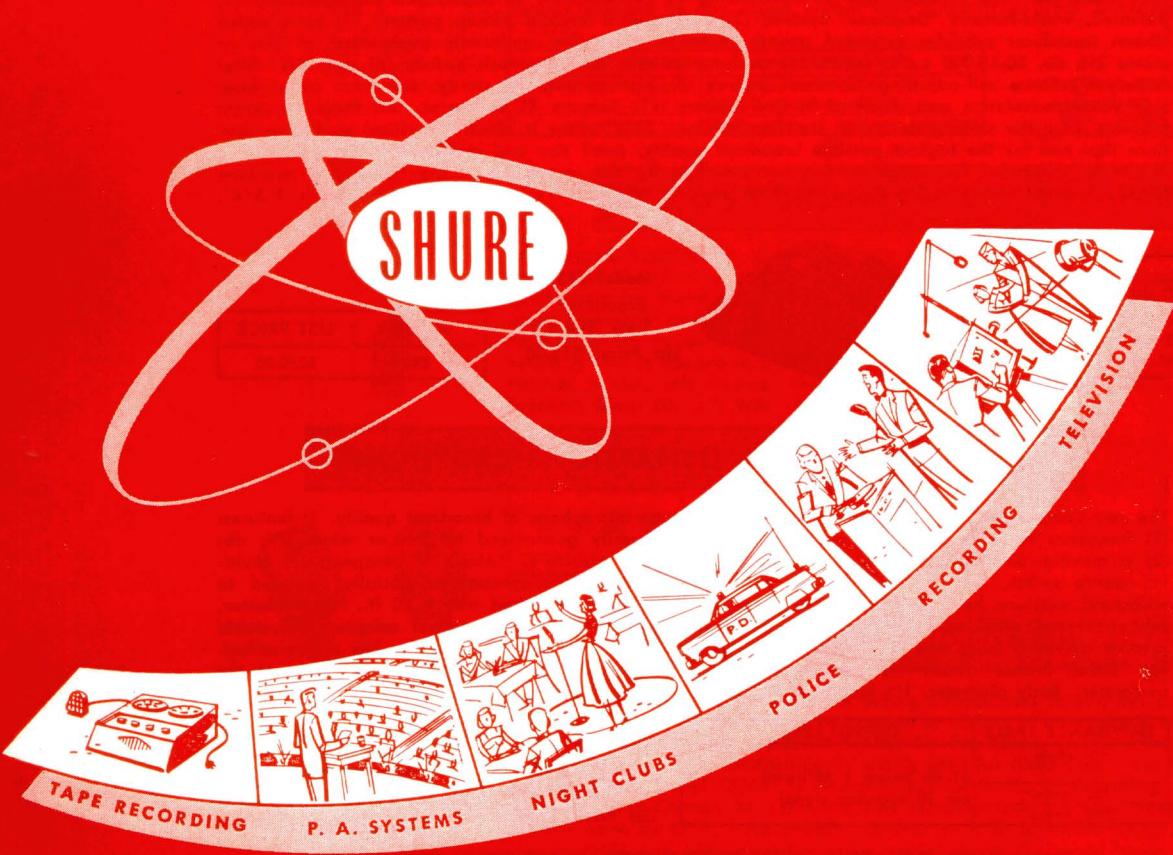


# SHURE GENERAL CATALOG No. 55B

MICROPHONES • PHONO PRODUCTS • TAPE RECORDING HEADS

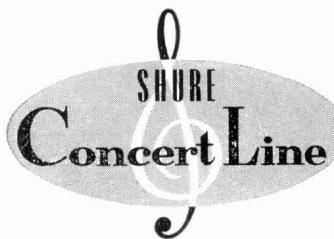
## The Nucleus of Superb Voice and Music Reproduction



SHURE

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# STUDIO MICROPHONES



Model "333"  
Concert-Line

## UNI-DIRECTIONAL RIBBON MICROPHONE

Here is the Concert-Line "333," a truly fine and rugged microphone created for discriminating users with the most exacting professional requirements. Here, indeed, is a major advance in microphone development and design! This small, ultra-cardioid "333" is highly recommended for motion-picture studios, TV studios, radio stations, professional recording, and all other uses where quality requirements are of the highest. Here is performance never before achieved in such a small and slender microphone! Here is ruggedness and reliability! Here is matchless beauty and striking design to appeal to users who demand the finest! The "333" is ultra-cardioid, uni-directional—reduces the pickup of random noise energy by 73%—prevents the pickup of moving props, scuffling feet and moving "dolies," so common when conventional broadcast microphones are used. Following are the features that make the "333" Concert-Line so outstanding in performance, so dependable in operation: (1) patented, world-famous "Uniphase" system; (2) a true ultra-cardioid pickup pattern; (3) horn-loaded ribbon transducer provides extended smooth response, production uniformity guaranteed to plus or minus 2 1/2 db, 30-15,000 c.p.s.; (4) multi-impedance switch; (5) voice-music switch; (6) anti-“Pff” filter screen; (7) Shure self-adjusting “lifetime” swivel; (8) high output; (9) sturdy, one-piece metal case; (10) vibration-isolation unit mounted in live rubber; (11) Cannon XL connector. All these important features, plus the striking design of the Concert-Line "333," make it ideal for critical studio applications that call for the highest possible broadcast quality, small size and matchless beauty—plus the ability to withstand the rough work-a-day handling by the sound crew. The "333" has two-tone "Baked Bronze" non-reflecting finish. Head dimensions: Width, 1 1/8"; height, 3 9/16"; depth, 1 3/4".

