

Crystal



SHURE "ULTRA" Wide-Range CRYSTAL MICROPHONES

Shure "ULTRA" offers the highest performance available today in general purpose microphones. Because of this, "UL-

TRA" microphones are standard equipment with nationally-known sound-equipment manufacturers and eminent sound engineers everywhere.

With These 8 Exclusive Features!

(1) "Ultra" Wide-Range reproduction from 30 to 10,000 cycles. (2) Dual-Drive, High-Capacity Grafoil Crystal. (3) Complete Barometric Compensation. (4) Internal Screen-Protected Cartridge. (5) Crystal Triple "Moisture-Sealed" by new exclusive special process. (6) High output level 52 db below 1 volt per bar. (7) New acoustically-correct single high-efficiency Curvilinear Diaphragm. (8) Beautifully styled new semi-nondirectional and sem-directional models in Spherical, Swivel and "Grille-Type" case designs.

Model 700A. A small compact unit with swivel arrangement for use where "tilting" of microphone head is desired. Cable may be run inside or outside stand tubing. Finished in bright polished chromium plate overall. Diameter, 23%". Complete with 7 ft. single-conductor shielded cable. Code: Ruret. List Price.... Model 700A-25 FT. Cable length, 25 ft. Code: Rurel. List Price........... \$26.80 Model 701A. A "Grille-Type" Microphone, styled to meet the most critical taste and designed to give outstandingly high-quality reproduction. Attractive rubber-black screens with contrasting chromium fittings. 31.6" high, 256" wide, 11/4" deep. Complete with 7 ft. single-conductor shielded cable. Code: Rurev. List Price.... Model 701A-25 FT. Cable length, 25 ft. Code: Rured. List Price......\$26.80 Model 702A. A small Spherical Microphon with Semi-nondirectional pickup . . . a feature which is especially valuable because it permits placement of a group around the Microphone without frequency discrimination. Beautiful rubber-black finish with circular chromium band. Diameter, 234". Complete with 7 ft. single-conductor shielded cable. Code: Rurez. Model 702A-25 FT. Cable length, 25 ft. Code: Rureg, List Price......\$26.80



"TRI-POLAR" Controlled-Direction **Crystal Microphone!**



1. UNI - DIRECTIONAL

2. BI - DIRECTIONAL

3. NON-DIRECTIONAL

All in ONE Microphone

After years of research in the laboratories of "Microphone Headquarters", the discovery of a practical method of obtaining "velocity" or pressure-gradient operation in a crystal microphone now makes possible "Controlled-Direction" response—a feature never before available in any microphone! By electrically combining the output of the "velocity" element with a "pressure" element, and by using the elements separately, the following directional characteristics are instantly available through a 3-point selector switch.

- 1. Uni-Directional. ("velocity" plus "pressure") Wide-angle front-side pickup—dead at rear. Cuts out audience noise, reduces reverberation energy pickup 66%, eliminates feedback. The first economical microhone of any type to give you this feature! Output level 63 db below volt per bar.
- 2. Bi-Directional. ("velocity" alone) Typical velocity characteristic with pickup from front and back—dead at both sides. Allows artist placement front and back, reduces reverberation energy pickup 66%, prevents feedback. The first practical crystal microphone to give you this feature! Output level 68 db below 1 volt per bar.
- 3. Non-Directional. ("pressure" element alone) Full 360-degree allaround pickup for group presentations and general applications. Output level 53 db below 1 volt per bar.

Smooth high-quality wide-range response from 40 to 10,000 cycles under all operating conditions. Triple moisture-sealed Grafoil Bimorph crystals. Swivel-type mount with standard $^6/_8$ ".27 thread. Case 6" high by $2\frac{11}{4}$ " overall diameter. Finished in black morocco-grain and chrome. Ship. Wt. $2\frac{11}{4}$ lbs.

