

MICROPHONE AND ACCESSORIES CATALOG No. 39

BI-DIRECTIONAL GRADIENT¹ MICROPHONES

SHURE



**MODEL
"300"**
(Broadcast)

**THESE RUGGED HIGH-FIDELITY
MULTI-IMPEDANCE MICROPHONES
MEET THE MOST CRITICAL APPLICATIONS
OF TELEVISION
AND RADIO BROADCASTING - -
PROFESSIONAL RECORDING - -
AND GENERAL PURPOSE APPLICATIONS**

Here are the finest of all the "slender" microphones yet produced. They combine the best features of conventional velocity microphones with an advanced acoustical design. Here, indeed, are high-fidelity microphones which deserve superlative descriptions because of their outstanding performance and remarkable ruggedness.



**MODEL
"315"**
(General Purpose)

The "300" Series are multi-impedance velocity microphones of such a high order that they belong in a class by themselves! They 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" will pick up voice and music from front and back—yet discriminate against unwanted noises from the sides. They reduce reverberation and pickup of distracting random noises by 66%!

The Model "300" Broadcast is outstanding in performance—with a smooth peak-free response from 40 to 15,000 c.p.s. It is appealing in design and its special "Grayje" finish makes it ideal for TV and all other applications where the microphone should blend into the background—and give the spotlight to the performer. The "300" is a "natural" for television because it practically eliminates the pickup of moving props, scuffling feet, moving "dollies," etc. The "300" is also highly recommended for radio broadcasting, professional recording and remote pickup. It has a readily accessible "Voice-Music" switch for perfect reproduction of the announcer or soloist working at close range or for the distant instruments of the orchestra. The special vibration isolation unit (mounted in live rubber) practically eliminates "handling" noises and the pickup of floor vibrations. Has 20 ft. 3-conductor, shielded broadcast-quality cable—with Cannon XL connector.

Model "315" General Purpose is similar in size, design and technical features to the Model "300"—with a smooth, peak-free response from 50 to 12,000 c.p.s. It is finished in a rich, soft satin chrome—ideal for those numerous public address applications where its streamlined design and striking beauty lend dignity and prestige to any setting in which it is used. Its Bi-Directional pickup pattern is effective over a broad frequency range—and it permits the sound system to be operated at a level almost 6 db higher than is possible with non-directional (omni-directional) microphones! The "315" has an acoustically streamlined external grille which filters out the boom and blasts often heard over conventional microphones. It is a dependable unit which will provide highly satisfactory performance even under adverse operating conditions. Has 20 ft. 2-conductor shielded cable and plug assembly.

DIMENSIONS—Model "300": 9 $\frac{7}{32}$ " high; 1 $\frac{1}{16}$ " wide; 1 $\frac{3}{32}$ " deep. Model "315": 8 $\frac{7}{32}$ " high; 1 $\frac{1}{16}$ " wide; 1 $\frac{3}{32}$ " deep.

WEIGHTS—Net Wt. Model "300", 1 $\frac{1}{4}$ lbs.; Pkgd. Wt. 3 $\frac{3}{4}$ lbs. Net Wt. Model "315", 1 lb.; Pkgd. Wt. 2 $\frac{1}{2}$ lbs.

Multi-Impedance Switch on
Models "300" and "315"

IMPEDANCE TABLE	OUTPUT LEVEL
L—35-50 ohms	58.7 db below 1 Milliwatt per 10 microbar signal
M—150-250 ohms	59.5 db below 1 Milliwatt per 10 microbar signal
H—High	57.0 db below 1 volt per microbar



MODEL	CODE	LIST PRICE
"300"	RUDOW	\$125.00
"315"	RUDOX	\$ 75.00

MULTI-IMPEDANCE DYNAMIC MICROPHONES

SHURE

NEW "SMALL UNIDYNES"



MODEL "556S"
(For Broadcast)

The "Small Unidynes" are the only small sized uni-directional moving coil dynamic microphones. They are completely new microphones with improved performance, yet retaining all of the highly desirable features of the world famous original "Unidynes." The internal unit, based on the Shure-patented "Uniphase" principle, has been designed for high overall efficiency and extended peak-free frequency response. Rugged coil construction also provides greater immunity of the moving coil system to abnormal atmospheric conditions and mechanical shock.

