

### INDEX

Selecting the Correct Shure Microphone For the Application
Unidyne Unidirectional Dynamic Microphones $.4, 5, 6$
Unisphere Unidirectional Dynamic Microphones
Omnidirectional Microphones10, 11, 12, 13
Paging Microphones
Mobile Communication Microphones14, 15
Noise-Canceling Microphones
Base Station Microphones16
"Ham" and CB Microphones16
Microphone Modifiers21
Microphone Accessories
Microphone Cases
Studio Microphones9, 20
Accelerometers
Analyzer Microphones
Lavalier Microphones
Gold Microphones24
Microphones with Attached Plugs 24

### STEP I/PICK-UP PATTERNS

WHAT IT IS

### UNIDIRECTIONAL



These microphones pick up sound mainly from the front, while suppressing sounds and noise coming from the back. The most generally useful unidirectional pick-up pattern is the CARDIOID (meaning "heartshaped"). This pattern will suppress rear sounds at least 70% while picking up front sound over a broad area. Sounds 120° to 180° off-axis are almost entirely

suppressed.
In addition to the Cardioids (the Unidyne IV, Unidyne III, Unidyne II, Unidyne A, Unidyne B, and the Unisphere Series of unidirectional microphones) other Shure unidirectional microphones are described

as Super-Cardioid (Model 330).

### WHERE TO USE IT

The most commonly applied solution to feedback problems. Greatly simplifies planning of sound installations. With the rear of the microphone rejecting sound, the microphone can be placed so that sound projecting from the loudspeaker cannot re-enter the microphone to generate feedback. Performers can work much further away from unidirectional microphones than with omnidirectional microphones.

Effectively suppresses audience noises, coughing, shuffling feet, etc. Ideal for fixed installation before an individual performer or a small group. Pickup of large groups can be effected with multiple microphone in-

stallation.

### OMNIDIRECTIONAL



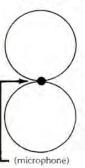
### WHAT IT IS

These microphones pick up sound more-or-less evenly from all directions. In effect, they are nondirectional. They can be hand-held, stand-mounted, or worn around the neck. This type includes the greatest number of microphones, together with the widest price range and response characteristics.

### WHERE TO USE IT

Good for general applications where feedback or audience noise is no great problem. Extremely versatile. Practically all ultra-slim "probe" type microphones are omnidirectional units—they are ideal for "walk-around" and interview situations.

### BIDIRECTIONAL



### WHAT IT IS

Pick up sound from front and back while suppressing sound from sides, top and bottom.

### WHERE TO USE IT

Ideally suited for use when two performers, or groups, are on opposite sides of microphone. Allows the same freedom of movement as unidirectional microphones, while solving difficult feedback problems such as rooms with "hard" ceilings or where loudspeakers are mounted over or to the side of the microphone.



### SELECTION GUIDE for Shure microphones

### STEP II/FREQUENCY RESPONSE

The fidelity of reproduction afforded by the microphone depends on three factors of the frequency response:

- Response Range. In general, the more extended the frequency response of the microphone is, the more faithful the reproduction will be.
- Smoothness. A high fidelity microphone is made so that no conspicuous abrupt peaks or valleys of output occur at any frequency. This results in an essentially smooth frequency response curve.
- 3. Flatness. A flat frequency response curve is one showing output remaining at approximately the same level throughout the frequency range. This means that the microphone responds equally well at any frequency, an essential of high fidelity reproduction.

While the microphone with the widest range, smoothest and flattest frequency response curve will give the highest fidelity, it is not necessarily the best microphone for every application. [For example, a shaped

(peaked) response is often devised to achieve added "presence" for microphones used in paging and communications systems.] Frequency response required for various applications is summarized below:

### RESPONSE REQUIREMENTS

Use	Response Range	Response Character	Possible Microphones
Recording, broadcasting, highest quality public address for music and voice.	50-15,000 Hz	Flat Smooth	Ribbon Dynamic
High quality public address for voice and music.	70-10,000 Hz	Flat or slightly rising No prominent peaks	Ribbon Dynamic Some Ceramics
Indoor paging systems and public address systems for voice use.	200-5,000 Hz	Slightly rising No prominent peaks	Above Plus Some CONTROLLED MAGNETICS®
Mobile communication, outdoor paging systems or systems in noisy locations. For voice use when maximum intelligibility required.	300-3,500 Hz	Rising A peak in the 2000 to 3500 Hz region is often desirable	CONTROLLED MAGNETIC* Some Dynamic Some Ceramics

### STEP III/KINDS OF MICROPHONES WHAT IT IS

SHURE SERIES NO. 200 CERAMIC: Similar to crystal microphone in design but uses man-made ceramic element. Economical, superior to crystal for outdoor use. Unaffected by severe temperature and humidity changes. High impedance.

### WHERE TO USE IT

Wherever price is an important factor. Shure makes omnidirectional and unidirectional ceramic microphones—all are economical, rugged, attractively styled.

SHURE SERIES NO. 300 RIBBON: Virtually uniform frequency response. Definitely among the very best available. Extremely rugged for normal use indoors. Adjustable impedance.

The characteristically wide-range response of the ribbon element has made it a widely used type of microphone for broadcasting and professional recording. Shure engineers have designed remarkable ruggedness into Shure ribbon microphones, making them an excellent, dependable choice for any indoor application where highest quality response is required. (Shure ribbon microphones actually have been used to pound nails, and subjected to severe drop tests—without affecting the performance characteristics.)

### WHERE TO USE IT

Wherever quality of response is the first consideration in broadcasting, professional recording, or public address (unidirectional and bidirectional). Excellent for music. Not recommended for outdoor use.

SHURE SERIES NO. 400 CONTROLLED MAGNETIC®: Balanced armature...rugged, stable, high output. Originally developed for the military to combine the advantages of the carbon and dynamic microphone...with none of the disadvantages—such as the need for external power supply with a carbon or lower output with a dynamic microphone. Has the ability to directly supply any impe-

dance, without transformer. Modestly priced, extremely dependable performance.

### WHERE TO USE IT

Indoors, outdoors—wherever rugged performance must be coupled with modest price and suitable response. Ideal for paging, language labs, portable PA systems. Usually omnidirectional.

SHURE SERIES NO. 500 DYNAMIC: Moving-coil microphone, available in a wide range of prices and types. The better dynamic units are among the very best microphones for frequency response. Smooth response (up to 20,000 Hz).

### WHERE TO USE IT

The dependable unit where exceptional performance, ruggedness and reliability are required, such as broadcasting and better quality public address. Superior in frequency response to ceramic, crystal, carbon, and CONTROLLED MAGNETIC\* units. Unidirectional, omnidirectional.

### STEP IV/PRICE

While Shure microphones are available in a wide price range, it is well to keep in mind that they are the lowest cost single item in the average system—and that their function is critical! In truth, your system can be no better than the microphone that originally converts the sound waves into electrical impulses. In general, unidirectional cardioid microphones are the most expen-

sive (as a category); however, some fine quality omnidirectional and bidirectional microphones can cost as much as unidirectionals. Where economy is the major factor, we suggest that you look to ceramic or CONTROLLED MAGNETIC® units. Where quality is first and foremost, we recommend ribbons or dynamics.



## microphone series

### MODELS 548 • 548S • 548SD • 548SD-CN • 549

The premier member of the world-famed UNIDYNE® family of microphones. An ultra-high-quality, super-rugged, dual impedance microphone with an effective cardioid pickup pattern. Smooth, wide-range response for voice and music. Has all the superb feedback and "boom" suppressing characteristics of the UNIDYNE® III (opposite page), combined with exceptionally rugged construction. Easily serviced in the field. Specially cushioned reinforced cartridge.

MODEL 548 UNIDYNE IV: For stand or hand use. Solderless impedance change feature. Supplied with 4.6 m (15 ft.) detachable heavy duty, two-conductor shielded cable, with FEMALE professional three-pin audio connector on microphone end. Model A25B Swivel Adapter included.

MODEL 548S UNIDYNE IV: For stand use. Mounted on a lifetime swivel that also contains an On-Off switch. Solderless impedance change feature. Supplied with 4.6 m (15 ft.) detachable heavy duty, two-conductor shielded cable, with FEMALE professional three-pin audio connector on microphone end.

MODEL 548SD UNIDYNE IV: For stand or hand use. Features magnetic reed-type

On-Off switch built into the case, with built-in locking plate to permanently lock microphone in On position. Solderless impedance change feature. Supplied with 4.6 m (15 ft.) detachable heavy duty, two-conductor shielded cable, with FEMALE professional three-pin audio connector on microphone end. Model A25B Swivel Adapter included.

MODEL 548SD-CN UNIDYNE IV: Same as Model 548SD (above), but supplied with 6.1 m (20 ft.) professional heavy duty, two-conductor shielded cable, with professional three-pin audio connectors<sup>1</sup> on both ends of cable. Model A25B Swivel Adapter included.

MODEL 549 UNIDYNE IV: Professional stage version of the Unidyne IV Series. Special vibration isolation shock mount to insulate against vibration and mechanical shocks. Ideal for performers who carry their own microphone to clubs and auditoriums. Combination impedance selection On-Off switch. Cable not included.

Designed to mate with Cannon XL series, Switchcraft A3 (Q.G.) series or equivalent connector.

### SPECIFICATIONS

FREQUENCY RESPONSE: 40 to 15,000 Hz.

IMPEDANCE AND OUTPUT LEVELS: Models 548, 548S, 548SD, 548SD-CN—Dual. 150 ohms†—58 dB\*; .133 millivolts/microbar. High††—55 dB\*\*; 1.76 millivolts/microbar.

millivolts/microbar.
Model 549—Dual. 38 ohms††—-59
dB\*: .063 millivolts/microbar. 150
ohms†—-58.5 dB; .141 millivolts/microbar.

\*0 dB = 1 milliwatt per 10 microbars

\*\*0 dB = 1 volt per microbar

†For connection to microphone inputs rated at 19 to 300 ohms

††For connection to microphone inputs rated at 19 to 75 ohms

†††For connection to high-impedance microphone inputs

Model	Desk Stand	Isolation Desk Stand	Isolation Mount	Distant Pickup Stand	Quick Disconnect	Wind- screen
548	S33B, S37A	S39B	A55M	S55P	A45	A61WS
548S	S33B, S37A	S39B	_	_	A47	A61WS
548SD (CN)	S33B, S37A	S39B	A55M	S55P	A45	A61WS
549	\$33B	\$39R			A45	A61WS





# UNDYNE III microphone series

### MODELS 545 • 545S • 545SD • 545D • 545D • 545SD-CN • 545L • 544 • 546

Small and strikingly handsome, the acoustical design of the UNIDYNE® III Microphone approaches the theoretical ideal of the uniform cardioid pickup pattern. Reproduces the human voice with remarkable fidelity. A favorite choice of singers and entertainers, and an excellent microphone for drum and bass instrument pickup. Recommended for use in any location where feedback is a problem.

MODEL 545 UNIDYNE III: For stand or hand use. Supplied with 4.6 m (15 ft.) detachable, heavy duty, three-conductor shielded cable (microphone impedance is selected at amplifier end of cable), with MALE four-pin MC4M type connector. Model A25B Swivel Adapter included.

MODEL 545S UNIDYNE III: For stand use. Mounted on a lifetime swivel that also contains an On-Off switch. Supplied with 4.6 m (15 ft.) detachable, heavy duty, three-conductor shielded cable (microphone impedance is selected at amplifier end of cable) with MALE four-pin MC4M type connector.

