prices:	Model 410S with On-Off Switch	\$21.00*
	Model 510C—No Switch	17.00
	Model 510S with On-Off Switch	19.00
	Model 710A—No Switch	12.00
	Model 710S with On-Off Switch	14.00

*Gooseneck not included.

Model 707A



Ideal for low-cost P.A. systems, amateur phone transmitters and similar applications. Good quality at low cost. Has typical semi-directional pickup. 7 ft. shielded cable. High impedance. Pearl Gray case, satin chrome finish on front grille. Diameter 2 1/2".

MODEL	OUTPUT	LIST PRICE
707A	-50 db (0 db = 1 volt per microbar); 3.150 millivolts/microbar	\$19.50

THE COMMANDO SERIES

The Commando Series represents a significant achievement in providing quality performance at nominal cost—incorporating Shure's rugged, patented Controlled Magnetic cartridge in a dramatic-looking versatile series of microphones. Suitable for indoor or outdoor use, these microphones feature high output, smooth response, extreme ruggedness and ability to withstand severe moisture and temperature conditions. Model 420 is specially designed for lavalier use and it, as well as the Model 430, features adjustment for high or low impedance by simple pin-jack changing method. Model 430 includes an "On-Off" switch as well as detachable cable. Both Models 415 and 430 are furnished with Shure Model A25B Swivel Stand Adapter for Stand-mounted use. Model 425 is specially designed for gooseneck mounting but can also be utilized as stand-mounted units with A25B Swivel Adapter. Models with gooseneck attached are numbered 425-G plus number to indicate length of gooseneck in inches. Model 425 does not include gooseneck.

SPECIFICATIONS for Commando Models 415, 420, 425 and 430

LIST PRICE: Model 415 - \$27.50; Model 420 - \$30.00; Model 425 - \$30.00; Model 430 - \$38.50; Model 425-G6 - \$33.00; Model 425-G12 - \$33.75; Model 425-G18 - \$35.00.

TYPE: Controlled Magnetic

FREQUENCY RESPONSE: 60 to 10,000 cps

IMPEDANCE: Model 415 — High. Model 420-425-430 — Equipped with readily changeable pin-jacks (no soldering required) furnishing a choice of two impedances: H—High and L—150 to 250

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

POLAR PATTERN: Omnidirectional

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

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

CABLE: Model 415 — 7 ft. non-detachable single-conductor shielded. Model 420 — 20 ft. non-detachable two-conductor shielded. Model 425 — 7 ft. non-detachable two-conductor shielded. Model 430 — 15 ft. two-conductor shielded with Amphenol MC2M connector for attaching to microphone.

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

DIMENSIONS: Model 415 — Length 6 $\frac{3}{4}$ ". Diameter of head 1 $\frac{1}{4}$ ". Diameter of handle 1 $\frac{1}{8}$ ". Model 420 — Length 3 $\frac{1}{4}$ ". Diameter 1 $\frac{1}{4}$ ". Model 425 — Length 3 $\frac{1}{4}$ ". Diameter 1 $\frac{1}{4}$ ". Model 430 — Length 6 $\frac{3}{4}$ ". Diameter of head 1 $\frac{1}{4}$ ". Diameter of handle 1 $\frac{1}{8}$ ".

NET WEIGHT: Model 415 — 1/2 lb. Models 420-425 — 1/4 lb. Model 430 — 3/8 lb. (Less cable)

PACKAGED WEIGHT: Model 415 — 1 $\frac{1}{8}$ lbs. Models 420-425 — 3/4 lb. Model 430 — 2 $\frac{1}{8}$ lbs.

FURNISHED ACCESSORIES: Model 415 — Model A25B Swivel Adapter. Models 420 — Lavalier Cord and clip assembly. Readily detachable for use of microphone as a hand-held type. Model 430 — Switch locking plate for keeping switch in "On" position, Model A25B Swivel Adapter.

OPTIONAL ACCESSORIES: Model 415 — Model S38B or S33B Desk Stand. A34L Lavalier Assembly. Models 420-425 — Model A86A Cable Type Transformer. Model 430 — Model A86A Cable Type Transformer and Model S38B or S33B Desk Stand. A34L Lavalier Assembly.

Model 415



Model 420



Model 430

Model 425
(gooseneck
not included)425-G6 with
6-in. gooseneck
425-G12 with
12-in. gooseneck
425-G18 with
18-inch gooseneck

NEW CABLE TYPE TRANSFORMER



Model A95A is a high-quality, cable-type transformer which makes it possible to connect a low impedance microphone (35-50 ohm and 150-250 ohm) to a high impedance amplifier. It is housed in a compact, sturdy and magnetically-shielded case, 2 $\frac{1}{2}$ " long x 3/4" diameter. Use of this transformer solves the problem of excessive high frequency loss and objectionable hum when long lengths of microphone

cable are necessary. Model A95A may also be used in specialized applications requiring high impedance to low impedance circuit connections. Attractive gray and black case furnished with Cannon XL-3-11 input and Amphenol MC1F output plugs installed. Frequency responses: 20 to 20,000 cps, plus or minus 1 db.

List Price: \$17.50

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)

MC20A-J (Rectangular)

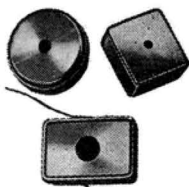
MC30-J (Square)

LIST PRICE: \$12.50

LIST PRICE: \$14.00

LIST PRICE: \$20.00

SPECIFICATIONS FOR MODELS MC11-J, MC20A-J, and MC30-J —
TYPE: Controlled Magnetic. FREQUENCY RESPONSE: MC11-J — 400 to 4,000 cps, MC20A-J — 400 to 4,500 cps, MC30-J — 400 to 3,500 cps. OUTPUT LEVEL: MC11-J — -73 db (0 db = 1 volt per microbar), MC20A-J — -73 db (0 db = 1 volt per microbar), MC30-J — -76 db (0 db = 1 volt per microbar). IMPEDANCE: MC11-J — 1,000 ohms, MC20A-J — 2,000 ohms, MC30-J — 1,850 ohms. CASE: Brass. FINISH: Cadmium plated. TERMINALS: MC11-J — Eyelet solder type, MC20A-J — 1 $\frac{1}{2}$ " flexible lead type, MC30-J — Eyelet solder terminals. DIMENSIONS: MC11-J (circular) 1 $\frac{1}{4}$ " diameter, 3/4" thick, MC20A-J (rectangular) 10/16" wide, 1 $\frac{1}{4}$ " long, 5/8" thick, MC30-J (square) .5" wide, .5" long, .265" thick. NET WEIGHT: MC11-J — 12 $\frac{1}{2}$ grams, MC20A-J — 9.6 grams, MC30-J — 3.7 grams.