Model "55S" and Model "556S" are considerably smaller than the original Model "55" and Model "556" and are ideal for installations where it is desirable to keep the microphone size to a minimum and still retain operating efficiency.



MODEL "55S"
(For General Purpose)

The "Small Unidynes" are "Perfect Performers"—ideal for high quality public address, theatre-stage sound systems, recording and remote broadcasting. Because of the unusual ruggedness and reliability, Model "55S" is also recommended for fixed station use in the Police, Fire and Transportation services. For studio broadcasting and television use and similar applications where the utmost in quality is desired, Model "556S" is recommended. "Small Unidynes" reduce reflection and reverberation, decrease random noise energy pickup by approximately 67%, allow performer to stand at a distance from the microphone 75% greater than is possible with non-directional (omnidirectional) microphones, have smooth response from 40-15,000 c.p.s at front—dead at rear. Standard $\frac{5}{8}$ "—27 thread. Both are supplied with a 20 foot, high-quality cable and plug assembly. Model "556S" features a Cannon XL type connector, and it also has a special newly designed shock isolation unit of live rubber construction.

Dimensions for both units: case $3\frac{5}{16}$ " high; $2\frac{3}{16}$ " wide, $3\frac{1}{16}$ " deep.
Shipping weight: "55S" $3\frac{1}{4}$ pounds; "556S" $3\frac{1}{2}$ pounds.

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

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



MODEL	CODE	LIST PRICE
556S	RUDOV	\$100.00
55S	RUDOT	\$ 72.50

"SONODYNE" HIGH-OUTPUT DYNAMIC



MODEL "51"

A rugged pressure-type dynamic microphone with wide range frequency response and semi-directional pickup characteristics. Features a multi-impedance switch for low, medium or high impedance. Operates on the principle of a moving coil element in a magnetic field. Has built-in receptacle and a 15 ft. two-conductor shielded cable with microphone plug attached.

The rich satin chrome case is functionally designed for improved acoustical performance and modern appearance. Frequency response 60-10,000 c.p.s. The "51" is ideal for all general-purpose use including public address, wire and tape recording, communications and similar applications. Shipping weight $3\frac{3}{8}$ pounds.

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 Impedance	52.0 db below 1 volt per Microbar	
MODEL	CODE	LIST PRICE
51	RUSON	\$45.00

Microbar=one dyne per sq. cm.

SHURE

CRYSTAL MICROPHONES

SUPER-CARDIOID "MONOPLEX"

**MODEL 737A**

A high-output, unidirectional microphone which is far superior to conventional crystal microphones. It is excellent for high-quality public address, communications, recording, and similar applications. The 737A "Monoplex" operates under adverse conditions of background noise and reverberation—where a conventional microphone would be practically useless! The Super-Cardioid

MODEL	OUTPUT	LIST PRICE
737A	54.0 db below 1 volt per microbar	\$39.75

Microbar=one dyne per sq. cm.

"Monoplex" is TWICE AS UNIDIRECTIONAL AS THE CARDIOID. It has a 14 to 1 front-to-rear pickup ratio and reduces pickup of random sound by 73%! The 737A employs the same type of acoustic phase-shifting network used in the Shure "Unidyne" Broadcast Microphones. New 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. The "Monoplex" is excellent for high-quality public address, communications, recording and similar applications. Has 15 ft. shielded cable. Standard $\frac{5}{8}$ "—27 thread. Height 4". Width $3\frac{3}{8}$ ". Thickness $1\frac{1}{8}$ ". Shipping weight 2 $\frac{3}{4}$ lbs. Rich satin chrome finish. High impedance.

Code: RUMON

Good-quality performance at low cost. Has good response characteristics, is free from peaks, has typical semi-directional pickup. Uses moisture-proof Bimorph Crystal. Ideal for low-cost P. A. systems, call systems, amateur 'phone transmitters and similar applications. Has 7 ft. shielded cable. High impedance.

