MICROPHONES

SHURE

AND

ACOUSTIC DEVICES

CATALOG NO. 155

FOR INFORMATION ON SHURE PICKUPS AND CARTRIDGES SEE CATALOG NO. 156

How to Select The Proper Microphone

Requirements: Before you select a microphone, ask yourself the following questions:

1. For what application will the microphone be used?
2. What are the acoustic conditions of the installation?
3. What range of frequencies must the microphone reproduce?
4. How large a pickup area must the microphone cover?
5. How long a cable must be run from the microphone to the amplifier?
6. What are the gain and input impedance of the amplifier?
7. Where will the microphone be used?

Your answers determine the type microphone you should use.

Three Basic Types: A microphone is an instrument for converting sound energy into electrical energy. This is accomplished by Shure Brothers through three fundamental types of microphones: carbon, crystal, and dynamic. Each employs a specific fundamental principle of operation.

Carbon: In the carbon type, direct current flows through the microphone. As the pressures and rarefactions of the sound wave occur at the diaphragm, they cause the movement of the diaphragm of the microphone to press and release the carbon granules, decreasing and increasing the resistance of the microphone. Pulsating direct current results, the pulsating or alternating part having the same wave form as the original sound wave. High output level and ruggedness are characteristic of a carbon microphone. It is also practically unaffected by heat and humidity. Its high output is advantageous wherever space and weight are a factor, due to the fact that one or two preamplifier stages may be eliminated. The carbon microphone is widely used by military services, police, amateurs, airline and railroad companies for mobile communications.

Crystal: Crystal microphones employ Bimorph Rochelle salt crystals. The crystal element consists of two Rochelle salt slabs which are assembled in such a way that they respond to bending stresses. The two slabs are provided with three foil electrodes so that the assembly is capable of generating a potential between the inner and outer foils when subjected to a strain or bend.

In actual construction, a drive pin is connected to one or two corners of the crystal and the other end of the drive pin is attached to a diaphragm. The movement of the diaphragm and drive pin bends the crystal in accordance with the pressure of the sound wave. This creates an alternating potential of substantially the same wave pattern as the sound wave. A crystal microphone does not require a separate voltage or current source. The output of the microphone can be connected directly to the grid of an amplifier tube.

Dynamic: The moving-coil dynamic microphone consists of a coil element attached to a diaphragm. The coil element is suspended in a magnetic field. The sound wave, acting upon the diaphragm, causes the coil of wire to cut lines of flux in the magnetic field, with the result that a voltage is generated by the coil. This voltage is alternating in nature and corresponds to the original form of the sound wave on the diaphragm. The advantages of a dynamic microphone are many. It is available in low or high impedance, thus permitting the use of long cable lengths. Shure Dynamic Microphones are very rugged and are not affected appreciably by severe conditions of weather, humidity, and handling.

What Is Polar Response Characteristic? The microphone is the heart of the sound system. The difference between having a good or bad installation begins with the proper choice of the microphone. When you select a microphone, the greatest consideration should be given to the polar response of the unit, more commonly known as the "pickup pattern." Polar response characteristic de-

scribes the variation of sensitivity as a function of the direction of arrival of sound. It is commonly published as a function of angle in the horizontal plane. Microphones are available with the following polar characteristics:

1. Nondirectional—picks up sound with equal sensitivity from all directions.
2. Semidirectional (conventional type)—Practically nondirectional at low frequencies, becoming increasingly directional at higher frequencies.
3. Bidirectional—picks up sound from front and rear. Dead at sides.
4. Cardioid—microphone has heart-shaped pick-up pattern—sensitive at front, dead at rear. Ratio of front-to-rear sensitivity for sounds arriving at random, 7 to 1.
5. Super-Cardioid — Improved cardioid pattern. Sensitive at front, dead at rear. Ratio of front-to-rear sensitivity for sounds arriving at random, 14 to 1.

