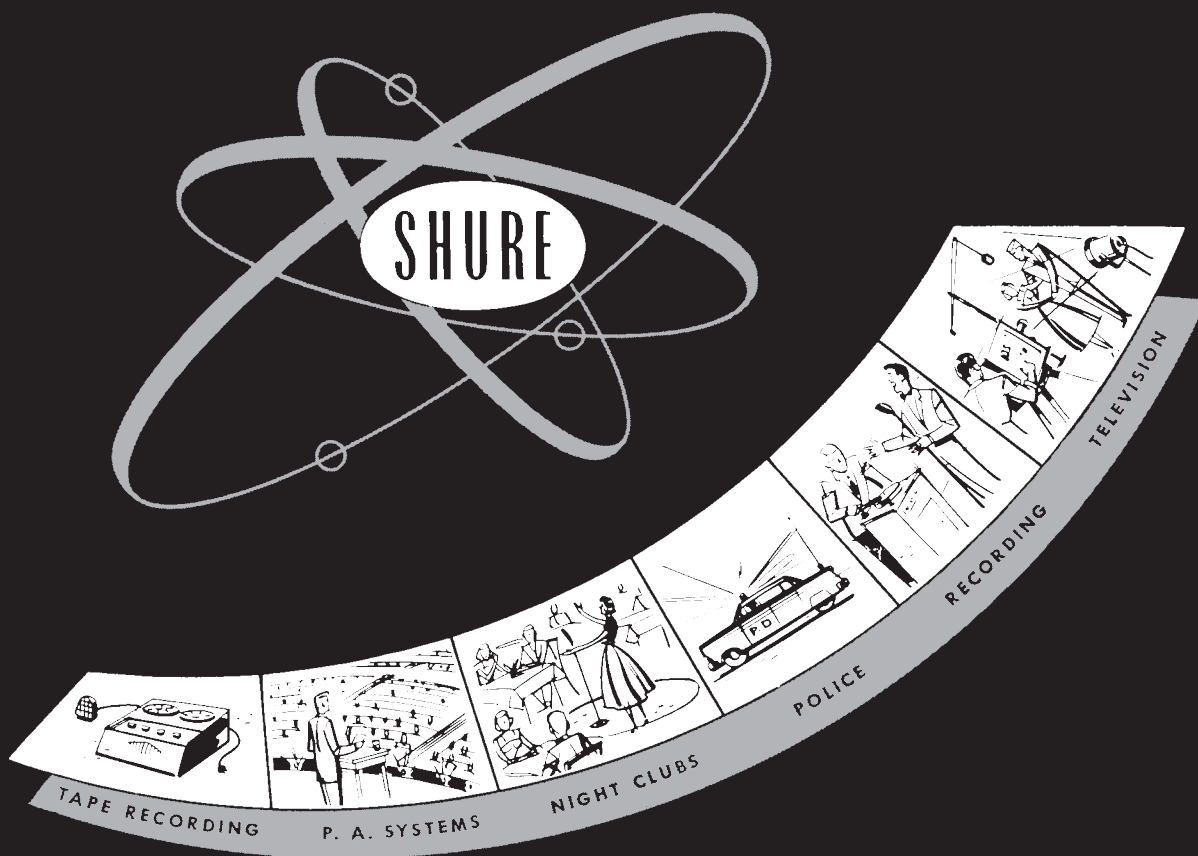


# SHURE GENERAL CATALOG NO.44

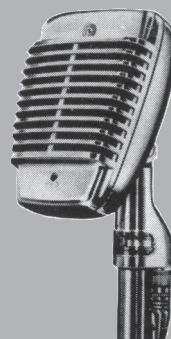
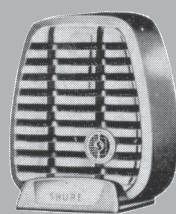
MICROPHONES • PHONO PRODUCTS • TAPE RECORDING HEADS

## The Nucleus of Superb Voice and Music Reproduction



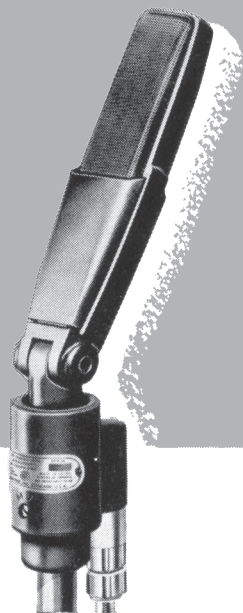
DISTRIBUTED BY

SHURE

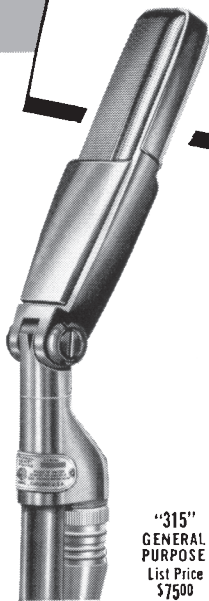


# PROOF of PERFORMANCE

Shure slender Gradient<sup>1</sup> Microphones  
solve difficult acoustic problem



"300"  
BROADCAST  
List Price  
\$125.00



"315"  
GENERAL  
PURPOSE  
List Price  
\$75.00



Shure Patents Pending



Former Governor Stevenson of Illinois, pictured as he addressed Detroit audience on Labor Day, during the 1952 presidential campaign.

**SHURE BROTHERS, Inc. ★ Microphones and Acoustic Devices**  
225 West Huron Street, Chicago 10, Illinois • Cable Address: SHUREMICRO

# SHURE

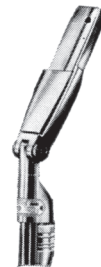
## GRADIENT' AND DYNAMIC MICROPHONES

### BI-DIRECTIONAL GRADIENT' MICROPHONES



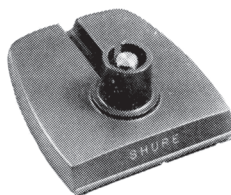
Model "300"  
Broadcast

These rugged, high-fidelity, multi-impedance microphones meet the *most critical* applications of television, radio broadcasting, professional recording, and highest-quality general purpose uses! The Gradients provide a bi-directional pickup pattern—permitting greater performer freedom (performers can stand at a 73% greater distance from the microphone!) The "300" and "315" pick up voice and music from front and back—are "dead" at the sides. They reduce reverberation and the pickup of distracting random noises by 66%! Model "300" is specially designed to meet the exacting requirements of TV, radio broadcasting, and recording—with a frequency response of 40 to 15,000 c.p.s. Has a special "Grayje" non-reflecting finish. The "300" has a "Voice-Music" switch, vibration-isolation unit, and a Cannon XL connector. Model "315" is similar to the "300"—with a response of 50 to 12,000 c.p.s. Permits the sound system to operate at a level *almost 6db higher than is possible with omni-directional microphones!* It is finished in rich, soft chrome.