IMPEDANCE TABLE	OUTPUT LEVEL
Low—50 ohms	60 db below 1 Milliwatt per 10 microbar signal
Medium—150 ohms	59 db below 1 Milliwatt per 10 microbar signal
High-Medium—250 ohms	59 db below 1 Milliwatt per 10 microbar signal



Model S33  
Broadcast  
Desk Stand  
List Price: \$15.00

MODEL	LIST PRICE
"333"	\$250.00

## OMNI-DIRECTIONAL DYNAMIC MICROPHONE



Model "525"  
Concert-Line

The new Concert-Line "525" is an exceptionally fine probe microphone of broadcast quality. It features: (1) frequency response 40-15,000 c.p.s., production uniformity guaranteed to plus or minus 2 1/2 db; (2) a moving-coil mounted in a highly efficient magnetic structure; "Alnico V" magnet; (3) multi-impedance switch; (4) high output; (5) long life "Duracoustic" diaphragm—specially designed to withstand moisture, heat, cold and physical shock. The "525" is furnished with a 20 ft., two-conductor, rubber-covered, shielded cable with Cannon XL-3-11 connector attached; swivel adapter; adjustable lavalier assembly (cord and clip), and a belt clip assembly. The "525" Concert-Line has a non-reflecting "Baked Bronze" finish—which makes it blend into the background, giving the spotlight to the performer. Body diameter, 1"; length, 8 17/32".

IMPEDANCE TABLE	OUTPUT LEVEL
50 ohms	61 db below 1 Milliwatt per 10 microbar signal
150 ohms	61 db below 1 Milliwatt per 10 microbar signal
250 ohms	61 db below 1 Milliwatt per 10 microbar signal

Model S33  
Broadcast  
Desk Stand  
List Price: \$15.00

MODEL	LIST PRICE
"525"	\$200.00

## BI-DIRECTIONAL GRADIENT MICROPHONE



Model "300"  
Concert-Line

This rugged, high fidelity, multi-impedance microphone is widely used for television, radio broadcasting, professional recording and high-fidelity uses. The "300" reduces reverberation and the pickup of random noise by 66%. The "300" combines the best features of conventional velocity microphones with advanced acoustic design—including an anti-“Pff” filter screen. Its bi-directional polar pattern is effective over a broad frequency range. It provides sound pickup at the front and rear of the microphone, but greatly reduces pickup at the sides. One of the outstanding features of the "300" is the fact that the microphone can be placed at a 73% greater distance from the performer than is possible with omnidirectional microphones! The "300" has a non-reflecting "Baked Bronze" finish, so it blends into the background, gives the spotlight to the performer. The "300" has a readily accessible Voice-Music switch, vibration-isolation unit mounted in live rubber, and a multi-impedance switch, providing low medium and high impedance. Extended response, production uniformity guaranteed to plus or minus 2 1/2 db, 40-15,000 c.p.s. Dims.: Ht., 6"; Wth., 1 7/16"; Depth, 1 3/32".

IMPEDANCE TABLE	OUTPUT LEVEL
L—35-50 ohms	59 db below 1 Milliwatt per 10 microbar signal
M—150-250 ohms	60 db below 1 Milliwatt per 10 microbar signal
H—High	57 db below 1 volt per microbar

Model S33  
Broadcast  
Desk Stand  
List Price: \$15.00

MODEL	LIST PRICE
"300"	\$150.00

**SHURE****GRADIENT<sup>1</sup> AND DYNAMIC MICROPHONES**Model "530"  
SlendyneModel "315"  
GradientModel 55S  
"Small Unidyne"  
"Small Broadcast"  
Model 556S

IMPEDANCE TABLE		OUTPUT LEVEL
L-35-50 ohms		59 db below 1 Milliwatt per 10 microbar signal
M-150-250 ohms		60 db below 1 Milliwatt per 10 microbar signal
H-High		57 db below 1 volt per microbar

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	\$120.00
55S	\$ 79.50

Model "51"  
Sonodyne**MULTI-IMPEDANCE HIGH OUTPUT DYNAMIC**

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. Widespread 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: \$49.50

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

# CRYSTAL MICROPHONES

SHURE

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

### FOR:

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



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—60 to 10,000 c.p.s.; Moisture-proof "Metal Seal" crystal for long operating life; high impedance; 7' single-conductor cable, disconnect type. Dimensions: (Microphone only) Length, 4 1/2"; Diameter, 1". Finish: Rich satin chrome overall.

Note: All Models are furnished with Lavalier Cord, for suspension of microphone around neck.

### "SLIM-X" ASSEMBLIES

**MODEL 777A** includes 777 Microphone; A-25 Swivel Adaptor; S-38 Desk Stand; Lavalier Cord. List Price: \$31.00

**Model: 777A**

**MODEL 777SA** includes 777S Microphone; A-25 Swivel Adaptor; S-38 Desk Stand; Lavalier Cord. List Price: \$33.00

**Model: 777SA**

### ACCESSORIES FOR "777"

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

**Model: S38**

**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: \$3.50

List Price: \$5.50

Model	Output	List Price
777		23.00*
777A	62db below	31.00
777S With Switch	1 volt per microbar	25.00*
777SA With Switch		33.00

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



Fig. A



Fig. B



Fig. C

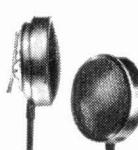


Fig. D



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.

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 Bergundy-red metallic finish. Only 2 3/8" wide, 3 1/4" high, 1 1/8" thick. High impedance.

MODEL	OUTPUT	LIST PRICE
737A	54.0 db below 1 volt per microbar	\$46.00

### 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

MODEL	OUTPUT LEVEL	LIST PRICE
710A	50 db below 1 volt per microbar	\$12.00
710S (with switch)	50 db below 1 volt per microbar	\$14.00

### 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 2 3/8".

Model 707A designed to be used with Shure Model S34B or S36A Desk Stands (see page 6).

MODEL	OUTPUT	LIST PRICE
707A	51.0 db below 1 volt per microbar	\$18.00

### 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. 1 1/8" diameter. Has lapel clip. 20-foot shielded single-conductor cable. High impedance.