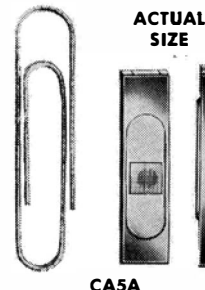


MODEL CA5A ULTRA-MINIATURE CERAMIC MICROPHONE

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

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

SPECIFICATIONS — LIST PRICE: \$20.00. TYPE: Ceramic element. FREQUENCY RANGE: 50 to 4500 cps. IMPEDANCE: Equivalent to 400 pfd. OUTPUT LEVEL: -73 db (0 db = 1 volt per microbar). TEMPERATURE RANGE: -20° to 200° Fahrenheit. HUMIDITY RANGE: Unaffected by humidity. SIZE 1.000" x .250" x .100" (2.54 cm x .635 cm x .254 cm). WEIGHT: 3/4 gram.

ACTUAL
SIZE

CA5A

DISPATCHING... GENERAL PURPOSE MICROPHONES

SHURE

MODEL 450 "DISPATCHER" MICROPHONE * Made of Rugged "ARMO-DUR"—Won't Crack—Peel—Rust—Dent.

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

SPECIFICATIONS — ELEMENT TYPE: Controlled Magnetic. FREQUENCY RESPONSE: 100 to 9000 cps. CASE: Two-tone Gray "Armo-Dur". CABLE: 7 ft., four-conductor (two-conductor shielded). SWITCH: Push-to-talk switch button with optional locking feature to operate independent microphone and relay circuits. Relay portion of switch is normally open. Microphone portion of switch is normally open or normally closed as required. DIMENSIONS: 4" wide, 5 $\frac{1}{4}$ " deep, 10 $\frac{3}{4}$ " high (adjustable). NET WEIGHT: 1 $\frac{1}{2}$ lbs.

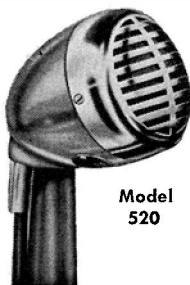
MODEL	IMPEDANCE	OUTPUT LEVEL	LIST PRICE
450	50-250	—54 db (0 db = 1 Milliwatt per 10 microbars); 2.380 millivolts/microbar	\$49.50
	High	—52.5 db (0 db = 1 volt per microbar); .281 millivolts/microbar	



ADJUSTABLE HEIGHT

THE "GREEN BULLET"

Designed to provide quality music and speech reproduction at moderate cost. Rugged! Practically immune to the effects of high temperatures and humidity. Features: high output, good response, high impedance without the need of a transformer. Modern metallic green finish with plated grille. Frequency response is 100 to 7000 cps. Furnished with 7 ft. single-conductor shielded cable. High impedance. Use with Shure Model S34B or S36A Desk Stands.



Model 520

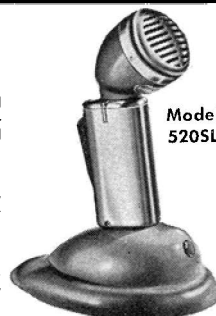
MODEL	OUTPUT LEVEL	IMPEDANCE	LIST PRICE
520	—52.5 db (0 db = 1 volt per microbar); 2.38 millivolts/microbar	High	\$22.50
520B	—51 db (0 db = 1 milliwatt per 10 microbars); .281 millivolts/microbar	150-250 Ohms	\$22.50

MODEL 520SL "DISPATCHER"

Model 520SL recommended for mobile and fixed station use, also for public address, recording call systems, radio telephone and amateur use.

Model 520SL equipped with grip-to-talk switch DPST — normally closed-normally open, and 7 ft. 2-conductor shielded cable, equivalent to Amphenol MC3M plug.

Model 520SLB has grip-to-talk switch DPST — normally closed-normally open, and 7 ft. 4-conductor (2 conductors shielded) cable, equivalent to Amphenol MC4M plug.



Model 520SL

MODEL	OUTPUT LEVEL	IMPEDANCE	LIST PRICE
520SL	—52.5 db (0 db = 1 volt per microbar); 2.38 millivolts/microbar	High	\$45.00
520SLB	—51.0 db (0 db = 1 millivolt per 10 microbars); .281 millivolts/microbar	150-250 Ohms	\$49.25

SPECIAL "HAM" MICROPHONES

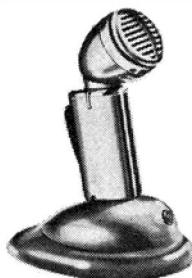
MODEL 444 FEATURES ADJUSTABLE HEIGHT

Made of Rugged "ARMO-DUR"—Won't Crack—Peel—Rust—Dent.

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

SPECIFICATIONS — ELEMENT TYPE: Controlled Magnetic. FREQUENCY RESPONSE: 300 to 3,000 cps. OUTPUT: —52.5 db (0 db = 1 volt per microbar); 2.38 millivolts/microbar. IMPEDANCE: High. CASE: Gray "Armo-Dur". CABLE: 7 ft. two-conductor shielded. SWITCH: Push-to-talk switch button with optional locking feature to operate relay control and microphone muting circuits. Separate switch enables user to disable relay control circuit for VOX operation. DIMENSIONS: 4" wide, 5 $\frac{1}{4}$ " deep, 10 $\frac{3}{4}$ " high (adjustable). NET WEIGHT: 1 $\frac{1}{2}$ pounds.

MODEL	LIST PRICE
444	\$42.50



MODEL 440 SL

Response characteristic tailored to meet the demands of radio communications; ideally suited for single-sideband. Rising response characteristic with sharp cutoff below 300 and above 3000 cps eliminates the need for audio filters. Rugged, time-proven controlled magnetic element, with high output equalling that of a crystal unit. Ideal for use with all types of amateur transmitters. Frequency response: 300 to 3000 cps. High impedance, output level —52.5 db (0 db = 1 volt per microbar); 2.38 millivolts/microbar 7 ft. 2-conductor shielded cable with equivalent to Amphenol MC3M plug, switch and desk stand.

MODEL	LIST PRICE
440SL	\$47.50

MODEL 440

Basic microphone same as above but with 7 ft. single conductor shielded cable. Less switch, stand, connector. Use with S34B or S36A stand.

MODEL	LIST PRICE
440	\$25.00



A87K MODIFICATION KIT

Modifies 440 SL to obtain maximum flexibility between either VOX or push-to-talk operation. List: \$3.25.

SHURE**NEW! COMPACT COMMUNICATIONS MICROPHONES****RANGER II****WITH HIGH-IMPACT ARMO-DUR CASE**

Only about half the size and weight of conventional mobile communications microphones, yet performs as well as or better than the "big boys." Only 6¾ oz., less cable, . . . 2¼" wide, 2⅞" deep, 2⅞" high. Ideal for miniaturized or portable communications. Neoprene-jacketed coil cord. Revolutionary molded-rubber Flex-Relief cable connection. Positive action single throw, double pole million-cycle switch. Controlled Magnetic cartridge. Frequency response from 400 to 4000 cps, especially tailored for voice communication use.