The latter two types of microphones solve many problems in sound and broadcast work. The cardioid and super-cardioid unidirectional microphones have a wide-angle response which diminishes sharply to a pronounced dead zone at the rear. This characteristic is especially helpful in stopping feedback, building up greater volume, simplifying microphone placement, allowing the performers to stand farther away from the microphone, eliminating undesirable reverberation and background noises.

In selecting directional microphones, however, be certain that the cardioid pattern covers the entire frequency range. A chain is only as strong as its weakest link, and if the cardioid microphone is relatively nondirectional at some frequencies, the microphone will feed back and howl at those frequencies. This is particularly common in some microphones at low frequencies.

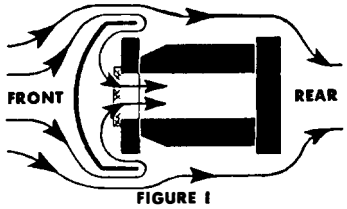


FIGURE 1
Sounds entering from front.

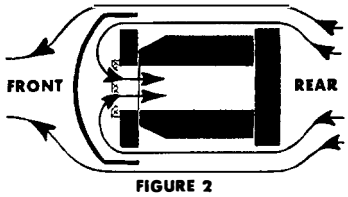
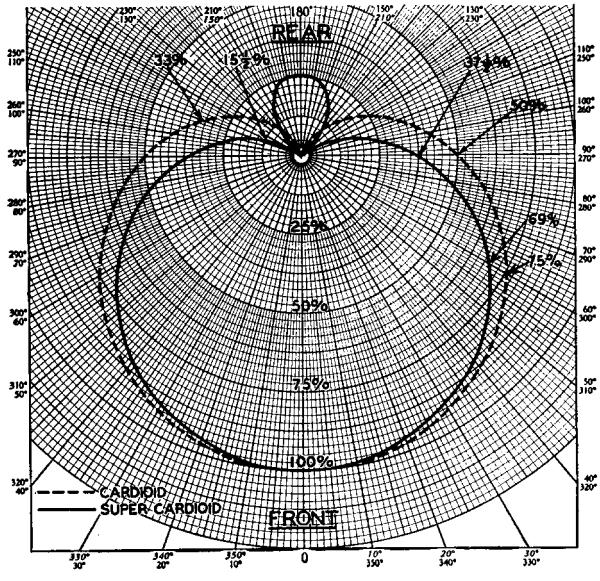


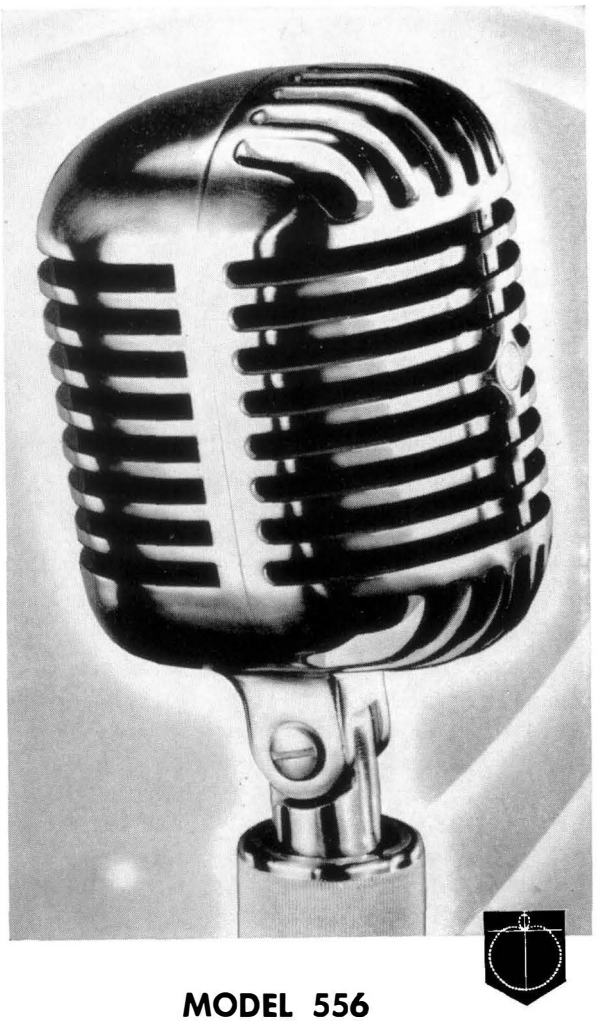
FIGURE 2
Sounds entering from rear.