MODEL	OUTPUT LEVEL	LIST PRICE
76B	57db below 1 volt per microbar	\$29.00

### 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.

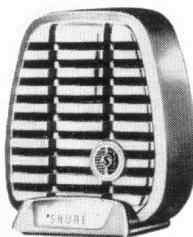
MODEL	OUTPUT LEVEL	LIST PRICE
708A	51.0 db below 1 volt per microbar	\$31.00

NOTE: Models 737A, 710 Series 707A, 708A are designed to be used with Model S34B or S36A Desk Stands. (See page 6.)

# CONTROLLED RELUCTANCE MICROPHONES

SHURE

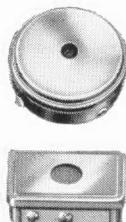
## THE "HERCULES"



The Hercules is a hand-held unit, ideal for general purpose use in tropical countries and in all coastal areas where heat and humidity are a problem. The "510" provides the ruggedness, clear reproduction and high output for public address, communications and recording where high speech intelligibility is vital. It is recommended for Announcing; Mobile Public Address Systems; Communications; Home Recording, and High Quality Intercommunication. The Hercules can be used either Indoors or Outdoors, fits snugly in the hand, sits firmly on a desk. High impedance. Frequency response 100 to 7000 c.p.s. Furnished with 7 ft. shielded cable. Green metallic finish. Diecast case. Furnished with stand adapter. Dimensions: 2 2/3" wide, 3 1/4" high, 1 1/2" thick. Model 510 Series designed to be used with S34B or S36A Desk Stands. (See page 6.)

MODEL	OUTPUT LEVEL	IMPEDANCE	LIST PRICE
510C	52.5db below 1 volt per microbar	HIGH	\$17.00
510S (with switch)	52.5db below 1 volt per microbar	HIGH	\$19.00

## "1-INCH" MICROPHONES



The MC Series of small microphones are specially designed for use in vacuum-tube devices, such as small, compact amplifiers, transmitters, dictating equipment—wherever size and weight are important factors. They also are highly recommended for use in small transistor-type devices. The MC Series Microphones are furnished with an impedance of 1000 ohms. They are rugged units immune to mechanical shock and to varying conditions of heat and humidity. Both the 1" circular unit, Model MC11, and the rectangular unit, Model MC20, are metal-cased for hum protection. They are highly recommended to engineers, technicians and "build-it-yourself" enthusiasts, because their small size and shape make them ideal for various types of custom-made devices. Model MC11 (Circular) Dimensions: diameter 1 1/64", thickness 25/64". List Price \$12.50. Model MC20 (Rectangular) Dimensions: width 10/16", thickness 5/16", length 15/16". List Price \$12.50.

Both the 1" circular unit, Model MC11, and the rectangular unit, Model MC20, are metal-cased for hum protection. They are highly recommended to engineers, technicians and "build-it-yourself" enthusiasts, because their small size and shape make them ideal for various types of custom-made devices. Model MC11 (Circular) Dimensions: diameter 1 1/64", thickness 25/64". List Price \$12.50. Model MC20 (Rectangular) Dimensions: width 10/16", thickness 5/16", length 15/16". List Price \$12.50.

## 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. Model 505B is furnished with 5' four-conductor shielded cable. Model 505C is 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 5/8 lbs.	RUDAY	\$32.00
505C	50.5 db below 1 volt per microbar	High	1 5/8 lbs.	RUDAX	\$32.00

## THE "GREEN BULLET"



The "Green Bullet" is designed to provide quality music and speech reproduction at moderate cost. It is practically immune to the effects of high temperatures and humidity. 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 7000 c.p.s. Furnished with 7 ft. single-conductor shielded cable. High Impedance. The "Green Bullet" is highly recommended for those public address systems where low cost is a must, good reproduction is essential, and ruggedness is a necessity. Model 520 series designed to be used with Shure Model S34B or S36A Desk Stands. (see page 6.)

MODEL	OUTPUT LEVEL	IMPEDANCE	LIST PRICE
520	52.5 db below 1 volt per microbar	HIGH	\$21.00
520B	51 db below 1 milliwatt per 10 microbars	150-250 ohms	\$21.00

## THE "DISPATCHER"



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.

(NOTE: Complete assembly furnished as illustrated.)

MODEL	OUTPUT	IMPEDANCE	LIST PRICE
520SL	52.5 db below 1 volt per microbar	High	\$42.50



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: \$6.25
Tinsel Coiled Cord with Amphenol MC4M Connector for use with General Electric equipment.		
Model: C16C	Code: RUCAG	List Price: \$9.50
Tinsel Coiled Cord with spade lugs for use in Motorola equipment.		
Model: C17C	Code: RUCAJ	List Price: \$7.75
Standard Coiled Cord with Amphenol MC4M Connector for use with Motorola equipment.		
Model: C18C		List Price: \$7.75
Tinsel Coiled Cord with Amphenol MC4M Connector for use with Motorola equipment.		
Model: C19C		List Price: \$9.50

## 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.

Model: R10 List Price: \$8.50

## 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: \$42.50



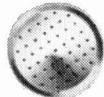
Model 510MD

## SWITCHES AND ACCESSORIES

### MICROPHONE REPLACEMENT CARTRIDGES



CONTROLLED  
RELUCTANCE  
Model R5



CRYSTAL  
Model R7

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. Supplied with rubber mounting ring.

Model: R5 List Price: \$11.00

NOTE: Replacement for 505B and 520 is 99C86. List Price: \$11.00

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: \$8.25

### 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: \$17.50

### 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.

List Price: \$3.50

## 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)	\$30.00
101E	Tinsel Coiled Cord 11" retracted; 5' extended with Amphenol MC4M Connector		\$33.00
102C	Standard Coiled Cord 11" retracted; 5' extended	Relay normally open. Microphone switch normally open.	\$30.00
102E	Tinsel Coiled Cord 11" retracted; 5' extended with spade lugs		\$33.00
103	Standard Coiled Cord 11" retracted; 5' extended with Amphenol MC4M Connector	Two Wire Relay Switch normally open. (No microphone switch)	\$31.00

## 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: \$31.00



Model 115

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

Heavy-Duty Switch withstands the most severe field requirements of paging and dispatching systems. Ideal for Police, Taxi-Cab, Railroad, Airport, Bus, Truck, and all emergency communications work. Can be used with Shure connector-type crystal, dynamic and carbon microphones of any impedance. Fits handily on Shure S36A Desk Stand. Rich satin chrome finish.