MODEL	OUTPUT LEVEL	IMPEDANCE	CABLE TYPE	SWITCH MIC. CIRC.	RELAY CIRC.	LIST PRICE
414A	—54.5 db (0 db = 1 volt per microbar)	High—100,000 Ohms or more	3-cond., one shielded	Closed*	Open	\$33.00
414B	—52.5 db (0 db = 1 milliwatt with 10 microbars)	150-250 Ohms	4-cond., two shielded	Closed*	Open	\$33.00

* Provision for simple change to normally open.

**RANGER II NOISE CANCELLING
FOR HIGH SPEECH INTELLIGIBILITY**

Gets the message through even when the ambient noise is so loud the operator can't hear himself! Significantly superior speech intelligibility to any other brand of so-called "noise cancelling" microphone. Specially tailored response for highest intelligibility—200 to 4000 cps. Same size, cable, cable relief, switch and case as Ranger II (at left) . . . only 7 oz., less cable.

MODEL	OUTPUT LEVEL	IMPEDANCE	CABLE TYPE	SWITCH MIC. CIRC.	RELAY CIRC.	LIST PRICE
419A	—57 db (0 db = 1 volt per microbar)	High—100,000 Ohms or more	3-cond., one shielded	Closed	Open	\$62.50
419B	—55 db (0 db = 1 milliwatt with 10 microbars)	150-200 Ohms	4-cond., two shielded	Closed	Open	\$62.50

U. S. Patent 2,454,425

**NEW CERAMIC NOISE-CANCELLING AND
LOW COST PALM MICROPHONES FOR CB, AMATEUR, MOBILE**

New, Model 202 effectively reduces Background Noise for use in Mobile Ham and CB rigs. All models are . . .



U. S. Patent
D194,749

Loaded with features—yet priced unusually low. "Shaped" voice response is patterned after professional mobile and SSB amateur response curves . . . assures maximum intelligibility. Professional design and construction. Long-life slide-switch, guaranteed full year. Virtually indestructible "Armo-Dur" wonder plastic case; Shock-, shatter-, corrosion-, rust-, and weather-proof. Coiled-cord won't kink. "Lifetime" hang-up bracket. Choice of ceramic (model 201) or controlled magnetic (model 401A and 401B) elements. (401B recommended for parallel balanced line operation where long cable lengths are required.)

SPECIFICATIONS

	Model 202	Model 201	Model 401A*	Model 401B*
LIST PRICE	\$20.00	\$18.00	\$22.00	\$22.00
TYPE	CERAMIC		CONTROLLED MAGNETIC	
FREQUENCY RESPONSE	200 to 4,000 cps free from undesirable peaks.			
OUTPUT LEVEL	—55.5 db (0 db = 1 volt per microbar); 1.680 millivolts/ microbar	—49 db (0 db = 1 volt per microbar); 3.500 millivolts per microbar	—48 db (0 db = 1 milliwatt per 10 microbars) .390 millivolts/ microbar	
IMPEDANCE	High—Recom- mended load impedance; 1 to 5 megohms	High—Recom- mended load impedance; 100,000 ohms or more	Low—Recom- mended load impedance; 150-250 ohms	
POLAR PATTERN	Special Noise Cancelling	OMNIDIRECTIONAL		
DIMENSIONS	4" High x 2 1/4" Wide x 1 1/2" Deep			

* U. S. Patent 2,454,425

**"VERSAPLEX" CB IMPROVEMENT
MICROPHONE**

Model
275SK

Patent Pending

Ceramic unit ideal for replacing original equipment crystal or ceramic type CB microphone. Complete with wall or panel bracket for handy hanging, and coiled-cord. "Momentary" push-to-talk switch activates relay circuit. Lightweight impact-resistant "Armo-Dur" case with black finish and anodized satin-finish cap.

SPECIFICATIONS — FREQUENCY RESPONSE: 40 to 10,000 cps free from undesirable peaks. **OUTPUT LEVEL:** —59.5 db (0 db = 1 volt per microbar); **IMPEDANCE:** High — recommended load ½ to 5 megohms. **CABLE:** Coiled Cord extends to 5 feet. 3 Conductors, one shielded. **FINISH:** Black Armo-Dur body with satin anodized cap and grille. **DIMENSION:** 4¾" long x 1½" diam. **MODEL 275SK LIST PRICE \$16.50.**

**NEW!
MODEL 206**

New Model 206 Ceramic Mobile Microphone designed to provide excellent performance at low cost.

The switching circuitry is designed to make the Model 206 a universal replacement in all communications equipment utilizing ceramic microphones.

SPECIFICATIONS

FREQUENCY RESPONSE: 200 to 4,000 cps
OUTPUT: —52 db (0 db = 1 volt per microbar)
IMPEDANCE: High
CABLE: Coiled cord extends to 5 feet, 3-conductors, 1 shielded
CASE: Gray high impact plastic
DIMENSIONS: 3-9/16" high x 2¼" wide x 1½" deep
MODEL 206 LIST PRICE \$15.00



COMMUNICATIONS MICROPHONES

SHURE

More Shure Mobile and Fixed Station Microphones are used in Professional Installations than all other makes combined!

THE "404" WITH HIGH IMPACT "ARMO-DUR" CASE

MODEL	OUTPUT LEVEL	IMPEDANCE	CABLE LENGTH TYPE DESCRIPTION	SWITCH MIC. CIRC.	RELAY CIRC.	LIST PRICE
404B	-50 db (0 db = 1 milliwatt per 10 microbars); .293 millivolts/microbar	150-250 Ohms	5½ ft. Coiled cord, Copper, 4 conductor (2 shielded)	CLOSED*	OPEN	\$33.00
404C	-50.5 db (0 db = 1 volt per microbar); 2.930 millivolts/microbar	High	5½ ft. Coiled cord, Copper, 3 conductor (1 shielded)	CLOSED*	OPEN	\$33.00
405T ***	-1 db loaded with 500 ohms (0 db = 1 milliwatt per 100 microbars)	100-500 Ohms	5 ft. extended 4 conductor stranded coiled cord	—	OPEN	\$48.50

*Provision for simple change to normally open.

***Transistorized for direct replacement of carbon microphones.

The Shure Controlled Magnetic "404" is recommended for those applications where a rugged hand-held microphone is needed. It is ideal for outdoor public address (sports arenas, athletic fields, carnivals, etc.) and for mobile communications. The "404" is designed for high speed intelligibility. Easy to use, fits snugly in the palm of the hand. Leaf-type switches control the mic. circuit and an external relay or switching circuit. Omni-directional. Freq. response 200 to 8000 cps. Only 3½" high, 2½" wide, 1¼" deep. Includes mounting bracket.

U. S. Patent 2,454,425



a new breakthrough in microphone design . . .

SHURE MODEL 488 NOISE-CANCELLING MICROPHONE!