What Is Uniphase? The Shure Super-Cardioid uses the exclusive Shure Uniphase principle. In the Uniphase, sound acts upon the outside of the diaphragm (see Figure 1) and also enters a phase-shifting acoustic network within the microphone where it acts upon the inside of the diaphragm. When sound arrives from the front of the microphone, the inner pressure reinforces the outer pressure. Figure 2 illustrates sound coming from the rear of the microphone. In this case, the inner pressure cancels the outer pressure, causing a large reduction in sensitivity to sound coming from the rear of the microphone. This principle results in a cardioid or super-cardioid microphone with one transducer unit, wide-angle front pickup, and a reduction in pickup of random sound energy of 66% to 73%. The Shure super-cardioid and cardioid polar patterns are shown in Figure 3.

Frequency Response: Fidelity of reproduction begins with the frequency response of the microphone. The entire system can be no better than the microphone it uses. For high quality Public Address, Broadcasting and Recording, it is essential to have a microphone with a peak-free, extended frequency response. For amateur broadcasting and communications work, it is desirable to provide a full and smooth high frequency end in order to promote crispness and intelligibility of speech at some expense of the overall fidelity. The higher priced Shure microphones are carefully engineered to provide a flat, wide-range response. Even the lower cost microphones are designed to give peak-free performance with frequency range consistent with the price and best suited to the application for which the microphone is recommended.



SHURE
Super-Cardioid Broadcast Dynamic



MODEL 556

MODEL	IMPEDANCE	OUTPUT LEVEL	INCLUDES INTERNAL TRANSFORMER	CODE
556A	35-50 ohms	Into 50 ohms: 56.1db below 1 Milliwatt for 10 bar signal	No	RUDOM
556B	150-250 ohms	Into 250 ohms: 56.8db below 1 Milliwatt for 10 bar signal	Yes	RUDOP
556C	35,000 ohms For High Impedance Input	55db below 1 volt per bar	Yes	RUDOR

The Shure "556" Broadcast Dynamic Microphone has *all* the essentials for high-quality broadcasting, recording, and public-address work. It has a Super-Cardioid pickup pattern (see opposite page) which reduces the pickup of unwanted random noise energy by 73%. It minimizes room reflection, reduces feedback and background noise, simplifies microphone placement, gives freedom of movement to the performer, assures better pickup and reproduction. Has versatility that makes it ideal for either symphony or vocal use.

Applications: Models 556A, B, and C are constructed and tested to meet the requirements of the broadcast studio, and are held within close tolerances in frequency response and directivity. They may also be used for high-quality recording, public-address, and similar applications. The true unidirectional characteristic of the "556" provides an easy solution to the feedback problem *in* reverberant locations, facilitates orchestral placement, permits best utilization of space in small broadcast studios, and allows practically complete exclusion of unwanted noises. The swivel allows the head to be tilted to an angle of 90°, permitting the microphone to be aimed at the source of sound. The instrument is unusually rugged and is practically immune to the effects of moisture, temperature and mechanical vibration.

How the "556" Is Constructed: The Shure "556" Dynamic Microphone has an Acousto-Mechanical circuit containing a single moving-coil element, which operates in conjunction with a high flux magnet and provides high efficiency and smooth peak-free response from 40 to 10,000 cycles. The rear response is down approximately 15 db due to the "Uniphase" unidirectional acoustic network. The super-cardioid pattern is achieved in a single unit, due to the *"Uniphase" principle—a patented Shure development. The moving-coil unit is provided *with*

a double wind-screen to permit quiet outdoor operation. As a precaution against mechanical vibration pickup, the unit is spring-suspended inside the microphone case, which in turn is floated in live rubber in the special Vibration Isolation Unit, which eliminates reproduction of vibration transmitted through the stand. The microphone also has a standard 5/8"–27 thread which permits mounting on any Shure desk or floor stand. Adapters to W.E. or RCA stands will be furnished at no charge with this microphone only upon request. Case dimensions: 4¼" high, 3¼" wide, 3½" deep. Shipping weight, 4½ lbs.