MODEL 545SD UNIDYNE III: For stand or hand use. Features a magnetic reed-type On-Off switch built into the case, with built-in locking plate to permanently lock microphone in On position. Solderless impedance change feature. Supplied with 4.6 m (15 ft.) detachable, heavy duty, two-conductor shielded cable, with FEMALE professional three-pin audio connector at microphone end. Model A25B Swivel Adapter included.

MODEL 545D UNIDYNE III: (not shown) Same as 545SD without On-Off switch, Designed for those numerous applications where built-in switch is not desired, such as when soundman wants to control "On-

MODEL 545SD-CN UNIDYNE III: Same as Model 545SD but supplied with 6.1 m (20 ft.) professional, heavy duty, two-conductor shielded cable, with professional three-pin audio connectors<sup>1</sup> on both ends of cable. Model A25B Swivel Adapter included.

MODEL 545L UNIDYNE III: Designed for lavalier use. Supplied with 6.1 m (20 ft.) permanently attached, miniature, two-conductor shielded cable. Lavalier clip included. Can also be mounted on a flexible gooseneck, or in an A25B Swivel Adapter.

MODEL 544 UNIDYNE III: Designed especially for gooseneck mounting. Supplied with 2.1 m (7 ft.) permanently attached, two-conductor, miniature shielded cable. To obtain microphones complete with goosenecks, order Models 544-G6, 544-G12 or 544-G18 for 152 mm (6-inch), 305 mm (12-inch) or 457 mm (18-inch) goosenecks.

MODEL 546 UNIDYNE III: For stand use. Features a special live-rubber vibration-isolation shock mount. Recommended for high quality public address systems and tape recording—especially where floor or stage is "shaky." Combination impedance selection On-Off switch Supplied with 6.1 m (20 ft.)

professional, heavy duty, two-conductor shielded cable with FEMALE professional three-pin audio connector on microphone end.

Designed to mate with Cannon XL series, Switchcraft A3 (Q.G.) series or equivalent connector.

### **SPECIFICATIONS**

FREQUENCY RESPONSE: 50 to 15,000 Hz.

IMPEDANCE AND OUTPUT LEVELS: Models 545, 545S & 544—Dual. 150 ohms†—57 dB\*; .125 millivolts/microbar. High†††—55 dB\*\*; 1.76 millivolts/microbar. Models 545D, 545SD & 545SD-CN—Dual. 150 ohms†—58.5 dB\*; .125 millivolts/microbar. High†††—55 dB\*\*; 1.76 millivolts/microbar. Model 545L. 150 ohms†—57.5 dB\*; .105 millivolts/microbar. Model 546—Dual. 38 ohms††—58 dB\*; .067 millivolts/microbar. 150 ohms†—57.5 dB\*; .158 millivolts/microbar. 457.5 dB\*; .158 millivolts/microbar.

\*0 dB = milliwatt per 10 microbars

"0 dB = 1 volt per microbar

†For connection to microphone inputs rated at 19 to 300 ohms

††For connection to microphone inputs rated at 19 to 75 ohms

On-Off switch. Supplied with 6.1 m (20 ft.) †††For connection to high-impedance microphone inputs

Model	Desk Stand	Isolation Desk Mounts	Isolation Mounts	Distant Pickup Stand	Quick Disconnect	Lavalier Cord	Wind- screen
545	S33B, S37A	S39A	A55M	S55P	A45		A2WS
545S	S33B, S37A	S39A	-	_	A47	_	A2WS
545D; SD; -CN	S33B, S37A	S39A	A55M	S55P	A45	-	A2WS
546	S33B	S39A	-	_	A45	_	A2WS
545L	S33B, S37A	S39A	A55M	S55P	A45	A54L	A2WS
						(supplied)	
544	-		_	_	1	_	A2WS



### UNIDYNE" II SERIES MODELS 55S • 55SW • 556S

Renowned for ruggedness and reliability, the Unidyne\* II Series microphones are highly regarded throughout the world-used consistently where faithfulness of sound reproduction is critical. Highly recommended for fine-quality public address, theatre-stage sound systems and recording applications. Includes multi-impedance switch for high, medium or low impedance.

MODEL 55S UNIDYNE II: For stand use. Mounted on lifetime swivel. Supplied with 4.6 m (15 ft.) detachable, heavy duty, twoconductor shielded cable, with MALE threepin MC3M type connector on microphone

MODEL 55SW UNIDYNE II: For stand use. Mounted on a lifetime swivel that also contains an On-Off switch. Supplied with 4.6 m (15 ft.) detachable, heavy duty, twoconductor shielded cable, with MALE threepin MC3M type connector on microphone end.

MODEL 556S UNIDYNE II: For stand use. Mounted on lifetime swivel. Features a special live-rubber vibration isolation shock mount built into the stand connector. Supplied with 6.1 m (20 ft.) professional. heavy duty, two-conductor shielded cable, with FEMALE professional three-pin audio connector on microphone end of cable.

SPECIFICATIONS 558 • 558W

FREQUENCY RESPONSE: 50 to 15,000 Hz. IMPEDANCE AND OUTPUT LEVEL: Multi. "L" 38 "M" ohms† — 55.5 dB\*; .071 millivolts/microbar. 150 ohms†† — 56.5 dB\*; .141 millivolts/microbar. "H" High††† 55.5 dB\*\*: 1.68 millivolts/microbar.

### 556S

FREQUENCY RESPONSE: 40 to 15,000 Hz. IMPEDANCE AND OUTPUT LEVEL: Multi. "L" 38 ohms†— 54 dB\*; .067 millivolts/microbar. "M" 150 ohms††— 55 dB\*; .13 millivolts/microbar. "H" High†††— 56 dB\*\*; 1.58 millivolts/micro-

\*0 d3 | milliwate per 10 microbars.
\*\*O d8 | voit per microbar
f For connection from criphiane inputs rated at 19 to 75 ohms
f For connection to microphiane inputs rated at 75 to 300 ohms.
f For connection to microphiane inputs rated at 75 to 300 ohms.

### UNIDYNE" B SERIES

MODELS 515SA • 515SB • 515BG • 515SBG • 515SB-G18

The lowest cost Unidyne, but with all the feedback suppression and uniform, symmetrical pickup pattern features that have made Unidynes world-famous. Each microphone in the Unidyne B Series effectively solves feedback and boominess problems in low-budget sound systems. Excellent hoices ere budget is the prime consideration. Handsome satin chrome cases with stainless steel screen in a black grille.

MODEL 515SA UNIDYNE B: For stand or hand use. Supplied with 4.6 m (15 ft.) permanently attached, heavy duty, singleconductor shielded cable. High impedance only. Built-in locking plate to permanently lock switch in On position. Model A25B Swivel Adapter included.

MODEL 515SB UNIDYNE B: Same as Model 515SA above, but low impedance only with two-conductor shielded cable.

MODEL 515BG UNIDYNE B: Same as Model 515SBG, below, but without switch and with two-conductor shielded cable.

MODEL 515SBG UNIDYNE B: For gooseneck use (gooseneck not included). Supplied with 1.8 m (70 inch) permanently attached, four-conductor (two shielded) cable. Built-in non-locking push to-talk switch activates either microphone or external relay circuit. Low impedance only.

MODEL 515SB-G18 UNIDYNE B: Same as Model 515SBG (above), but pre-installed on 457 mm (18-inch) gooseneck, with mounting flange included.

### SPECIFICATIONS

FREQUENCY RESPONSE: 80 to 13,000 Hz.

IMPEDANCE AND OUTPUT LEVEL: Model 515SA—High††— 59 dB\*: 1.12 millivolts microbar, Model 515SB—150 ohms†— 61 dB\*\* .079 millivolts/microbar. Model 515BG—150 ohms†—-59 dB\*\*: .089 millivolts/microbar. Models 515SBG & 515SB-G18—150 ohms†— 60 dB\*\*: .080 millivolts/microbar.

\*\*Od8 | voll per microbar
\*\*Od8 | voll per microbar
\*\*Od8 | milliwat per 10 microbars
†For connection to microphone inputs rated at 19 to 300 ohms
†For connection to high-impedance microphone inputs

### UNIDYNE \* A SERIES MODELS 580SA • 580SB

The rugged Unidyne A Series microphones offer unidirectional problem-solving ability at a moderate cost. Highly effective cardioid pickup pattern permits microphones to be located unusually close to loudspeakers. Built-in On-Off switch with locking plate to permanently lock switch in On position. Versatile-can be used on a stand or in the hand, indoors or out. Satin chrome case with stainless steel screen and rugged Black ARMO-DUR" cap. Model A25B Swivel

MODEL 580SA UNIDYNE A; Supplied with 4.6 m (15 ft.) permanently attached, one-conductor shielded cable. High impedance

MODEL 580SB UNIDYNE A: Supplied with 4.6 m (15 ft.) permanently attached, twoconductor shielded cable. Low impedance

### SPECIFICATIONS

FREQUENCY RESPONSE: 50 to 13,000 Hz.

IMPEDANCE AND OUTPUT LEVEL: Model 580SA—Hightt——57.5 dB : 1.33 milli-volts/microbar Model 580SB—150 ohmst——58

dB\*\*; ,100 millivolts/microbar.

10 dB = 1 volt per microbar
10 dB = 1 milliwatt per 10 microbars
15 or connection to microphene upus sated at 19 to 300 ohins
11 For connection to high-impedance microphone upus

MODEL 589S UNIDYNE \* C: It's got the sound that made the Unidyne family famous ...together with an extra-efficient wind/breath filter ... all wrapped in a dramatic case design that's slim, sleek, and lightweight! An excellent hand or stand microphone for theaters, nightclubs, schools, and churches. Cardioid pickup pattern to control feedback and background noise. Supplied with a Model A57D Stand Adapter and a 4.6 m (15 ft.) two conductor shielded cable with FEMALE professional three-pin audio connector1 at the microphone end.

### SPECIFICATIONS

FREQUENCY RESPONSE: 90 to 13.000 Hz. IMPEDANCE AND OUTPUT LEVEL: Dual. 150 ohms†— 61 dB\*: .071 millivolts/microbar. High††— 60.5 dB\*\*: .94 millivolts/microbar.

(Q.G.) series, or equivalent connector.

10 dB = 1 milliwatt per 10 microbars 10 dB = 1 volt per microbar 1For connection to microphone inputs rated at 19 to 300 ohms ††For connection to high-impedance microphone inputs

Designed to mate with Cannon XL series, Switchcraft A3

### RECOMMENDED ACCESSORIES

Model	Desk Stand	Isolation Desk Stand	Quick Disconnect	Windscreen
555	\$33B, \$37A	S39A	A47	_
55SW	S33B, S37A	S39A	A47	(may )
556S	S33B	S39A	A45	-
515SA (-B)	S33B, S37A	S39A	A45	ABIWS
515SB-G18	-	26	102	A61WS
580SA (-B)	S33B, S37A	S39A	A45	A61WS
5898	S33B. S37A	S39A	A45	100



Model



### MODELS 565 · 565S · 565SD · 565D · 565SD-CN · 566

The Unisphere 1 Series gives you all the superb feedback control and uniform cardioid pickup pattern features that have made the Unidyne family of microphones worldrenowned for solving difficult public address problems. In addition, these microphones give you effective control of explosive breath sounds ("pop") and minimized wind noise in outdoor locations, reducing the need for external windscreens. Excellent reproduction of voice and music. For indoor or outdoor use. Gleaming satin chrome case.