Model 720A. Tri-Polar Crystal Microphone. Complete with 25 ft. single-conductor shielded cable. Code: Rulak. List Price

Patent Applied For

Model 85A High-Fidelity Sound-Cell **Crystal Microphone**



A true high-fidelity non-directional microphone with a response characteristic within a total range of only 5 db from 30 to 10,000 cycles. Meets the most critical requirements in applications calling for the very highest quality sound reproduction. Output level 68 db below one volt per bar (approximately 18 db below typical diaphragm types). Attractive "Grille-Type" case, finished in rich rubber-black with chromium plated fittings. Shipping weight, 1 lb. Complete with 7 ft. single-conductor cable. Model 85A. Code: Ruleb.
List Price.

Model 70H

The Shure 70H sets the "standard of performance" for diaphragm-type crystal microphones. Adopted by leading Sound-Equipment Manufacturers. "Curvilinear" diaphragm and "Bimorph" crystal, "Cantilever" actuated. Output level 48 db below 1 volt per bar. Beautiful cast case, chromium plated overall. Mounts direct on any Shure Stand 5½,"27 thread. Cable may be brought through stand tubing or outside as desired. Convertible to a Hand Microphone with A40A Handle. Complete with shielded single-conductor rubber jacketed cable.

Model 70H Cable Length 70H-25FT.

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Model 76A Lapel Type

A new, lighter, more efficient Crystal Lapel Microphone which faithfully reproduces the speaker's voice. Small, light, and inconspicuous—barely over 1 ounce in weight and less than 2 inches in diameter. New improved clip holds microphone securely to lapel. Rubber black finished aluminum case. Complete with 25 ft. shielded single-conductor cable. Ship. Wt. 3/4 lb.

Model 76A. Code-Pulce

Model 76A. Code: Rulop.

.....\$25 Model 76E. Miniature Crystal Microphone. For concealed placement and general applications. Same as Model 76A but without clip. Complete with 7 ft. cable. Code: Ruled.

SHURE BROTHERS - 225 W. HURON ST. - CHICAGO, U. S. A. - CABLE: SHUREMICRO DESIGNERS AND MANUFACTURERS OF MICROPHONES AND ACOUSTIC DEVICES

URE MICROPHONES



for Every Application

"COMMUNICATIONS - TYPE" MICROPHONES



Model 70SW **Crystal Microphone**

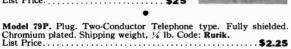
A new, better "70S" with 5 db higher output. A new, better "705" with 5 db higher output. Produces double power on important intelligibility speech frequencies with only 56% of the amplification previously needed. Output level 42 db below 1 volt per bar. Gives clear, crisp, powerful signals that over-ride noise and static. Recommended for high-efficients of the state of th noise and static. Recommended for high-emiciency voice communications in Commercial and Amateur radiophone transmitters. Finished in chromium and morocco-grain black. Complete with integral Desk Mount and 7 feet of shielded single-conductor rubberjacketed cable. Shipping weight, 2½ lbs.

Model 70SW. Code: Ruraj. List Price.....

New Model 7035 **Crystal Microphone**

A smaller . . . lighter . . . "Communications-Type" Microphone with new convenient Swivel head for greater operating conven-ience. Has the same "high-efficiency" Double Power response characteristic that made the original Shure "70S" world famous. Specially designed for Commercial and Amateur radio-phone transmitters. Output level 47 db below 1 volt per bar. Chromium plated head with rich morocco-grain black desk mount. Com-plete with desk mount and 7 feet of shielded single-conductor cable. Ship. wt. 2½ lbs.

Model 703S. Code: Rurem. \$2750
List Price. \$700 but without desk mount. Code: Rurar.
List Price. \$25





NEW "MILITARY-TYPE" HAND MICROPHONES



The new Shure "Military-Type"
Hand Microphones are designed
to fit naturally in the palm of
hand! Small, light and compact
—no bothersome long handle...
requires minimum space in portable equipment. Easily slipped
into pocket when not in use.
New Shure spring cable protector prevents cable strain at outlet. Optional new positive-action
switch which operates either
"Press-to-Talk" or On-Off.
New "Anti-Noise" CloseTalking Models. Through a new

inance with practical elimination of background noise is now available in both crystal and carbon types.

Finish is beautiful black morocco-grain with chromium plated screen. Size, 3%" high, 1¾" thick. Net weight, 9 oz. Ship. Wt. 1 lb. Furnished complete with removable Suspension Hook and 7 ft. shielded rubber-jacketed cable. Shure "Military Type" Hand Microphones are available in General Purpose and "Anti-Noise" Close-Talking Crystal and Carbon Models.