**MODEL 707A**

Pearl Gray case with rich satin chrome finish on front grille. The case is a heavy die casting. Standard $\frac{5}{8}$ "—27 thread. Diameter 2 $\frac{3}{8}$ ". Shipping weight 1 $\frac{1}{4}$ lbs.

Code: 707A—RUDOF

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

Microbar = one dyne per sq. cm.

THE "REX"

**710 SERIES**

Its extremely low price makes this striking hand-held microphone a natural for hams, low-cost public address systems, and as a replacement for home recording microphones. A rugged unit designed for high speech intelligibility. The "Rex" saves further costs, as it needs no desk stand! Has a broad base, sits firmly on a table top without tipping over. Frequency response 60 to 9000 c.p.s. 5' shielded cable. Beautiful Burgundy-red metallic finish. Die-cast case complete with stand adapter. 2 $\frac{3}{8}$ " wide, 3 $\frac{1}{4}$ " high, 1 $\frac{1}{8}$ " thick. High impedance.

Code: 710A—RUDEL

710S—RUDET

MODEL	OUTPUT LEVEL	SHPG. WT.	LIST PRICE
710A	50 db below 1 volt per microbar	1 $\frac{1}{4}$ lb.	\$10.95
710S (with switch)	50 db below 1 volt per microbar	1 $\frac{1}{2}$ lb.	\$12.95

Microbar = 1 dyne per sq. cm.

STRATO-LINER

**MODEL 708A**

An expensive-looking crystal microphone at moderate cost. Wide-range response (free from undesirable peaks) for good reproduction of either voice or music. Placed horizontally, the 708A is semi-directional; used vertically it becomes non-directional. A swivel permits 90° tilting of the microphone. Has 7 ft. shielded cable and plug assembly. High impedance. Case dimensions, diameter 2 $\frac{1}{2}$ ", length 4 $\frac{1}{8}$ ". Standard thread $\frac{5}{8}$ "—27. Shipping weight 2 lbs. Pearl Gray finish.

Code: 708A—RUDUM

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

Microbar = one dyne per sq. cm.

LAPEL MICROPHONE

**MODEL 76B**

Designed for Public Address, lecturing, portable transmitters, and all general uses for intelligible reproduction of speech. Pressure-actuated diaphragm-type crystal microphone. Graphoil Bimorph crystal, moisture-sealed. Microphone is inconspicuous, weighs only 1 $\frac{1}{2}$ ounces. Response from 40 to 6,000 c.p.s. High frequency response accentuated for maximum intelligibility. 1 $\frac{7}{8}$ " diameter. Gray

finish. Lapel clip. 20-foot shielded single-conductor cable. Output level: 57 db below 1 volt per bar. High impedance. Shipping weight 14 oz. Code: RULOP. List Price \$27.00.

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 $\frac{3}{4}$ " wide, 3 $\frac{1}{4}$ " high, 1 $\frac{1}{2}$ " thick.

MODEL	OUTPUT LEVEL	SHPG. WT.	CODE	LIST PRICE
510C	52.5 db below 1 volt per microbar	1 $\frac{1}{2}$ lb.	RUTUF	\$15.00
510S (with switch)	52.5 db below 1 volt per microbar	1 $\frac{3}{4}$ lb.	RUTUS	\$17.00

Microbar = one dyne per sq. cm.

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	SHPG. WT.	CODE	LIST PRICE
520	52.5 db below 1 volt per microbar	1 $\frac{1}{2}$ lbs.	RUDAL	\$17.50

Microbar = 1 dyne per sq. cm.

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. Firm downward pressure on grip-bar locks switch. High Impedance. Shpg. wt. 3 $\frac{3}{4}$ lbs.

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

Microbar = 1 dyne per sq. cm.

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 $\frac{3}{4}$ lbs.	RUDAY	\$27.50
505C	50.5 db below 1 volt per microbar	High	1 $\frac{3}{4}$ lbs.	RUDAX	\$27.50

Microbar = 1 dyne per sq. cm.