Model "315"  
General Purpose

IMPEDANCE TABLE	OUTPUT LEVEL
L—35-50 ohms	59.5 db below 1 Milliwatt per 10 microbar signal
M—150-250 ohms	60.0 db below 1 Milliwatt per 10 microbar signal
H—High	59.5 db below 1 volt per microbar



Model 533  
Broadcast Desk Stand  
for Model "300"  
List Price: \$15.00

MODEL	LIST PRICE
"300"	\$125.00
"315"	\$ 75.00

### UNIDIRECTIONAL DYNAMIC MICROPHONES



"Small Broadcast"  
Model 556S

The "Small Unidynes" are the largest selling microphones throughout the world! They are the only small-sized, unidirectional, moving-coil dynamic microphones made; therefore they are the ideal microphones for high-quality applications where *maximum operating efficiency is a "must," yet small size is desired.* A sturdy construction provides immunity of the moving coil system to abnormal atmospheric conditions and severe mechanical shock. Model "55S" is highly recommended for fine-quality public address; theater-stage sound systems; recording and remote broadcasting. Is widely used for fixed station use in the police, fire, and transportation services. Model "556S" is recommended for studio broadcasting, television use, and professional recording. Has Cannon XL connector and vibration-isolation unit. *Both models reduce the pickup of random noise energy by 67%; have smooth response from 40 to 15,000 c.p.s.; are supplied with a 20-ft., high quality cable and plug assembly.*



"Small Unidyne"  
Model 55S

IMPEDANCE TABLE	OUTPUT LEVEL
L—35-50 ohms	59.4 db below 1 Milliwatt per 10 microbar signal
M—150-250 ohms	60.1 db below 1 Milliwatt per 10 microbar signal
H—High	60.5 db below 1 volt per microbar



Multi-Impedance  
Switch on Models  
"55S", "556S", "51"  
"300", "315"

MODEL	LIST PRICE
556S	\$100.00
55S	\$ 72.50

### MULTI-IMPEDANCE HIGH OUTPUT DYNAMIC

IMPEDANCE TABLE	OUTPUT LEVEL
L—35-50 ohms	53.0 db below 1 Milliwatt for 10 Microbar signal
M—150-250 ohms	52.5 db below 1 Milliwatt for 10 Microbar signal
H—High	52.0 db below 1 volt per Microbar

#### MODEL "51" SONODYNE

The "Sonodyne" is ideal for all general purposes, including public address, wire and tape recording, and similar applications. It is widely used by bands, instrumentalists, and professional recording artists because of its outstanding reproduction of both voice and music. Wide-spread usage by home users of tape recorders indicates that the "Sonodyne" is the ideal high-quality, moderately-priced replacement for the conventional microphone supplied with tape recorders. Has built-in receptacle and a 15-ft., two-conductor shielded cable with microphone plug attached. Satin chrome finish.  
Model "51"  
List Price: \$45.00



Model "51"  
Sonodyne



# CRYSTAL MICROPHONES

# SHURE

## THE NEW "SLIM-X" ALL-PURPOSE MICROPHONE

### FOR:

- Low Cost P.A. Systems
- Home Recording
- Hams
- General Purpose



On S38  
Desk Stand



On S38  
Desk Stand  
(With A25  
Swivel)



On Floor Stand



In the Hand

The new "777" Slim-X Microphones are rugged little microphones weighing only 6 ounces! They are designed for good-quality voice and music reproduction. Their versatility and "hand-ability" make them ideal for use by lecturers, announcers, instructors, and Hams; for audience participation shows; carnivals; panel and quiz shows; and use with home-recorders. When mounted on either cradle or swivel, the "777" can be removed in a flash (no tools

necessary)—simply by lifting it out of the holder. This makes it an ideal "walk-around" hand-held microphone.

**TECHNICAL INFORMATION:** Smooth frequency response—50 to 10,000 c.p.s.; special-sealed crystal element—for long operating life; high impedance; 7' single-conductor cable, disconnect type. Dimensions: (Microphone only) Length, 4½"; Diameter, 1". Finish: Rich satin chrome overall.

Note: Lavalier Cord, for suspension of microphone around neck, is available (optional).

### ACCESSORIES FOR "777"

**MODEL S38 STAND** is a heavy die-cast base. Includes metal screw machine stud for connecting microphone adapter to stand base.

Model: S38

List Price: \$3.00

**MODEL A25 SWIVEL ADAPTOR** features a long-life, high-quality swivel connector. Is lined with a long-life nylon sleeve—for noise-free and scratch-free insertion and removal of microphone.

Model: A25

List Price: \$5.00

Model	Output	List Price
777	58db below 1 volt per microbar	18.95*
777S With Switch		20.95*

\* (Price includes cradle for mounting on stand.)



Fig. A

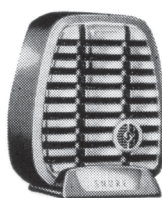


Fig. B



Fig. C



Fig. D



Fig. E

### "MONOPLEX" (Fig. A)

The only Super-Cardioid Crystal Microphone made—far superior to conventional Crystal Microphones! Excellent for high-quality public address, communications, recording, and similar applications. The 737A operates under adverse conditions of background noise and reverberation—where a conventional microphone would be practically useless! Reduces pickup of random sound by 73%! Moisture-proofed "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	54.0 db below 1 volt per microbar	\$39.75

### THE "REX" (Fig. B)

Its low price makes this hand-held microphone a natural for "Hams" and low-cost public address systems. A rugged unit designed for high speech intelligibility. Saves extra costs, as it needs no desk stand! Has

a broad base, complete with stand adapter for mounting on floor stand. Sits firmly on a table top without tipping over. Die cast case. Frequency response 60 to 9,000 c.p.s. 5' shielded cable. Beautiful Burgundy-red metallic finish. Only 2½" wide, 3¼" high, 1½" thick. High impedance.

MODEL	OUTPUT LEVEL	LIST PRICE
710A	50 db below 1 volt per microbar	\$10.95
710S (with switch)	50 db below 1 volt per microbar	\$12.95

### MODEL 707A (Fig. C)

Ideal for low-cost P.A. systems, amateur 'phone transmitters and similar applications. Good-quality performance at low cost. Has typical semi-directional pickup. Has 7 ft. shielded cable. High impedance. Pearl Gray case with rich satin chrome finish on front grille. Diameter 2½".

MODEL	OUTPUT	LIST PRICE
707A	51.0 db below 1 volt per microbar	\$15.50

### LAPEL MICROPHONE (Fig. D)

Specially designed unit widely used by lecturers, instructors, speakers, etc. High speech intelligibility. Response from 40 to 6,000 c.p.s. 1⅞" diameter. Has lapel clip. 20-foot shielded single-conductor cable. High impedance.

MODEL	OUTPUT LEVEL	LIST PRICE
76B	57db below 1 volt per microbar	\$27.00

### STRATOLINER (Fig. E)

An expensive-looking crystal microphone at moderate cost. Wide-range response for good reproduction of either voice or music. Placed horizontally, the 708A is semi-directional; used vertically it becomes non-directional. Swivel permits 90° tilting of microphone. 7 ft. shielded cable and plug assembly. High impedance. Pearl Gray finish.

MODEL	OUTPUT LEVEL	LIST PRICE
708A	51.0 db below 1 volt per microbar	\$27.50



# CONTROLLED RELUCTANCE MICROPHONES

**SHURE**

## THE "HERCULES"



510 SERIES

The "Hercules" is a hand-held magnetic unit. Provides the ruggedness, clear reproduction, and high output long needed for Public Address, Communications, and Recording—AT AN AMAZINGLY LOW PRICE! Recommended for Announcing and Mobile Public Address Systems; Communications; Home Recording; high quality Inter-Communication. Ideal for general-purpose use in tropical countries and all coastal areas where humidity is a problem.

