

# SHURE *Crystal* MICROPHONES

(Diaphragm-Type)

## ...with the Exclusive Cantilever Principle

● Shure Crystal Microphones are the result of exhaustive engineering development by the technical staff of "Microphone Headquarters," working in co-operation with scientists of The Brush Development Company, the inventors of the "Bimorph" piezo-electric (crystal) unit.

These microphones are of the diaphragm-actuated type. Vibrations of the diaphragm produced by sound waves are transmitted to the crystal element through a new "matched-impedance" mechanical coupling system devised by Shure engineers. This system employs the advanced Shure "cantilever" principle, thus providing efficient transfer of energy from sound wave to crystal element. The output level is above that of the average crystal microphone, requiring only one additional low-gain stage of amplification to give the equivalent output of a two-button microphone (-30 db). Many amplifiers have sufficient gain to operate directly from these Shure Crystal Microphones without auxiliary preamplifiers.

No polarizing voltage or exciting-current batteries or power supplies are required for any of the Shure Types "70" and "71" Crystal Microphone Heads. The microphone may be connected through the shielded, single-conductor cable directly to the grid circuit of the first tube across a resistance of 1 to 5 megohms. The shielded connecting cable may be lengthened somewhat if necessary, reducing the output level with increase in length of cable without in any way impairing the frequency characteristic.

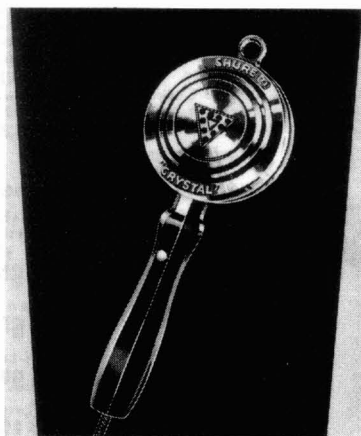
Shure Crystal Microphones are rugged and durable. Extreme conditions of heat, cold, and humidity do not impair their operation. Only moderate care in handling is necessary.

Shure Crystal Microphones are quiet. No background noise or "hiss" is produced by the crystal itself, thus permitting operation down to the noise level of the amplifier where necessary. Shure Crystal Microphones are also remarkably free from mechanical vibration pickup.

The frequency characteristic is excellent over the entire audio frequency range — accomplished through the use of a specially-shaped Dural diaphragm and new advanced design of the mechanical system. Pleasingly "full" low frequencies, with brilliant "highs," are reproduced through average high quality amplifier and loud-speaker equipment.



70H - 79A Demountable Type  
Left: 70H in Standard Ring



## Crystal HAND MICROPHONES

SHURE  
MODEL  
71AS

### "CLOSE-TALKING" MODELS

The Shure Model 71AS Crystal Hand Microphone makes available the fine performance of Shure Crystal Microphones in the hand mounting so essential for many applications. The instrument is of the "close-talking" type and is specially designed to minimize crowd noise. The crystal unit is mounted in a beautiful chromium-plated cast case with rubber-black-japan handle. A conveniently located "push-to-talk" switch is built into the handle.

Specifications: Diameter of case, 3-1/16 inches (7.77 cm.) Case Thickness: 1-5/16 inches (3.33 cm.) Overall Length: 9 inches (22.86 cm.) Net Weight, including cable: 1 1/4 lbs. (5.67 kg.) Shipping Weight: 1 3/4 lbs. (7.94 kg.)

**Model 71AS.** Crystal Hand Microphone, "close-talking" type. Complete with 7 feet of special rubber-jacketed, shielded, single-conductor cable. Complete instructions. Code: Rurec.

**\$2650**

**Model 71A.** Crystal Hand Microphone, "close-talking" type. Same as Model 71AS, but without switch. Code: Rureb.

**\$2500**

**Model 71H.** Crystal Hand Microphone, "close-talking" type. Head Only, without handle. Code: Ruref.

**\$2350**

### NON "CLOSE-TALKING" MODELS

**Model 71BS.** A regular Model 70H Crystal Microphone with a convenient, attractive handle. NOT a "close-talking" Microphone. "Push-to-talk" switch in handle. 7 feet of special cable. Code: Rurib. List Price.

**\$2550**

**Model 71B.** Crystal Hand Microphone. Same as 71BS, but without switch. Code: Rurig.

**\$2400**

**Model 71BH.** Handle. A removable handle, without switch, which fits 70H Crystal Microphone, for hand use. Code: Rurij.

**\$1500**

## Crystal MICROPHONE HEADS

(Diaphragm-Type)

These SHURE Crystal Microphone Heads are general purpose instruments, designed for direct mounting on microphone stands and do not require suspension ring or springs. The fittings supplied with the microphone will mount directly on all SHURE Microphone Stands except the 62A, which requires an adapter (See page 2). However, the Model 70H Microphone may be installed in regular carbon microphone rings of any manufacture by inserting four Shure "Quickway" Hooks which are supplied with each unit, and mounting with suspension springs in the usual manner.

The crystal and associated mechanical system are mounted in a heavy cast metal case of distinctively modern bevel-edged design, finished in gleaming chromium plate overall. The diaphragm is protected by a heavy chromium-plated screen. The instrument is small in size and hence does not obstruct the view of audience or artist.

### MODEL 70H Crystal MICROPHONE

Specifications: Overall diameter of case, 3 inches (7.62 cm.) Thickness: 1 1/4 inches (3.17 cm.) Net Weight, including cable and EF ring: 1 3/4 lbs. (.79 kg.) Shipping Weight: 2 1/4 lbs. (1.02 kg.)