Model: A88A List Price: \$12.50 Model A88A



## 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: \$9.00

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

Model: A84B List Price: \$9.00

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

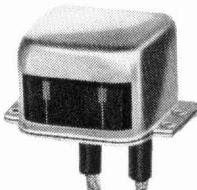
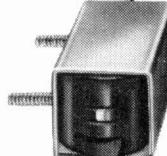
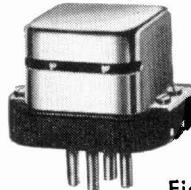
Model: A85C List Price: \$11.50

## MODERN DESK STAND

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: \$6.50



**SHURE****MAGNETIC TAPE AND WIRE RECORDING HEADS**Fig. A  
RECORD-PLAYBACK-ERASEFig. B  
RECORD-PLAYBACKFig. C  
RECORD-PLAYBACKFig. D  
ERASEFig. 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.			
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 50 KC	750 ohm at 25KC	12 ohm	—	—	—	80 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.

**RECORDING HEAD DIMENSIONS**

Models 815, 815H (Fig. A) Width 1.240" Depth 1.031" Height .695"	Model 816 (Fig. B) Width 1.240" Depth 1.031" Height .695"
Model 817 (Fig. C) Width .552" Depth .830" Height .765"	Model TE2 (Fig. D) Width .516" Depth .830" Height .715"

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

MODEL	ILLUSTR.	LIST PR.	DESCRIPTION	OPERATING DATA
812	Fig. E	17.00	Wire Recording Head.	Not shown
815	Fig. A	15.00	Upper track recording. Low impedance record-playback coil.	See 815
815H	Fig. A	15.00	Upper track recording. High impedance record-playback coil.	See 815H
816	Fig. B	12.00	Upper track recording. High impedance record-playback coil.	See 816
817	Fig. C	9.00	.093" record track width. Low impedance record-playback coil.	See 817
TR5B	Fig. A	17.00	Upper track recording with 14-inch completely insulated leads. Cinch Plug attached.	See 815*
TR5N	Not Illustr.	16.00	Special Shield. Special Leads. Special Plug.	See 815*
TR6	Fig. B	12.00	Lower track recording. Low impedance record-playback coil.	Not shown
TR6G	Fig. B	12.00	Lower track recording. High impedance.	See 816**
TR6H	Fig. B	12.00	Upper track recording. Low impedance record-playback coil.	Not shown
TR16	Fig. C	9.00	.093" record track width. High impedance record-playback coil.	Not shown
TR14	Not Illustr.	9.00	Narrow track (.014"). Low impedance record-playback coil.	Not shown
TR26	Fig. C	11.00	.093" record track width (1/4 mil gap). High impedance record-playback coil.	Not shown
TE2	Fig. D	7.00	Erase head.	See TE2
TE10	Not Illustr.	7.00	Erase head.	Not shown

\*Operating data only. 815 does not replace.

\*\*Operating data only. 816 does not replace.

# MAGNETIC RECORDING HEAD REPLACEMENT CHART

(INCLUDING MFRS. EQUIPMENT BY DESCRIPTION AND MODEL NO. AND THE SHURE REPLACEMENT MODEL NO.)

MANUFACTURER	TRADE OR BRAND NAME	MFRS. EQUIPMENT MODEL NO.	SHURE HEAD USED	REPLACE WITH
AMPLIFIER CORP. OF AMERICA	MAGNEMITE	610B	TR6	TR6
AMPLIFIER CORP. OF AMERICA	MAGNEMITE	610C	TR6	TR6
AMPLIFIER CORP. OF AMERICA	MAGNEMITE	610TD	TR6	TR6
AMPLIFIER CORP. OF AMERICA	ELECTRO-MAGNEMITE		TR5	815
AMPLIFIER CORP. OF AMERICA	MAGNEMASTER	815	TR5	815
AMPRO		730	TR16	TR16
AMPRO		731	TR16	TR16
AMPRO		731B	TR16	TR16
AMPRO CORPORATION	AMPRO	730	TR6C	816
AMPRO CORPORATION	AMPRO	731	TR6C	816
BELL SOUND SYSTEMS, INC.	RE-CORD-O-FONE	RT-65B	TR5	815
CRESCENT IND.		903	TR5N	TR5N
CRESCENT IND.		907	TR5N	TR5N
CRESCENT IND.		9037	TR5N	TR5N
CRESCENT IND.		2900	TR5N	TR5N
FEDERAL MFG. & ENG.	FME	378	TR5C	815H
THE GENERAL INDUSTRIES CO.		250	TR6	TR6
MARK SIMPSON MFG CO., INC.	MASCO	R-3		**816
MARK SIMPSON MFG CO., INC.	MASCO	M-60 (Mechanism)		**816
MARK SIMPSON MFG CO., INC.	*MASCO	375		**816
MITCHELL MFG. CO.		1290	TR5N	TR5N
PREMIER ELECTRONIC LABS.	TAPESONIC	70-B	TR16 and TR16A	TR16 and 817
R. C. A.	THE EXECUTIVE	SRT-403	TR16A	817
R. C. A.	THE SENIOR	SRT-402	TR16A	817
R. C. A.	THE DE LUXE	SRT1401	TR16A	817
REVERE CAMERA CO.		T-1100	TR5B	TR5B
REVERE CAMERA CO.	REVERE	T-700 (T-70163)	TR5B	TR5B
REVERE CAMERA CO.	REVERE	T-10 (T-70167)	TR5B	TR5B
REVERE CAMERA CO.	REVERE	TR-800 (T-77163)	TR5B	TR5B
REVERE CAMERA CO.	REVERE	TR-20 (T-77167)	TR5B	TR5B
REVERE CAMERA CO.	REVERE	T-100	TR5D	815
REVERE CAMERA CO.	REVERE	TR-200	TR5D	815
REVERE CAMERA CO.	REVERE	T-500	TR5K	815H
REVERE CAMERA CO.	REVERE	TR-600	TR5K	815H
TAPEMASTER INCORPORATED	TAPEMASTER	TH-21 (Mechanism)	TR5L	815H
TAPEMASTER INCORPORATED	TAPEMASTER	PT-121	TR5L	815H
TAPEMASTER INCORPORATED	TAPEMASTER	TH-25 (Mechanism) "B-Wind"	TR5L	TR5L
TAPEMASTER INCORPORATED	TAPEMASTER	PT-125 (TH-25 Mech.) "B-Wind"	TR5L	815H
TELECTRO INDUSTRIES INC.	TELECTRO	TR-48	TR16	TR16
SONOGRAPH LTD.	SONOGRAPH	C-1	TR5	815
SONOGRAPH LTD.	SONOGRAPH	C-2	TR5	815
SONOGRAPH LTD.	SONOGRAPH	C-3	TR5	815
SONOGRAPH LTD.	SONOGRAPH	C-3A	TR5	815
SONOGRAPH LTD.	SONOGRAPH	C-4	TR5	815
U. S. TIME CORP.	TIMEX		TR14	TR14
V-M CORP.	TAPE-O-MATIC	700	TR26	TR26
WILCOX-GAY CORPORATION	RECORDIO	2A10B	TR16	TR16
WILCOX-GAY CORPORATION	RECORDIO	3A10	TR16	TR16
WILCOX-GAY CORPORATION	RECORDIO	3A11	TR16A	817
WILCOX-GAY CORPORATION	RECORDIO	1C10	TR6	TR6
WILCOX-GAY CORPORATION	RECORDIO	3C10	TR6	TR6
WILCOX-GAY CORPORATION	RECORDIO	9C10	TR6	TR6