How Connections Should Be Made:

Model 556A works directly into a 35-50 ohm line. Models 556B and 556C include an internal high-quality impregnated transformer with special high-permeability core. Low impedance Models 556A and 556B are recommended where long cable lengths are required. The permissible line length is practically unlimited, since neither the level nor the frequency response is appreciably affected by reasonable lengths of line. Low impedance Models 556A and 556B may be fed into a standard low impedance input amplifier or into an amplifier with high impedance input by using a Shure Model A86A Cable-Type Transformer. A double-winding primary permits coupling either a 35-50 ohm line or 150-250 ohm line to the high impedance input. High impedance Model 556C may be used with any crystal microphone amplifier or other amplifier with an input impedance of 30,000 ohms or more. For best high frequency response, the total cable length should be as short as possible and in any event not over 25 feet. Longer cable lengths may be used with loss of high frequency response. The loss at 5,000 cycles is of the order of 3.5 db with a 25-foot length of cable and 7 db with 50-foot length.

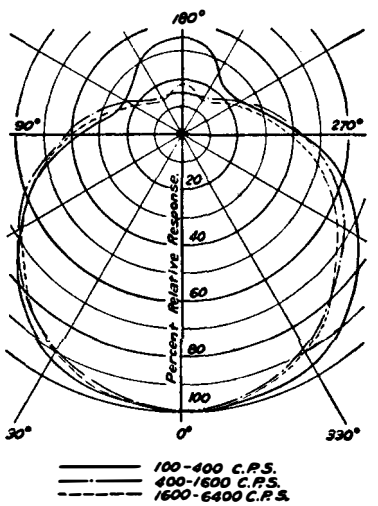
How to Keep the Microphone in Good Condition:

No special precautions beyond ordinary care are necessary in the operation of 556 Series Dynamic Microphones. They will operate efficiently and dependably under all ordinary conditions in hot and cold climates. However, dropping a microphone or other severe mechanical shocks should be avoided.

*Patent Numbers: 2,237,298 2,305,598
2,305,596 2,305,597
Patented in Canada, Great Britain 1946: 529,233

How to Take Full Advantage of the Super-Cardioid Pattern:

The expression "Super-Cardioid type" response simply means that the polar characteristic of the microphone approximates a modified and improved cardioid of revolution. *It is twice as unidirectional as the cardioid.* In the super-cardioid pattern, the ratio of front-to-rear pickup is 14 to 1—in the cardioid, 7 to 1. (See Diagram.) There is a wide, useful pickup angle at the front of the microphone while the response at the sides is down 8.5 db from that at the front. The rear response is down of the order of 15 db over a broad range of frequencies. The true unidirectional characteristic of the "Super-Cardioid" should not be confused with the relatively slight directional effect at high frequencies only, which can be produced by baffle effects in the conventional pressure microphone. By directing the rear side of the microphone toward the audience or other source of interfering sound, pickup can be concentrated on the desired source. Reverberation energy pickup is decreased over two-thirds. The microphone can be placed close to the reflecting surfaces without objectionable effects if the rear side of the microphone is toward the reflecting surface. This is particularly valuable in small broadcast studios. It is desirable to experiment with microphone placement and orientation in order to secure the greatest benefits from the unidirectional characteristic.