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

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



SPECIFICATIONS

MODEL	488A High Impedance	488B Low Impedance	488C Transistorized	488T Transistorized Aircraft
List Price	\$57.50	\$57.50	\$62.50	\$72.50
Noise Discrimination	Far Superior to Standard Communication Microphones			
Frequency Response	(SPECIALLY TAILORED FOR BEST INTELLIGIBILITY) 200 to 4000 Cycles Per Second			
Type	Controlled Reluctance			
Output Level (0 db = 1 volt per 100 microbar field)	.125 volts (-18 db)	.014 volts (-37 db)	0.45 volts (-7 db) using 6 volts and 500 ohm load	0.71 volts (-3 db) using 12 volts and 500 ohm load
Impedance	High: Recommended Load 100,000 ohms or more	150-250 ohms	Recommended Load 500 ohms	Recommended AC Load 100 to 800 ohms
Cable	Three-Conductor (One-conductor shielded) cadmium copper coiled cord (5½' extended)	Four-Conductor (Two-conductor shielded) cadmium copper coiled cord (5½' extended)	Four-Conductor cadmium copper coiled cord (5½' extended)	Three-Conductor Tinsel coiled cord (5½' extended) with PJ 068 — plug attached
Switch Mic. Circuit Relay Circuit	Normally closed* Normally open	Normally open** Normally open	Normally open Normally open	Normally open Normally open
Case	GRAY HIGH IMPACT "ARMO-DUR" WITH PERFORATED STEEL GRILLE AND RUBBER LIP-GUARD			
Dimensions	3½" high x 2½" wide x 2½" deep			
Weight	¾ lb.			
Accessories	MOUNTING BRACKET FOR PERMANENT PLACEMENT			

*Provision for simple change to normally open

**Provision for simple change to normally closed

U. S. Patent 2,454,425

MODEL 100 SERIES CARBON MICROPHONES

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

SPECIFICATIONS — TYPE: Carbon. FREQUENCY RESPONSE: 300 to 4,000 cps. (Tailored voice response). OUTPUT LEVEL: 5 db below 1 volt for 100 microbar speech signal. IMPEDANCE: Recommended load — 50 to 100 ohms. POLAR PATTERN: Omnidirectional. CASE: High-Impact "Armo-Dur". FINISH: Gray. CABLE: Cadmium copper coiled cord with trimmed and tinned leads. SWITCH: Model 104A — DPST normally open switch to control microphone and relay. Model 104B — SPST normally open relay switch (no microphone switch). DIMENSIONS: 3½" high, 2½" wide, 1¼" deep. NET WEIGHT: ¾ lb. PACKAGED WEIGHT: 1 lb.



MODEL	LIST PRICE
104A	\$30.00
104B	\$30.00

All Shure Dynamic, Controlled Magnetic and Ceramic Microphones are eligible for FCDA Purchases.

SHURE

MICROPHONE STANDS AND ACCESSORIES

MODEL S39A VIBRATION-ISOLATION STAND



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

NET WEIGHT: 2 $\frac{1}{8}$ lbs., Packaged Weight, 2 $\frac{3}{8}$ lbs.

LIST PRICE: \$25.00.

S34B TAKE-APART STAND

MODEL S34B. Handy low-cost gray stand for desk or hand use. One twist of wood handle locks it securely in base for use as a table stand, or releases handle for use in hand. Metal base. Suitable for use with Models 510, 520, 707A and 710.
NET WEIGHT: $\frac{3}{8}$ lb. Packaged weight, $\frac{7}{8}$ lb. **LIST PRICE** \$4.50



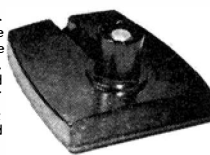
S33B ROUND STAND

This stand is a heavy die-cast base. Metal screw machine stud connects microphone adapter to stand base. **NET WEIGHT:** $\frac{5}{8}$ lb., Packaged weight, 1 lb. **MODEL S33B.** (Black) for use with Models 275S, 275SK, 415, 430, 575S, 575SB, 580 Series. **LIST PRICE** \$4.50.

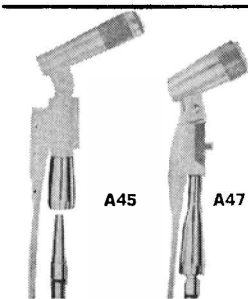


S33 MODERN DESK STAND

MODEL S33. Baked bronze finish. For use with Models 300, 333, 525, and 535. **NET WEIGHT:** 2 $\frac{1}{2}$ lbs., Packaged weight, 3 lbs. **LIST PRICE:** \$15.00 **MODEL S33B.** Same as S33—in black finish. For use with Models 330, 530, 544, 545, 546, 556S, 576, 578, 415, and 430. **LIST PRICE:** \$15.00.



MODEL S36A. Streamlined gray desk mount fits all Shure connector-type microphones including 51, 51S, 55S, 55SW, 315, 315S, 540S, 545S, and 737A. Accommodates A25 type Swivel Adapter. **NET WEIGHT:** 1 lb., packaged weight, 1 $\frac{3}{8}$ lbs. **LIST PRICE:** \$8.00.



QUICK DISCONNECT MICROPHONE ISOLATION UNITS

Designed for use with microphones normally mounted on desk or floor stands but which must be periodically removed from stand for hand-held or carry-around use. In addition, because of a molded rubber insert, the adaptors effectively isolate the microphones from mechanical vibration, shocks and noises carried to the microphone through the desk or floor stand. Quick disconnect operation is in-

stant, easy, and silent. Made of aluminum and anodized for beauty and long wear despite frequent handling. Model A45 is designed for microphones incorporating an isolation assembly such as the Shure Models 556, 330 and 546. Model A47 is designed for microphones with connectors such as Shure Models 55S, 51, 545S, 540S, 737A or nearly all microphones with a standard $\frac{3}{8}$ "-27 thread.

	A45	A47
LIST PRICE	\$12.00	\$12.00

COILED CORD SETS

Tinsel Coiled Cord with trimmed and tinned leads and Amphenol MC4M connector attached (3 conductor shielded) for use with General Electric EM10A and 505K microphones.

Model: C10C **List Price** \$12.00

Tinsel Coiled Cord with Amphenol MC4M plug for use with General Electric EM10A-2 and Shure 405K and 405 KB Microphones.

Model: C11C **List Price** \$12.00

Standard Coiled Cord with trimmed and tinned leads for use with Shure 404C, 488A microphones.

Model: C12C **List Price** \$9.75

Standard Coiled Cord with trimmed and tinned leads for use with Shure 404B, 488B microphones.

Model: C14C **List Price** \$10.00

Standard Copper Coiled Cord with trimmed and tinned leads. Used in "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

Tinsel Coiled Cord for use with Shure 201, 401A.

Model: C20C **List Price** \$7.00

Tinsel Coiled Cord for use with Shure 401B.

Model: C21C **List Price** \$7.75

Tinsel Coiled Cord for use with Shure 275 SK.