The output voltage is induced in a coil of wire by causing a sound wave to modulate the reluctance of the magnetic circuit. By the control of this reluctance the utmost in quality and stability is achieved. High impedance is obtained without the use of a transformer. The "Hercules" can be used either Indoors or Outdoors. Fits snugly in the hand, sits firmly on a desk. High impedance. Frequency response is 100 to 7,000 c.p.s. Furnished with 5' shielded cable. Green metallic finish. Die-cast case. Complete with stand adapter. 2 $\frac{2}{3}$ " wide, 3 $\frac{1}{4}$ " high, 1 $\frac{1}{2}$ " thick.

MODEL	OUTPUT LEVEL	IMPEDANCE	LIST PRICE
510C	52.5 db below 1 volt per microbar	HIGH	\$15.00
510S (with switch)	52.5 db below 1 volt per microbar	HIGH	\$17.00

## THE "GREEN BULLET"



MODEL 520

The "Green Bullet" is a magnetic unit, especially designed to provide quality music and speech reproduction at moderate cost. It is practically immune to the effects of high temperatures and humidity. The "Green Bullet" has a stability assured by unique control of the reluctance of the magnetic system. It features: high output, good response, high impedance without the need of a transformer. The "Green Bullet" has a beautiful modern metallic green finish with a plated grille. Frequency response is 100 to 7,000 c.p.s. Furnished with 7' single-conductor shielded cable. High Impedance.

MODEL	OUTPUT LEVEL	IMPEDANCE	LIST PRICE
520	52.5 db below 1 volt per microbar	HIGH	\$17.50
520S	51 db below 1 milli- watt per 10 microbars	150-250 ohms	\$17.50

## THE "DISPATCHER"



MODEL 520SL

This new Controlled Reluctance unit is designed to handle the most severe field requirements of paging and dispatching systems. The unit is supplied with 7 feet of 2-conductor shielded cable and is wired to operate both microphone and relay circuits. The "Dispatcher" is ideal for police, taxi-cab, railroad, airport, bus, truck, and all emergency communications work where dependability is vital. Large grip-bar assures positive contact.

MODEL	OUTPUT	IMPEDANCE	LIST PRICE
520SL	52.5 db below 1 volt per microbar	High	\$35.00

## THE "RANGER"

The new Shure "Ranger" is a new development of a similar magnetic unit originally housed in microphones used by the Armed Forces. The "Ranger" is especially recommended for those applications where long lines are used, and a rugged hand-held microphone is needed. It is ideal for outdoor public address (sports arenas, athletic fields), mobile communications, ham, audience participation shows, etc. The "Ranger" is designed for high speech intelligibility. Easy to use, fits snugly in the palm of the hand. Has heavy-duty single-throw, double-pole leaf-type switch for push-to-talk operation. Phosphor-bronze blades and silver contacts for maximum operating life. Furnished with 5' three-conductor shielded cable. Frequency response is 100 to 9,000 c.p.s.

MODEL	OUTPUT LEVEL	IMPEDANCE	SHPG. WT.	CODE	LIST PRICE
505B	47.0 db below 1 milliwatt per 10 microbar signal	150-250 ohms	1 $\frac{1}{8}$ lbs.	RUDAY	\$27.50
505C	50.5 db below 1 volt per microbar	High	1 $\frac{1}{8}$ lbs.	RUDAX	\$27.50



505 SERIES

# COMMUNICATIONS MICROPHONES AND ACCESSORIES

# SHURE

## COILED CORD SETS

Standard Copper Coiled Cord with trimmed and tinned leads. Used in "CB" and "100" Series Microphones.		
Model: C15C	Code: RUCOR	List Price: \$5.75
Tinsel Coiled Cord with Amphenol MC4M Connector for use with General Electric equipment.		
Model: C16C	Code: RUCAG	List Price: \$8.75
Tinsel Coiled Cord with spade lugs for use in Motorola equipment.		
Model: C17C	Code: RUCAJ	List Price: \$7.25
Standard Coiled Cord with Amphenol MC4M Connector for use with Motorola equipment.		
Model: C18C		List Price: \$7.25
Tinsel Coiled Cord with Amphenol MC4M Connector for use with Motorola equipment.		
Model: C19C		List Price: \$8.75

## CARBON MICROPHONE CARTRIDGE



Model R10

Rugged microphone cartridge replacement for "CB", "100", and "120" Series Carbon Microphones. Furnished with necessary mounting hardware and complete installation instructions. Direct replacement for the cartridge used in the Models 101A, 101B, 101C, 102A, 102B, 102C, 120, CB10, CB10B, CB10C, SB10E, CB11, CB11B, CB12, CB12A, CB12B, CB12C, CB12D, CB12E, CB14, CB14A, CB15, CB15B, CB15C, CB15D, CB15F, CB20, CB162, 91A27 carbon microphones.

Models: R10

List Price: \$8.00

## MICROPHONE ASSEMBLY

A Controlled Reluctance Microphone and Desk Stand Assembly—ideal for fixed-station used in all types of communications work. Has a built-in switch for controlling both the microphone circuit and an external relay or control circuit. Replacement for Mfrs. Model No. CR84.

Model 510MD

List Price: \$35.00



Model 510MD

## MODEL "100" SERIES CARBON MICROPHONES

Used around the world for police, taxi, bus, truck, and commercial applications — more than all other makes combined! Rugged unit with clear, crisp voice response and high output. Heavy duty switch for push-to-talk performance. Furnished with bracket for wall mounting, plus coiled-cord cable. Adopted as standard microphone by G.E., Link, Motorola, R.C.A. and others for 2-way radio communications equipment. Output level: 5db below 1 volt for 100 microbar speech signal.



### REPLACEMENT CHART

MANUFACTURERS MODELS	REPLACEMENT MODEL
CB10, CB10B, CB10C, CB10D, CB15, CB15D,	101C
CB10E	101E
CB12, CB12A, CB12C, CB12D	102C
CB12E	102E
CB15F	103

Model	Cable	Switch Arrangement	List Price
101C	Standard Coiled Cord 11" retracted; 5' extended	Two Wire Relay Switch normally open. (No microphone switch)	\$27.50
101E	Tinsel Coiled Cord 11" retracted; 5' extended with Amphenol MC4M Connector		\$32.50
102C	Standard Coiled Cord 11" retracted; 5' extended	Relay normally open. Microphone switch normally open.	\$27.50
102E	Tinsel Coiled Cord 11" retracted; 5' extended with spade lugs		\$30.00
103	Standard Coiled Cord 11" retracted; 5' extended with Amphenol MC4M Connector	Two Wire Relay Switch normally open. (No microphone switch)	\$29.00

## CARBON "PACK" MICROPHONE

Designed for use with small portable and mobile transmitters. Only 2" in diameter and 1 1/2" thick. Has 3-conductor coiled cord, metal-spring strain relief, and Push-to-Talk switch. Has same operating characteristics as "100 Series" Carbon Microphones. Replacement for Mfrs. Model Nos. CB20, CB21.

Model 115

List Price: \$28.50



Model 115

# SWITCHES AND ACCESSORIES

## MICROPHONE REPLACEMENT CARTRIDGES



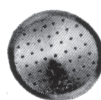
CONTROLLED  
RELUCTANCE

Model R5

Controlled Reluctance. Ideal for the replacement of Crystal Cartridges in Shure cases of the Model 707A and 708A Series, where heat and humidity are a problem. Also replaces cartridges in other mfrs. models of similar design, where space permits. Supplied with rubber mounting ring and installation instructions in English and Spanish.