Horizontal Polar Response
Series 556 Microphones

SHURE
Super-Cardioid Unidyne

The Unidyne is perhaps the most widely used and publicized microphone in the world for public address. It has been specified by outstanding acoustic engineers for nationally-known artists and important events. Like the Model 556, it too is a Super-Cardioid Dynamic Microphone—and reduces the pickup of unwanted random noise energy by 73%. It gives the performers freedom in front of the microphone, allows more flexible presentations to the looking and listening audience. The "55" is simple for the sound man to install, regardless of the difficult acoustic problems posed by different hall or studio conditions.

The Unidyne is especially favored for vital installations where perfect sound reproduction is an absolute "must." Loudspeaker levels can be increased without feedback to bring out the fullest tone values in music or speech without voice strain or distortion. The Unidyne is practically unaffected by atmospheric conditions; comes in a beautiful satin-chrome, streamlined case.

Applications: Models 55A, B, and C are suitable for high-quality public-address, broadcasting, all types of recording and similar quality applications. The super-cardioid directional characteristic of the Unidyne provides greater volume, for it offers an easy solution to the feedback problem in reverberant locations. It picks up sound from greater distances, thus facilitates orchestral placement, gives freedom of movement to performers, permits closer positioning of microphones and loud speakers, and gives practically complete exclusion of unwanted sounds.

How the Unidyne Is Constructed:

The microphone has a specially-designed moving-coil element, operating in conjunction with a high flux magnet providing high efficiency and smooth peak-free response from 40 to 10,000 cycles. The rear response is down approximately 15 db due to the "Uniphase" unidirectional acoustic network. The head

MODEL 55

MODEL	IMPEDANCE	OUTPUT LEVEL	INCLUDES INTERNAL TRANSFORMER	CODE
55A	35-50 ohms	Into 50 ohms: 56.1 db below 1 Milliwatt per 10 bar signal	No	RUDAR
55B	150-250 ohms	Into 250 ohms: 56.8db below 1 Milliwatt for 10 bar signal	Yes	RUDAT
55C	35,000 ohms for high Impedance Input	55db below 1 volt per bar	Yes	RUDAS

tilts to an angle of 90° to permit aiming at the source of sound for best pickup. A built-in cable connector is provided and a 25-foot shielded rubber-jacketed cable with microphone plug attached is included. Microphone has standard 5/8"–27 thread and may be mounted on any Shure desk or floor stand. Case dimensions: 4¼" high, 3¼" wide, 3½" deep. Shipping weight, 4½ lbs.

How Connections Should Be Made:

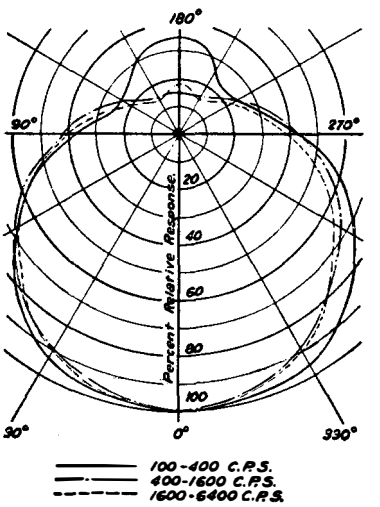
Model 55A works directly into a 35-50 ohm line while Models 55B and 55C include an internal high-quality impregnated transformer with special high-permeability core. Low impedance Models 55A and 55B are recommended where long cable lengths are required. The permissible line length is practically unlimited since neither the level nor the frequency response is appreciably affected by reasonable lengths of line. Low impedance Models 55A and 55B may be fed into a standard low impedance input amplifier or into an amplifier with high impedance input by using the Shure Model A86A Cable-Type Transformer. The double-winding primary permits coupling either a 35-50 ohm line or 150-250 ohm line to the high impedance input. High impedance Model 55C may be used with any crystal microphone amplifier or other amplifier with an input impedance of 30,000 ohms or more. For best high frequency response, the total cable length should not exceed 25 feet; longer cable lengths may be used with some loss of high frequency response. The additional loss at 5,000 cycles is of the order of 2.5 db for an additional 25-foot length of cable (50-foot total) and 6 db for an additional 50-foot length (75-foot total).