MODEL 565 UNISPHERE I: For stand or hand use. Supplied with 4.6 m (15 ft.) detachable, heavy duty, three-conductor shielded cable with four-pin MALE MC4M type connector on microphone end of cable (impedance is selected at amplifier end of cable). Model A25B Swivel Adapter included.

MODEL 565S UNISPHERE I: For stand use only. Mounted on lifetime swivel that also includes an On-Off switch. Supplied with 4.6 m (15 ft.) detachable heavy duty, threeconductor shielded cable with four-pin MALE MC4M type connector on microphone end of cable (impedance is selected at amplifier end of cable).

MODEL 565SD UNISPHERE I: For stand or hand use. Features magnetic reed-type On-Off switch built into the case, with built-in locking plate to permanently lock micro-

phone in On position. Solderless impedance change feature. Supplied with 4.6 m (15 ft.) detachable, heavy duty, two-conductor shielded cable, with FEMALE professional three-pin audio connector1 on microphone end. Model A25B Swivel Adapter included.

MODEL 565D UNISPHERE I: Same as 565SD without On-Off switch. Designed for those numerous applications where built-in switch is not desired, such as when soundman wants to control "On-Off" at audio console.

MODEL 565SD-CN UNISPHERE I: Same as Model 565SD, but supplied with 6.1 m (20 ft.) professional, heavy duty, two-conductor shielded cable, with professional three-pin audio connectors on both ends of cable. Model A25B Swivel Adapter included.

MODEL 566 UNISPHERE I: For stand use. Features special built-in vibration isolation shock mount. Supplied with 6.1 m (20 ft.) professional, heavy duty, two-conductor shielded cable with MALE professional three-pin audio connector1 on microphone end. Combination Impedance Selection/On-Off switch.

Designed to mate with Cannon XL series, Switchcraft A3 (Q.G.) series or equivalent connector

### SPECIFICATIONS

FREQUENCY RESPONSE: 50 to 15,000 Hz.

IMPEDANCE AND OUTPUT LEVELS: Models 565 & 565S-Dual. 150 ohmst-56 dB'; .16 millivolts/microbar. Highttt -- 53 dB\*\*; 2.2 millivolts/ microbar.

Models 565D, 565SD & 565SD-CN-Dual. 150 ohmst -- 57 dB\*: .141 millivolts/microbar. High††† -- 54.5 dB\*\*; 1.88 millivolts/microbar.

Model 566-Dual. "L" 38 ohmstt--57.5 dB\*; .071 millivolts/microbar. "H" 150 ohms+--57.5 dB\*; .149 millivolts/micro-

\*0 dB = 1 milliwatt per 10 microbars \*0 dB = 1 volt per microbar

†For connection to microphone inputs rated at 19 to 300

††For connection to microphone inputs rated at 19 to 75 ohms

†††For connection to high-impedance microphone inputs

Model	Desk Stand	Isolation Desk Stand	Quick Disconnect	Wind- screen
565	S33B, S37A	S39A	A45	A61WS
565S	S33B, S37A	S39A	A47	A61WS
565D; SD; -CN	S33B, S37A	S39A	A45	A61WS
566	S33B	S39A	A45	A61WS





### MODELS 585SA • 585SB • 585SAV • 585SBV

The UNISPHERE. A Series of Microphones are economical unidirectional dynamic microphones featuring a highly effective unidirectional pattern to minimize loudspeaker "squeal" caused by feedback. These models are particularly suitable for use in locations where omnidirectional microphones may not operate properly because of poor acoustics. The 585 Series features a shockmounted cartridge, and comes with Model A25B Swivel Adapter.

The Model 585SAV and 585SBV are two of the most ingenious microphones ever designed because the volume control on the microphone case enables the user to change the loudness of the P.A. system at the microphone location. Ideal for applications where the amplifier controls are inaccessible or where the speaker or singer wants to control his own volume for dramatic effects.

MODEL 585SA UNISPHERE A: For hand or stand use. Built-in On-Off switch with locking plate to permanently lock microphone in On position. Supplied with 4.6 m (15 ft.) detachable, heavy duty, single-conductor shielded cable with FEMALE MC1F type connector. High impedance.

MODEL 585SB UNISPHERE A: For hand or stand use. Built-in On-Off switch with locking plate to permanently lock microphone in On position. Supplied with 4.6 m (15 ft.) detachable, heavy duty, two-conductor shielded cable with MALE MC2M type connector. Low impedance.

MODEL 585SAV UNISPHERE A: Same as Model 585SA, but with adjustable volume control built into microphone case.

MODEL 585SBV UNISPHERE A: Same as Model 585SB, but with adjustable volume control built into microphone case.

### **SPECIFICATIONS**

FREQUENCY RESPONSE: 50 to 13,000 Hz.

IMPEDANCE AND OUTPUT LEVEL: Model 585SA—High††—57 dB\*; 1.41 millivolts/microbar. Model 585SB—150 ohms†—59 dB\*\*; .094 millivolts/microbar. Model 585SAV—High†—61 dB\*; .885 millivolts/microbar. Model 585SBV—150 ohms†—59 dB\*\*; .078 millivolts/microbar.

MODELS 588SA • 588SB • 588SB-CN: Maximum feature dynamic microphones at minimum cost! True cardioid pickup pattern for feedback control; highly effective filter for indoor and outdoor use that provides protection from wind and "pop" (explosive breath sounds); On-Off switch with built-in locking plate to permanently lock microphone in On position; and professional three-pin audio connector'. For stand or hand use. Gleaming satin chrome case.

MODEL 588SA UNISPHERE B: Supplied with 4.6 m (15 ft.) heavy duty, single-conductor shielded cable with FEMALE professional three-pin audio connector on microphone end. High impedance.

MODEL 588SB UNISPHERE B: Supplied with 4.6 m (15 ft.) heavy duty, two-conductor shielded cable with FEMALE professional three-pin audio connector on microphone end. Low impedance.

MODEL 588SB-CN UNISPHERE B: Same as Model 588SB above, but with 6.1 m (20 ft.) professional, heavy duty, two-conductor shielded cable with professional three-pin audio connectors on both ends of cable.

Designed to mate with Cannon XL series, Switchcraft A3 (Q.G.) series, or equivalent connector.

### SPECIFICATIONS

FREQUENCY RESPONSE: 80 to 13,000 Hz.

IMPEDANCE AND OUTPUT LEVEL: Model 588SA—High††—-59 dB\*; 1.11 millivolts/microbar. Models 588SB & 588SB-CN—150 ohms†—-60.5 dB\*\*; .078 millivolts/microbar.

\*0 dB = 1 volt per microbar

\*\*0 dB = 1 milliwatt per 10 microbars

†For connection to microphone inputs rated at 19 to 300 ohms

††For connection to high-impedance microphone inputs

Model	Desk Stand	Isolation Desk Stand	Quick Disconnect	Windscreen
585SA (-SB), (-SAV), & (-SBV)	S33B, S37A	S39A	A45	A61WS
588SA (-SB), & (-SB-CN)	S33B, S37A	S39A	A45	A61WS



# STUDIO ibbon microphones

UNI-RON® UNIDIRECTIONAL MODEL 330: Highly recommended for motionpicture, TV, radio and professional recording studios as well as for all other uses where quality requirements are of the highest. Model 330 has a true super-cardioid unidirectional pickup pattern which solves feedback problems and greatly reduces the pickup of random noise. Strikingly immune to mechanical noises. The features that make the "330" so outstanding in performance and so dependable in operation are the patented "Uniphase" system; the true super-cardioid pickup pattern; a ribbon transducer which provides extended smooth response of 30-15,000 Hz; a multiimpedance switch; a lifetime swivel; and a vibration-isolation unit mounted in live rubber. Supplied with 6.1 m (20 ft.) twoconductor, shielded broadcast type cable, with FEMALE professional three-pin audio connector.

### SPECIFICATIONS

FREQUENCY RESPONSE: 30 to 15,000 Hz.

IMPEDANCE AND OUTPUT LEVEL: Multi. 50 ohms†—59 dB\*; .059 millivolts/microbar: 150 ohms††—58.5 dB\*; .111 millivolts/microbar: 250 ohms††—58.5 dB\*; .141 millivolts/microbar.

STUDIO GRADIENT MODEL 300: The Model 300 Studio Gradient is a bidirectional microphone for recording, broadcast and sound reinforcement which provides sound pickup at the front and rear of the micro-

phone, but greatly reduces pickup at the sides. Can be placed at a much greater distance from the performer than is possible with omnidirectional microphones. Features are a readily accessible Voice-Music switch, a vibration-isolation unit mounted in live rubber, and a multi-impedance switch; supplied with 6.1 m (20 ft.) two-conductor, shielded broadcast type cable with FEMALE professional three-pin audio connector.<sup>1</sup>

FREQUENCY RESPONSE: 40 to 15,000 Hz. IMPEDANCE AND OUTPUT LEVEL: Multi. "L" 38 ohms†—-60.5 dB\*; .043 millivolts/microbar: "M" 150 ohms††—-59 dB\*; .105 millivolts/microbar: "H" High†††—-57.5 dB\*\*; 1.32 millivolts/microbar.

GRADIENT MODELS 315 • 315S: These microphones feature frequency response of 50 to 12,000 Hz that reproduces voice and music in a clear, natural tonal quality in auditoriums, night clubs, schools and churches. Bidirectional "Figure 8" pickup pattern extends over a broad frequency range—permits the sound system to be operated at a level almost 6 dB higher than is possible with nondirectional (omnidirec-

tional) microphones. Greatly reduces reverberation and the pickup of random noises. Supplied with 4.6 m (15 ft.) two-conductor shielded cable, with three-pin MALE MC3M type connector.

MODEL 315 GRADIENT: Without On-Off Switch.

MODEL 315S GRADIENT: With On-Off Switch.

### **SPECIFICATIONS**

FREQUENCY RESPONSE: 50 to 12,000 Hz. IMPEDANCE AND OUTPUT LEVEL: Multi. "L" 38 ohms†—-62 dB\*; .044 millivolts/microbar: "M" 150 ohms††—-61 dB\*; .100 millivolts/microbar: "H" High†††—-59 dB\*\*; 1.13 millivolts/microbar.

Designed to mate with Cannon XL series, Switchcraft A3 (Q.G.) series, or equivalent connector.

\*0 dB = 1 milliwatt per 10 microbars

\*\*0 dB = 1 volt per microbar

†For connection to microphone inputs rated at 19 to 75 ohms

††For connection to microphone inputs rated at 75 to 300 ohms

†††For connection to high-impedance microphone inputs

Model	Desk Stand	Isolation Desk Stand	Quick Disconnect
330	S33B	S39A	A45
300	S33B	S39A	A45
315S	S33B, S37A	S39A	A47





VOCAL SPHERE MODEL 579SB: A superb sounding omnidirectional microphone that delivers extremely natural, lifelike voice reproduction for vocalists or speakers. An outstanding performer in theatre-stage sound systems in which feedback is not a problem, and in numerous recording and broadcasting applications. Effective built-in wind and 'pop" filters reduce breath noises, and the isolated cartridge mount reduces handling noises. Built-in On-Off switch with locking switch plate to lock microphone in On position. Sleek brushed chrome case affords good looks and excellent "handability." Supplied with 6.1 m (20 ft.) two-conductor shielded, rubber-jacketed cable, with FE-MALE professional three-pin audio connector' at microphone end. Model A57D Swivel Adapter included.