Model: R5

List Price: \$10.00



CRYSTAL

Model R7

Model R7 Crystal Microphone. Available for service installation as a replacement for the cartridges in the Shure Crystal Microphones of the 707A and 708A Series, and other microphones of similar design. High output—48db below 1 volt per microbar. Cartridge supplied with rubber mounting rings and installation instructions.

Model: R7

List Price: \$7.75

## CABLE-TYPE TRANSFORMER



Model A86A

Model A86A is a high quality, cable-type transformer, ideal for matching low-impedance microphone lines to high-impedance amplifier inputs (matches 35-50 and 150-250 ohm microphones of high impedance). 2-foot cable.

Model: A86A

List Price: \$16.00

## TAKE-APART STAND



Model  
S34B

Model S34B. Handy low-cost stand for desk or hand use. One twist of handle locks it securely in base for use as a table stand, or releases handle for use in hand. Metal base, wood handle.

Model S34B

List Price: \$3.00

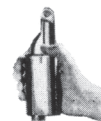
## "GRIP-TO-TALK SLIDE-TO-LOCK" SWITCH

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.

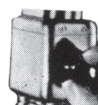
Model: A88A

List Price: 11.75

Model A88A



## ON-OFF PRESS-TO-TALK SWITCHES



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

Model: A83B

List Price: \$6.50

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

Model: A84B

List Price: \$7.50

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

Model: A85C

List Price: \$10.75

## MODERN DESK STAND



Model S36A

Model S36A. Streamlined Desk Mount fits all Shure connector-type microphones. Adapter provided for mounting other type microphones. Ideal for use with A88A switch.

Model: S36A

List Price \$5.50

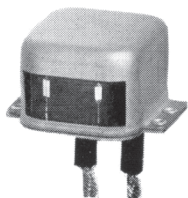
**SHURE****MAGNETIC TAPE AND WIRE RECORDING HEADS**

Fig. A

RECORD-PLAYBACK-ERASE

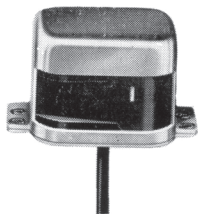


Fig. B

RECORD-PLAYBACK

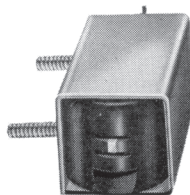


Fig. C

RECORD-PLAYBACK



Fig. D

ERASE

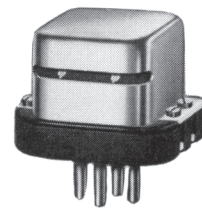


Fig. E

RECORD-PLAYBACK-ERASE

**MAGNETIC TAPE RECORDING HEADS  
TYPICAL OPERATING DATA**

MODEL	815 (FIG. A)			815H (FIG. A)			816 (FIG. B)		817 (FIG. C)		TE2 (FIG. D)		
Recording Speed	3.75" per sec.		7.5"	3.75" per sec.			3.75" per sec.		3.75" per sec.		3.75" per sec.		
Bias & Erase Freq.	25KC	DC	50KC	25KC	DC		25KC	DC	25KC	DC	25KC	50KC	DC
Std.* Recording Level	.05 ma	.095 ma	.05 ma	.03 ma	.056 ma		.03 ma	.07 ma	.06 ma	.175 ma	---	---	---
Operating Bias Current	1.25 ma	.35 ma	1.5 ma	.72 ma	.24 ma.		.80 ma	.26 ma	3.6 ma	.42 ma	---	---	---
Erase** Current	45 ma	35 ma	55 ma	45 ma	35 ma		---	---	---	---	45 ma	55 ma	35 ma
Impedance Erase Coil	750 ohm at 25KC	12 ohm	1300 ohm at 50KC	750 ohm at 25KC	12 ohm		---	---	---	---	800 ohm at 25KC	1250 ohm at 50KC	12 ohm
Impedance Recording Coil	1450 ohm at 1000 cps	180 ohm	1450 ohm at 1000 cps	5800 ohm at 1000 cps	556 ohm		5500 ohm at 1000 cps	556 ohm	1860 ohm at 1000 cps	180 ohm	---	---	---

\*Determined in accordance with RTMA Standard REC.-134 August 1949.

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

Recording Medium—Minnesota Mining &amp; Mfg. Co., Tape No. 111 5RBA1. Pressure Pad Force (Area — .025 sq. in.) Two Ounces.

**NUMERICAL LISTING OF SHURE TAPE HEADS  
USED IN ORIGINAL EQUIPMENT**

MODEL	ILLUSTR.	LIST PR.	DESCRIPTION	OPERATING DATA
812	Fig. E	15.00	Wire Recording Head.	Not shown
815	Fig. A	13.50	Upper track recording. Low impedance record-playback coil.	See above
815H	Fig. A	13.50	Upper track recording. High impedance record-playback coil.	See above
816	Fig. B	10.50	Upper track recording. High impedance record-playback coil.	See above
817	Fig. C	7.50	.093" record track width. Low impedance record-playback coil.	See above
TR5	Fig. A	13.50	Upper track recording. (Replace with Model 815.)	See 815
TR5A	Fig. A	15.50	Upper track recording with special mounting bracket. Cinch Plug attached.	See 815
TR5B	Fig. A	15.00	Upper track recording with 14-inch completely insulated leads. Cinch Plug attached.	See 815
TR5D	Fig. A	14.50	Upper track recording. Cinch Plug attached.	See 815
TR5H	Fig. A	14.00	Upper track recording with special leads.	See 815
TR5K	Fig. A	14.50	Upper track recording. Cinch Plug attached.	See 815H
TR5L	Fig. A	13.50	Upper track recording. Special record-playback coil impedance.	Not shown
TR6	Fig. B	10.50	Lower track recording. Low impedance record-playback coil.	Not shown
TR6A	Fig. B	10.50	Upper track recording. Low impedance record-playback coil.	Not shown
TR6B	Fig. B	11.50	Lower track recording with special mounting bracket. Low impedance record-playback coil.	Not shown
TR6C	Fig. B	10.50	Upper track recording. (Replace with Model 816.)	See 816
TR6E	Fig. B	11.00	Upper track recording with special leads.	See 816
TR6G	Fig. B	10.50	Lower track recording.	See 816
TR6H	Fig. B	10.50	Upper track recording. Low impedance record-playback coil.	Not shown
TR6J	Fig. B	11.00	Upper track recording with special leads.	See 816
TR15	Not Illustr.	7.50	Special Assembly.	Not shown
TR16	Fig. C	7.50	.093" record track width. High impedance record-playback coil.	Not shown
TR16A	Fig. C	7.50	.093" record track width. (Replace with Model 817.)	See 817
TR16B	Fig. C	8.50	.093" record track width with mounting bracket. Low impedance record-playback coil.	See 817
TE2	Fig. D	6.00	Erase head.	See above
TE2A	Fig. D	7.00	Erase head with mounting bracket.	See TE2



# NUMERICAL LISTING OF

## CRYSTAL AND CERAMIC PICKUP CARTRIDGES

**SHURE**

All Shure Replacement Cartridges have been painstakingly designed and engineered to meet the most exacting specifications. Each has been designed to meet certain specific requirements, such as high output, extended range, high compliance, and maximum tracking. For the finest in standard 78 R.P.M., fine-groove, or all-purpose replacement cartridges, see the charts below which furnish complete data on the popular Shure "Vertical Drive," "Lever-Type," "Muted Stylus," "Direct Drive," and "Simple Mount" Cartridges.