How to Use the Microphones:

No special precautions beyond ordinary care are necessary in the operation of 55 Series Dynamic Microphones. They will operate efficiently and dependably under all ordinary conditions in hot and cold climates. To retain the full strength of the highly efficient permanent magnet and to maintain alignment of the structure, dropping or other severe mechanical shocks should be avoided

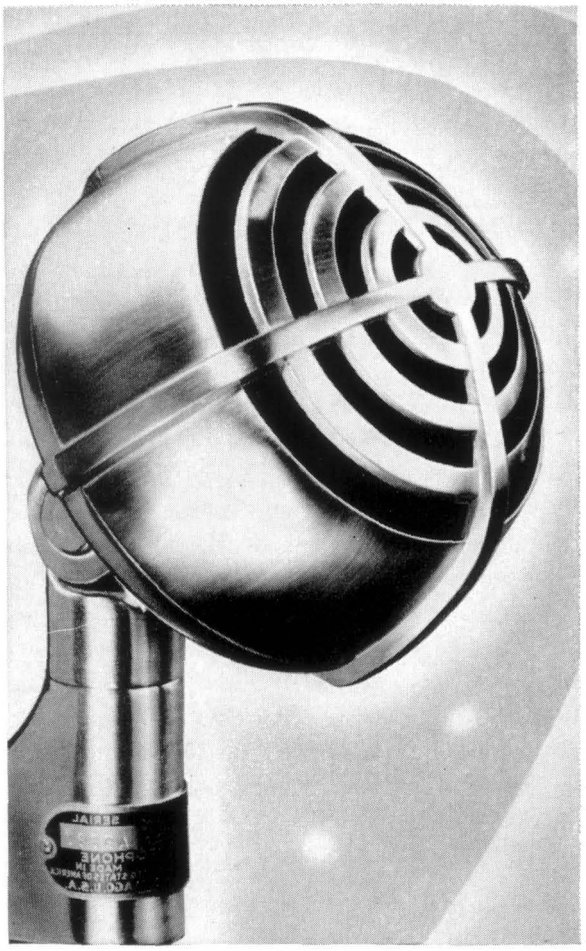
How to Take Full Advantage of the Super-Cardioid Pattern:

The expression "super-cardioid type" response simply means that the horizontal polar characteristic approximates a modified and improved cardioid of revolution. *It is twice as unidirectional as the cardioid.* In the super-cardioid pattern the ratio of front-to-rear pickup is 14 to 1—in the cardioid, 7 to 1. (See diagram below.) There is a wide, useful pickup angle at the front of the microphone, while the response at the sides is down 8.5 db from the front response. The rear response in the super-cardioid type microphone is approximately 15 db lower than the front response. The Unidyne fulfills these requirements over a broad range of frequencies. The true unidirectional characteristic of the Unidyne should not be confused with the relatively slight directional effect at high frequencies only, which can be produced by baffle effects in the conventional pressure microphone. The result of this unidirectional characteristic is a complete elimination of acoustic feedback at volume levels which would cause considerable feedback with conventional semidirectional microphones. In practically all cases it is possible to increase loudspeaker levels when a Unidyne is installed. By directing the dead side (rear) of the microphone toward the audience or other source of interfering sound, pickup can be concentrated on the desired source. Reverberation energy pickup is decreased approximately 73%. The microphone can be placed close to reflecting surfaces without objectionable effects if the rear side of the microphone is toward the reflecting surface. This is particularly valuable in small recording and broadcast studios. It is desirable to experiment with microphone placement and orientation in order to secure greatest benefits from the unidirectional characteristic.