\*\*Contact MARK SIMPSON Mfg. Co. for Required Circuit Information and Special Mtg. Plate.

## **CARTRIDGE REPLACEMENT CHART**

SHURE MODEL NO.	SHURE REPLACEMENT	SHURE MODEL NO.	SHURE REPLACEMENT	ASTATIC MODEL NO.	SHURE REPLACEMENT	WEBSTER MODEL NO.	SHURE REPLACEMENT
P30	W68	PN30	WC33B	L-76A	W78	N7P	W78
P30B	W68	PN30S	WC33B	L-76AS	W78	N7P-1	W78
P30C	W68	PN31S	WC33B	L-76S	W78	N7P-2	W78
P30D	W68	PN88	W58HS	L-82	W78	N7P-3	W78
P30E	W60HS	PN89	W58HS	L-82A	W78	N8	W78
P30G	W68	PN89D	W58HS	L-92A	W78	N8-1	W78
P30HS	W60HS	PN89E	W58HS	L-92-33	W53MG	N8-2	W78
P30S	W68	PN89S	W58HS	LP-6	W68	N8P	W78
P30W	W68	PS20	W36B	LP-21	W68	N9	W78
P35	W78	W21A	W31AR	LP-23	W68	N10	W78
P35S	W78	W21AR	W31AR	LT1-M	W68	N10-1	W78
P37	W66B	W21E	W21F	LT1-MA	W68	N10-2	W78
P37A	W66B	W22A	W22AB	LT2-M	W68	N10-3	W78
P37C	W66B	W23A	W23B	LT2-MA	W68	N10-4	W78
P37CA	W66B	W26A	W26B	LT3-M	W68	N10-5	W78
P70	W23B	W40A	W78	LT3-MA	W68	N10-6	W78
P70A	W23B	W42A	W78	LT4-AG	W66B	N10-7	W78
P71	W26B	W42B	W78	MLP-1	WC33B	N10P	W78
P71A	W26A	W42BH	W78	MLP-1J	WC33B	N10P-1	W78
P71B	W26B	W42H	W78	MLP-2	W68	N10P-2	W78
P71C	W26B	W56A	W78	MLP-3	WC33B	N10P-3	W78
P71CA	W26A	W56PN	W58HS	Nylon 1-J-PN	WC33B	N10P-4	W78
P72	W22AB	W56R	W56N	Nylon 1-M-PN	WC33B	N10P-5	W78
P72A	W22AB	W57A	W78	PT	W68	N10P-6	W78
P72AF	W22AB	W57AN	W68	QC-J	WC33B	N10P-7	W78
P72AFV	W22AB	W58A	W78	OT-J	WC33B	N11P	W78
P72T	W22AB	W59A	W78	QT-J-PN	WC33B	Q1	W68
P72V	W22AB	W60A	W68	QT-M	WC33B	Q2	W68
P73	W31AR	W60B	W68	QT2-M-PN	WC33B	W5	W78
P73A	W31AR	W60PN	WC33B	QT3-J	WC33B	X-82	W78
P73AR	W31AR	W61B	W68	QT3-M	WC33B	X-82CH-1	W78
P73R	W31AR	W65B	W78	QT3-MA	WC33B	Y-82	W78
P75	W21F	W65R	W56N	QT3-J-PN	WC33B	YN2	W58HS
P75A	W21F	W66A	W66B	QT3-M-PN	WC33B	YN2-1	W58HS
P76	W22AB	WC22AB	WC24	L-J	W68		
P76A	W22A	WC22AB	WC24-T	L-M	W68		
P76A-T	W22AB	WC36B	WC38				
P76AF	W22AB	WC60B	WC33B				
P76AF-T	W22AB	99-180	W78				
P76AFV	W22AB	99-181	W78				
P76AV	W22A	99-182	W78				
ASTATIC MODEL NO.	SHURE REPLACEMENT	ASTATIC MODEL NO.	SHURE REPLACEMENT	WEBSTER MODEL NO.	SHURE REPLACEMENT	AMERICAN MODEL NO.	SHURE REPLACEMENT
55TJ	WC10	A1	W22AB	10	W68		
57-TJ	WC10	A1M	W22AB	14	W31AR		
AC-78-J	W23B	A1M-2	W22AB	32	W23B		
AC-C-J	WC31AR	A7-8	W22AB-T	33	W26B		
AC-C-AG-J	WC38	A-7M1	W22AB-T	33-2	W26B		
AC-C-78-J	WC33B	A-7M5	W22AB-T	33-3	W26B		
AC-J	W31AR	C2	W70	34	W31AR		
AC-AG-J	W26B	C2-1	W70	43	WC38		
AC-AG-M	W26B	C3	W70	50	W78		
ACD-C-M	WC24	C4	W70	60	W78		