### SPECIFICATIONS

FREQUENCY RESPONSE: 50 to 15,000 Hz. IMPEDANCE AND OUTPUT LEVEL: 150 ohmst---- 59 dB\*: .100 millivolts/microbar.

OMNIDYNE ULTRA-SLIM PROBES-MODELS 578 · 578S: Strikingly modern ultra-slim 19 mm (3/4-inch) diameter design. Inconspicuous because of slender shape. Smooth, natural response without change in pickup pattern or sensitivity from 50 to 15,000 Hz. Ideal for fine-quality home tape recording purposes, or for use in TV, radio and recording studios. Extremely rugged construction. Satin chrome steel case provides magnetic shielding as well as good

MODEL 578 OMNIDYNE: Built-in On-Off switch in microphone case with locking plate. Supplied with 4.6 m (15 ft.) permanently attached, heavy duty, three-conductor shielded cable (impedance is selected at amplifier end). Model A57D Swivel Adapter included.

MODEL 578S OMNIDYNE: Mounted on a lifetime swivel that contains an On-Off switch. Supplied with 4.6 m (15 ft.) detachable, heavy duty, two-conductor shielded cable with FEMALE professional three-pin audio connector.1

SPECIFICATIONS FREQUENCY RESPONSE:

OMNIDYNE DYNAMIC MODEL 576: A superb professional-quality dynamic probe microphone (with striking slim design and 19 mm (3/4-inch) diameter) designed for television, radio-TV broadcasting and recording studios. Features smooth, natural, widerange response from 40 to 20,000 Hz. for authentic pickup of voice or music. The Model 576 is an ideal hand-held microphone because of its unique "feel" and "balance." Rugged steel case provides effective magnetic shielding as well as good looks. Extremely rugged and dependable for excellent performance under all operating conditions. Versatile-use it in the hand or on a stand, indoors or out. Finished in non-reflecting gray with stainless steel grille. 7.6 m (25 ft.) permanently attached, three-conductor shielded broadcast cable. Model A57D Swivel Adapter included.

### SPECIFICATIONS

FREQUENCY RESPONSE: 40 to 20,000 Hz.

IMPEDANCE AND OUTPUT LEVELS: Dual. 38 ohms††--60 dB\*; .04 millivolts/microbar. 150 ohmst--60 dB\*; .071 millivolts/microbar.

Designed to mate with Cannon XL series, Switchcraft A3 (Q.G.) series, or equivalent connector

\*0 dB = 1 milliwatt per 10 microbars

\*\*0 dB = 1 volt per microbar

†For connection to microphone inputs rated at 19 to 300 ohms

††For connection to microphone inputs rated at 19 to 75

†††For connection to high-impedance microphone inputs

SPHER-O-DYNE MODELS 533SA . 533SB • 533SAV: An omnidirectional microphone of outstanding quality for such a moderate cost. Built-in wind, breath, and pop filters make it ideal for close-to-the-mouth applications, minimizing explosive breath sounds. The Spher-O-Dynes feature excellent reproduction of voice and music, combined with a well-balanced "handability" for virtually unlimited applications. Model A25B Swivel Adapter included.

MODEL 533SA SPHER-O-DYNE\*: High impedance. Built-in On-Off switch with locking plate to permanently lock microphone in On position. Supplied with 4.6 m (15 ft.) detachable, single-conductor shielded cable.

MODEL 533SB SPHER-O-DYNE": Low impedance. Built-in On-Off switch with locking plate to permanently lock microphone in On position. Supplied with 4.6 (15 ft.) detachable, two-conductor shielded cable.

MODEL 533SAV SPHER-O-DYNE\*: High impedance. With adjustable volume control built into microphone case. Supplied with 4.6 m (15 ft.) detachable, single-conductor shielded cable.

### **SPECIFICATIONS**

FREQUENCY RESPONSE: 40 to 11,000 Hz. IMPEDANCE AND OUTPUT LEVEL: Model 533SA-Hightt--55 dB\*; 1.77 millivolts/ microbar.

Model 533SB-150 ohmst--56 dB\*\*: .141 millivolts/microbar.

Model 533SAV—Hightt—-59 dB\*: 1.12 millivolts/microbar.

0 dB = 1 volt per microbar

\*\*0 dB = 1 milliwatt per 10 microbars

†For connection to microphone inputs rated at 19 to 300 ohms

Model

533SB

† †For connection to high-impedance microphone inputs

### RECOMMENDED ACCESSORIES

Model	Desk Stand	Isolation Desk Stand	Quick Disconnect	Windscreen
579SB	S33B, S37A	S39A	A45	A61WS
578	S33B, S37A	S39A	A45	AZWS
578S 576	S33B, S37A S33B, S37A	S39A	A47	A2WS
533SB, (-SAV)	S33B, S37A	S39A S39A	A45 A45	A2WS
	1			1
	Nodel			
5	Nodel 178S			
5 Model				

50 to 15,000 Hz. IMPEDANCE AND OUTPUT LEVEL: Dual. 150 ohmst--61 dB\*: .079 millivolts/microbar. Highttt--61 dB\*\*: .89 millivolts/ 10 microbar.

# DIRECTIONAL dynamic microphones

DYNAMIC LAVALIER MICROPHONES MODELS 570 · 570S: These superb professional lavalier microphones are designed for broadcast and sound reinforcement assignments and for use by lecturers, performers and clergymen. They feature special "shaped" response (50 to 12,000 Hz) for superior lavalier performance and reduction of pickup of clothing and cable noise. Outstanding ruggedness and reliability-even under adverse operating conditions. Designed for inconspicuous use with "Flex-Grip" lavalier assembly (supplied). These microphones are the most versatile available because the "Flex-Grip" design holds the microphone firmly, yet permits easy and quick removal. The lavalier clip opens right or left or can be removed. The case is nonreflecting gray metal with a stainless steel grille. Supplied with 9.1 m (30 ft.) nondetachable, two-conductor miniature shielded cable.

MODEL 570: Without On-Off switch.
MODEL 570S: With On-Off switch.

### **SPECIFICATIONS**

FREQUENCY RESPONSE: 50 to 12,000 Hz.

IMPEDANCE AND OUTPUT LEVEL: 150 ohms†—-60 dB\*; .084 millivolts/microbar.

OMNIDYNE MINIATURE MICROPHONES MODELS 571 • 572G: The extremely small Model 571 microphone can be concealed on the person (user) and is also suitable for hand-held, stand, and suspended over-the-stage use. Features smooth peak-free response from 50 to 10,000 Hz for voice applications where a small, inconspicuous microphone should be used. Recommended for TV, motion picture, theatrical and public-address applications. Supplied with 9.1 m (30 ft.) non-detachable, two-conductor shielded, miniature cable. Model A57D Swivel Adapter is included.

The Model 572G features the same response and size characteristics of Model 571,

with the added feature of permanent mounting on a new small-diameter, ultra-quiet 305 mm (12-inch) gooseneck. Gooseneck comes complete with mounting flange. Ideal for permanent mounting on lecterns, paging and dispatching stations, in language laboratories and other applications where a permanently mounted quality microphone is required. The gooseneck is a metal ultraslim type that reduces noise usually caused by adjusting the microphone. Supplied with 1.5 m (5 ft.) non-detachable two-conductor shielded cable.

SPECIFICATIONS FREQUENCY RESPONSE: 50 to 10,000 Hz. IMPEDANCE AND OUTPUT LEVEL: Model 571—150 ohmst——62 dB\*: .070 milli-

volts/microbar.

Model 572G—150 ohms†——61 dB\*;
.078 millivolts/microbar.

ECONOMY LAVALIER MICROPHONE MODEL 560: A dual-impedance, dynamic microphone with a tailored response specifically designed for lavalier applications. This is a good, general-purpose lavalier microphone at a very modest price. An excellent choice for lecturers, performers, and clergymen—and for the audio-visual departments of schools where budget is an important consideration. The compact and lightweight modern black satin all-metal case has a stainless steel grille. Impedance can be quickly changed from High to Low by simply moving pin jacks. The clip-grip lavalier assembly (supplied) holds the mi-

crophone securely to the wearer. Supplied with 5.5 m (18 ft.) non-detachable, two-conductor shielded, miniature cable.

DYNAMIC GOOSENECK MODEL 561: A compact, high quality, tamper-proof dynamic microphone with an attached cable and standard 5/8"-27 thread for direct mounting on either a flexible gooseneck or a fixed pipe. The extremely rugged, dynamic cartridge is easily field replaced. This microphone features excellent voice response for language lab systems, paging applications, base station communications and talk-back and cuing from professional control-room installations. Its modest cost makes it wellsuited for lower-budget installations in which numerous microphones must be used, such as "total communications" meeting room systems. Supplied with 1.2 m (4 ft.) nondetachable, two-conductor shielded, miniature cable. Gooseneck must be ordered separately. (See Page 22.)

### SPECIFICATIONS

FREQUENCY RESPONSE: 50 to 10,000 Hz.

IMPEDANCE AND OUTPUT LEVEL: Model 560—Dual. 150 ohms†—56 dB\*; .125 millivolts/microbar. High††—57 dB\*\*; 1.41 millivolts/microbar. Model 561—150 ohms†—56 dB\*; .133 millivolts/microbar.

\*0 dB = 1 milliwatt per 10 microbars

\*\*0 dB = 1 volt per microbar

†For connection to microphone inputs rated at 19 to 300 ohms

11

††For connection to high-impedance microphone inputs

Model	Desk Stand	Isolation Desk Stand	Lavalier	Windscreen
570(S)		-	A57L*	A2WS
571	S33B, S37A	S39A	A51L, A57L	A2WS
572G				A2WS
560	-		A34L*	
561 *Furnished Accessory	-		_	_



# omnidirectional microphones

MODELS 520SL • 520SLB • 520: Dispatcher Models 520SL and 520SLB combine the microphone, the grip-to-talk slideto-lock switch, and the desk stand as a complete assembly. This series, with rugged CONTROLLED MAGNETIC \* elements, is a favorite among dispatchers because of its dependability. Designed for base-station use in police, fire, utility, forestry and transportation services, as well as paging and call sys-

tems. Green Bullet Model 520 is a micro-

phone head alone, and is an exceedingly

rugged utility public address microphone.

MODEL 520SL DISPATCHER: High impedance. Switch bar activates both relay and microphone circuits, and has optional locking feature to lock microphone in On position. Microphone switch is normally shorted, relay portion is normally open. Supplied with 2.1 m (7 ft.), two-conductor shielded cable.

MODEL 520SLB DISPATCHER: Low impedance. Switch bar activates both microphone and relay circuits, and has optional locking feature to lock microphone in On position. Relay switch and microphone switch are normally open. Supplied with 2.1 m (7 ft.), four-conductor (two shielded)

MODEL 520 GREEN BULLET: High impedance. Microphone head only. Supplied with 2.1 m (7 ft.), non-detachable, singleconductor shielded cable.

### **SPECIFICATIONS**

FREQUENCY RESPONSE: Model 520-100 to 9,000 Hz; Models 520SL and 520SLB-200 to 5,000 Hz.

IMPEDANCE AND OUTPUT LEVEL: Model 520: Hight -- 54 dB\*; 2.00 millivolts/ microbar.