**Model 70H.** Crystal Microphone. Complete with EF Mounting Ring and screws, four "Quickway" Hooks, and 7 feet of special, rubber-jacketed, shielded single-conductor cable (but without 79A "demountable" feature). Chromium-plated head and fittings. Complete instructions. Code: Rurab.

**\$2250**

List Price.....

### DEMOUNTABLE MODEL 70H-79A

The Shure Model 70H-79A Demountable Crystal Microphone has been designed for convenience and security. Insert the plug ... push ... click ... and it is instantly installed on its stand. And it's only a matter of a second to remove it for safekeeping or use elsewhere, without the use of tools or attention to the cable.

**Model 70H-79A.** Demountable Crystal Microphone. Including Plug, wired into Microphone, and Receptacle. Code: Rurip.

**\$2750**

List Price.....

(Shielded Cable is listed on Page Two)

### SHURE MODEL 70A CRYSTAL MICROPHONE PREAMPLIFIER



A two-stage preamplifier with a frequency characteristic flat within 2 db from 40 to 10,000 cycles. Approximate gain: 55 db. Has both 200-ohm and "high impedance" output. Furnished with wood screws for mounting, two type 76 tubes, but without power supply or battery power cable. Attractive black japanned steel case. Length: 8" (20.3 cm.). Width: 3" (7.62 cm.). Height: 4 1/2" (11.43 cm.).

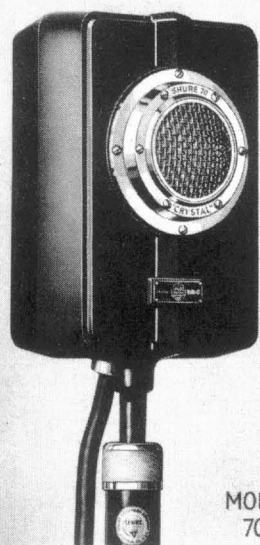
**Model 70A.** Crystal Microphone Preamplifier. Code: Ruraf.

**\$2750**

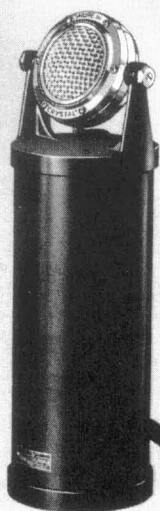
List Price.....

# SHURE *Crystal* MICROPHONES • ACCESSORIES

(Diaphragm-Type)



MODEL 70C



MODEL 70D



MODEL 70E

## PREAMPLIFIER MODELS

Now "Microphone Headquarters" brings you these new and important contributions to the science of sound reproduction. In introducing the several new models of the "70" Series shown below, all the advantages of the Model 70H Crystal Microphone Head (shown on Page 1) have been retained, while many features hitherto unavailable have been added . . . in new and useful designs. The output is brought out at a standard low impedance (200 ohms), making it possible to run long lines to the main amplifier and to work into existing 200-ohm mixers or low-gain amplifiers without making any circuit changes whatsoever.

In each of the models listed below the frequency response is uniform within 6 to 8 db from 30 to 10,000 cycles. Average output level —9 db, unless otherwise specified (zero level 6 milliwatts. Sound pressure 10 bars). Current requirements supplied by SHURE Model 41H Power Supply or by 6-volt storage "A" battery and 180 to 200 volts "B" supply.

## SHURE MODEL 70C Studio-Type

The Model 70C is a modernistic design of the popular "camera" type case. The beauty of its finish makes it a fitting addition to any studio, and the features of its construction make it convenient and ruggedly durable.

Specifications: Head polished chromium plated. Cast aluminum case, finished in double-baked satin rubber-black japan. Mounts on standard SHURE Stands.

Dimensions: Case, 4 1/8" (12.4 cm.) wide, 7 3/8" (20 cm.) high, 4 3/8" (11 cm.) deep, overall. Shipping weight, 8 1/2 lbs. (3.86 kg.).

Model 70C. Crystal Microphone, Studio-Type, complete with tubes, 12 ft. of 83L cable, suspension adapter, and instructions. Code: Rurac.

List Price.....  
Model 70HC. Head only with flange mounting. Code: Ruric.  
List Price.....

**\$70**

**\$2450**

## SHURE MODEL 70D Bullet-Type

The Model 70D brings you the utility of "bullet" construction with the advantages of the Crystal Microphone. The head can be aimed directly at the source of sound for best pickup. Invaluable for overhead use.

Specifications: The head is polished chromium plated. The case is aluminum, finished in double-baked satin rubber-black-japan. Mounts on standard SHURE stands.

Dimensions: Case diameter, 3 3/4" (9.5 cm.). Height overall 11 1/8" (30.2 cm.). Shipping weight, 6 1/4 lbs. (3.06 kg.).

Model 70D. Crystal Microphone, Bullet-Type, complete with tubes, 12 ft. of 83L cable, suspension adapter and instructions. Code: Rurad.

List Price.....

**\$65**

## SHURE MODEL 70E

### Desk-Type with Remote Preamplifier

The Model 70E presents the Crystal Microphone in an entirely new form. With the head mounted on a standard Shure desk stand and the remote preamplifier located "off the desk," many pickup problems are conveniently and efficiently solved.

Specifications: An assembly of three standard SHURE units . . . the 70H with its "close-fitting" ring on a 51C adjustable desk stand, and the standard Model 70A preamplifier described on the other side.