ACD-1M	W22AB-T	C7	W70	96	W22AB		
ACD-J	W22A	C7-1	W70	96-0	W22AB		
ACO-J	W22AB	C7-2	W70	H12	W78		
ACD-2J	W22AB-T	C7-3	W70	H12-S	W78		
ACD-CJ	WC24	C8	W70	L12	W68		
CAC-78-J	W23B	C8-1	W70	L12-S	W68		
CAC-AG-J	WC10	C8-2	W70	M12	W68		
CAC-D-J	WC10	C9	W70	M12-S	W68		
CAC-J	W31AR	C9-1	W70				
CQ-AG-M	W26B	C9-3	W70				
P80	W21F	C9-4	W70				
P80RA	W31AR	C9-X	W70				
P81	W26B	C10	W70				
P81A	W26A	C10-8	W70				
P81AD	W26B	CX	W70				
P81ADH	WC36B	E4	W78				
P81C	W26B	E4-1	W78				
P81CA	W26A	E9	W78				
P81D	W26A	F-1	W78				
P81E	W26B	F-2	W78				
P81R	W31AR	F1P	W78				
P81RA	W31AR	F1P-1	W78				
P85	W23B	F1P-2	W78				
P86R	W56N	F1P-3	W78				
P87	W78	F1P-4	W78				
P87B	W78	F2P	W78				
P87S	W78	F2P-1	W78				
P88	W78	F2P-2	W78				
P88S	W78	F2P-3	W78				
P89	W78	F3P	W78				
P89G	W78	F4P	W78				
P89L	W56N	F5P	W78				
P89R	W56N	F6P	W78				
P89RE	W56N	F7P	W68				
P89S	W78	F7P-2	W68				
P90B	W78	F10P1	W68				
P90C	W78	F12	W53MG				
P90D	W78	F13M	W53MG				
P90HS	W58HS	F17-P	W78				
P90S	W78	GX	WC31AR				
P92B	W78	GX-82	WC31AR				
P93	W78	N-1	W78				
P93B	W78	N1-N	W78				
P93C	W78	N2	W78				
P93D	W78	N3	W78				
P93E	W58HS	N4	W78				
P93MG	W53MG	N5	W68				
P93S	W78	N6	W78				
P94	W78	N6-1	W78				
P94B	W78	N6P	W78				
P94E	W58HS	N6P-2	W78				
PC2CSNA	WC10	N6P-3	W78				
PC4SNA	WC10	N6P-4	W78				
PC4SNE	WC10D	N6P-5	W78				
PC9	WC33B	N6P-6	W78				
PC10	WC38	N7	W78				
PC11	WC31AR	N7-1	W78				
PC12	WC38	N7-2	W78				
PC13	WC31AR	N7-3	W78				
PC13A	WC38	N7-4	W78				
PC14	WC33B	N7-5	W78				
PC25NE	WC10D	N7-6	W78				
PC30	WC33B	N7-7	W78				
PC40	WC24	N7-8	W78				
PC40C-T	WC24-T	N7-9	W78				
PC40-T	WC24-T	N7-10	W78				
PC41	WC24	N7-11	W78				
PC41-T	WC24-T	N7-12	W78				
PC72V	WC24	N7-13	W78				
		N7-4	W78				

# CRYSTAL AND CERAMIC PICKUP CARTRIDGES

SHURE



Fig. A  
"Direct Drive"



Fig. B  
"Vertical Drive"



Fig. C  
"Vertical Drive"



Fig. D  
"Twin-Lever"



Fig. E  
"Vertical Drive"  
With  
Turnover Mechanism



Fig. F  
"Lever Type"



Fig. G  
"Cutter Cartridge"



Fig. H  
"Muted Stylus"



Fig. J  
All-Purpose  
High Output

## FINE GROOVE CARTRIDGES FOR 33 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 1/2 grams	A63MG
W31AR	Fig. A	Crystal	6.50	2.1V	7 grams	7,500 c.p.s.	5 1/2 grams	A53MG
WC31AR	Fig. A	Ceramic	6.50	.87V	7 grams	7,500 c.p.s.	5 1/2 grams	A53MG
WS3MG	Fig. F	Crystal	8.50	1.3V	6 grams	8,500 c.p.s.	12 grams	A64MG