MODEL NO.	ILLUSTRATION	TYPE	LIST PRICE	OUTPUT LEVEL		MIN. NEEDLE FORCE	RESPONSE TO	NET WT.	SHURE NEEDLE NO.		CODE	APPLICATION
W21F*	Fig. B	Crystal	\$7.75	1.5V		6 grams	10,000 c.p.s.	4 1/2 grams	A63MG		RUGEX	33 1/3, 45 R.P.M.
				MG	STD.				MG	STD.		
W22A	Fig. C	Crystal	\$10.50	1.2V	1.4V	8 grams	10,000 c.p.s.	4 1/2 grams	A65MG	A61A	RUVAL	33 1/3, 45, 78 R.P.M.
W22AB	Fig. C	Crystal	9.50	1.2V	1.4V	8 grams	10,000 c.p.s.	4 1/2 grams	A65MG	A62A	RUVAX	33 1/3, 45, 78 R.P.M.
W22AB-T	Fig. E	Crystal	10.00	1.2V	1.4V	8 grams	10,000 c.p.s.	12 1/2 grams	A65MG	A62A	RUVUR	33 1/3, 45, 78 R.P.M.
W23B	Fig. B	Crystal	\$7.75	1.1V		6 grams	8,000 c.p.s.	4 1/2 grams	A62A		RUVER	78 R.P.M.
WC24	Fig. D	Ceramic	8.75	0.6V	0.6V	8 grams	7,000 c.p.s.	4 1/2 grams	A53MG	A52A	RUGIB	33 1/3, 45, 78 R.P.M.
WC24-T	Fig. F	Ceramic	9.25	0.6V	0.6V	8 grams	7,000 c.p.s.	12 1/2 grams	A53MG	A52A	RUGID	33 1/3, 45, 78 R.P.M.
				MG	STD.							
W26A	Fig. B	Crystal	\$8.50	.87V	1.0V	8 grams	8,000 c.p.s.	4 1/2 grams	A67U		RUVUP	33 1/3, 45, 78 R.P.M.
W26B	Fig. B	Crystal	7.50	.87V	1.0V	8 grams	8,000 c.p.s.	4 1/2 grams	A66U		RUVUM	33 1/3, 45, 78 R.P.M.
W31AR	Fig. A	Crystal	6.50	2.1V		7 grams	7,500 c.p.s.	5 1/2 grams	A53MG		RUGEB	33 1/3, 45 R.P.M.
WC31AR	Fig. A	Ceramic	6.50	.65V		7 grams	7,500 c.p.s.	5 1/2 grams	A53MG		RUGED	33 1/3, 45 R.P.M.
WC33B	Fig. A	Ceramic	6.50	.75V		9 grams	7,000 c.p.s.	5 1/2 grams	A52A		RUGEL	78 R.P.M.
W36B	Fig. A	Crystal	6.50	2.3V	2.5V	9 grams	7,000 c.p.s.	5 1/2 grams	A56U		RUGEN	33 1/3, 45, 78 R.P.M.
WC36B	Fig. A	Ceramic	6.50	.6V	.7V	9 grams	7,000 c.p.s.	5 1/2 grams	A56U		RUGER	33 1/3, 45, 78 R.P.M.
W42B	Fig. G	Crystal	4.45	1.3V		1 oz.	5,000 c.p.s.	25 grams	None		RUGUB	78 R.P.M.
W42BH*†	Fig. K	Crystal	4.95	1.5V or 3.75V		1 1/8 oz.	5,000 c.p.s.	25 grams	None		RUVUS	78 R.P.M.
W42H	Fig. G	Crystal	4.45	3.5V		1 oz.	5,000 c.p.s.	25 grams	None		RUGUT	78 R.P.M.
W53MG	Fig. G	Crystal	8.50	1.3V		6 grams	8,500 c.p.s.	12 grams	A64MG		RUGET	33 1/3, 45 R.P.M.
W56A	Fig. G	Crystal	6.65	4.3V		1 1/8 oz.	6,000 c.p.s.	12 grams	None		RUGUS	78 R.P.M.
W56N**	Fig. H	Crystal	8.50	4.3V		1 oz.	10,000 c.p.s.	12 grams	A68D		RUGEC	78 R.P.M.
W57A	Fig. G	Crystal	5.55	1.6V		3/4 oz.	6,000 c.p.s.	12 grams	None		RUGLA	78 R.P.M.
W58A	Fig. G	Crystal	5.55	1.6V		1 oz.	6,000 c.p.s.	25 grams	None		RUGLU	78 R.P.M.
W58HS***	Fig. G	Humi-Seal Crystal	6.55	1.6V		1 oz.	6,000 c.p.s.	25 grams	None		RUGUY	78 R.P.M.
W59A	Fig. G	Crystal	5.55	2.5V		1 oz.	6,000 c.p.s.	25 grams	None		RUGAT	78 R.P.M.
W60A	Fig. J	Crystal	8.50	1.6V		1 oz.	4,500 c.p.s.	12 grams	A61A		RUSIS	78 R.P.M.
W60B	Fig. J	Crystal	7.50	1.6V		1 oz.	4,500 c.p.s.	12 grams	A62A		RUSID	78 R.P.M.
W60HS***	Fig. J	Humi-Seal Crystal	8.50	1.8V		1 oz.	4,500 c.p.s.	25 grams	A62A		RUSIB	78 R.P.M.
W61B	Fig. J	Crystal	7.50	1.6V		1 oz.	4,500 c.p.s.	25 grams	A62A		RUSIL	78 R.P.M.
W66B	Fig. J	Crystal	7.00	2.0V	2.3V	8 grams	4,500 c.p.s.	12 grams	A66U		RUSUN	33 1/3, 45, 78 R.P.M.

\*With .453 Mount for Oak Changer.

\*\*Cutter-Playback Cartridge for Wilcox-Gay "Recordette." Equipped with bifurcated needle.

\*\*\*"Humi-Seal" Metal Wrapped Rochelle Salt Crystal Ideal for Tropical Areas.

\*†Dual Voltage Cartridge 1.5V output with condenser; 3.75V output without condenser.