Model: C23C **List Price** \$6.00

Tinsel Coiled Cord for use with Shure 414A and 419A.

Model: C24C **List Price** \$9.75

Tinsel Coiled Cord for use with Shure 414B and 419B.

Model: C25C **List Price** \$10.00

MICROPHONE REPLACEMENT CARTRIDGES

CARBON REPLACEMENT CARTRIDGE—MODEL R10

Rugged microphone cartridge replacement for "CB", "100", and "120" Series Carbon Microphones. Includes mounting hardware, installation instructions. **Model R10** **List Price** \$8.50

Model 99A149 replacement cartridge for microphone models: CB20, CB21, CB50 and 115. **Model 99A149** **List Price** \$8.50

CRYSTAL CARTRIDGE—MODEL R7

Available 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

DYNAMIC—MODEL R50

Replacement cartridge for Shure Dynamic Microphones, Models: 540 (Series II), 540S (Series II), 560, 561, 575S and 575SB.

Model R50 **List Price** \$15.00

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 CARTRIDGE—MODEL R5*

Direct replacement for cartridges used in the following Shure microphone models: 510C, 510MD, 510S, 520, 520SL, 505C, 505K, 404C, 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 CARTRIDGE—MODEL R5B*

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

Model R5B **List Price** \$11.00

MODEL R4M FOR SHURE "COMMANDOS"*

The Model R4M Controlled Magnetic cartridge assembly is the direct replacement cartridge for use in the models 430, 425, 420, and other Shure "Commandos" microphones.

Model R4M **List Price** \$15.00

MODEL R58 FOR MODELS 580SA AND 580SB

Dynamic Cardioid Cartridge

Model R58 **List Price** \$22.50

NOTE: For complete Shure Microphone Cartridge replacement information, write for AL188, Microphone Cartridge Replacement Guide.

ON-OFF PRESS-TO-TALK SWITCHES



Model A83B. Rotary-type "On-Off" switch. Quickly attached to any cable-connector type Shure microphones.

Model: A83B **List Price** \$11.00

Model A84B. Momentary Press-to-Talk "On-Off" switch.

Model: A84B **List Price** \$11.00

Model A85C. Momentary Press-to-Talk Relay-Type Switch.

Model: A85C **List Price** \$11.50



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

Heavy-Duty Switch withstands the most severe field requirements of paging and dispatching systems. Ideal for Police, Taxi Cab, 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



Model A88A

*U.S. Patent 2,454,425

NEW MODEL M80E GARD-A-MATIC®

SHURE

MODEL M80E

STEREO 15° DYNETIC® CARTRIDGE WITH ELLIPTICAL STYLUS

BOUNCE-PROOF, SCRATCH-PROOF—PRE-MOUNTED . . . READY TO PLUG IN

Bounce-proof and scratch-proof performance with elliptical stylus in superior quality 15° cartridge spring-mounted in tone arm shell. Ready to plug-in-and-play in Garrard Lab 80 or A70 turntable. Permits operation of automatic turntable at low tracking forces where vibration is a problem. Unique safety spring-suspension retracts cartridge, bringing safety bumper in contact with record when forces in excess of 1½ grams are applied.

Performance Specifications identical to Cartridge Model M55E.

Model M80E Cartridge factory-mounted in Tone Arm Shell:

Audiophile Net Price: \$38.00

Stylus Replacement: Model N55E

Audiophile Net Price: \$20.00.



NEW MODEL M80E-D Ready-to-Plug-in Dual 1009 Automatic Turntable. Audiophile Net Price \$38.00.

M99 SERIES *

Bounce-Proof and Scratch-Proof Cartridge Assembly for Garrard Type "A", AT-6, AT60, and Model 50, and Miracord Model 10 and Model 10H Automatic Turntables.

Assures record and needle protection, simply by plugging in the Shure Dynetic Gard-A-Matic® "floating" cartridge assembly. Nothing else to buy . . . no wiring . . . no soldering . . . just plug in.

MODEL M99-A

Fits Garrard Laboratory® Model "A". Includes tone arm head, factory mounted cartridge, .0007" diamond, \$24.75 Audiophile Net.

MODEL M99-AT6

Fits Garrard AT-6, AT60 and Model 50, includes tone arm head, factory mounted cartridge, .0007" diamond, \$24.75 Audiophile Net.

MODEL M99-M10

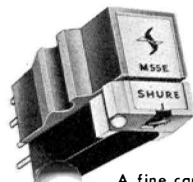
Fits Miracord Models 10 or 10H. Includes tone arm head, factory mounted cartridge, .0007" diamond, \$24.75 Audiophile Net.

MODEL N99

Replacement Stylus Assembly, .0007" diamond, \$12.95 Audiophile Net.

GARD-A-MATIC SPECIFICATIONS

	M80E, M80E-D	M99 Series
Channel Separation at 1000 cps:	Over 25 db	Over 22.5 db
Frequency Response:	20 to 20,000 cps	20 to 20,000 cps
Output Voltage (per channel) at 1000 cps:	6.6 mv	6 mv
Recommended Load Impedance (per channel):	47,000 ohms	47,000 ohms
Compliance—Vertical and Lateral:	25.0 x 10 ⁻⁶	20.0 x 10 ⁻⁶
Tracking Force:	1½ grams maximum 1¼ grams optimum	1.5 to 3 grams
Stylus:	Elliptical Diamond .0007" Frontal Radius .0002" Side Contact Radius	Conical .0007" Diamond
Stylus Replacement:	N55E	N99



NEW M55E* CARTRIDGE WITH ELLIPTICAL STYLUS—15° TRACKING

. . . PROVIDES REMARKABLE PURITY OF MUSIC REPRODUCTION AT MODERATE COST

A fine cartridge for the latest automatic turntables and finest manual tone arms capable of tracking at 1½ grams or less. Designed to give professional performance with elliptical diamond stylus at new 15° tracking angle to provide freedom from distortion. Scratchproof. Similar to the V-15 except that it is made under standard quality control conditions. Will actually improve the sound of your high fidelity system—unless you are using Shure's V-15—our finest cartridge.

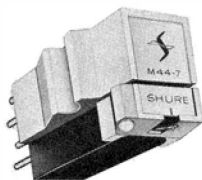
NOTE: Extensive research with elliptical styli reveals that an elliptical stylus should not be played at tracking forces in excess of 1½ grams. Serious record wear can be expected at forces in excess of 1½ grams. (Reported in May, 1964 issue of Audio Magazine, copies available upon request.) The M55E will play monaural LP's as well as stereo discs without changing styli, tracking perfectly at ¾ to 1½ grams. The N55E Stylus can also be used to upgrade the performance of Shure M44 Series Cartridges.