## TURNOVER CARTRIDGES FOR 33 1/3, 45, AND 78 RPM RECORDS

MODEL NO.	ILLUSTRATION	TYPE	LIST PRICE	OUTPUT LEVEL		MIN. NEEDLE FORCE	RESPONSE TO	NET WT.	SHURE NEEDLE NO.
				MG	STD.				
WC10S	Fig. D	Ceramic	\$9.50	.78V	1.0V	7 grams	12,000 c.p.s.	7 grams	A10S
WC10DS	Fig. D	Ceramic	34.00	.78V	1.0V	7 grams	12,000 c.p.s.	7 grams	A10DS
W22A	Fig. C	Crystal	\$10.50	1.2V	1.4V	8 grams	10,000 c.p.s.	4 1/2 grams	A65MG A61A
W22AB	Fig. C	Crystal	9.50	1.2V	1.4V	8 grams	10,000 c.p.s.	4 1/2 grams	A65MG A62A
W22AB-T	Fig. E	Crystal	10.00	1.2V	1.4V	8 grams	10,000 c.p.s.	12 1/2 grams	A65MG A62A
WC24	Fig. C	Ceramic	8.75	0.6V	0.6V	8 grams	7,000 c.p.s.	4 1/2 grams	A53MG A52A
WC24-T	Fig. E	Ceramic	9.25	0.6V	0.6V	8 grams	7,000 c.p.s.	12 1/2 grams	A53MG A52A

## ALL PURPOSE SINGLE NEEDLE CARTRIDGES FOR 33 1/3, 45, 78 RPM RECORDS

MODEL NO.	ILLUSTRATION	TYPE	LIST PRICE	OUTPUT LEVEL		MIN. NEEDLE FORCE	RESPONSE TO	NET WT.	SHURE NEEDLE NO.
				MG	STD.				
W26A	Fig. B	Crystal	\$8.50	.87V	1.0V	8 grams	8,000 c.p.s.	4 1/2 grams	A67U
W26B	Fig. B	Crystal	7.50	.87V	1.0V	8 grams	8,000 c.p.s.	4 1/2 grams	A66U
W36B	Fig. A	Crystal	6.50	2.3V	2.5V	9 grams	7,000 c.p.s.	5 1/2 grams	A56U
WC38	Fig. A	Ceramic	6.50	.9V	.92V	9 grams	10,000 c.p.s.	5 1/2 grams	A58U
W66B	Fig. H	Crystal	7.00	2.0V	2.3V	8 grams	4,500 c.p.s.	12 grams	A66U
W70	Fig. J	Crystal	4.95	3.0V	3.8V	10-15 grams	5,000 c.p.s.	16 grams	None

## 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 1/2 grams	A62A
WC33B	Fig. A	Ceramic	6.50	.92V	9 grams	7,000 c.p.s.	5 1/2 grams	A52A
W68†	Fig. H	Crystal	7.50	1.6V	1 oz.	4,500 c.p.s.	Dual Weight 25 grams or 12 grams	A62A
W78‡	Fig. F	Crystal	5.55	4.0V or 2.0V	1 oz.	6,000 c.p.s.	Dual Weight 25 grams or 12 grams	None
W56N**	Fig. G	Crystal	8.50	4.3V	1 oz.	10,000 c.p.s.	12 grams	A68D
W58HS***	Fig. F	Humi-Seal Crystal	6.55	1.6V	1 oz.	6,000 c.p.s.	25 grams	None
W60HS***	Fig. H	Humi-Seal Crystal	8.50	1.8V	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-Weight Cartridge. With weight-slug, net weight 25 grams. Without weight-slug, net weight 12 grams.

‡Dual-Weight Cartridge. Has same weight-slug as Model W68, with same net weight differential. In addition, Model W78 has capacitor, furnished as accessory. Without capacitor, output is 4.0 volts. With capacitor, output is 2.0 volts.

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

SHURE

# PHONO PICKUPS • NEEDLES • REPLACEMENT KIT

## PHONOGRAPH PICKUPS

### STANDARD FOR 78 RPM RECORDS

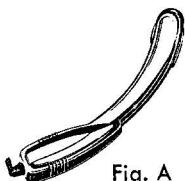


Fig. A

MODEL	ILLUSTRATION	LIST PRICE	OUTPUT LEVEL	NEEDLE FORCE	RESPONSE TO	SHURE CARTRIDGE USED	SHURE NEEDLE NUMBER
92H	Fig. B	\$5.50	3.5V	1 oz.	5000 c.p.s.	W42H	None
99DV	Fig. A	8.50	4.0V or 2.0V**	1 1/8 oz.	6000 c.p.s.	W78†	None

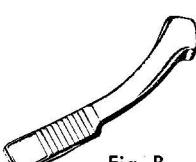


Fig. B

### TURNOVER FOR 33 1/3, 45, 78 RPM RECORDS

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

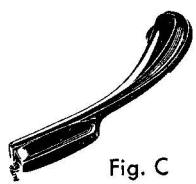


Fig. C

### SINGLE-NEEDLE ALL-PURPOSE FOR 33 1/3, 45, 78 RPM RECORDS

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

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

MODEL	ILLUSTRATION	LIST PRICE	OUTPUT LEVEL	NEEDLE FORCE	RESPONSE TO	SHURE CARTRIDGE USED	SHURE NEEDLE NUMBER
920W	Fig. C	\$13.00	MG STD. 1.2V 1.4V	6 grams	10,000 c.p.s.	W22AB-T	W66B

\*\*Dual Voltage Cartridge 4.0V without condenser 2.0V with condenser

†Remove weight-slug

## PHONOGRAPH PICKUP NEEDLES

MODEL	ILLUSTRATION	DESCRIPTION	LIST PRICE
A10S	Fig. B	Std. and MG Sapphire	\$3.50
A10DS	Fig. B	MG Diamond Std. Sapphire	28.00
A52A	Fig. C	Std. Osmium	1.50
A53MG	Fig. C	MG Osmium	1.50
A56U**	Fig. C	All Purpose Osmium Unipoint	1.50
A58U***	Fig. C	All Purpose Osmium Unipoint	1.50
A61A	Fig. A	Std. Sapphire†	2.50

\*Standard Bent Shaft Needle Not Illustrated.