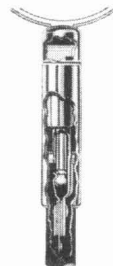
Dimensions: Height, adjustable from 9" to 14" (22.86 to 35.56 cm.). Shipping weight, 9 lbs. (4.08 kg.).

Model 70E. Crystal Microphone, Desk Type, with Remote Preamplifier, complete with tubes and instructions, but LESS power cable. Code: Rurag.

List Price.....  
(Shielded Power Cable, 83-L, listed in next column)

**\$5650**

## MODEL 79A DEMOUNTABLE ADAPTER



Model 79A. Demountable Adapter. Code: Ruris. **\$500**  
List Price.....

## Shielded Plug and Extension Receptacle



Models 79P and 79R provide completely shielded cable extensions for any shielded single-conductor cable such as SHURE 81-L. The 79P plug also fits standard jacks used in amplifiers or patch panels. Unique design provides cable "strain-relief." Brass shells, finished in polished nickel. Overall diameter: 1 1/16" (1.75 cm.). Combined overall length when connected: 5 3/8" (14.29 cm.). Fits cables with outside diameter of approximately 1/4" (.64 cm.).

Model 79P. Shielded Plug. Overall length: 3 3/4" (8.26 cm.). Code: Rurik. List Price..... **\$225**

Model 79R. Shielded Receptacle. Overall length: 3 1/2" (8.89 cm.). Code: Ruril. List Price..... **\$250**

## Crystal Microphone and Power Cables

Model 81-L. Crystal Microphone Cable. Special low-capacity, single-conductor, shielded, rubber-jacketed cable for crystal microphone connections. Sold in any desired length. Code: Rurim. List Price, per foot..... **\$15**

Model 83-L. Special Rubber-Covered, Shielded Power Cable. Standard trimmed lengths are 12 ft., 25 ft., 50 ft., and 100 ft. Code: Rubam. List Price, per foot..... **\$30**

## SHURE STANDS

### for Crystal Microphones

(Complete Stand & Accessory Catalog Sheet will be sent on request.)

Model 51C. Desk Stand for Models 70C and 70 D. **\$650**  
Code: Rufam. List Price.....

Model 53RC. Floor Stand, Round Base. Code: Ruvoos. **\$1650**  
List Price.....

Model 53TC. Floor Stand, 3-Leg Base. Code: Ruart. **\$1900**  
List Price.....

Model 53SC. Floor Stand, Large Modernistic Round Base. **\$2150**  
Code: Ruvin. List Price.....



## Combination BANQUET and FLOOR STAND

(with Adapter)

SHURE Model 62B, illustrated, is a low cost utility stand with SHURE Model 62A-EF Adapter for mounting EF "close-fitting" ring supplied with SHURE Model 70H Crystal Microphones. Extends from 26 3/4" to 65 1/2" in height. Modern cast-iron base with "wrinkle" enamel finish. Nickel-plated tubings.

Model 62B. Combination Banquet and Floor Stand. Code: Rufom. List Price..... **\$900**

Model 62A-EF. Adapter Only (see above) **\$100**  
Code: Rufop. List Price.....

## SHURE MODEL 41H POWER SUPPLY

Furnishes all voltages for "70" Series Preamplifier Models. Operates from 115 V. 60 cycle line. Heavy-duty multiple-section filter. Complete with tested type '80 rectifier, plug for microphone cable, and A.C. cord and plug.

Model 41H. Power Supply. Code: Ruhab. **\$4000**  
List Price.....

All Shure Crystal Microphones are licensed under patents of The Brush Development Company.

**GUARANTEE:** Each instrument is guaranteed to be free from mechanical and electrical defects for a period of one year from date of shipment from factory, provided all instructions are complied with fully.

# SHURE BROTHERS COMPANY

Manufacturers of Microphone Headquarters  
Engineers Telephone DELaware 8-383  
215 WEST HURON ST. CHICAGO, ILLINOIS

# High-Fidelity

## A REALITY with the NEW SHURE

### SHURE BROTHERS COMPANY

Microphone Headquarters  
MANUFACTURERS-ENGINEERS

TELEPHONE  
DELLWARE 8363

215 WEST  
HURON STREET

Chicago

#### A SOLUTION for YOUR HIGH-FIDELITY PROBLEM

Until very recently, the conventional condenser microphone has been regarded as well-suited for the requirements of Broadcasting and Public Address Work. Today the situation is far different, for "High-Fidelity"... uniform, wide frequency range reproduction... is essential to comply with the advanced standards of 1935.

While many radically new types of microphones have been developed to meet "high-fidelity" requirements, the necessity for elaborate changes and additions to existing speech-input equipment, and widely different pickup techniques, have deterred many engineers from installing improved microphones.

Shure 43 Series "Wave-Equalized" Condenser Microphones combine "High-Fidelity" performance with all the convenience and well-known advantages of the conventional condenser microphone. They may be used to replace your present microphones without adding preamplifiers or making extensive wiring changes. Their high output level and standard output impedance fit the requirements of existing amplifier equipment. And there are no new microphone placement problems for you to solve, for the pickup technique is exactly the same as would be used for conventional microphones. HERE IS "HIGH-FIDELITY" MICROPHONE PERFORMANCE PLUS SIMPLICITY AND CONVENIENCE IN ALL PHASES OF INSTALLATION AND OPERATION!

All this was made possible by the "Wave-Equalization" principle... a development of Microphone Headquarters which eliminates the "peak" found in the conventional condenser microphone and extends the response into the upper high frequencies so essential for accurate, life-like "High-Fidelity" reproduction.