# CARTRIDGE REPLACEMENT CHART

SHURE MODEL NO.	SHURE REPLACEMENT	SHURE MODEL NO.	SHURE REPLACEMENT	ASTATIC MODEL NO.	SHURE REPLACEMENT	WEBSTER MODEL NO.	SHURE REPLACEMENT
P30	W60B	P94E	W58HS	L-73	W58HS	N4	W58A
P30B	W60A	P95MG	W53MG	L-73A	W58HS	N5	W60B
P30C	W60B	PC30	WC33B	L-73AS	W58HS	N6	W58A
P30D	W61B	PC40	WC24	L-73S	W58HS	N6P	W58A
P30E	W60HS	PC40T	WC24T	L-74	W58HS	N6P-4	W58A
P30G	W61B	PC72V	WC22AB	L-74A	W58HS	N7	W58A
P30HS	W60HS	PN30	WC33B	L-74AS	W58HS	N7-1	W58A
P30S	W61B	PN30S	WC33B	L-74S	W58HS	N7P	W58A
P30W	W60A	PN31S	WC33B	L-75	W58A	N7P-2	W58A
P35	W56A	PN88	W58HS	L-75A	W58A	N8	W58A
P35S	W56A	PN88S	W58HS	L-75AS	W58A	N8P	W58A
P37	W66B	PN89	W58HS	L-75S	W58A	N9	W58A
P37A	W66B	PN89D	W58HS	L-76	W58A	N10	W58A
P37C	W66B	PN89E	W58HS	L-76A	W58A	N10P	W58A
P37CA	W66B	PN89S	W58HS	L-76AS	W58A	N10P-1	W58A
P70	W23B	W21A	W31AR	L-76S	W58A	N11P	W58A
P70A	W23B	W21AR	W31AR	L-82	W56A	Q1	W61B
P71	W26B	W21E	W21F	L-82A	W56A	Q2	W61B
P71A	W26A	W23A	W23B	L-92A	W58A	X-82	W58A
P71B	W26B	W40A	W59A	L-92-33	W53MG	X-82CH-1	W58A
P71C	W26B	W42A	W42B	LP-6	W61B	Y-82	W58A
P71CA	W26A	W56PN	W58HS	LP-21	W61B	YN2	W58HS
P72	W22AB	W56R	W56N	LP-23	W61B	YN2-1	W58HS
P72A	W22A	W57AN	W60A	LT1-M	W61B		
P72AF	W22AB	W60PN	WC33B	LT1-MA	W61B	ELECTRO-VOICE	
P72V	W22AB	W65B	W56A	LT2-M	W61B	MODEL NO.	SHURE REPLACEMENT
P73	W31AR	W65R	W56N	LT2-MA	W61B	10	W61B
73A	W31AR	W66A	W66B	LT3-M	W60B	14	W31AR
P73AR	W31AR	WC60B	WC33B	LT3-MA	W60B	32	W23B
P73R	W31AR	99-180	W59A	LT4-AG	W66B	33	W26B
P75	W21F	99-181	W59A	LT4-M	W53MG	33-2	W26B
P75A	W21F	99-182	W42B	LT5-AG	W66B	33-3	W26B
P76	W22AB			MLP-1	W61B	33-4	W26B
P76A	W22A	ASTATIC		MLP-1J	W60A	34S	W31AR
P76AF	W22AB	MODEL NO.	SHURE	MLP-2	W61B	43	WC36B
P76AFV	W22AB		REPLACEMENT	MLP-3	WC33B	50	W42H
P76AV	W22A	AC-78-J	W23B	Nylon 1-J-PN	WC33B	60	W42H
P76V	W22AB	AC-C-J	WC31AR	Nylon 1-M-PN	WC33B	H12	W56A
P77	W22AB	AC-C-AG-J	WC36B	PT	W60B	H12-S	W56A
P77A	W22A	AC-C-78-J	WC33B	QC-J	WC33B	L12	W60B
P77AV	W22AB	AC-J	W31AR	QT-J	W60A	L12-S	W60A
P77V	W22AB	AC-AG-J	W26B	QT-J-PN	WC33B	M12	W60B
P79	W22AB	ACD-C-M	WC22AB	QT-M	W61B	M12-S	W60A
P79	W22AB	ACD-1M	W22ABT	QT2-M-PN	WC33B		
P80	W21F	ACD-J	W22A	QT3-J	W60A	AMERICAN	
P81	W26B	ACD-2J	W22AB-T	QT3-JA	W60A	MODEL NO.	SHURE REPLACEMENT
P81A	W26A	ACD-CJ	WC22AB	QT3-M	W61B	CR1	W59A
P81AD	W26B	CAC-78-J	W23B	QT3-MA	W61B	CR1A	W59A
P81C	W26B	CAC-J	W31AR	QT3-M-PN	WC33B	CR2	W58A
P81CA	W26A	CQ-AG-M	W26B	QT3-J-PN	WC33B	CR2A	W58A
P81D	W26A	CQ-J	W31AR	QT3-M-PN	WC33B	CR3	W61B
P81E	W26B	GC-78-7	WC33B	1-J	W60A	CR3A	W61B
P85	W23B	GC-AG-J	WC36B	1-M	W60B	CR4	W56A
P86R	W56N	GC-AG-M	WC36B			CR4A	W56A
P87	W57A	GC-J	WC31AR	WEBSTER		CR5	W31AR
P87B	W57A	L12	W42H	MODEL NO.	SHURE REPLACEMENT	CR7	W36B
P87S	W58A	L-22A	W58A	A1	W22AB	PNM	W58HS
P88	W59A	L-24A	W59A	AIM	W22AB	PNMA	W58HS
P88S	W59A	L-25A	W58A	AIM-2	W22AB	S1	W61B
P89	W56A	L-26A	W42B	A7-8	W22AB-T	S1A	W61B
P89L	W56N	L-27A	W58A	A-7M1	W22AB-T	S2	W61B
P89R	W56N	L-32A	W58A	E4	W58A	S2A	W61B
P89RE	W56N	L-36A	W59A	E4-1	W58A		
P90B	W56A	L-40A	W42B	E9	W58A	TITONE	
P90C	W58A	L-41A	W58A	F1P	W57A	MODEL NO.	SHURE REPLACEMENT
P90D	W57A	L-46A	W56A	F2P	W58A	W-7500	WC33B
P90HS	W58HS	L-50A	W56A	F3P	W57A	W-7530	WC31AR
P90S	W58A	L-70	W58A	F4P	W58A	W-7540	WC33B
P92B	W58A	L-70A	W58A	F5P	W57A	W-7590-1	WC31AR
P93	W57A	L-70AS	W58A	F6P	W58A	W-7590-2	WC36B
P93B	W57A	L-70S	W58A	F7P	W60B	W-7590-3	WC33B
P93C	W57A	L-71	W58A	F7P-2	W60B		
P93D	W57A	L-71A	W58A	F10P1	W61B	RCA	
P93E	W58HS	L-71AS	W58A	F12	W53MG	MODEL NO.	SHURE REPLACEMENT
P93MG	W53MG	L-71S	W58A	F13M	W53MG	74067	W31AR
P93S	W58A	L-72	W56A	GX-82	W58A	74625	W31AR
P94	W57A	L-72A	W56A	N1-N	W58A	75476	W31AR
P94B	W57A	L-72AS	W56A	N2	W58A	75575	W31AR
		L-72S	W56A	N3	W58A	A-988370-1	W21F

THE SHURE CRYSTAL PICKUP CARTRIDGES listed above have response characteristics and output voltages which furnish equal or superior performance to other models shown. Mechanical fit is assured.