Model 750A. Crystal Hand Microphone. General Purpose type. Code: Rusal. List Price. \$25

Model 760A. Crystal Hand Microphone. "Anti-Noise" Close-Talking Type. Code: Rusil.

Model 15A. Carbon Hand Microphone. General Purpose Type. Code: Ruceb.

Model 16A. Carbon Hand Microphone. "Anti-Noise" Close-Talking Type. Code: Rucal.

List Price

Model A40A. Removable Handle. Permits stand microphones to be converted to hand microphones (see ill. 10B below). Fits microphones threaded \%"-27. Shpg. wt. \% lb. Code: Rurij. List Price....\$1.50

Model 3B Two-Button Carbon



Advanced engineering and controlled quantity production have made possible this full-size Two-Button Microphone with quality performance never before available at such extremely low cost! Designed for spring suspension. Rigid cast frames and built-in protective grill, finished in bright nickel plate overall. Has the well-known Shure "Quickway" Hooks. May be used as a single-button microphone. Frame diameter, 3". Net weight, ½ lb. Shpg. wt., ½ lb.

Madel 3B. Two-Button. Code: Ruciv. \$550

Model 3BM. Desk Microphone. A convenient economical two-button Carbon Desk Microphone for amateur and general use. Easily converted from desk to floor stand mounting. Consists of Model 3B microphone mounted in Model S30B desk stand. Bright nickel-plated ring with black morocco-grain base. Height, 7°. Shpg. wt.. 1¾ lbs. Code: Rucel.

List Price. \$9



MICROPHONE REPAIR SERVICE

All microphones require occasional repairs. Carbon microphones especially need reconditioning at least once a year to maintain sensitivity and quality. "Microphone Headquarters" maintains a special repair department for repairing and reconditioning all types and makes of microphones. Write for quotations.

Model 5 B Two-Button Carbon

A full-size two-button microphone (diameter overall 3¾", thickness 1½", weight 15½ ozs.). Regular full-size precision adjustable buttons and special diaphragm assure exceptional quality of reproduction. Ideal for low cost sound systems. Attractive modern design, finished in chromium plate. Screen-protected diaphragm and "Quickway" Hooks. Shipping weight, 1½ lbs

Model 5B. Code: Rucit.





Model 10B Two-Button Hand Microphone

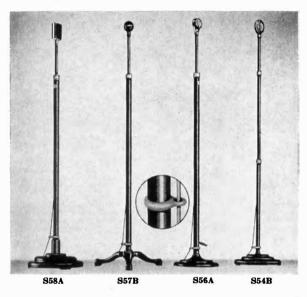
Model 10B. Convertible Hand Microphone. Convenient general purpose P.A. microphone, convertible from hand to 3B type for stand mounting by removing mounting ring and inserting four "Quickway" Hooks Black enameled handle. Overall length, 8%". Net weight, ½ lb. Shipping weight, 1 lb. Complete with 6 feet of three-conductor cable and 4 "Quickway" Hooks. Code: Rucor.

Shure Crystal Devices are licensed under patents of the Brush Development Company. Shure patents pending.

SHURE BROTHERS - 225 W. HURON ST. - CHICAGO, U. S. A. - CABLE: SHUREMICRO DESIGNERS AND MANUFACTURERS OF MICROPHONES AND ACOUSTIC DEVICES

STANDS and Accessories

SUPERIOR QUALITY characterizes all Shure Microphone Stands—Quality that is reflected in beautiful modern design, careful attention to all details that enhance utility and convenience, and skilled workmanship inherent in truly fine products. At current prices they are unsurpassed values.



FLOOR STANDS

All Shure Floor Stands have the exclusive "Automatic Friction Lock". You simply raise, lower or turn the microphone ... no thumb screws or wing nuts ... no rattling or sudden dropping! The proper degree of friction is adjusted by rotating the chromium collar at top of barrel. The mechanism is guaranteed to last indefinitely. Cables may be run through tubings or outside. A new exclusive cable guide—furnished with each stand at no extra cost—holds the cable neatly beside the stand.