MODEL 520SL: Hight -- 54.5 dB\*; 1.88 millivolts/microbar: Model 520SLB: 150 ohms††—-50.5 dB\*\*; .265 millivolts/microbar.

\*0 dB = 1 volt per microbar \*\*0 dB = 1 milliwatt per 10 microbars

†For connection to high-impedance microphone inputs ††For connection to microphone inputs rated at 19 to 300

MODEL 450: The new modern design of this rugged omnidirectional Dispatcher Microphone fits every decor for dispatching and paging use—and features a telescoping height adjustment (approx. 63.5 mm [2-1/2 inches]) for maximum convenience. The case is made of rugged gray ARMO-DUR which won't crack, peel, rust, or dent. The microphone incorporates a patented CONTROLLED MAGNETIC \*\* cartridge and an impedance switch for low or high impedance. The push-to-talk switch bar activates both microphone and relay circuits, and has an optional locking feature to lock microphone in On position. 2.1 m (7 ft.), fourconductor (two shielded) cable.

### SPECIFICATIONS

FREQUENCY RESPONSE: 100 to 10,000

IMPEDANCE AND OUTPUT LEVEL: Dual. High†—-55 dB\*; 1.77 millivolts/microbar. 150 ohms††—-51 dB\*\*; .250 millivolts/ microbar.

\*0 dB = 1 volt per microbar
\*\*0 dB = 1 milliwatt per 10 microbars
†Minimum load 15 kilohms, recommended load 100 kilohms

††Minimum load 150 ohms, recommended load 1,000 ohms

MODEL 514B: This omnidirectional microphone is designed specifically for use in deluxe paging systems in stores, restaurants, travel terminals, and hospitals. The Model 514B combines high intelligibility with an extended low frequency response that gives paging messages an unusually smooth "high fidelity" sound. Rugged matte black ARMO-DUR \* case. "Million-cycle" grip-totalk switch activates both microphone and external relay circuit. Four-conductor (two shielded), neoprene-jacketed coil cord. Accessory hang-up bracket included.

### **SPECIFICATIONS**

FREQUENCY RESPONSE: 100 to 10,000

IMPEDANCE AND OUTPUT LEVEL: 150 ohms††--56 dB\*\*; .131 millivolts/microbar.

\*0 dB = 1 milliwatt per 10 microbars

††For connection to microphone inputs rated at 19 to 300





### THE COMMANDO SERIES (CONTROLLED MAGNETIC®) MODELS 415 • 420 • 425 • 430 • 430SL

The versatile Commando Series represents a significant achievement in providing superrugged omnidirectional microphones with good performance at nominal cost. Each Commando microphone incorporates a durable, Shure-patented CONTROLLED MAGNETIC® cartridge. Suitable for indoor or outdoor use, these microphones feature high output, smooth response, extreme ruggedness and resistance to severe moisture and temperature conditions.

MODEL 415 COMMANDO: For hand or stand use. High impedance. Supplied with 2.1 m (7 ft.) permanently attached, singleconductor shielded cable. Model A25B Swivel Adapter included.

MODEL 420 COMMANDO: Designed for lavalier use. Dual impedance. Supplied with 6.1 m (20 ft.) permanently attached, miniature, two-conductor shielded cable. Lavalier cord and clip included.

MODEL 425 COMMANDO: Designed for gooseneck mounting. Dual impedance. Supplied with 2.1 m (7 ft.) permanently attached, miniature, two-conductor shielded

MODEL 425 GOOSENECK COMMANDO: Model 425 pre-mounted on 152 mm (6inch), 305 mm (12-inch), or 457 mm (18-inch) gooseneck. Supplied with 2.1 m (7 ft.) permanently attached, miniature, twoconductor shielded cable.

MODEL 425-G6 152 mm (6-inch) MODEL 425-G12 305 mm (12-inch) MODEL 425-G18 457 mm (18-inch) MODEL 430 COMMANDO: For stand or hand use. Dual impedance. Supplied with

4.6 m (15 ft.) detachable two-conductor shielded cable. Model A25B Swivel Adapter included.

MODEL 430SL COMMANDO: For base station and paging applications. Features a built-in switch to control both the microphone circuit and an external relay or control circuit (press-to-talk locking or non-locking type). Model S38B Desk Stand and Model Á25B Swivel Adapter included. Supplied with 4.6 m (15 ft.) non-detachable, threeconductor (one shielded) cable.

### **SPECIFICATIONS**

FREQUENCY RESPONSE: 60 to 10,000 Hz.

IMPEDANCE AND OUTPUT LEVEL: Model 415—High†—-55 dB\*; 1.78 millivolts/microbar. Models 420, 425 & 430—Dual. High†—55 dB\*; 1.78 millivolts/microbar. 150 ohms††—54 dB\*\*; .180 millivolts/microbar. Model 430SL—Dual. High†— 52 dB\*; 2.50 millivolts/microbar, 150 ohms††--52 dB\*\*; .224 millivolts/microbar

MODELS 540 • 540S: A compact, versatile, modern omnidirectional microphone with a high output dynamic element-at a moderate cost. The SONODYNE® Il features wide-range, adjustable frequency response which allows the user to tailor the microphone's response to the application. Supplied with 4.6 m (15 ft.) detachable, twoconductor shielded cable, with MALE MC3M type connector.

MODEL 540 SONODYNE II: Without On-Off switch.

MODEL 540S SONODYNE II: With On-Off switch

### **SPECIFICATIONS**

FREQUENCY RESPONSE: 50 to 13,000 Hz. IMPEDANCE AND OUTPUT LEVEL: Dual. High†—-53.5 dB\*; 2.13 millivolts/microbar. 150 ohms††—-56 dB\*\*; .149 millivolts/microbar.

MODELS 575S • 575SB: The omnidirectional dynamic Versadyne microphones feature very good quality at a very low price. Their smooth, wide-range response of 40 to 15,000 Hz makes them ideal for home tape recording, general public address, as well as many other applications. The 575 Versadyne I Series case is black and satin chrome. Built-in filters to reduce voice "pop," plus an On-Off switch. Lavalier cord and stand adapter are included. Supplied with 2.1 m (7 ft.) permanently attached, one-conductor shielded cable.

MODEL 575S VERSADYNE I: High impe-

MODEL 575SB VERSADYNE I: Low impedance.

### SPECIFICATIONS

FREQUENCY RESPONSE: 40 to 15,000 Hz. IMPEDANCE AND OUTPUT LEVEL: Model 575S-Hight--56 dB\*; 1.57 millivolts/microbar. Model 575SB—150 ohms††—-58 dB\*\*; .112 millivolts/microbar.

\*0 dB = 1 volt per microbar \*\*0 dB = 1 milliwatt per 10 microbars

†For connection to high-impedance microphone inputs ††For connection to microphone inputs rated at 19 to 300

MODEL 275S: A low-cost, ceramic-element microphone (similar in styling to Model 575S, above) offering a good response suitable for tape recording, general public address, and other applications requiring an economical microphone. Locking On-Off



### MOBILE

### CONTROLLED MAGNETIC AND CARBON MICROPHONES

### MODELS 404B • 404C • 104C • 405K • 405T • 418A

These omnidirectional microphones provide high speech intelligibility and are used extensively in police, taxi, bus, sports, industrial and commercial applications. Featuring ARMO-DUR \* high-impact cases, they fit comfortably in the palm of the hand, and are rugged units—with a reputation for trouble-free performance under severe operating

conditions. They are provided with a bracket for permanent placement in portable or mobile equipment.

### THE COMPACT RANGER II SERIES MODELS 414A • 414B • 524C

Ideal for miniaturized or portable communications systems, the 414 Series of CONTROLLED MAGNETIC\* and the 524C dynamic transistorized omnidirectional microphones are about half the size and weight

of conventional microphones, yet perform as well or better. They are rugged units recommended for critical outdoor-indoor communications in mobile and fixed-station use, as in police, fire, taxi, bus, utility, forestry, and transportation services, commercial, industrial, radio telephone, amateur radio, and similar applications. Switching on Model 414A, microphone circuit normally closed, relay circuit normally open; Models 414B and 524C, microphone circuit normally open, relay circuit normally open.

### **SPECIFICATIONS**

Model	Туре	Frequency Response	Load Impedance Minimum Recommended				Output Level (Volts/100 microbars)	Switch (	Circuits Relay	Cable
104C	Carbon†	300 to 4,000 Hz	50 ohms	100 ohms	-5.0 dB* (.56V)	open	open	1.8m (6 ft), coiled, 4-conductor		
404B	CONTROLLED MAGNETIC ®	200 to 4,000 Hz	150 ohms	1 kilohm	-30.5 dB* (29 mV)	open	open	1.8m (6 ft), coiled, 4-conductor, 2-shielded		
404C	CONTROLLED MAGNETIC *	200 to 4,000 Hz	15 kilohms	100 kilohms	- 10.5 dB* (.295 V)	closed	open	1.8m (6 ft), coiled, 3-conductor, 1-shielded		
405K	CONTROLLED MAGNETIC *	200 to 4,000 Hz	15 kilohms	100 kilohms	- 14.0 dB* (.20V)	open	open	1.5m (5 ft), coiled, 3-conductor, 1-shielded, with Amphenol MC4M type plug (offset keying)		
405T	CONTROLLED MAGNETIC ** Transistor amplified†	200 to 4,000 Hz	100 ohms	500 ohms	-4.0 dB* (.63V)	open	open	1.5m (5 ft.), coiled, 4-conductor		
418A	CONTROLLED MAGNETIC *	200 to 4,000 Hz	1500 ohms	10 kilohms	-22.5 dB* (75 mV)	open	open	1.5m (5 ft), coiled, 4-conductor, 1-shielded, with Components 6601-M6 type plug		

 $^{\circ}$ 0 dB = 1 volt per 100 microbars †Requires polarizing voltage in amplifier input circuit

### **SPECIFICATIONS**

Model	Туре	Frequency Response	Load Ir Minimum	mpedance Recommended	Output Level (Volts/100 microbars)	Switch ( Mic	Circuits Relay	Cable
414A	CONTROLLED MAGNETIC **	200 to 5,000 Hz	15 kilohms	100 kilohms	-11.5 dB* (.266V)	closed	open	1.8m (6 ft), coiled, 3-conductor, 1-shielded
414B	CONTROLLED MAGNETIC *	200 to 5,000 Hz	150 ohms	1,000 ohms	-31.0 dB* (28 mV)	open	open	1.8m (6 ft), coiled, 4-conductor, 2-shielded
524C	Dynamic, transistor amplified†	300 to 5,000 Hz	250 ohms	2,200 ohms	-4.0 dB* (.632V)	open	open	1.5m (5 ft), coiled, 4-conductor

\*0 dB = 1 volt per 100 microbars  $\dagger$ Requires polarizing voltage in amplifier input circuit







# COMMUNICATIONS

### **OUTSTANDING NOISE-CANCELING MICROPHONES**

SONO-BAR® MODELS 577A • 577B • 577C • 488T

### RANGER II MODELS 419A • 419B

Exceptionally effective and rugged, these two series of noise-canceling microphones provide highly intelligible speech communication in mobile and fixed-station use where high volume background noise is found, such as airplanes, helicopters, motorcycles, trucks, fire engines, power boats, sportingevents, drop-forges, press-rooms, engine-rooms, factories, etc. These patented Shure CONTROLLED MAGNETIC® and dynamic

microphones shut out background noise, permit clear transmission even where the noise level is so great that the operator can-not hear himself talking! The high-impact ARMO-DUR® case is lightweight, feels natural to the touch even in temperature extremes. Four versions of the SONO-BAR® Series are described below, the 577A which is high impedance, the 577B which is low impedance and the 577C and 488T Models which are transistorized for direct replacement of carbon microphones (the 488T is F.A.A. Certified for aircraft applications).