# CRYSTAL AND CERAMIC PICKUP CARTRIDGES

# SHURE



Fig. A  
"Direct Drive"



Fig. B  
"Vertical Drive"



Fig. C  
"Vertical Drive"



Fig. D  
"Simple Mount"



Fig. E  
"Vertical Drive"  
With  
Turnover Mechanism



Fig. F  
"Simple Mount"  
With  
Turnover Mechanism



Fig. G  
"Lever Type"



Fig. H  
"Cutter Cartridge"



Fig. J  
"Muted Stylus"



Fig. K  
"Dual Voltage"

## FINE GROOVE CARTRIDGES FOR 33 $\frac{1}{3}$ , 45 RPM RECORDS

MODEL NO.	ILLUSTRATION	TYPE	LIST PRICE	OUTPUT LEVEL	MIN. NEEDLE FORCE	RESPONSE TO	NET WT.	SHURE NEEDLE NO.
W21F*	Fig. B	Crystal	\$7.75	1.5V	6 grams	10,000 c.p.s.	4 $\frac{1}{2}$ grams	A63MG
W31AR	Fig. A	Crystal	6.50	2.1V	7 grams	7,500 c.p.s.	5 $\frac{1}{2}$ grams	A53MG
WC31AR	Fig. A	Ceramic	6.50	.65V	7 grams	7,500 c.p.s.	5 $\frac{1}{2}$ grams	A53MG
W53MG	Fig. G	Crystal	8.50	1.3V	6 grams	8,500 c.p.s.	12 grams	A64MG

## TURNOVER CARTRIDGES FOR 33 $\frac{1}{3}$ , 45, AND 78 RPM RECORDS

MODEL NO.	ILLUSTRATION	TYPE	LIST PRICE	OUTPUT LEVEL		MIN. NEEDLE FORCE	RESPONSE TO	NET WT.	SHURE NEEDLE NO.	
				MG	STD.				MG	STD.
W22A	Fig. C	Crystal	\$10.50	1.2V	1.4V	8 grams	10,000 c.p.s.	4 $\frac{1}{2}$ grams	A65MG	A61A
W22AB	Fig. C	Crystal	9.50	1.2V	1.4V	8 grams	10,000 c.p.s.	4 $\frac{1}{2}$ grams	A65MG	A62A
W22AB-T	Fig. E	Crystal	10.00	1.2V	1.4V	8 grams	10,000 c.p.s.	12 $\frac{1}{2}$ grams	A65MG	A62A
WC24	Fig. D	Ceramic	8.75	0.6V	0.6V	8 grams	7,000 c.p.s.	4 $\frac{1}{2}$ grams	A53MG	A52A
WC24-T	Fig. F	Ceramic	9.25	0.6V	0.6V	8 grams	7,000 c.p.s.	12 $\frac{1}{2}$ grams	A53MG	A52A

## ALL PURPOSE SINGLE NEEDLE CARTRIDGES FOR 33 $\frac{1}{3}$ , 45, 78 RPM RECORDS

MODEL NO.	ILLUSTRATION	TYPE	LIST PRICE	OUTPUT LEVEL		MIN. NEEDLE FORCE	RESPONSE TO	NET WT.	SHURE NEEDLE NO.
				STD.	MG				
W26A	Fig. B	Crystal	\$8.50	1.0V	.87V	8 grams	8,000 c.p.s.	4 $\frac{1}{2}$ grams	A67U
W26B	Fig. B	Crystal	7.50	1.0V	.87V	8 grams	8,000 c.p.s.	4 $\frac{1}{2}$ grams	A66U
W36B	Fig. A	Crystal	6.50	2.5V	2.3V	9 grams	7,000 c.p.s.	5 $\frac{1}{2}$ grams	A56U
WC36B	Fig. A	Ceramic	6.50	.7V	.6V	9 grams	7,000 c.p.s.	5 $\frac{1}{2}$ grams	A56U
W66B	Fig. J	Crystal	7.00	2.3V	2.0V	8 grams	4,500 c.p.s.	12 grams	A66U

## STANDARD CARTRIDGES FOR 78 RPM RECORDS

MODEL NO.	ILLUSTRATION	TYPE	LIST PRICE	OUTPUT LEVEL	MIN. NEEDLE FORCE	RESPONSE TO	NET WT.	SHURE NEEDLE NO.
W23B	Fig. B	Crystal	\$7.75	1.1V	6 grams	8,000 c.p.s.	4 $\frac{1}{2}$ grams	A62A
WC33B	Fig. A	Ceramic	6.50	.75V	9 grams	7,000 c.p.s.	5 $\frac{1}{2}$ grams	A52A
W42B	Fig. G	Crystal	4.45	1.3V	1 oz.	5,000 c.p.s.	25 grams	None
W42BH**	Fig. K	Crystal	4.95	1.5V or 3.75V	1 $\frac{1}{8}$ oz.	5,000 c.p.s.	25 grams	None
W42H	Fig. G	Crystal	4.45	3.5V	1 oz.	5,000 c.p.s.	25 grams	None
W56A	Fig. G	Crystal	6.65	4.3V	1 $\frac{1}{8}$ oz.	6,000 c.p.s.	12 grams	None
W56N**	Fig. H	Crystal	8.50	4.3V	1 oz.	10,000 c.p.s.	12 grams	A68D
W57A	Fig. G	Crystal	5.55	1.6V	$\frac{3}{4}$ oz.	6,000 c.p.s.	12 grams	None
W58A	Fig. G	Crystal	5.55	1.6V	1 oz.	6,000 c.p.s.	25 grams	None
W58HS***	Fig. G	Humi-Seal Crystal	6.55	1.6V	1 oz.	6,000 c.p.s.	25 grams	None
W59A	Fig. G	Crystal	5.55	2.5V	1 oz.	6,000 c.p.s.	25 grams	None
W60A	Fig. J	Crystal	8.50	1.6V	1 oz.	4,500 c.p.s.	12 grams	A61A
W60B	Fig. J	Crystal	7.50	1.6V	1 oz.	4,500 c.p.s.	12 grams	A62A
W60HS***	Fig. J	Humi-Seal Crystal	8.50	1.8V	1 oz.	4,500 c.p.s.	25 grams	A62A
W61B	Fig. J	Crystal	7.50	1.6V	1 oz.	4,500 c.p.s.	25 grams	A62A

\*With .453 Mount for Oak Changer.

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

\*\*\*"Humi-Seal" Metal Wrapped Rochelle Salt Crystal Ideal for Tropical Areas.

†Dual Voltage Cartridge 1.5V output with condenser; 3.75V output without condenser.



**SHURE****CRYSTAL PHONOGRAPH PICKUPS AND NEEDLES****PHONOGRAPH PICKUPS**

Like the popular Shure Cartridges, each Shure Phonograph Pickup has been designed to meet specific requirements. There is at least one model for each type of reproduction desired — standard (78 RPM), fine-groove (33 $\frac{1}{3}$  and 45 RPM), or single-needle "All Purpose" and dual-needle "Turnover" for playing all types of records. Each tone arm is scientifically curved and balanced for faithful tracking, and designed to emphasize the best qualities of the cartridge with which it is equipped.

**STANDARD FOR 78 RPM RECORDS**

MODEL	ILLUSTRATION	LIST PRICE	OUTPUT LEVEL	NEEDLE FORCE	RESPONSE TO	SHURE CARTRIDGE USED	SHURE NEEDLE NUMBER
92H	Fig. D	\$5.50	3.5V	1 oz.	5000 c.p.s.	W42H	None
93A	Fig. C	7.50	1.6V	1 $\frac{1}{8}$ oz.	6000 c.p.s.	W57A	None
96A	Fig. C	8.50	4.3V	1 $\frac{1}{8}$ oz.	6000 c.p.s.	W56A	None
900HS*	Fig. B	11.50	1.8V	1 $\frac{1}{8}$ oz.	4500 c.p.s.	W60HS*	A62A

**TURNOVER FOR 33 $\frac{1}{3}$ , 45, 78 RPM RECORDS**

MODEL	ILLUSTRATION	LIST PRICE	OUTPUT LEVEL		NEEDLE FORCE	RESPONSE TO	SHURE CARTRIDGE USED	SHURE NEEDLE NUMBER	
			MG	STD.				MG	STD.
901D	Fig. A	\$16.25	1.2V	1.4V	7 grams	10,000 c.p.s.	W22AB	A65MG	A62A