Besides this remarkable advance in quality of reproduction, there are many other features of "Wave-Equalized" Condenser Microphones which make them truly outstanding... new models for Desk and Floor Stand mounting... a new power-supply unit which makes any model completely A.C. operated... new refinements in every detail which contribute to day-in and day-out dependable microphone service. Every instrument is thoroughly guaranteed.

Don't delay YOUR installation of "High-Fidelity" equipment... order a new Shure "Wave-Equalized" Condenser Microphone today!

Very truly yours,

SHURE BROTHERS COMPANY  
"Microphone Headquarters"

*S. N. Shure*  
S. N. Shure, Pres.

DISTRICT SALES OFFICES  
UNITED STATES

BOSTON BUFFALO CLEVELAND DENVER DETROIT KANSAS CITY LOUISVILLE LOS ANGELES MIAMI NEW ORLEANS  
NEW YORK PHILADELPHIA PITTSBURGH PORTLAND, ME. ST. LOUIS ST. PAUL SAN FRANCISCO SEATTLE WASHINGTON  
CANADA MONTREAL TORONTO VANCOUVER  
CABLE ADDRESS "SHUREMICRO" CHICAGO



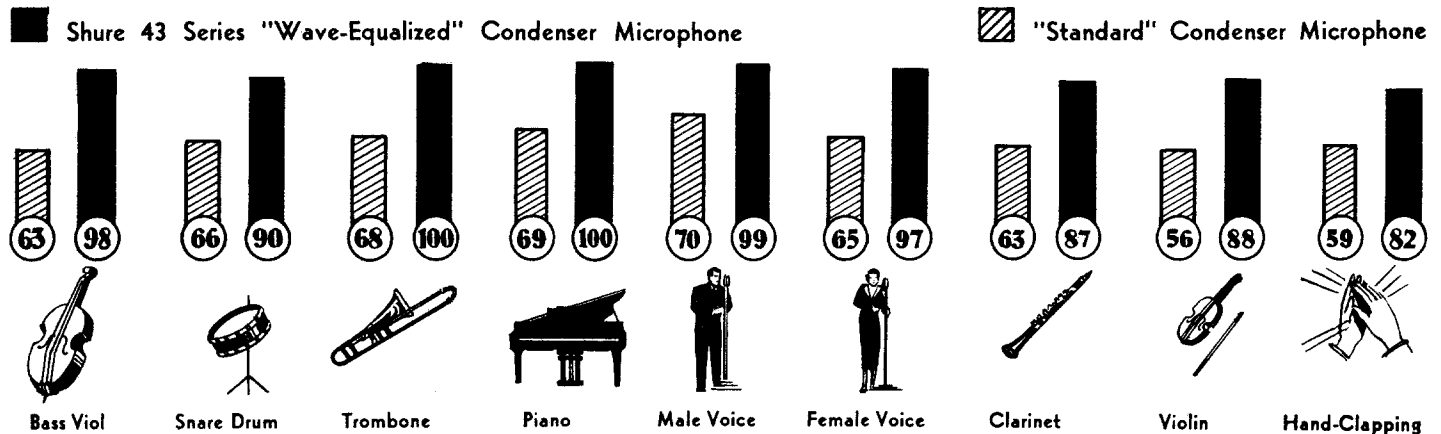
## "Wave-Equalized"\* CONDENSER MICROPHONE

"High Fidelity" is definitely a requirement of modern high quality broadcast and sound transmission systems. Wide frequency range with uniform reproduction is an essential characteristic of all equipment in the "High Fidelity" installation.

The new Shure "Wave-Equalized" Condenser Microphones are the first condenser microphones which attain true "High-Fidelity" performance... a frequency characteristic uniform within a total range of only 4 db from 40 to 10,000 cycles. But in addition to this remarkable performance, all the well known advantages of the condenser microphone have been retained... simple, familiar pickup technique... high output level, standard low-impedance output... direct connection to existing microphone input channels without auxiliary preamplifiers.

The following pages give complete data on Shure "Wave-Equalized" Condenser Microphones... instruments which bring you true "High-Fidelity" performance economically, conveniently... dependably.

### COMPARATIVE "UNIFORM TONE RANGES"



The above chart graphically shows the remarkable "High-Fidelity" reproduction achieved in the new Shure 43 Series "Wave-Equalized" Condenser Microphones as compared with the performance of the best "standard" condenser microphones previously available for broadcast service.

The measure of microphone fidelity chosen is a definite, numerical figure, expressed in per cent, and termed the "Uniform Tone Range". A rating of 100% means that the microphone reproduces the entire range of frequencies contained in a particular type of sound with a total variation of 5 db or less. A total variation of 5 db is well within the definition of "High-Fidelity" reproduction, and is difficult to distinguish from perfectly uniform reproduction in listening tests. Values of the "Uniform Tone Range" of the microphones are indicated by the "thermometers" directly above the sketches representing the musical instruments, voices or sound. Black "thermometers" represent the performance of Shure 43 Series "Wave-Equalized" Condenser Microphones, while the shaded "thermometers" are for the "standard" condenser microphone. For example,

43 Series Microphones reproduce 97% of the full octave range of the female voice, as compared with 65% for the "standard" condenser. This remarkable improvement—from 23 to 35% wider "Uniform Tone Range"—is obtained on every type of musical instrument and voice. Even noises, such as hand-clapping, are reproduced with amazing fidelity.

\*Trade-Mark Registered.

©1935 Shure Brothers Company, Chicago.