The 419A Series is smaller, more compact, than the SONO-BAR® Series. All models are equipped with coiled cords and long-life heavy-duty push-to-talk switches.

### **OMNIDIRECTIONAL MODULAR MICROPHONES**

MODELS 507B • 407A • 407B: Ruggedness, reliability and top performance in new modular-design microphones that disassemble quickly and make every part accessible-permit easier in-the-field maintenance. Two-tone gray ARMO-DUR® cases are lightweight, immune to shock, and unaffected by oil, sun, salt, spray, acids, rust, or corrosion. Triple-Flex® cable provides three to four times longer flex life than previously available coiled cords. Small easyto-handle design, with rugged dynamic and CONTROLLED MAGNETIC® elements for excellent voice intelligibility. Hum-shielded and insulated against shock. Model 507B features extended low and high frequency response, especially suitable for mobile SM transmitters.

### SDECIFICATIONS

				SPECI	ITCATIONS				
Model	Туре	Frequency Response	Imped- ance	Load li Minimum	mpedance Recommended	Output Level (Volts/100 microbars)	Switch C Mic	Circuit Relay	Cable
577A	Dynamic	100 to 5,000 Hz	High††			-23.5 dB* (67 mV)	closed**	open	1.8m (6 ft), coiled, 3-conductor, 1-shielded
577B	Dynamic	100 to 5,000 Hz	150 ohms†††			-44.0dB*(6.4 mV)	open***	open	1.8m (6 ft), coiled, 4-conductor, 2-shielded
577C	Dynamic, Transistor amplified†	100 to 5,000 Hz		250 ohms	2200 ohms	−7.0 dB* (.445V)	open	open	1.8m (6 ft), coiled, 4-conductor
488T	CONTROLLED MAGNETIC ® Transistor amplified†	200 to 4,000 Hz		100 ohms	2200 ohms	-5.0 dB* (.560V)	open	open	1.7m (5-1/2 ft), coiled, with PJ-068 2-circuit phone plug
419A	CONTROLLED MAGNETIC ®	200 to 4,000 Hz	High	15 kilohms	100 kilohms	−18.5 dB* (.116V)	closed	open	1.7m (5-1/2 ft), coiled, 3-conductor, 1-shielded
419B	CONTROLLED MAGNETIC ®	200 to 4,000 Hz	150 ohms	200 ohms	1000 ohms	-40.5dB* (9.4 mV)	open	open	1.7m (5-1/2 ft), coiled, 4-conductor, 2-shielded

\*0 dB = 1 volt per 100 microbars "Simple change to normally open

\*\*Simple change to normally closed

†For connection to high-impedance microphone inputs †Requires polarizing voltage in amplifier input circuit †††For connection to microphone inputs rated at 19 to 300 ohms

SP	ECIF	ICAT	IONS
----	------	------	------

Model	Туре	Frequency Response	Imped- ance	Load Ir Minimum	mpedance Recommended	Output Level (Volts/100 microbars)	Switch C Mic	ircuit Relay	Cable
507B	Dynamic	100 to 5,000 Hz	150 ohms†			-39.0 dB* (11.2 mV)	open**	open	1.8m (6 ft), coiled, 4-conductor, 2-shielded
407A	CONTROLLED MAGNETIC ®	300 to 4,000 Hz	High	15 kilohms	100 kilohms	-14.0 dB* (.200V)	closed***	open	1.8m (6 ft), coiled, 3-conductor, 1-shielded
407B	CONTROLLED MAGNETIC *	300 to 4,000 Hz	150 ohms	200 ohms	1000 ohms	-43.0 dB* (7.0 mV)	open**	open	1.8m (6 ft), coiled, 4-conductor, 2-shielded

577C









Models



Super Punch" CB POWER MICROPHONE MODEL 526T: This new base-station power microphone combines a rugged, reliable dynamic element and a transistorized preamplifier for really "getting out." A variable output level control allows you to maximize transmitter modulation for increased talk power, regardless of your speaking distance from the microphone. Superb voice-optimized response...tuned for maximum vocal punch with AM and sideband rigs. Excessive background noise, hum and radio-frequency pickup are minimized. Two-way NORMAL/VOX switch, push-to-talk bar, and electronic or relay switching. Operates on a standard 9-volt battery with either high or low impedance inputs. 2.1 m (7 ft.), 3-conductor, shielded, plasticjacketed cable supplied.

### **SPECIFICATIONS**

FREQUENCY RESPONSE: 200 to 6,000 Hz. LOAD IMPEDANCE: 500 ohms minimum. OUTPUT LEVEL (with 100 kilohm load): 0.63 to 14 millivolts/microbar

SPECIAL HAM MICROPHONE MODEL 444 CONTROLLED MAGNETIC \* Omnidirectional microphone specifically designed to meet the needs of the discriminating amateur radio enthusiast. The 444 is made of rugged ARMO-DUR\* which won't crack, peel, rust, or dent. This is a modern microphone with unmatched performance characteristics. It features an adjustable stand that raises or lowers the microphone for most comfortable talking position (approx. 63.5 mm [2½ inches]) and a push-to-talk switch bar with optional locking feature to operate an external relay control and microphone muting circuits. A separate switch

enables user to disable the relay control circuit for VOX operation. 2.1 m (7 ft.), two conductor shielded cable.

### **SPECIFICATIONS**

FREQUENCY RESPONSE: 200 to 6,000 Hz. LOAD IMPEDANCE: 15 kilohms minimum, 100 kilohms recommended.

OUTPUT LEVEL: -53 dB\*; 2.25 millivolts/microbar.

\*0 dB = 1 volt per microbar

### UNIDIRECTIONAL

### **MICROPHONE MODEL 522**

This is a dynamic microphone with a unidirectional pickup pattern that suppresses unwanted background noise—the type of noise generated by other dispatchers working nearby, ventilating equipment, or office machines in the same area. It also suppresses feedback in public address paging applications. Long-life finger-tip control bar (locking and non-locking action) actuates microphone circuit and normally open external relay circuit. Adjustable height from 248 mm (93/4 inches) to 318 mm (121/2 inches) overall. Sturdy, high impact ARMO-DUR® base and case. High or low-impedance selector switch. 2.1 m (7 ft.), four-conductor (two-conductor shielded) cable.

### SPECIFICATIONS

FREQUENCY RESPONSE: 60 to 11,000 Hz. IMPEDANCE AND OUTPUT LEVEL: Dual. 150 ohms  $^+$ —  $^-$ 57 dB $^+$ ; .10 millivolts/microbar. High  $^+$   $^+$ —  $^-$ 57 dB $^{**}$ ; 1.42 millivolts/microbar.

'0 dB = 1 milliwatt per 10 microbars

\*\*\*O dB = 1 volt per microbar
For connection to microphone inputs rated at 19 to

For connection to high-impedance microphone inputs

### PROFESSIONAL TELEPHONE HANDSET MODEL TH100

The TH100 is an omnidirectional CON-TROLLED MAGNETIC® communications handset specifically designed for industrial radio communications uses in applications such as ship-to-shore, police, safety, forestry, amateur radio, Citizens Band, and paging systems. When not in use and the handset is hanging in the cradle, an automatic switch permits an external loudspeaker to function. When the handset is lifted from the cradle, the loudspeaker signal is transferred to the handset. Control of the transmitter circuits is operated by the push-to-talk handset switch. Four-conductor, (one shielded) plasticjacketed coil cord on handset, 1.2 m (4 ft.), four-conductor, (one shielded) plastic-jack eted cable on hangup cradle.

### **SPECIFICATIONS**

FREQUENCY RESPONSE: 200 to 3,000 Hz.

IMPEDANCE (Receiver): 125 ohms

LOAD IMPEDANCE (Transmitter): 15 kilohms minimum, 100 kilohms recommended

### **OUTPUT LEVEL:**

Transmitter -- 13.5 dB\*; .21 volts Receiver-103.5 dB SPL; .94 volts

\*0 dB = 1 volt per 100 microbars

### LOW COST HAND-HELD MICROPHONES FOR CB, AMATEUR, MOBILE

MODELS 401A • 401B • 201 • 202: Designed to provide excellent performance at low cost, these microphones are ideal replacement units in all communications equipment.

### **SPECIFICATIONS**

				The second secon					
Model	Type	Frequency Response	Imped- ance	Load Ir Minimum	mpedance Recommended	Output Level (Volts/100 microbars)	Switch Mic	Circuit Relay	Cable
401A	CONTROLLED MAGNETIC "	200 to 4.000 Hz	High	15 kilohms	100 kilohms	- 11.5 dB* (267 mV)	closed	open	1.5m (5 ft), coiled, 3-conductor, 1-shielded
401B	CONTROLLED MAGNETIC	200 to 4,000 Hz	150 ohms	150 ohms	1000 ohms	-29.5 dB* (33.2 mV)	open	open	1.5m (5 ft), coiled, 4-conductor, 2-shielded
201	Ceramic	200 to 4,000 Hz		1 megohm	3 megohms	-15.5 dB* (167 mV)	closed	open	1.5m (5 ft), coiled, 3-conductor, 1-shielded
202	Ceramic, Noise- Canceling	200 to 4,000 Hz		1 megohm	5 megohms	- 10.5 dB* (293 mV)	closed	open	1.5m (5 ft), coiled 3-conductor, 1-shielded
*0 dB =	I volt per		1			/			

Model

444

100 microbars NOTE: For complete information on the Shure line of CB microphones, request Catalog No. AL 556.





### E-QUALIDYNE \*\*\*

taping microphone



### add REEL SOUND to your tapes!

Control the sound of your recordings right from the microphone. The unique 516EQ E-Qualidyne" has four built-in filter switches on the handle for "tailoring" your recordings: Flick one switch (or two) to eliminate feedback...flick another switch to take the muddy sound out of a bass drum...use another filter to add sizzle to voices. In all, there are sixteen response variations possible. Each one reflects a different frequency response in crucial areas of the response curve from 50 to 15,000 Hz.

Use two 516EQ microphones for stereo recording (ask for 516EQ-PR).

Dynamic, cardioid (unidirectional) design for increased intelligibility. Cable, Mini-Plug Adapter, Model A25B Swivel Adapter, windscreen and pop filter, and carrying case included.

### **SPECIFICATIONS**

FREQUENCY RESPONSE: 50 to 15,000 Hz.

**IMPEDANCE:** Microphone rating impedance is 150 ohms (170 ohms actual) for connection to microphone inputs rated at 100 to 3000 ohms.

**FILTER SWITCHES:** Four filter switches in case. Switches provide 6 dB notches at 190 (LO) 560, 1,650 and 4,900 (HI) Hz.

**CONNECTOR:** Equipped with professional three-pin audio connector (Male) designed to mate with furnished cable or Cannon XL series, Switchcraft A3 (Q.G.) series or equivalent connectors.

CABLES: 4.6m (15 ft.), single-conductor shielded cable, equipped with 1/4" phone plug on tape recorder end. 0.9m (3 ft.), single-conductor shielded adapter cable, with phone jack (female) and 1/8-inch mini-plug (male) connectors.