SPECIFICATIONS

Frequency response:	From 20 to 20,000 cps
Output voltage:	6.6 millivolts/channel at 1,000 cps at 5 cm/sec
Channel separation:	Nominally over 25 db at 1,000 cps; 20 db at 10,000 cps; 15 db at 20,000 cps
Channel balance:	Within 2 db of each other
Recommended Load Impedance:	47,000 ohm per channel
Stylus:	Elliptically Shaped Diamond Tip .0007 inch (17.8 microns) frontal radius .0002 inch (5 microns) side contact radii
Compliance: Vertical } Horizontal }	25.0 x 10 ⁻⁶ cm/dyne
Tracking force:	¾ to 1½ grams
Inductance:	680 Millihenries
D. C. Resistance:	650 ohms
Net Weight:	7 grams
Stylus Replacement:	N55E
Model M55E Cartridge:	\$35.50

Model N55E Elliptical Diamond Stylus, a replacement for M55E Cartridge; also to upgrade M44 Cartridges—\$20.00

THE ORIGINAL LOW DISTORTION 15° CARTRIDGE SERIES M44 SCRATCH-PROOF CARTRIDGE WITH RETRACTILE STYLUS



It is in the distortion measurements where Shure engineers have achieved a highly significant and dramatic reduction of 75% to 90% in IM and harmonic distortion from even such admirably distortion-free cartridges as earlier versions of the Shure Stereo Dynetic. Further, cross-talk between channels has been effectively negated in the critical low frequency and mid ranges . . . providing superior channel separation throughout the audible spectrum.

SCRATCH-PROOF RETRACTILE STYLUS

And, as if that were not enough, the new 15° cartridge incorporates a totally efficient retractile stylus that momentarily retracts whenever excessive forces are applied to the tone arm. This feature protects your records and prevents annoying "clicks."

THE ULTIMATE TEST

You must hear this cartridge to appreciate the totality of the sound improvement. It will be instantly recognizable to the ear without the necessity for elaborate test instruments or A-B listening tests—although we assure you, instruments and A-B tests will more than substantiate our claims.

Model M44-5 tracks at ¾ to 1½ grams and is recommended for use in quality tone arms and the newest automatic turntables.

Model M44-7 tracks at 1½ to 3 grams and is for use in good quality changers.

Model M44C is specifically designed for use in record changers tracking at 3 to 5 grams.

M44 SERIES SPECIFICATIONS

	M44-5	M44-7	M44C
Frequency Response:	20-20,000 cps		
Output Voltage at 1000 cps (Per Channel, at 5 cm/sec peak velocity):	7 millivolts	11.1 millivolts	9.3 millivolts
Channel Separation (at 1000 cps):	Greater than 25db		
Recommended Load Impedance:	47,000 ohms		
Compliance	25 x 10 ⁻⁶ cm/dyne	20 x 10 ⁻⁶ cm/dyne	7 x 10 ⁻⁶ cm/dyne
Tracking Range: (in Grams)	¾ to 1½	1½ to 3	3 to 5
Inductance (Per Channel):	680 millihenries		
D. C. Resistance (Per Channel):	650 ohms		
Stylus:	.0005" diamond	.0007" diamond	
Cartridge Price, Net	\$21.95	\$19.95	\$17.95
Stylus Replacement:	N55-5	N44-7	N44C
Replacement Stylus, Net:	\$11.35	\$9.75	\$9.75

Monophonic Styli:

Model N44-1—For monophonic LP records, with .001" diamond

\$9.75 net

Model N44-3—For 78 rpm records, with .0025" diamond

\$9.00 net

* Manufactured under one or more of the following U.S. patents: 3,055,988; 3,077,521; 3,077,522; D 201,802; D 201,803. Other patents pending.



The choice of perfectionists who appreciate the full importance of "integrated" tone-arm and cartridge to optimum stereo performance. Tracks at incredibly light $\frac{3}{4}$ to 1.5 grams . . . absolutely minimizes record wear, and CANNOT scratch records!

The Studio Stereo Dynamic 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. Includes stereo cable.

Model M226—Studio Stereo Dynamic for records up to 16" including M22 cartridge with .0005" Diamond Stylus. **\$89.50**

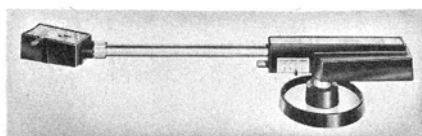
Model M222—Studio Stereo Dynamic for records up to 12" including M22 cartridge with .0005" Diamond Stylus. **\$89.50**

SPECIFICATIONS	STEREOPHONIC M226, M222
Tracking Force	$\frac{3}{4}$ to 1.5 grams
Frequency Response	20-20,000 cps $\pm 2\frac{1}{2}$ db
Channel Separation	over 22.5 db at 1000 cps
Output at 1000 cps	6 mv per channel
Recommended load impedance	47,000 ohms
Compliance: (Vertical, Lateral)	22×10^{-6} cms/dyne
Stylus	.0005" diamond

Replacement Stylus, Model N22D. Also will upgrade Models 212 and 216 to equal performance of Models 222, M226. **\$24.75**

PROFESSIONAL TONE ARM

for use with quality cartridges, stereo or monophonic



The Shure M232 (and M236) Professional Tone Arm is a premium quality independent tone arm that accepts practically all cartridges (Stereo and Monophonic). Features precision ball bearings at all pivot points, plug-in head with positive-alignment lock, variable height adjustment. Ingeniously simple combination of adjustments gives instant, positive, VISUAL control

over balance (without altering overall arm length), tracking force (1 $\frac{1}{2}$ -8 grams). Furnished with cable having plug on each end to simplify and speed up installation (eliminates soldering).

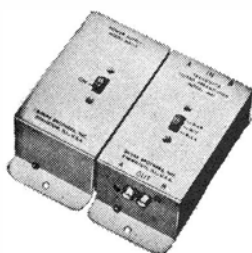
FURNISHED ACCESSORIES: Arm rest, mounting template, mounting hardware, 4 ft. cable assembly.

TONE ARM, M232, for 12" records. **\$29.95, Net**

TONE ARM, M236, for 16" records. **31.95, Net**

Model A23H extra Plug-In Head. **2.40, Net**

TRANSISTORIZED STEREO PREAMPLIFIER MODEL M61



Compact, rugged, transistorized unit with choice of AC line or battery power supply. Slide-selector switch offers three equalization inputs.

(1) "phono" for conversion of ceramic phono inputs for use with magnetic cartridges;

(2) "tape" for equalization of tape playback directly from tape head through hi-fi control preamplifier; and

(3) "microphone" for flat amplification wherever a boost in microphone output is required.

SPECIFICATIONS:

Net Price: Model M61-1 (for 105-125 v. AC line) **\$27.50**

Model M61-3 (30 v. Battery, included) **\$26.50**

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

Tape: 40 db (2 mv input produces .20 v. output)

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

Frequency Response: ± 2.5 db of each function's nominal characteristic from 25 cps to 15,000 cps.

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

Tape: NARTB equalization.

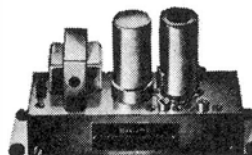
Microphone: Flat response. ± 3 db 20 to 15,000 cps.