505 SERIES

SHURE

SWITCHES AND ACCESSORIES

MICROPHONE REPLACEMENT CARTRIDGES CONTROLLED RELUCTANCE

**MODEL R5**

The Model R5 Controlled Reluctance Microphone Cartridge is available for service installation and is also ideal for the replacement of crystal microphone cartridges in Shure cases of the Model 707A and Model 100 Series designs. It will also replace cartridges in cases of other manufacturers' models of similar design, where space permits. Complete installation instructions in English and Spanish are included. It is an

acoustically controlled balanced-armature transducer ideal for both microphone and soft-speaker applications. Practically unaffected by heat and humidity. Supplied with rubber mounting ring. Overall diameter of mounting ring 2 1/4"; thickness of rubber ring 3/16". Overall depth of cartridge 7/8". Shipping weight 4 ounces.

Code: RUTUC. List Price: \$10.00

CRYSTAL

**MODEL R7**

The Model R7 Crystal Microphone Cartridge is available for service installation as a replacement for the cartridges in the Shure Crystal Microphones of the 707A and 708A series. High output—48db below 1 volt per microbar. Cartridge supplied with rubber mounting rings and a complete set of mounting instructions.

Model: R7 Code: RUDEC
List Price \$7.75

CABLE TYPE TRANSFORMER



Model A86A is a high-quality cable-type transformer which offers additional versatility when used in conjunction with Shure Models 55, 55S, 556, 556S, and 51 Dynamic Micro-

phones, which employ the impedance matching switch. It solves the frequent problem of installations requiring long lengths of microphone cables without the loss of high-frequency response. Model A86A matches 35 to 50 and 150 to 250 ohm microphones to high impedance amplifier input. Compact, sturdy. Case diameter 1 3/8", length 2 7/8", 2-foot cable. Shipping weight, 1 1/4 pounds.

Model: A86A Code: RUDEB List Price: \$16.00

TAKE-APART STAND

**MODEL S348**

Model S348. 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. Metal top threaded 5/8"—27. Height overall 6-11/16". Base diam. 4 1/2". Length of handle 5 7/8". Shipping weight 1 pound.

Code: RUKAB List Price: \$3.00

Model A41B. Microphone handle only. Threaded 5/8"—27.

Code: RUJAD List Price: \$1.25

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

This rugged Heavy-Duty Switch employs a long life, leaf-type switch element that withstands the most severe field requirements of paging and dispatching systems. Has spring-temper, phosphor-bronze switch blades with pure silver contacts. Ideal for Police, Taxi-Cab, Railroad, Airport, Bus, Truck, and all emergency communications work. Large grip-bar assures positive contact. Firm downward pressure on grip-bar locks switch. Can be used with Shure connector-type crystal, dynamic and carbon microphones of any impedance. Fits handily on Shure S36A Desk Stand as shown in illustration. No soldering necessary, simply plug in. Switch element can be readily removed for rewiring to accommodate other switching combinations. Rich satin chrome finish. Shipping weight 1 pound.

**MODEL A88A**

Model: A88A

Code: RUNEL

List Price: \$11.75

ON-OFF PRESS-TO-TALK SWITCHES

**A83B****A84B****A85C**

Plug into the microphone quickly and conveniently. Durable, dependable. No soldering necessary.

Model A83B. Rotary-type "On-Off" switch. Quickly attached to any cable-connector type Shure microphone. Internal plug establishes connections. Bakelite arrow knob.

Model A83B. Code: RUNIM
55A15 Switch element only.

List Price: \$6.50
List Price: \$1.50

Model A84B. Momentary "On-Off" switch. Press-to-talk Bakelite disc.

Model A84B. Code: RUNID
55A16 Switch element only.

List Price: \$7.50
List Price: \$1.75

Model A85C. Momentary Relay-Type switch. Press-to-talk Bakelite disc. Normally-open switch closes circuit comprising one conductor and shield of outgoing cable for operation of relay or other device; remaining conductor and shield of cable carry microphone output. Must be used with two-conductor shielded cable. Standard Shure cable-connector receptacle. Satin chrome finish.