### SHURE BROTHERS COMPANY

Manufacturers  
Engineers

Microphone Headquarters

Telephone  
DELLWARE 8363

215 WEST HURON ST.

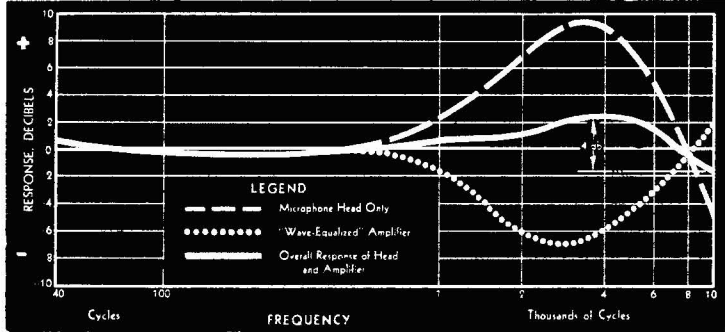
CHICAGO, ILLINOIS



# SHURE



# "Wave-Equalized"\* CON



The dashed-line curve above shows the wave response of the high quality condenser head used on 43 Series Microphones. The dotted line is the response of the pre-amplifier. Note that the characteristic is the inverse of the head performance, accomplished by means of the "Wave-Equalizer" built into the preamplifier. The solid curve is the combined overall response of head and amplifier, which is uniform within a total range of only 4 db from 40 to 10,000 cycles. The curves are the results of precision measurements of the actual wave response (sometimes called a "field" calibration) of the microphone and indicate the performance under actual working conditions. All wave-response measurements were taken at azimuth of 26 degrees.

## THE "WAVE-EQUALIZED" PRINCIPLE

Any conventional condenser microphone has a wave ("field") response curve which is characterized by a marked rise in the vicinity of 3,000 cycles followed by more or less rapid "cut-off" in the high frequency range. This is due to the "obstacle" effect of the microphone and its housing and acoustic resonance in the cavity in front of the diaphragm. "Obstacle" effect cannot be eliminated without reducing the dimensions of the microphone to impracticably small values of the order of  $\frac{1}{2}$  inch! It is thus impossible for any conventional condenser microphone to approach a "flat" response characteristic.

The "Wave-Equalized" Principle overcomes these deficiencies and makes possible the achievement of "High-Fidelity" response while retaining the time-proved advantages of the condenser microphone. A special precision condenser head has been designed for minimum cavity effect and the widest possible frequency range. The wave response of the head only is shown by the dashed line in the above illustration. The electrical output of the head is delivered to a high-gain two stage preamplifier containing a selective two-section equalizer. This equalizer has the effect of reducing the amplifier gain as the head response rises and increasing the gain at the high frequencies where the head response is falling. Through proper design, the gain-frequency characteristic of amplifier and equalizer (shown dotted above) is almost exactly the inverse of the head characteristic and the combined performance of head amplifier and equalizer thus closely approaches the ideal

of flat response over the audio frequency range. The overall response shows a total variation of only 4 decibels between 40 and 10,000 cycles per second as indicated by the solid line above. Reliable published data shows a total variation of 16 decibels in wave response for the best condenser microphones used up to this time on broadcast network programs.

## GENERAL SPECIFICATIONS

**OUTPUT LEVEL:** Minus 32 to minus 38 decibels, depending on the model. (Zero level 6 milliwatts. Sound pressure 10 bars.)

**OUTPUT IMPEDANCE:** 200 ohms.

**OPERATING PRINCIPLE:** Pressure actuated condenser head. Pickup technique is the same as for conventional condenser microphones.

**DIRECTIVITY:** Front pickup practically non-directional.

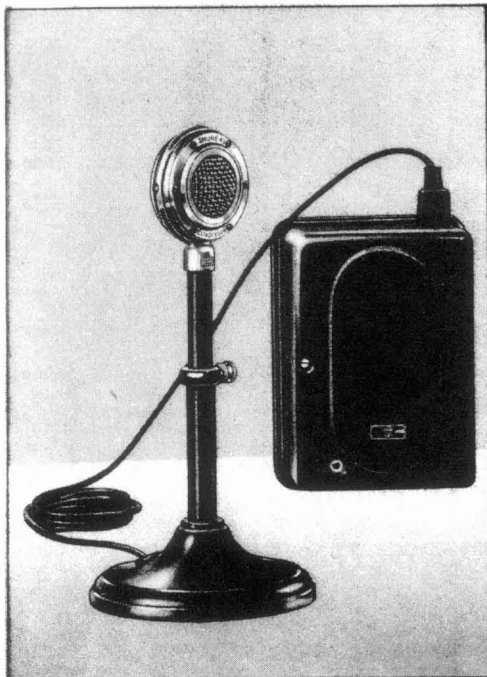
**FREQUENCY CHARACTERISTICS:** Total wave response variation only 4 db between 40 and 10,000 cycles. Pressure principle insures uniform low-frequency response regardless of distance to sound source. "Obstacle" effect, cavity resonance and high-frequency loss are corrected by built-in "Wave-Equalizer".

**HEAD:** Precision, lathe-turned condenser head. Shallow cavity. Equalized damping provided by special back-plate design. Carefully stretched and aged Dural diaphragm. Leakage-proof India Mica insulation.

**AMPLIFIER:** High-gain two-stage unit with 6C6 and '76 tubes. Completely-shielded, "sectionalized" construction throughout. Special, individually "noise" tested, S. S. White coupling and isolation resistors, guaranteed to have less noise than that corresponding to a change in resistance of 1 part in 10,000,000. Low-leakage bakelite-encased mica coupling condensers. Moulded bakelite tube sockets. Built-in "Wave-Equalizer".