Input Impedance: Phono and tape: approx. 50,000 ohms at 1,000 cps.

Microphone: Approx. 20,000 ohms.

Output Impedance: Low output impedance (less than 1,000 ohms at 10,000 cps for phono and tape functions).

Channel Separation: At least 50 db at 1,000 cps. Channel Balance: 2 db at 1,000 cps (for phono and tape functions). Hum Noise: 50 db below rated output. Overall Dimensions: Length 5"; Width $5\frac{1}{4}$ "; Height 2".



STEREO LINE PRE-AMPLIFIER MODEL M60

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 recordings. Provides flat output response from 30 to 80,000 cps $\pm \frac{1}{2}$ 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:

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.

NET PRICE: **\$19.95**

STEREO CONVERSION PRE-AMPLIFIER MODEL M65

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

SPECIFICATIONS:

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

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

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

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

Frequency Response: ± 1.5 db of each function's nominal characteristic from 25 cps to 15,000 cps. EQUALIZATION: Phono: RIAA equalization (with additional treble boost of approximately 3 db at 10,000 cps to complement the high frequency characteristic of most magnetic cartridges).

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

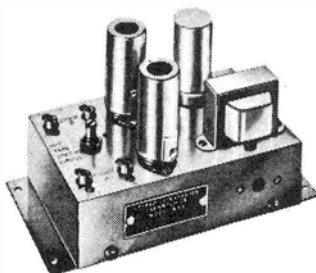
Tape: N A R T B equalization.

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

INPUT IMPEDANCE: 47,000 ohms (all functions).

OUTPUT IMPEDANCE: low output impedance (less than 5000 ohms at 10,000 cps for phono, special and tape functions). CHANNEL SEPARATION: 40 db. CHANNEL BALANCE: ± 1 db at 1000 cps. HUM-NOISE: 50 db below rated output. OVERALL DIMENSIONS: Length $6\frac{7}{8}$ "; Width $3\frac{3}{4}$ "; Height $3\frac{1}{4}$ ".

NET PRICE: **\$24.00**



THE WORLD'S BEST-SELLING QUALITY PHONO CARTRIDGES

SHURE

MODEL M3D

Stereo Dynetic®

high fidelity phono cartridge

MODEL M3D

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

Model M3D

Stereo Dynetic cartridge . . . including N3D Stylus assembly with .0007" diamond
Audiophile Net Price \$15.75

Model N3D

Stereo Stylus assembly for M3D, including .0007" diamond
Audiophile Net Price \$ 7.95



SPECIFICATIONS	M3D	M7/N21D
Channel Separation	Over 20 db	Over 20 db
Frequency Response	20 to 15,000 cps	20 to 20,000 cps
Output Voltage (per channel, at 1000 cps)	5 mv	4 mv
Recommended Load Impedance (per channel)	47,000 ohms	47,000 ohms
Compliance: Vertical and Lateral	4.0 x 10 ⁻⁶ cent. per dyne	9.0 x 10 ⁻⁶ cent. per dyne
Tracking Force	3 to 6 grams	2 gms. optimum (2 1/2 max.)
Inductance	420 millihenrys	420 millihenrys
D.C. Resistance	280 ohms	280 ohms
Terminals	4 terminals	
	Furnished with 3-terminal adapter.	
Mounting Centers	Fits standard 1/2"	

Manufactured under one or more of the following U.S. patents: 3,055,988; 3,077,521; 3,077,522; D 187,229; D 187,230. Other patents pending.

SHURE

MODEL M7/N21D

Stereo Dynetic®

high fidelity phono cartridge

MODEL M7/N21D

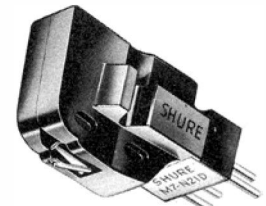
A famed cartridge acclaimed by consumer product test labs and professional musicians for its warm, sweet tone. High compliance and extended response at modest price. For use in finest quality independent tone arms or record changers capable of tracking at 2 1/2 grams or less. Will not perform satisfactorily at forces greater than 2 1/2 grams.

Model M7/N21D

Stereo Dynetic cartridge . . . including Shure N21D Tubular Stylus with .0007" diamond
Audiophile Net Price \$17.95

Model N21D Stylus

Tubular Stereo Stylus assembly for higher compliance and response with Shure M7D and M3D Cartridges. Includes .0007" diamond.
(See tracking force note above)
Audiophile Net Price \$12.50



MONOPHONIC PROFESSIONAL

Dynetic®



PROFESSIONAL MONOPHONIC

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 x 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 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

U. S. Patents 3,055 988 and D185 168

SHURE

REPLACEMENT STYLUS

The Dynetic stylus assembly used in Shure cartridges is the most critical component. To maintain the original performance standards of your cartridge, be certain that any replacement stylus you buy bears the following certification on the package: "This Dynetic stylus is precision manufactured by Shure Brothers, Inc."

Avoid inferior imitations. They will seriously degrade the performance of your cartridge. All genuine "Dynetic" styli are manufactured by Shure Brothers, Inc.

Select the appropriate replacement stylus for your cartridge in the chart below. If you choose a stylus that upgrades your cartridge, check to be certain your tone arm will track at the force required by the stylus.

Manufactured under one or more of the following U.S. patents: 3,055,988; 3,077,521; 3,077,522; D 193,854; D 193,934. Other patents pending.

Shure Replacement Stylus Model Number	For Use in Shure Dynetic Cartridge Model Number	Tracking Force in Grams	Tip Description	Type Records Played	Net Price
N1	M1	1-3	.0007 diamond	Mono L.P.'s	\$21.00
N2	M2	1-3	.0027 diamond	Mono 78 rpm	21.00
N3D	M3D; upgrades M7D, M8D	3-6	.0007 diamond	Stereo and Mono L.P.'s	7.95
N5D	M5D	2-6	.001 diamond	Mono L.P.'s	16.50
N6S	M6S	2-6	.0027 sapphire	Mono 78 rpm	5.00
N7D (replaced by N3D)					
N21D	M21; M7/N21D M3/N21D; upgrades M3D; M7D	1-2 1/2	.0007 diamond	Stereo and Mono L.P.'s	12.50
N22D	M22; M7/N21D, M3/N21D, M3D, M7D	3/4-1 1/2	.0005 diamond	Stereo	24.75
N33-1	M33; M77	1 1/2-3	.001 diamond	Mono L.P.'s	19.50
N33-5	M33-5	1 1/2-3	.0005 diamond	Stereo	19.50
N33-7	M33-7	1 1/2-3	.0007 diamond	Stereo and Mono L.P.'s	19.50
N44-1	M44-5/M44-7/M55E V-15	1 1/2-3	.001 diamond	Mono L.P.'s	9.75
N44-3	M44-5/M44-7/M55E V-15	1 1/2-3	.0025 diamond	Mono 78 rpm	9.00
N44-5	M44-5	3/4-1 1/2	.0005 diamond	Stereo	11.35
N44-7	M44-7	1 1/2-3	.0007 diamond	Stereo and Mono L.P.'s	9.75
N44C	M44C	3-5	.0007 diamond	Stereo and Mono L.P.'s	9.75
N55E	M55E; M44-5; M44-7; M80E, M80E-D	3/4-1 1/2	Elliptical Diamond	Stereo and Mono L.P.'s	20.00
N77	M77	3-6	.0007 diamond	Stereo	10.50
N78	M77; M33-5, M33-7	4-6	.0027 diamond	Mono 78 rpm	8.55
N99	M99/A; M99/AT6, M99/M10	1 1/2-3	.0007 diamond	Stereo and Mono L.P.'s	12.95
VN2E	V-15	3/4-1 1/2	Bi-Radial Elliptical Diamond	Stereo and Mono L.P.'s	25.00

NEW!