## SPEC

MODEL HF52: Shure's Hands Free Mobile Voice Pickup System keeps your hands on the wheel when you're talking on the go! Simply clip the miniature low-impedance dynamic microphone to the vehicle sun visor. When you're ready to talk, step on the HF52 footswitch. It's that easy! System includes a microphone, adjustable-gain amplifier, corrosion-proof footswitch, and 1.8 m (70 in.) two-conductor shielded plastic-jacketed cable. Can be connected with most mobile transmitter units (not CB) designed for dynamic or CONTROLLED MAGNETIC' carbon, or transistorized microphones. Ideal for police cars. taxicabs, and radio-dispatched trucks.

### **SPECIFICATIONS**

FREQUENCY RESPONSE: 200 to 5.000 Hz.
RECOMMENDED LOAD IMPEDANCE: 100 ohms minimum.

OUTPUT LEVEL: Variable: - 46 to -22 dB (0 dB = 1 volt per microbar) (5 mV to 80 mV/microbar).

and is characterized specifically for pinknoise-excited systems.

### **SPECIFICATIONS**

SINE-WAVE FREQUENCY RESPONSE: 30 to 20,000 Hz.

IMPEDANCE AND OUTPUT LEVEL: 38 ohms for connection to microphone inputs rated at 19 to 300 ohms; -60.5 dB\* (.042 mV/microbar).

MODEL 98A108A SOUND LEVEL MICROPHONE: Custom-made, non-directional ceramic microphone designed for scientific and industrial sound measurement work—and for those special applications that involve frequency response determinations, production testing, ambient noise levels, reverberation measurements, etc. Resistant to extremes in temperature and humidity. Smooth response. Write "Shure Marketing Services" for complete specifications and technical description.

(Model not illustrated)

MODEL 562 NOISE-CANCELING MI-CROPHONE: Block out background noise with the noise-canceling 562. It's a dynamic, low-impedance, close-talking high-quality unit for flexible gooseneck and general purpose use. Withstands abnormal moisture and temperature conditions. Excellent for paging and base-station communications in noisy surroundings, such as factories, airports, and garages.

### SPECIFICATIONS

FREQUENCY RESPONSE: 100 to 6,000 Hz. Rising characteristic to 4,000 Hz.

IMPEDANCE AND OUTPUT LEVEL: 150 ohms† —-62 dB\*; .063 millivolts/microbar.

†For connection to microphone inputs rated at 19 to 300 ohms

ohms
'0 dB = 1 milliwatt per 10 microbars



## AL PRODUCTS

MODEL 61CP VIBRATION PICKUP: A piezoelectric transducer, designed for the measurement and analysis of vibrations in industrial and research applications. Model 61CP has a flat output voltage versus constant acceleration up to approximately 1,000 cycles per second, providing a frequency range suitable for general vibration studies.

Write "Shure Marketing Services" for complete specifications and technical description.

MODEL 62CP ACCELEROMETER: A ceramic accelerometer with a Lead Zirconate Titanate (PZT) element. Very high voltage sensitivity, high internal capacitance, good stability, high resonant frequency, and resistance to humidity.

Write "Shure Marketing Services" for complete specifications and technical description.

MODEL A10CH COUGH BUTTON: A switch, cable and connector accessory designed to provide the user of a Shure Model SM10 or SM12 Head-Worn Microphone or of a Model SM11 Lavalier Microphone with a capability for momentarily shorting the microphone circuit when the switch button is depressed; undesirable sounds are prevented from reaching the audience. The A10CH may also be used with low-impedance, balanced-line microphones—head-worn, lavalier, hand-held or standmounted—which contain a male professional three-pin audio connector.

Not recommended for use with condenser microphones that are externally powered via the microphone cable.

The A10CH consists of a 4.6 m (15 ft.), heavy-duty, two-conductor, shielded cable with male and female professional three-pin audio connector.¹ Mounted in the side of the female microphone connector is a momentary-action push-button switch which controls the microphone output circuit. The A10CH weighs 500 grams (17.6 oz).

Designed to mate with Cannon XL series, Switchcraft A3 (Q.G.) series or equivalent connector.

MODEL SRC-1 SOUND REINFORCE-MENT CALCULATOR: Provides a convenient means for calculating (1) room reverberation time and acoustic absorption coefficients: (2) microphone output voltage and sensitivity ratings: (3) attenuation pad resistance values. Sixteen-page instruction brochure included.

MODEL RSR-1 REACTANCE SLIDE RULE: Simplifies calculation of resonance frequency, capacitive reactance, inductive reactance, Coil "Q" and dissipation factor problems. Instructions and example problems included.

### MINIATURE, CONTROLLED MAGNETIC \* MICROPHONES MODELS MC11J • MC30J

Miniature microphones especially designed for use in small, compact devices, hearing aids, amplifiers, transmitters, dictating equipment, or inconspicuous microphone applications—wherever space is critical and reliability is essential. Metal cases protect against hum, Rugged, immune to mechanical shock and to varying conditions of heat and humidity. Recommended for use wherever size and weight are important factors.

For additional information and complete specifications, write <a href="Shure Marketing Services">Shure Marketing Services</a>.

### MINIATURE MICROPHONES

Dimensions	MC11J (Circular) 26 mm diameter, 11.5 mm deep (1-1/32 in., 7/16 in.)	MC30J (Square) 13.1 mm x 12.7 mm. 6.7 mm deep (33/64 in. x 1/2 in. x 17/64 in.)
Frequency Response	400 to 4,000 Hz	400 to 3500 Hz
Actual Impedance	900 ohms	1850 ohms
Load Impedance Minimum Recommended	2,000 ohms 10,000 ohms	2,000 ohms 10,000 ohms
Output Level (Volts/microbar)	-60.0 dB* (.20 mV)	69.0 dB* (.10 mV)

\*0 dB = 1 milliwatt per 10 microbars



# STUDIO microphones

MODEL SM11: The rugged Shure SM11 is the world's smallest dynamic-element lavalier microphone. Though it's only about half the size of an ordinary microphone connector, the omnidirectional SM11 has professional sound quality that's ideal for broadcasting, motion pictures, and sound reinforcement. Acoustically matches most stand and desk microphones-its frequency response is specially shaped to give a flat, natural response when used in a lavalier position. Field serviceable, too! Supplied accessories include a lavalier cord assembly, a clip-on clasp and a tie tack assembly, and a connector belt clip that prevents a performer from accidentally disconnecting the micro-phone from the lavalier or tie tack.\*

SPECIFICATIONS

FREQUENCY RESPONSE: 50 to 15,000 Hz.

IMPEDANCE AND OUTPUT LEVEL: Microphone rating impedance is 150 ohms (200 ohms actual) for connection to microphone inputs rated at 19 to 300 ohms. Output Level: —64 dB (0 dB = 1 milliwatt with 10 microbars); .055 millivolts/microbar.

MODELS SM10 AND SM12: Two headworn microphones for remote broadcasting. The SM12 (with receiver for on-the-field cuing) and the SM10 (without receiver) reduce annoying background sounds without masking close-up voice signals. The dynamic microphone pickup is unidirectional, so only the sounds you select are transmitted.\* The miniature windscreen blocks out wind noise and explosive breath sounds. Close-talking arrangement means a strong natural voice frequency response without background noise. Low impedance for extra-long cables (no batteries required, either). Includes

snap-on connector clip for belt or shirt—no chance of long wires getting in the way! Adjustable microphone headset fits any head size. Weighs only 84 grams (3 oz.) in the SM12 model and 78 grams (2.7 oz.) in the SM10 model.

### SPECIFICATIONS

FREQUENCY RESPONSE: 50 to 15,000 Hz.

IMPEDANCE AND OUTPUT LEVEL: Microphone rating impedance is 150 ohms (200 ohms actual) for connection to microphone inputs rated at 19 to 300 ohms. Output Level: —66 dB (0 dB = 1 milliwatt with 10 microbars); .045 millivolts/microbar. Cable: Non-detachable, 1.5 m (5 ft.), SM10, two-conductor, shielded; SM12 four-conductor, shielded, plastic-jacketed; additional 0.3 m (12 in.), two-conductor receiver cable attached to microphone connector. Receiver impedance is 2000 ohms, for connection to 600 ohm lines. Output Level: 105 dB SPL with 1.4 volts.

Model SMI1 SMI2 SMI2 SMI10





# AODIFIERS for microphones

### A15 SERIES "PLUG-IN" MICROPHONE ATTENUATORS, EQUALIZERS AND ADAPTERS

A series of in-line low-impedance microphone attenuators, equalizers and adapters that plug in to give instant modifications of response and performance in microphones and sound systems—without time-consuming permanent rewiring or soldering. Only 114 mm (4-1/2 in.) long x 19 mm (3/4 in.) dia., with color-coded nameplates for quick identification. Three-pin FEMALE input and MALE output professional audio connectors.\*

**A15A MICROPHONE ATTENUATOR:** Prevents input overload in applications where very strong signals are applied to a microphone input. Inserts a 15 dB loss.

A15PR PHASE REVERSER: Reverses the phase of a balanced line without modification of equipment.

A15HP HIGH PASS FILTER: Provides a low frequency cut-off to reduce unwanted low frequency noises.

A15LP LOW PASS FILTER: Provides a high frequency cut-off to reduce objectionable high frequency noises.

A15PA PRESENCE ADAPTER: Adds "presence" to vocals or instruments in recording, broadcasting, and P.A. applications.

A15RS RESPONSE SHAPER: Provides sibilance filtering in recording, broadcasting, and P.A. applications.

A15LA LINE INPUT ADAPTER: Converts balanced low impedance microphone input to bridging line level input.

A15BT BRIDGING TRANSFORMER: Matches balanced or unbalanced devices of different impedances. (33 kilohm primary, and 600 or 7,500 ohm secondary.)

A15TG TONE GENERATOR: Produces a continuous 700 Hz signal capable of driving low impedance balanced lines, and is extremely useful in setting up and trouble-

shooting audio equipment. Plugs into microphone input to enable engineer to check levels, connections, mixer inputs, cables, and speakers. Permits one man to do the work of two. Powered by a miniature mercury battery.

\*Designed to mate with Cannon XL series, Switchcraft A3 (Q.G.) series, or equivalent connector.

A95 SERIES: LOW-IMPEDANCE TO HIGH-IMPEDANCE LINE MATCHING TRANSFORMERS (PLUG-IN TYPES). High quality transformers that make it possible to connect a low-impedance microphone to a high-impedance amplifier input or vice versa. Terminated with a variety of connectors that allow instant connection of these transformers to most microphone plugs and amplifier jacks. Solve problems of excessive high-frequency loss and objectionable hum when long lengths of cable are used.

Model	Low-Impedance Connector (three-pin professional audio*)	High-Impedance Connector
A95A	MALE	MC1M**
A95F	FEMALE.	MC1M**
A95P	MALE	1/4 inch phone plug
A95FP	FEMALE	1/4 inch phone plug
A95D	MALE	1/4 inch phone jack
A95FD	FEMALE	1/4 inch phone jack
A95(J	MALE	1/4 inch phone plug and 1/4 inch phone jack
A95UF	FEMALE	1/4 inch phone plug and 1/4 inch phone jack



A95A and LOW-IMPEDANCE TO MEDIUM-IMPEDANCE LINE MATCHING TRANSFORMER. A97A LINE MATCHING TRANSFORMER: High quality transformer designed to properly match low-impedance (150 ohm to 600 ohm) microphone outputs to medium-impedance (1 kilohm to 10 kilohm) inputs, such as those frequently used in cassette recorders. Low-impedance connector—three-pin MALE professional audio connector\*. Medium-impedance connector—Amphenol MC1M type connector\*.