Effective stand height adjustment 43" to 68". Finish is beautiful black morocco-grain with chromium plated trim. Standard %"-27 thread. (Microphones are not included and must be ordered separately.)

Model S54B. Floor Stand. A light weight Utility stand with three extensible sections. Modernistic base, 103/8" in diameter. Height adjustment, 251/8" to 621/2". Net weight, 71/2 lbs. Shipping weight, 83/4 lbs. List Price

Model S56A. Floor Stand. "Round" Base. Base diameter, 10 ¼". Net weight, 11 lbs. Shipping weight, 12 ½ lbs. Code: Ruvos. \$1350

Model S57B. Floor Stand. 3-leg "Tri-Ped" Base, Leg spread, 151/2". Net weight, 131/4 lbs. Shipping weight, 151/4 lbs. Code: Rugart. List Price. \$1550

Model S58A. Floor Stand. Large, heavy "Modernistic" round base. Base diameter, 12½". Net weight, 14½ lbs. Shipping weight, 16 lbs. Code: Ruvim.

DESK and BANQUET STANDS

Convertible Desk Mount



New Shure convertible Desk Mount that per-mits any stand micro-phone to be converted to desk or hand type ... quickly ... efficiently— without tools or bother. Standard %"-27 thread. Model S35A.
Code: Ruval.
List Price..... \$375



Model S30B. "Special" Desk Stand. A small desk unit for Carbon Microphones complete with 5" ring. Modern bevel-edged design, beautifully finished in chromium plate with black morocco-grain base. Cord entrance in base. Complete with 8 rustproof springs. Base diameter, 4½". Height overall, 7". Net weight, 1 lb. Shpg. wt. 1½ lbs.





Rings and Springs

Model R20B. Standard Ring. A sturdy full-size, 6" ring for carbon microphones. Attractive bevel-edge design. "Quickway" Hooks for quick mounting. Chromium plated. Complete with 8 rustproof springs. Shipping weight, 1 lb. Code: Ruket. List Price. \$2.50

The above Rings are protected by U. S. Patent Des. 100,928

Model A80A Stand Switch

New handy stand-mounting on-off switch which can be used with any type microphone. Small attractive cast case, with morocco-grain finish. Standard 5%"-27 thread fits all Shure Stands. Overall height, 2½". Shipping weight, ½ lb.



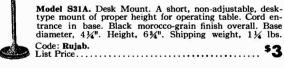
Model A80 A. Stand Switch. Code: Rudam. List Price.



Model S42C. Modernistic Banquet Stand. A companion unit to Model S32C listed above, useful where greater height is needed. Height range, 15" to 22". Net weight, 33/4 lbs. Shipping weight, 41/4 lbs. Code: Rukof.

List Price





Volume Controls for Crystal Microphones

Speakers, soloists, and announcers can now control the volume of a crystal microphone at the microphone . . . smoothly . . . with complete freedom from unwanted "tone-control" effects! Small compact unit (4" by 2" by 2"). Mounts on any Shure stand. Convenient ON-OFF switch. "Coupling" type, threaded 5½"-27 for Models 70H, 700A, 701A and 702A. (Microphone is not included and must be ordered separately). For best results use cable length supplied with unit. Beautiful black moroccograin finish with chromium fittings.

Model V11A. Volume Control only, with 25 ft. \$1250 cable. Code: Rugap. List Price......

Volume controls also available with 50 feet of cable.



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Crystal

Tephyr Ralanced-Tracking CRYSTAL RECORD REPRODUCER

Now for the first time—a crystal record reproducer that combines more accurate, more life-like reproduction of the recorded original ... lower record wear ... and new modern "aero-stream" beauty. The new ZEPHYR accurately and faithfully reproduces the full frequency range of modern high quality recordings. Its response is smooth and free from distortion-producing peaks throughout the artise frequency range.

out the entire frequency range

"Balanced-Tracking"

The illustration at the left shows how accurately the ZEPHYR "tracks" the groove across a 12" record. The enlarged views at the top (look-12" record. The enlarged views at the top (looking down at the record) compare the relation of needle to groove for the ZEPHYR pickup (solid line) and conventional pickup (dotted line) at the start (1), half (2), and finish (3) of the record. Shure "needle-tilt" Balanced-Tracking keeps the needle true to the groove...makes records last longer... gives finer reproduction.