SHURE SOLO-PHONE™



Stereo Amplifier for Headphones for Private High Fidelity Listening to RECORDS... FM... TAPE

- ✓ Provides privacy for the listener
- ✓ Insures quiet for those around him
- ✓ TWO can listen simultaneously, using TWO pairs of headphones
- ✓ Perfect for students to listen to music while others study
- ✓ Ideal for second set in study, den, bedroom, office, living room
- ✓ Excellent for music appreciation in schools and libraries
- ✓ For listening booths or "up-front" listening station in record stores
- ✓ Advantageous for use in homes for the aged, nursing homes, hospitals

The small, light Solo-Phone provides sufficient amplification to use any fine quality magnetic cartridge (such as the Shure Stereo Dynetic). In addition to magnetic cartridge input jacks on back of the unit, auxiliary jacks are provided to plug in a multiplex FM tuner or tape player.

A convenient switch on the front panel permits you to keep two program sources plugged in and switch instantly, for example, from your Record Player to FM/Stereo Tuner.

A clutched concentric control permits separate adjustment of each stereo channel to achieve proper balance between channels. Simple volume adjustment can be made without rebalancing channels.

An On/Off switch and pilot light is also provided on the front panel. The convenient 110 AC outlet on the back panel permits you to plug in the power cord of your record changer or tuner; therefore, the Solo-Phone On/Off switch will control the power supplied to whatever is plugged into this outlet. When the amplifier is turned on, the record player is turned on, and when the amplifier is turned off, the record player is turned off.

MODEL SA-1 \$45.00 Net.

TECHNICAL DATA

Cabinet Dimensions: 10 1/4" wide x 3 1/2" high x 3" deep
Net Weight: 2 lbs.

Walnut finished, solid wood cabinet with beige finished metal case

The Solo-Phone provides true high fidelity:

Broad frequency response

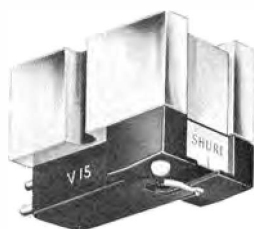
Low distortion—at low power levels suited for headphones (some transistorized amplifiers have more distortion at low level than at higher outputs)

Extremely low hum and noise at normal listening levels.

SHURE

V-15

the connoisseurs'
high fidelity phono cartridge



The major features of the V-15 are the Shure Bi-Radial Elliptical Stylus, the singular quality control techniques and standards devised to produce perfection of stylus symmetry, and the 15° tracking angle. They combine to reduce IM and harmonic distortion to a dramatic new low. In fact, the distortion (at normal record playing velocities) is lower than the inherent noise level of the finest test records and laboratory measurement instruments!

In extensive listening tests, the V-15 proved most impressive in its "trackability." It consistently proved capable of tracking the most difficult, heavily modulated passages at a minimum force of 3/4 grams (in the Shure-SME tone arm).

The entire V-15 is hand-crafted and subject to quality control and inspection measures that result in space-age reliability. Exact alignment is assured in every internal detail—and in mounting. Mu-metal hum shield surrounds the sensitive coils. The V-15 is a patented moving-magnet device—a connoisseur's cartridge in every detail.

... FEATURING THE REVOLUTIONARY BI-RADIAL ELLIPTICAL STYLUS

SPECIFICATIONS

The basic specifications are what you'd expect the premier Shure cartridge to reflect: 20 to 20,000 cps, 6 mv output. Over 25 db separation. 25 x 10⁻⁶ cm per dyne compliance. 3/4 gram tracking. 47,000 ohms impedance, 680 millihenries inductance per channel. 650 ohms resistance. Bi-Radial diamond stylus: 17.8 microns (.0007 inch) frontal radius, 5 microns (.0002 inch) side contact radii, 24.5 microns (.0010 inch) wide between record contact points.

But most important, it re-creates music with a transcendent purity that results in a deeply rewarding experience for the critical ear.

V-15 Cartridge \$62.50

VN2E Bi-Radial Elliptical Stylus \$25.00

Manufactured under one or more of the following U.S. patents: 3,055,988; 3,077,521; 3,077,522.

NOW! The Ultimate in Independent Tone Arms



SHURE SME

MODELS 3009-3012 SERIES 2

MODEL 3009 Series 2 (for 12" records).....\$100.50 net

MODEL 3012 Series 2 (for 16" records).....\$110.50 net

MODEL A30H Extra plugin shell.....\$ 5.50 net
Ultra-Lightweight Shell for Shure-SME Arms

MODEL S2W/12 for Shure SME 3012 Arm.

With counterweight\$ 8.75 net

MODEL S2W/9 for Shure SME 3009 Arm.

With counterweight\$ 7.75 net

MODEL S2 Separate extra Shell (requires companion

balance weight on Series 2 arms with serial numbers
under 20,000).....\$ 6.00 net

Pre-Cut Mounting Boards for installation on Thorens TD-124 and
TD-121 Turntables.

MODEL A30M for Mounting Model 3012.....\$15.00 net

MODEL A39M for Mounting Model 3009.....\$15.00 net

The most remarkable independent tone arm ever made—by any standard. Brings out the very best from any high quality cartridge, mono or stereo. Virtually frictionless bearings, both horizontal and vertical... pivot friction at stylus tip measures less than .020 gram! Knife edge bearings are absolutely protected against dust. Manufactured to incredibly close tolerances for Shure by skilled British craftsmen. Unprecedented combination of adjustments: height, overhang, length (up to 1'!), tracking force (so accurate no pressure gauge is required, ever)... even bias (to counteract tendency of arm offset to pull toward center of record and "favor" one side of stereo groove over the other). The result is an independent tone arm that carries the cartridge over the record surface with rock-like steadiness and precision—literally eliminates wear on the record and stylus. Lever operates arm through hydraulic damper. No resonances within audible spectrum! Complete with shell, alignment protractor, and plug-in cable assembly for quick, solderless hookup.