\*Designed to mate with Cannon XL series, Switchcraft A3

(Q.G.) series, or equivalent connector.

"Mating connector supplied with unit.





Model A95D



### MICROPHONE STANDS FOR EVERY APPLICATION

MODEL S33B MODERN DESK STAND. Black finish. For use with Microphone Models 330. 415, 430, 533, 545, 546, 548, 556S, 566, 571, 576, 578, 579, 580, 585 and 588.

MODEL S37A MODERN DESK STAND. Non-reflective, textured gray finish, For use with all microphones with swivel connector assemblies, or microphones with swivel adapters.

MODEL S38B ROUND STAND. Black finish. For use with Models 245, 275, 415, 430, 515, 533, 545, 546, 548, 565, 566, 575, 579, 580, 585, and 588 series.

MODEL S39A VIBRATION-ISOLATION STAND. For all applications where vibration is a problem. Fits all Shure microphones.

MODEL CO-1 STAND ADAPTER. Screwtype clamp with 5/8"—27 Male thread for mounting second microphone on microphone stand, table or desk top. Adjustable 360° swivel aids horizontal positioning.

MODEL S40A DESK STAND. Similar to S37A Stand with push-to-talk switch included. Fits microphones with 5/8"—27 thread connectors. Includes provisions for optional "in use" light. Shielded 2.1 m (seven-foot), four-conductor cable may be wired to any standard microphone connector.

### QUICK DISCONNECT ISOLATION UNITS

Designed for use with microphones normally mounted on desk or floor stands but which are periodically removed from stand for hand-held or carry-around use. The molded rubber insert isolates the microphone from mechanical vibration. MODEL A45. Designed for microphones incorporating an isolation assembly such as Models 330, 546, 556, and all others using an A25B Swivel Adapter. Satin Aluminum finish.

MODEL A45B. Same as A45, but Black finish.

MODEL A47. Designed for microphones with connectors such as Models 55S, 545S, 565S, etc. or nearly all microphones with a standard 5/8"—27 thread.

### GOOSENECKS

High quality flexible goosenecks in 304 mm (12-inch) and 457 mm (18-inch) lengths. "Silent-type" design limits mechanically induced noises.

MODEL G12: 304 mm (12-inch) flexible gooseneck.

MODEL G18: 457 mm (18-inch) flexible gooseneck.

MODEL G12-CN: 304 mm (12-inch) flexible gooseneck with professional FEMALE three-pin audio connector,\*

MODEL G18-CN: 457 mm (18-inch) flexible gooseneck with professional FEMALE three-pin audio connector.\*

MODEL G6A: 152 mm (6-inch) flexible gooseneck (side vent).

MODEL G12A: 304 mm (12-inch) flexible gooseneck (side vent).

MODEL G18A: 457 mm (18-inch) flexible gooseneck (side vent).

### MODEL A12: Mounting flange.

\*Designed to mate with Cannon XL series, Switchcraft A3 series, or equivalent connector.

### LAVALIER ASSEMBLIES

Six different professional quality lavalier assemblies, each designed for one of the Shure Lavalier Microphones, "Positive-lock" designables the microphone securely, yet allow, easy, noiseless adjustment of microphone position. Snaps on and off in an instant.

MODEL A27L: Fits Models 275, 575.

MODEL A34L: Fits Models 415, 420, 430.

MODEL A51L: Plastic. Fits Models 570 and 571.

MODEL A54L: Fits Model 545L.

MODEL A57L: Rubber. Fits Models 570 and 571.

### S55P LOW-PROFILE MICROPHONE STAND

### FOR BETTER SOUND QUALITY IN "DISTANT-PICKUP" SOUND REINFORCEMENT AND RECORDING

A breakthrough in microphone placement technique. Minimizes the "hollow sound" caused by floor reflections usually associated with distant microphone pick-up techniques. Holds the microphone just a fraction of an inch above the floor for better sound quality in "footlight" type placement for recording or sound reinforcement of choral, orchestral or ensemble musical events and dramatic presentations. Effectively isolates mechanical noises. For Shure 545 and other Shure tapered-handle microphones. (Not recommended for microphones with On-Off switches in the handle.) Height 121 mm (4-25/32 inches).

### MICROPHONE REPLACEMENT CARTRIDGES

For complete Shure microphone replacement parts catalog, write for CS210, Accessories and Replacement Parts for Microphones.

# ACCESSORIES

DUAL MICROPHONE MOUNTS: Designed for mounting two microphones, one above the other. Minimum visual obstruction. Minimal disturbance of directional characteristics or frequency response of microphones feeding the same mixer. Ideal for mounting microphones feeding separate systems, or when one microphone is needed as a spare, such as on speakers' rostrums.

MODEL A25M. Designed for use with Shure Models 545, 545SD, and 545L microphones.

MODEL A26M. Designed for use with microphones listed above when using A2WS Windscreen, and "ball-type" Models 565, 565SD, 548, 548SD, 588, 515 Series, and other Shure microphones with tapered handles.

MODEL MS-10C FLOOR STAND. Quickly and easily adjusts from 889 mm (35 inches) to 1.6 m (64 inches) high. Positive ring lock maintains desired height. Standard %"-27 thread accepts any threaded Shure microphone, mount or swivel adapter. Also accepts Model BB-44 Baby Boom described below. Chromeplated. Weighted 254 mm (10 inches) base for stability.

MODEL BB-44 BABY BOOM. 787 mm (31

inches) adjustable boom arm. Fits Model MS-10C Floor Stand above. Standard %"-27 thread accepts any threaded Shure microphone, mount or swivel adapter.

SWIVEL ADAPTERS. MODEL A25B. (Black) To be used with Models 415, 430, 515, 516EQ, 545, 548, 565, 580, 585, and 588 microphones—for use with standard desk or floor stand.

MODEL A57D. Snap-in Locking Swivel Adapter for Models 570, 576, 578, 579SB, and 589S. 19 mm (¾ inches) diameter microphones—for use with standard desk or floor stand.

ISOLATION MOUNTS. MODEL A55M ISOLATION MOUNT. A breakthrough in noise isolation. Reduces mechanical and vibration noises by more than 20 dB. Swivels 180°, standard 5%"-27 female thread fits all Shure desk and floor stands. Fits all UNIDYNE® and UNISPHERE® microphones, except those models with built-in switches or built-in swivel mounts. (Not recommended for microphones with On-Off switches in the handle.) Size: 95 mm (3¾ inches) H x 38 mm (1½ inches) D x 51 mm (2 inches) Diam.

MICROPHONE SWITCH. MODEL A88A. Provides momentary press-to-talk On-Off switching capability, or locks in On position.

Comfortable grip bar minimizes hand and finger fatigue. Long-life leaf switch with silver contacts. Easily attaches to Shure microphones with 3-pin MC3 type connector, such as Models 55S and 540.

MICROPHONE WINDSCREENS. MODEL A2WS. Designed to effectively minimize wind noise in outdoor locations and control explosive breath sounds in any location. For Models 544, 545, 545SD, 545S, 545L, 546, 571, 576, 578 and 578S.

MODEL A61WS. Controls wind noise and "pop." For use on all Shure "ball-type" microphones, such as the Unisphere models. Write to Shure Marketing Services and request AL 483 for additional information.

MODEL A75A. Stand adapter for the Model 575 microphone.

COLOR-CHARGED WINDSCREENS! No more microphone mix-ups when soundmen color-code these windscreen rainbow colors with control console knobs (matching set of self-adhesive "color dots" included). Blue (A61WS-BL), brown (A61WS-BR), green (A61WS-GN), orange (A61WS-OR), red (A61WS-RD), yellow (A61WS-YL), black (A61WS-BK), and white (A61WS-WH) windscreens fit all Shure "ball-type" microphones for greater protection from wind noise and "pop." And, they add a splash of color to any act.





### SPECIALIZED MICROPHONES

MICROPHONES WITH ATTACHED PLUGS ON CABLE END. Identical in specifications to standard models, but with the added feature of a special prewired plug end connector assembly which can be used as an MC1F. an MC1M, or a phone plug. Starred listings have Male professional three-pin audio connectors designed to mate with Cannon XL series, Switchcraft A3 (Q.G.) series or equivalent connector.

Model No.	Description	Specifications To Be Found On		
548SD-CN	Unidyne IV ∗	Page 4		
545SC	Unidyne III	Page 5		
545SD-CN	Unidyne III *	Page 5		

545C	Unidyne III	Page 5
55SWC	Unidyne II	Page 6
580SAC	Unidyne A	Page 6
515SAC	Unidyne B	Page 6
565C	Unisphere I	Page 7
565SC	Unisphere I	Page 7
565SD-CN	Unisphere I *	Page 7
585SAC	Unisphere A	Page 8
585SAVC	Unisphere A	Page 8
588SAC	Unisphere B	Page 8
588SB-CN	Unisphere B *	Page 8
560C	Lavalier	Page 11
533SAC	Spher O-Dyne	Page 10
533SAVC	Spher-O-Dyne	Page 10
575SC	Versadyne	Page 13

GOLD MICROPHONES. Feature Gold finish on metal cases and grille. Specifications are identical to standard models.

Model No.	Description	Specifications To Be Found On:
545S Gold	Unidyne III	Page 5
545 Gold	Unidyne III	Page 5
55S Gold	Unidyne II	Page 6
55SW Gold	Unidyne II	Page 6
565 Gold	Unisphere I	Page 7
585SA Gold	Unisphere A	Page 8
Unidyne Uni	sphere Sanat	ar and Spher

Unidyne, Unisphere, Sonobar and Spher-O-Dyne are Registered U.S. Trademarks of Shure Brothers Inc.

SHURE MODEL NUMBER CODES. A guide to prefix and suffix lettering for all Shure general line microphone and circuitry product model numbers shown in this catalog.

**NOTE:** Please be sure to check the specifications for each model, because there are some variations from this lettering code.

### PREFIX

A = Accessory C = Cable G = Gooseneck

MS = Microphone Stand

R = Replacement Cartridge

S = Stand

### SUFFIX

A = High Impedance

B = Low Impedance

C = Attached 1/4" Phone Plug

CN = Three-pin audio connector on both ends of cable. (One male, one female.)

EQ = Equalizer

G = Gooseneck

L = Lavalier

P = Phone Plug

S = Switch

SD = Magnetic.Reed Switch

SL = Slide-to-lock switch

SW = Switch

T = Transistorized

V = Volume Control

WS = Windscreen

### SHURE GUARANTEE

Shure products are guaranteed in normal use to be free from electrical and mechanical defects for a period of one year from the date of purchase. Please retain proof of purchase date. This guarantee includes all parts and labor.

### SHIPPING INSTRUCTIONS

Carefully repack the unit and return it prepaid to the factory. If outside the United States, return the unit to your dealer or Authorized Share Service Center for repair. The unit will be returned to you prepaid.



SHURE BROTHERS INC. 222 HARTREY AVE. EVANSTON, ILLINOIS 60204, U.S.A. TELEPHONE: AREA CODE: 312-866-2200