**AMPLIFIER POWER REQUIREMENTS:** Designed for A.C. or storage battery heater supply. Requires 6 volts A.C. or D.C., and 180 to 200 volts D.C. at 5 M.A. Power requirements may be obtained from batteries, Shure 41H Power Supply unit or 41H-53BC Combination Floor Stand and Power Supply.

**NEW USEFUL MOUNTINGS:** Shure 43 Series "Wave-Equalized" Condenser Microphones are available in a wide variety of new, useful mountings for studio, stage and announcing purposes. "Bullet" Type, Desk Type with Remote Preamplifier, and Floor Stand Types with Preamplifier in base are described here. A floor stand with power supply in base is also available.



## SHURE MODEL 43E

# "Wave-Equalized"\* CONDENSER MICROPHONE

The Model 43E "Wave-Equalized" Condenser Microphone presents the condenser transmitter in an entirely new form . . . a desk-stand mounted head with separate remote preamplifier unit . . . the solution to many pickup problems requiring a "High-Fidelity" microphone of small dimensions. The microphone has many evident applications for "announce" purposes, news broadcasts, sound effects and dramatic radio presentations, sound recording, high-quality public-address and radiotelephone communications.

The 43 Condenser Head is mounted on a Shure Model 51C Desk Stand. A special low-capacity shielded rubber-jacketed conductor six feet long, terminating in a removable shielded plug, connects the head output to the high-gain two-stage preamplifier. The shielded conductor introduces no frequency discrimination and has very low attenuation. The condenser head is an accurately machined, precision instrument designed for maximum stability under a wide range of operating conditions. Dimensions have been chosen for minimum phase-shift with angular incidence and a small cavity. The residual response rise and slight high-frequency loss are almost perfectly compensated by the "Wave-Equalizer" in the preamplifier, with a resulting, overall wave-response which is flat within a total range of only 4 db from 40 to 10,000 cycles. Head insulation is leakage-proof selected India Mica.



# High-Fidelity DENSER MICROPHONES

## SHURE MODEL 43D

### "Wave-Equalized"\* CONDENSER MICROPHONE

The Model 43D "Wave-Equalized" Condenser Microphone has the conventional "bullet" type case and is an instrument of wide utility for all "high-fidelity" microphone applications. Since it has high output level and standard 200-ohm output impedance it may directly replace existing condenser and carbon microphones without changes in the speech-input system. Power requirements are readily obtainable from battery facilities or from the Shure Model 41H Power Supply. A floor stand with power supply in base (see Model 41H-53BC, page 4) is also available. The 43D may be suspended overhead or mounted on a suitable stand as illustrated at the right. The head swivels to allow the diaphragm to be faced directly toward the source of sound.

The highest quality components are used throughout and every part is rigidly tested and inspected before it is built into the microphone. The precision condenser head has a very shallow cavity and low phase-shift distortion for angular incidence. Every part is accurately machined to extremely close tolerances to insure absolute uniformity. The head design has been worked out for maximum stability under a wide range of temperatures. Insulation is selected India Mica which is noted for its low hygroscopic properties.

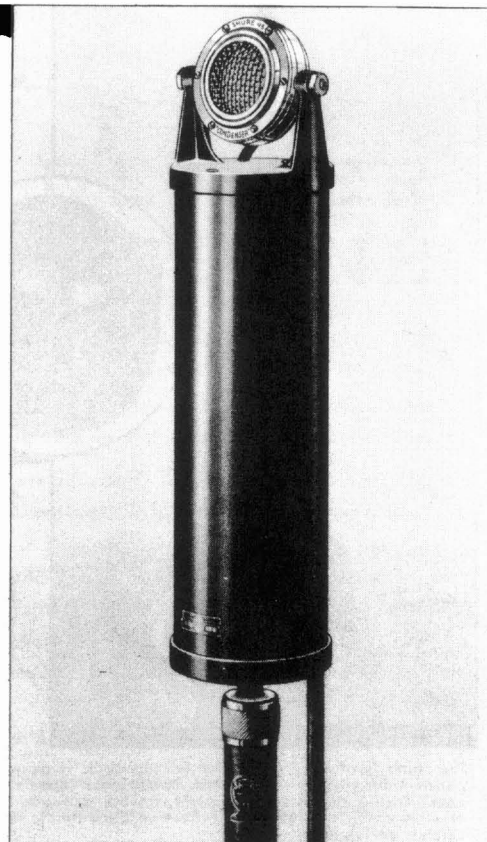
Many unusual features in the amplifier design contribute to the performance and dependability of the unit. "Sectional" construction is employed in which the head coupling elements are housed in an individual, fully shielded compartment at the top of the unit. At the bottom of the unit is a similar compartment containing the "Wave-Equalizer". Since a 6C6 tube is used in the first stage, the control-grid lead is extremely short and widely separated from power leads. This makes it possible to use A.C. heater supply without appreciable hum. A type '76 tube is used in the second stage. Power requirements are 6 volts A.C. or D.C. for heater circuits and 180-200 volts D.C. from Shure Model 41H Power Supply or batteries. The frequency characteristic is typical of all Shure "Wave-Equalized" Condenser Microphones—uniform within a total of only 4 db from 40 to 10,000 cycles. Output level is minus 32 db, based on a zero level of 6 milliwatts with a sound pressure of 10 bars.