Horizontal Polar Response
Series "55" Microphones

SHURE
Uniplex Cardioid Crystal



MODEL 730B

The Shure "Uniplex" is a single-unit Cardioid Crystal Microphone with the patented Shure "Uniphase" principle. It employs the same type of acoustic phase shifting network used in the highest cost Shure broadcast microphones. It provides a reduction of approximately 15 db of sound approaching from the rear—over a broad range of frequencies, and reduces pickup of random sound energy by 66%. It offers the advantages of higher-priced cardioid performance at low cost. Model 730B is a unidirectional wide-range diaphragm type microphone. The true unidirectional "cardioid" characteristic of the "Uniplex" allows highly satisfactory operation under adverse conditions of background noise and reverberation where a conventional microphone would be practically useless. The "Uniplex" contains a diaphragm-type element combined with acoustical networks which cause cancellation of sound pressures for sounds incident from the rear. The crystal is triple moisture sealed to withstand adverse climatic conditions. Case is pivoted at the rear and may be conveniently pointed in the direction of the desired sound, or pointed upwards for non-directional horizontal plane pickup.

Applications: The Shure "Uniplex" is excellent for high-quality public-address, communications, all types of recording and similar applications.

The true wide-range unidirectional characteristic of the "Uniplex" creates an easy solution to the feedback problem in reverberant locations, facilitates orchestral placement, permits good utilization of space in small recording or broadcasting studios, and allows a practically complete exclusion of unwanted noises.

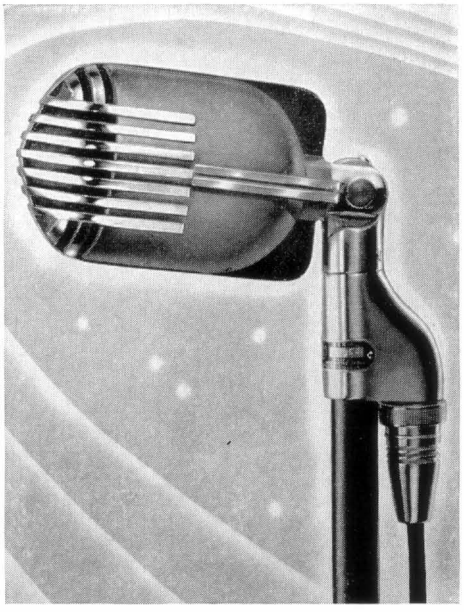
Frequency response is from 40 to 10,000 cycles over a wide range angle at the front, yet practically unaffected by sound approaching from the rear. (Rear response down approximately 15 db.) Permits more volume without feedback—simplifies microphone and speaker placement—greatly improves systems using conventional microphones. Output level 63 db below 1 volt per bar. Has specially moisture-proofed Graphoil Bimorph Crystal for long life. Swivel head permits aiming at source of sound. Built-in cable connector. Standard 5/8"–27 thread. Diameter 3 1/8". Depth, 3 3/8". Shipping weight 1 1/2 pounds. Code: RUPEL.

*Patent Number: 2,198,424

Crystal Microphones

STRATOLINER

The microphone is always in the public eye. It is the only part of the sound system your audience or buyers see. The Shure "Stratoliner" gives you the opportunity to use an expensive-looking microphone even when low cost is an important factor. High output level (53.0 db below 1 volt per bar) with wide-range response (free from undesirable peaks) for good reproduction of either voice or music. Uses genuine Bimorph Crystal. When placed horizontally, the 708A is semidirectional; used vertically (microphone pointed straight up) it becomes non-directional in the horizontal plane, and performers may be placed all around it without frequency discrimination. A swivel is provided to permit tilting of the microphone through an angle of 90°. Case dimensions, diameter 2½", length 4 7/16". Stand thread 5/8"–27. Shipping weight 2½ pounds.



MODEL	CABLE	OUTPUT LEVEL	IMPEDANCE	CODE
708A	7 ft.	53.0db below one volt per bar	High Impedance	RUDUM
708A—25 ft.	25 ft.	56db below one volt per bar		RUVAT

707A CRYSTAL

The Model 707A has been designed to give good-quality performance at low cost. It has good response characteristics, is free from peaks, and has typical semidirectional pickup. It uses moisture-proofed Bimorph Crystal, mechanically isolated. Ideal for voice and music reproduction. Suitable for low-cost P.A. systems, call systems, amateur 'phone transmitters and similar applications.