Model A85C. Code: RUNAT
55A19 Switch element only.

List Price: \$10.75
List Price: \$2.00

MODERN DESK STAND

Model S36A. Streamlined Desk Mount with stable supports. Fits Shure connector-type Microphones, concealing plug in base. Ideal for use with A88A Grip-to-Talk Switch. Adapter provided for other type microphones. Removable button for installation of 3/8" standard bushing switch or volume control. Pearl Gray finish. Base: 2 1/2" high, 5" wide, 7" long. Shipping weight 1 1/2 pounds.

Model: S36A Code: RUSEF List Price: \$5.50

**MODEL S36A**

SHURE

COMMUNICATIONS MICROPHONES AND ACCESSORIES

MODEL "100" SERIES CARBON MICROPHONES

A high-quality carbon microphone specially designed for mobile equipment. Used throughout the world for police, taxi, bus, truck, and commercial applications—more than all other makes combined! Rugged, dependable unit with clear, crisp voice response and high output. Fits snugly into palm of hand. Heavy duty switch for push-to-talk performance. Furnished with bracket for wall mounting, plus coiled-cord cable. Adopted as standard microphone by leading manufacturers of two-way radio communications equipment: (General Electric, Link, Motorola, R.C.A.). Output level: 5 db below 1 volt for 100 microbar speech signal. Net weight 14 oz. Shipping weight 1½ pounds. Case dimensions: 3¾" high, 1¾" deep, 2¾" wide. 70 to 80 ohms impedance.



REPLACEMENT CHART

MODEL	SWITCH ARRANGEMENT	CABLE	CODE	LIST PRICE
101C	Two Wire Relay Switch normally open. (No microphone switch)	Standard Coiled Cord 11" retracted; 5' extended	RUCEG	\$27.50
101E		Tinsel Coiled Cord 11" retracted; 5' extended with Amphenol MC4M Connector	RUCAD	\$32.50
102C	Relay normally open. Microphone switch normally open.	Standard Coiled Cord 11" retracted; 5' extended	RUCEM	\$27.50
102E		Tinsel Coiled Cord 11" retracted; 5' extended with spade lugs	RUCAF	\$30.00

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

Microbar = one dyne per sq. cm.

COILED CORD SETS

Standard Copper Coiled Cord with trimmed and tinned leads. Used in "CB" and "100" Series Microphones.

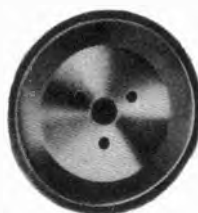
Model: C15C Code: RUCOR List Price: \$5.75

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



MODEL R10

CARBON
Rugged microphone cartridge replacement for "CB", "100", and "120" Series Carbon Microphones. Furnished complete with necessary mounting hardware. Easy to install. Complete installation instructions are included. Shpg. wt. 4 oz. The Model R10 is the direct replacement for the cartridge used in the Models 101A, 101B, 101C, 102A, 102B, 102C, 120, CB10, CB10B, CB10C, CB10E, CB11, CB11B, CB12, CB12A, CB12B, CB12C, CB12D, CB12E, CB14, CB14A, CB15, CB15B, CB15C, CB15D, CB15F, CB20, CB162, 91A27 carbon microphones. It is an improved replacement for the discontinued model 99-701 carbon microphone cartridge.

Model: R10

Code: RUTUB

List Price: \$8.00

MICROPHONE ASSEMBLY



A Controlled Reluctance Microphone and Desk Stand Assembly—ideal for mobile and fixed-station use 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. Shpg. wt. 3½ lbs.

Model 510MD. Controlled Reluctance Microphone Assembly.

Code: RUDAK List Price: \$35.00

"PACK" MICROPHONE



Designed for use with small portable and mobile transmitters. Only 2" in diameter and 1½" 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. Shpg. wt. 1½ lbs.

Model 115. Carbon "Pack" Microphone.

Code: RUCAK List Price: \$28.50