\*\*Used in Cartridge Models PC10 and WC36B

\*\*\*Used in Models PC12 and WC38

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

Fig. A  
"MUTED STYLUS"

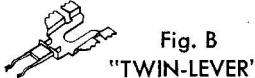


Fig. B  
"TWIN-LEVER"



Fig. C  
"DIRECT DRIVE"

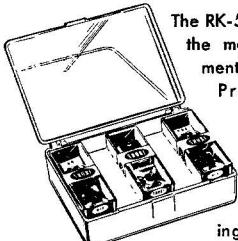


Fig. D  
"CUTTER PLAYBACK"

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

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

## THE RK-54 REPLACEMENT KIT PUTS PROFITS IN YOUR TILL!



The RK-54 is beyond all doubt the most popular replacement kit on the market. Proof? Simply this— Servicemen, Service Dealers and Distributors alike broke all previous cartridge kit sales records during the past year with the RK-54. Think of it—3 cartridges (Models W22AB, W26B, W78) replace 192. This is "broadest coverage for lowest investment".

Model RK-54 Replacement Kit. List Price \$22.55

### Technical Data for Models W22AB, W26B, W78

MODEL NO.	TYPE	OUTPUT LEVEL	MIN. NEEDLE FORCE	RESPONSE TO	NET WT.	SHURE NEEDLE NO.
W22AB	Crystal	MG STD. 1.2V 1.4V	8 grams	10,000 c.p.s.	4 1/2 grams	MG STD. A65MG A62A
W26B	Crystal	MG STD. .87V 1.0V	8 grams	8,000 c.p.s.	4 1/2 grams	A66U
W78*	Crystal	4.0V or 2.0V	1 oz.	6,000 c.p.s.	Dual-Weight	none

\*Dual-Weight, Dual-Volt Cartridge. With weight-slug, net weight is 25 grams. Without weight-slug, net weight is 12 grams. In addition Model W78 has capacitor, furnished as accessory. Without capacitor, output is 4.0 volts. With capacitor, output is 2.0 volts.

# NEW SHURE

## Music Lovers CARTRIDGE

for  
High Fidelity  
Systems



## ...A New Experience in Listening Pleasure!

Here is an important development in the history of high fidelity reproduction—a three-speed ceramic cartridge which is specially designed to enhance the quality of all the popular high fidelity equipment in use today. It brings a new dimension to tone quality . . . reproduces all instruments sharply and clearly . . . yet there is a subtle softness that records the original voice and music with a naturalness that will surprise and delight the most critical listeners. The "Music Lovers" Cartridge provides freedom from the induced hum and the magnetic "drag" prevalent with conventional high fidelity cartridges.

The "Music Lovers" Cartridge is equipped for mechanical interchangeability with magnetic pickups, and for direct connection to magnetic inputs of amplifiers not yet provided with constant displacement inputs, thus allowing the full advantages of compensation circuits.

A special feature of the "Music Lovers" Cartridge is the "twin-lever" needle shift transport—a unique device that provides lower mass and individual needle compliance for superior response—eliminates needle interaction.

The "Music Lovers" needle can be replaced quickly without tools in a matter of seconds—while it is in the tone arm—even blindfolded—with no danger of transposing the 3-mil and 1-mil tips.

Investigate the "Music Lovers" Cartridge, for here is a high-fidelity cartridge which is in a class by itself. Being free of cartridge induced hum and magnetic "drag" it provides a pureness of tone that gives you concert hall realism in the home!

### Technical Data and General Information about the "Music Lovers" Cartridge

#### Response Frequency Characteristics:

A smooth response from 30 to 15,000 c.p.s. with a gradual "roll off" between 10,000 and 15,000 c.p.s. designed to ideally meet the exacting requirements of typical high fidelity reproduction. Equipped with network for connection to magnetic amplifier inputs.

#### Output Voltage:

Without network—0.4 volts at 1000 c.p.s.  
With network—25 millivolts at 1000 c.p.s.

#### Recommended Load Impedance:

Input network (supplied with cartridge) is designed to work into all magnetic preamplifiers with input impedance of 22,000 ohms to 1.0 megohm.

#### Compliance:

A high lateral compliance of  $1.5 \times 10^{-6}$  cm/dyne helps reduce record wear and allows the pickup to track and reproduce the full low frequency range at all speeds.

#### Tracking Force:

5 to 8 grams for all types of records.

#### Cartridge Capacitance:

525 mmfd.

#### Cartridge Weight:

Approximately 14 grams—with network—which is equivalent to the most popular magnetic cartridges.

### MUSIC LOVERS CARTRIDGES

### MUSIC LOVERS NEEDLES

**Model ML44 (SS)**  
(with .001 and .003 Sapphire needles)

List Price \$13.95

**N4 (SS)**  
(with .001 and .003 Sapphire tips)

List Price \$5.95

**Model ML44 (DS)**  
(with .001 Diamond and .003 Sapphire needles)

List Price \$38.95

**N4 (DS)**  
(with .001 Diamond and .003 Sapphire tips)

List Price \$31.00

**Model ML44 (DD)**  
(with .001 and .003 Diamond needles)

List Price \$57.90

**N4 (DD)**  
(with .001 and .003 Diamond tips)

List Price \$49.95

the

## VAGABOND

## Wireless Microphone System

The Vagabond "88" is the first practical wireless microphone system ever developed—no cables! . . . no body wiring! . . . no station license needed! The "88" is a complete wireless microphone system that can be used with the existing public-address equipment of any night club, auditorium, church, theater, athletic stadium, etc. The Vagabond "88" is recommended for clergymen, businessmen, entertainers, educators and sports announcers, who need freedom of movement within an operating area of 500 to 1000 square feet.

NOTE: The "88" will operate at maximum efficiency in an area free of electrical disturbances. In areas having higher electrical noise-levels, the operating area will be significantly reduced.

Model "88" System

Net Price \$700.00

The Vagabond System consists of: Microphone Transmitter-FM Receiver, Stand Adapter, Batteries, Lavalier, Antenna, 20' Shielded Cable.

SHURE

SHURE BROTHERS, INC.

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