These features, too, are important: "High-lift" arm for easy needle changing. Shock-proof assembly, Double Precision Ball Bearing pivot, Counter-balanced non-resonant arm, Permanent centering, Positive cone-grip needle-chuck, Genuine Brush bimorph torsion crystal. Output voltage approximately 3 volts at 1,000 cycles. Connects direct to grid of tube. Plays 10" and 12" records.

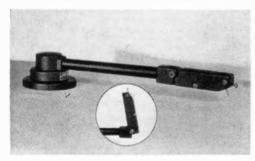


Model 99B. Shure ZEPHYR "Balanced-Tracking" Crystal Record Reproducer. Black Bakelite Molded. Overall Dimensions: 1034" long, 2 3-16" high, base 2" wide. Radius of arm: 8". Shipping weight 1½ lbs. Complete with 3½ ft. shielded cord, mounting screws and motor-board drilling template. (Arm rest not included.) Code: Ruzeb.

Model A70A. Zephyr Arm Rest. (See ill. above). Specially designed for the Zephyr. Holds pickup firmly in place when off the record. No thumb screws or adjustments—the pickup is simply pressed down over the arm-rest post and automatically locks in position. Arm is released when lifted. Mounts in 3-16ⁿ hole. Nickel finish. Code: Ruzab.

Model W20B. Crystal Pickup Cartridge only. Shure "Balanced-Tracking" crystal cartridge assembly (without pickup arm). Fits Zephyr arm. Code: Ruzam. List Price.

NEW "TRANSCRIPTION-TYPE" CRYSTAL RECORD REPRODUCERS



The new Shure "Transcription" Models are designed to meet the high standards required for lateral disc reproduction in the broadcast, recording and entertainment fields. Rugged, dependable cast construction and precision adjustable bearings provide a rigid assembly that will give long service even under adverse conditions. Wide-range response to approximately 7,000 cycles insures full range reproduction of high-quality records. Exclusive Shure "needle-tilt" Balanced-Tracking maintains an extremely close approximation to true tangency to record groove thus insuring minimum record wear and high quality reproduction. Head pivots horizontally at front of arm for easy needle changing, and locks in place when tilted back to eliminate accidental dropping. Adequate mass for high "inertia" with needle pressure of only 2½ ounces. Arm automatically locks in fixed position when swung away from turntable, thus eliminating need for arm rest. New black morocco-grain finish. Complete with 3½ ft. shielded cord, mounting screws and motor-board drilling template.

Model 912A. For all records up to and including 16-inch transcription size.

Model 912A. For all records up to and including 16-inch transcription size. Code: Ruzeg. List Price.

Model 910A. For 10-inch and 12-inch records only. Code: Ruzel.

(Available after September 1, 1937)

Model 66A Stethophone

A new improved, non-acoustic piezo-electric device for pickup of heart and chest sounds for reproduction or recording. Special "anti-noise" design practically eliminates acoustic feedback and room noise pickup. Output voltage 5 to 10 milivolts r. m. s. Small, light, compact. Size: 15-16". Net weight, less cable, under 3 oz. Beautiful chromium finish. Complete with 7 ft. shielded single-conductor cable. Ship. Wt., 3/4 lb.

Model 66A. Stethophone. Code: Rutal. List Price.

Model 60D Vibration Pickup

For sound and vibration pickup in studies of machine noise and vibration, reproduction of stringed musical instruments, interception of sound through walls in criminal investigation work, and many other applications. Size: 1 3/4" by 1" by 4/4". Mounting lugs provided. Chrome plated. Complete with 7 ft. single-conductor shielded cable. Ship. Wt. 101/2 oz.