**SINGLE-NEEDLE ALL-PURPOSE FOR 33 $\frac{1}{3}$ , 45, 78 RPM RECORDS**

MODEL	ILLUSTRATION	LIST PRICE	OUTPUT LEVEL		NEEDLE FORCE	RESPONSE TO	SHURE CARTRIDGE USED	SHURE NEEDLE NUMBER
92U	Fig. D	\$9.75	MG	STD.	8 grams	4500 c.p.s.	W66B	A66U
			2.0V	2.3V				

**FINE-GROOVE FOR 33 $\frac{1}{3}$ , 45 RPM RECORDS**

MODEL	ILLUSTRATION	LIST PRICE	OUTPUT LEVEL	NEEDLE FORCE	RESPONSE TO	SHURE CARTRIDGE USED	SHURE NEEDLE NUMBER
902MG	Fig. B	\$10.50	2.0V	10 grams	7500 c.p.s.	W31AR	A53MG

**SHURE PICKUP FOR "WEBSTER-CHICAGO" THREE SPEED CHANGERS**

MODEL	ILLUSTRATION	LIST PRICE	OUTPUT LEVEL		NEEDLE FORCE	RESPONSE TO	SHURE CARTRIDGE USED	SHURE NEEDLE NUMBER	
			MG	STD.				MG	STD.
920W	Fig. E	\$11.50	1.2V	1.4V	6 grams	10,000 c.p.s.	W22AB	A65MG	A62A

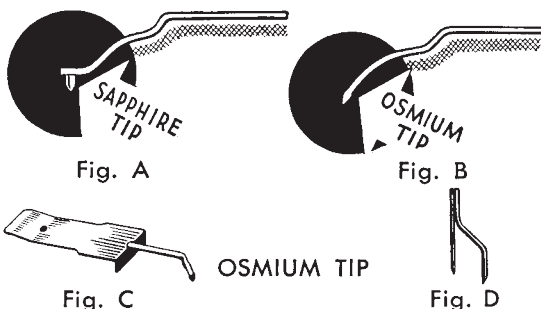
\*"Humi-Seal" Metal Wrapped Moisture Proofed Rochelle Salt Crystal for Use in Tropical Areas.

**PHONOGRAPH PICKUP NEEDLES**

All Shure Needles are manufactured to exacting specifications to assure top quality performance. Needle-point quality is carefully controlled by precision craftsmanship. Extended performance is assured by life tests at the Shure Laboratories. SPECIFY SHURE NEEDLES ONLY. ACCEPT NO SUBSTITUTES.

NOTE: All Shure needles are color coded for easy identification and replacement purposes as follows:

RED: For fine groove records only (33 $\frac{1}{3}$  and 45 R.P.M.) GREEN, BLUE, OR BROWN: For all types of records (33 $\frac{1}{3}$ , 45 and 78 R.P.M.) SILVER: For standard records only (78 R.P.M.).



Crystal and Ceramic Cartridges manufactured under Shure Patents and Patents Pending. Licensed by the Brush Development Co.

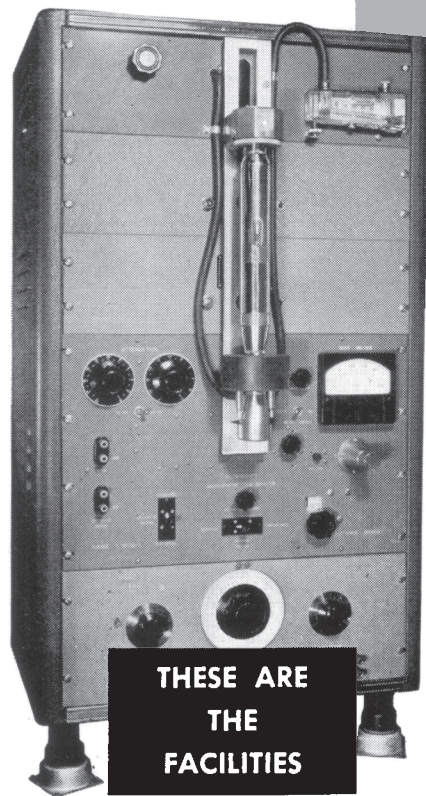
†High-quality commercial-type synthesized sapphire specially designed for long operating life.

MODEL	ILLUSTRATION	DESCRIPTION	LIST PRICE
A52A	Fig. C	Std. Osmium	\$1.50
A53MG	Fig. C	MG Osmium	1.50
A56U	Fig. C	All Purpose Osmium Unipoint	1.50
A51A	Fig. A	Std. Sapphire†	2.50
A62A	Fig. B	Std. Osmium	1.50
A63MG	Fig. B	MG Osmium	1.50
A64MG*		MG Osmium	2.00
A65MG	Fig. A	MG Sapphire†	2.50
A66U	Fig. B	All Purpose Osmium Unipoint	1.50
A67U	Fig. A	All Purpose Sapphire Unipoint†	2.50
A68D	Fig. D	Osm. Playback Needle — Stellite Cutting Stylus	2.50

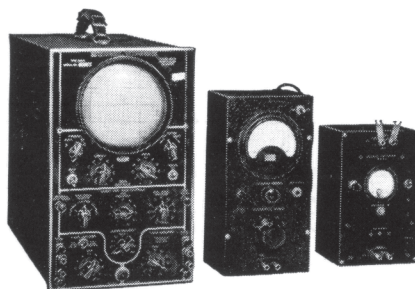
\*Standard Bent Shaft Needle Not Illustrated.

# Primary Microphone Calibration in Two Weeks or Less!

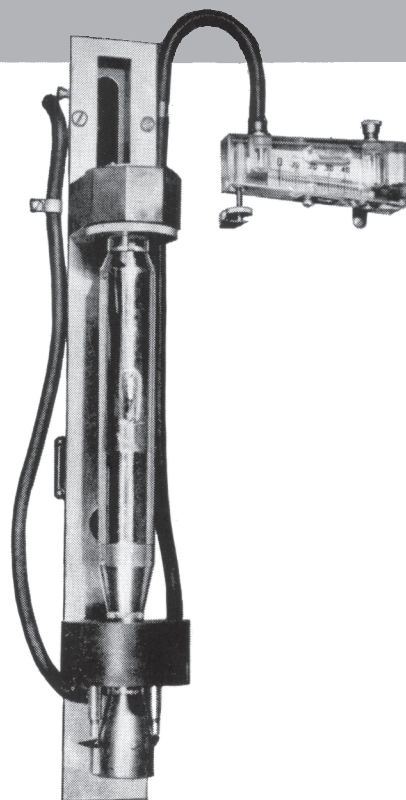
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FACILITIES**



**Hydrogen-Filled Coupler and Integrated  
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Shure Laboratories**



*Enlarged View of  
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**THIS IS THE  
STANDARD**

A primary calibration service for condenser microphones, Type L (640A and 640AA), in accordance with the American Standard ASA Z24.4-1949. The frequency range covered is 50-15,000 c.p.s. Cross calibration is maintained with the National Bureau of Standards up to 10,000 c.p.s.

The cost is \$65 net, time required is approximately 2 weeks. Your microphones for military use will be given special priority.



*For further information, write: Engineering Division*

**SHURE BROTHERS, Inc.**

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