The microphone head is chromium plated and polished overall, including protective screen, presenting a pleasing contrast to the rubber-black japan finish of the case. Furnished with 25 feet of shielded, rubber-jacketed multiple-conductor power cable, special chromium plated suspension adapter, one each type 6C6 and '76 tubes, and complete instructions. Dimensions: Case diameter, overall, 4" (10.16 cm.). Overall height, 15" (38.1 cm.). Shipping weight, 10½ lbs. (4.77 kg.).

Model 43D. "Wave-Equalized" Condenser Microphone. Complete with tubes, cable and suspension adapter. Code: RULET.

List Price

**\$150**



### STANDS and ACCESSORIES for "Wave-Equalized" CONDENSER MICROPHONES

Microphone stands and accessories are described in a catalogue sheet devoted to this subject, which will be sent on request. Several popular "Automatic Friction Lock" Floor Stands and extra cable are listed below for convenience.

Model 53RC. Floor Stand. Medium weight cast round base.

Code: RUVOS. List Price.....\$16.50

Model 53TC. Floor Stand. Has the three-leg, "Tri-Ped" style base.

Code: RUART. List Price.....\$19.00

Model 53SC. Floor Stand. Large heavy "Modernistic" design base.

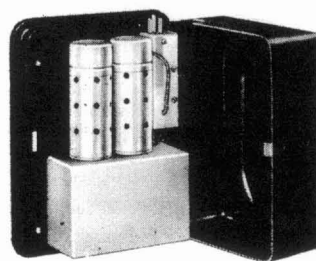
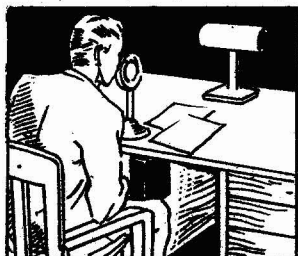
Code: RUVIM. List Price.....\$21.50

Model 83L. Cable. Code: RUBAM. Special rubber-jacketed, shielded cable for 43 Series Microphones. (25 feet furnished with each microphone without charge.) Extra length, per foot, List Price.....\$ .30

## DESK TYPE WITH REMOTE AMPLIFIER

The amplifier is unobtrusive in appearance, resembling a standard telephone ringer box. The front cover is hinged and may be easily removed. A shielded coupling unit containing head coupling resistors and condensers is built around the input receptacle, thus eliminating induction noise. The first stage employs a 6C6 tube with a '76 in the second stage, making it possible to operate the heaters from A.C. or 6-volt storage battery. The circuit design and shielding have been worked out to permit the use of raw AC on the heater circuits with negligible resulting hum, even when the microphone output is followed by high-gain line amplifiers. (The Shure Model 41H Power Supply, described on page 4, operates from the AC line and furnishes all power requirements.) Every amplifier component has been selected for the highest

possible quality to insure the utmost in performance and reliability. Individually noise-tested high resistance units, low-loss mica coupling condensers, moulded bakelite tube sockets... these are but a few of the many points which have received careful engineering scrutiny. Individual parts and the completed unit are carefully inspected and tested for performance. The amplifier case is finished in rich rubber black matching



the desk stand. The head is chromium plated and polished.

The output level is minus 38 db, based on a zero level of 6 milliwatts with a sound pressure of 10 bars. Output impedance, 200 ohms. Power requirements may be obtained from the Shure Model 41H Power Supply or from a 6-volt storage battery and 180 to 200 volt D.C. station high-voltage supply or "B" batteries. Dimensions: Height adjustable from 9" to 14" (22.86 to 35.56 cm.). Amplifier case, 10" High (25.4 cm.),

7¼" wide (18.42 cm.), 4¾" deep (12.1 cm.). Shipping weight, 17½ pounds (7.95 kg.). Furnished with one each type 6C6 and '76 tubes, twenty-five feet of multiple-conductor, shielded, rubber-jacketed power cable and complete instructions.

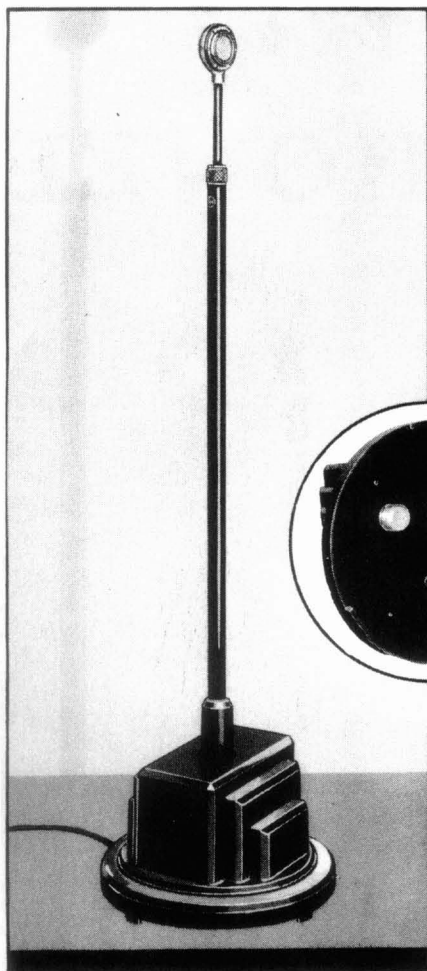
Model 43E. "Wave-Equalized" Desk Type Condenser Microphone with Remote Preamplifier. Complete as described. Code: RUJEL.