62A

Vibration Pickups

Finding unwanted noise at the source locating destructive vibration . . . inspecting production for quietness . . .

inspecting production for quietness... checking surface smoothness—these and many other problems are easily solved with the new Shure Piezo-Electric Vibration Pickups. Amplitude, frequency components and direction of vibration are indicated. Rugged, waterproof construction. Spring cable protector prevents cable breakage at outlet. May be fastened to the object for continuous observations or used with the exploring prod for quick tests and comparisons. Sturdy, light cast aluminum cases. Finish black morocco-grain with cadmium-plated accessories. Complete with 8" extension rod, point-tip, ball-tip, mounting bracket and 7 ft. shielded rubber-jacketed single-conductor cable.

Model 61A. Vibration Pickup. Inertia-type. Has a rising frequency.

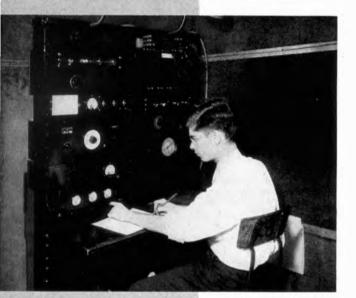
Model 61A. Vibration Pickup. Inertia-type. Has a rising frequency response characteristic. Size, 23%" by 15/8" by 15/8" overall. Ship. Wt. 1½ lbs. Code: Rutag. List Price. \$25

Model. 62A. Vibration Pickup. Special inertia-type instrument compensated for wide-range response, especially at low frequencies. Size, 4½" by 1½" by 1½". Ship. Wt. 1¾ lbs. Code: Rutal. List Price.

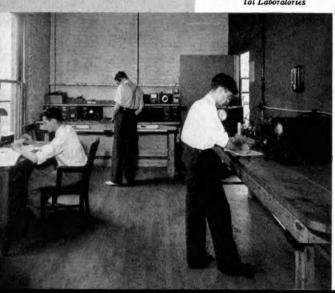
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Micrometering Sound with Precision Pistonphone



Measuring Frequency Response of a Microphone One of the Shure Experimental Laboratories





Measuring Microphone Directivity

SHURE ENGINEERS WERE FIRST WITH THESE IMPORTANT DEVELOPMENTS

The FIRST Screen-Protected diaphragm carbon microphone! The FIRST low cost quality Condenser Microphone! The FIRST AC-Powered Condenser Microphone! The FIRST Crystal Microphone generally adopted by leading amplifier manufacturers and supplied by them as standard equipment! The FIRST "Ultra" Wide-Range Diaphragm Type Crystal Microphone with response closely approaching true High-Fidelity standards! The FIRST Specially-Designed Microphone for high-efficiency voice communication! The FIRST Non-acoustic crystal "Stethophone" for heartbeat pickup! The FIRST Basically New Record Reproducer with "needle-tilt" balanced-tracking! The FIRST true anti-noise close-talking microphone! The FIRST practical velocity-actuated crystal microphone*! The FIRST economical Uni-Directional Microphone*! AND NOW—The FIRST "Controlled-Direction" Microphone*, providing instant selection of Uni-Directional, Bi-Directional or Non-Directional pickup in one until *Embodied in the new Shure Model 720A.

Comments on Microphone Response

The term "High-Fidelity" is often applied to electro-acoustic devices which operate over a more or less "wide" frequency range without regard to the factor of uniformity of response over the transmitted frequency range. On such a basis, nearly all Shure microphones might be termed "High-Fidelity". It is our belief, however, that a true High-Fidelity device should reproduce the frequency band from 30 to at least 10,000 cycles with a total response variation of not more than 5 db; Shure "High-Fidelity" Microphones conform to this standard. The terms "Wide-Range" and "Ultra Wide-Range" are employed in this catalog to indicate extended response and wide-range response closely approaching true "High-Fidelity" standards, respectively.



Terms and Conditions

All prices are list, subject to usual trade discounts, and subject to change without notice. All shipments are F.O.B. factory in Chicago, U.S.A. Factory Representatives and Authorized Distributors in principle cities throughout the United States and Canada.

Export

We maintain our own Export Department. Prospective purchasers outside the United States and Canada are invited to address Shure Brothers, Export Department, Chicago, U.S.A. for complete information. Cable Address: SHUREMICRO CHICAGO.



GUARANTEE All Shure Products are guaranteed to be free from electrical and mechanical defects for a period of one year from date of shipment from the factory, provided all instructions are complied with fully.

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