List Price

**\$165**

# SHURE Model 43F "Wave-Equalized" Condenser Microphone

## Floor Stand Type with Remote Preamplifier in Base



● The Model 43F "Wave-Equalized" Condenser Microphone has been designed for stage and studio work where it is often desirable to have a microphone of small size which will not obstruct the view of audience or artist. This is accomplished by mounting the microphone head directly on a new Shure "Automatic Friction-Lock" Floor Stand which contains a high-gain two-stage preamplifier within the base. The head is connected to the preamplifier by means of a shielded, low-capacity, rubber-jacketed conductor which passes inside the upright tubing of the stand. The height of the microphone is adjustable with the silent, smooth, self-locking adjustment which has made Shure "Automatic Friction-Lock" Floor Stands famous the world over. The base of the stand is styled in the modern manner with beveled panel design and finished in baked rubber-black japan. The microphone head and stand fittings are chromium plated and polished.

The frequency characteristic is typical of all Shure "Wave-Equalized" Condenser Microphones—a total variation of only 4 db from 40 to 10,000 cycles. Output impedance is 200 ohms. The output level is minus 38 db, based on a zero level of 6 milliwatts with a sound pressure of 10 bars. The amplifier employs one type 6C6 and one '76 tube and is constructed of the finest quality components.

Power requirements may be obtained from the Shure Model 41H Power Supply or from a 6-volt storage battery and 180 to 200 volt D.C. station high-voltage supply or "B" batteries. Furnished with twenty-five feet of multiple-conductor shielded, rubber-jacketed power cable and complete instructions.

Shipping weight 45 lbs. (20.43 kg.). Base diameter 15 in. (38.1 cm.). Height adjustable from 47" to 72" (119.4 to 182.9 cm.).

**Model 43F.** "Wave-Equalized" Condenser Microphone (Floor Stand Type with Preamplifier in Base). Complete with tubes and cable. Code: RUJEM.

List Price.....

**\$190**

## SHURE MODEL 41H-53BC FLOOR STAND with POWER SUPPLY IN BASE

This new combination Floor Stand and Power Supply is intended for use with the Model 43D "Wave-Equalized" Condenser Microphone. When used in this manner, a completely AC-operated "High-Fidelity" microphone unit, which is highly convenient for remote and studio broadcasts and high-quality public-address work, is the result.

The stand is of the "Automatic Friction-Lock" type with a newly designed base, artistically proportioned in modern, paneled design. Finish is baked rubber-black japan with polished chromium-plated fittings. The "Automatic Friction-Lock" feature makes possible silent, smooth, self-locking adjustment of microphone height without set-screws or wing-nuts . . . a refinement affording the ultimate in convenience with perfect safety even in the hands of careless performers.

The power supply is completely shielded and protected in the cast-iron base. Stray hum is negligible and "ripple" is so low as to be inaudible even when the microphone is followed by very high gain amplifiers. The unit operates from 105-125 volt, 60-cycle A.C. lines and furnishes 6.3 volts A.C. at 0.6 amp. for heaters and 200 volts D.C. for tube plates and head polarization. A flush receptacle is provided inside the base for A.C. line connections. The microphone plugs into a receptacle on the side of the base. The stand is furnished complete with power supply mounted, one tested type '80 rectifier tube, one plug each for microphone and A.C. connections, and complete instructions. Base diameter, 15" (38.1 cm.). Height adjustable from 44" to 69" (111.8 to 175.3 cm.). Shipping weight, 48 lbs. (21.8 kg.).

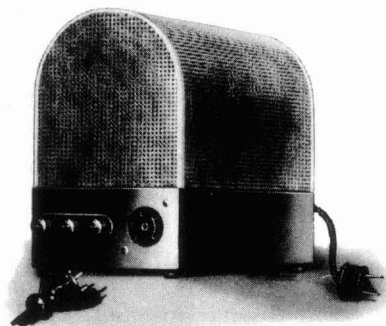
**Model 41H-53BC.** Combination Floor Stand and Power Supply, Complete as described above. Code: RUPOM. List Price.....

**Model 53BC.** Floor Stand only. No power supply or accessories. Code: RUDAL. List Price.....

**\$79**

**\$36.50**

## SHURE MODEL 41H POWER SUPPLY



Operates from 105-125 volt 60-cycle A.C. lines and furnishes all voltage requirements for Shure Models 43D, 43E and 43F "Wave-Equalized" Condenser Microphones. "Ripple" is reduced to negligible proportions by means of a multiple section filter. The unit delivers 6 volts A.C. for heaters and 200 volts D.C. for tube plates and head polarization. Equipped with six-foot A.C. cord and plug, primary On-Off switch, and plug for attachment to microphone cable. Binding posts for ground and speech-input connections are provided. All parts are enclosed within a perforated chromium-plated cover. Base finished in rubber-black japan. Dimensions: 4 1/2" (11.43 cm.) wide, 7 1/4" (18.42 cm.) high, 10" (25.4 cm.) long overall. Shipping weight, 12 1/2 lbs. (5.67 kg.).

**Model 41H.** Power Supply. Complete with plug for microphone cable, A.C. cord and plug and one tested Type '80 rectifier tube. Code: RUHAB. List Price.....

**\$40**

### GUARANTEE

Each instrument is guaranteed to be free from mechanical and electrical defects for a period of one year from date of shipment from factory, provided all instructions are complied with fully.

ESTABLISHED 1925

**SHURE BROTHERS COMPANY**

Manufacturers  
Engineers

Microphone Headquarters

Telephone  
LIT 6-1411

215 WEST HURON ST.

CHICAGO, ILLINOIS