It is finished in Iridescent Gray finish with highly-polished plating on front grille. Natural life-like reproduction. High output level of 53 db below 1 volt per bar at end of cable. Has a seven-foot single-conductor shielded cable with spring protector. The case is a heavy die casting, is simple in design and in excellent taste. Standard 5/8"–27 thread. Diameter 2 3/8". Shipping weight 1¼ pounds. Model 707A. Crystal Microphone. Code: RUDOF.

SHURE 76B LAPEL MICROPHONE

The Model 76B is designed for Public Address, lecturing in large halls, broadcasting from portable transmitters, and all general uses where clear, intelligible reproduction of speech is of primary importance and where the user must be able to move freely at all times. It is a pressure-actuated diaphragm-type crystal microphone especially designed for high-quality reproduction of speech when attached to the lapel. The crystal used is a Graphoil (high capacity) Bimorph unit, moisture-sealed to withstand climatic conditions. The microphone is inconspicuous, compact and light, weighing only 1½ ounces. It is provided with a 25-foot shielded rubber-jacketed cable. The frequency response of the 76B Microphone extends from 40 to 6,000 cycles per second. The high frequency response is especially accentuated for maximum intelligibility and is smooth and free from undesirable peaks. Only 1 7/8" diameter. Gray finish. Handy lapel clip. 25-foot shielded single-conductor cable. Shipping weight 1 pound. Model 76B. Lapel Microphone. Output level: 57 db below 1 volt per bar. Code: RULOP.

Dynamic and Carbon Microphones

STRATOLINER DYNAMIC
508 SERIES

The appearance of your microphone is important because it shares the spotlight with the performer. A beautiful microphone that tells your customers you are using good equipment. The Stratoliner's projectile form — its rich, metallic-gray effect makes an impression on the public that you are using more expensive equipment. But beauty is not the only feature of this microphone. Careful engineering has given it response characteristics for high quality reproduction. Its ear impression matches its eye impression. The Stratoliner looks expensive and sounds expensive.

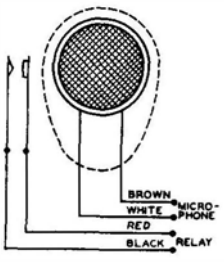
The Stratoliner Dynamic is a rugged microphone with unusually smooth response. Its faithful reproduction makes it ideal for music as well as voice. Its ruggedness qualifies it for heavy duty work on Police transmitters, at Airports, in office and industrial paging systems. Practically unaffected by heat or humidity. Moving conductor system. Die cast case, swivel head, built-in cable connector. Diameter 2½", length 4–7/16". Shipping weight 2¾ pounds. Stand thread ⅝"–27.

MODEL	IMPEDANCE	OUTPUT LEVEL	CABLE	CODE
508B	150-250 ohms	68db below 1 milliwatt for 10 bar signal	25 ft. 2 conductor shielded	RUVAP
508C	High Impedance	67db below 1 volt per bar	25 ft. single conductor shielded	RUVAS

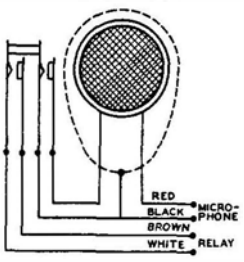
MILITARY CARBON
100 SERIES

High-quality, carbon microphones specially designed for military and police equipment and other uses where ruggedness and dependability are vital factors. Clear, crisp voice response that is ideal for situations where important orders, directions and reports require immediate understanding. High output. Easy to use, fits snugly into palm of hand. Heavy duty switch for push-to-talk performance. Furnished with hook for suspension and bracket for wall mounting. Adopted as standard microphone by leading manufacturers of police transmitters. Output level: 32 db below 1 volt for 10 bar speech signal. Net weight 14 oz. Shipping weight 1 pound. Case dimensions: 3¾" high, 1¾" deep, 2¾" wide.

MODEL 101A



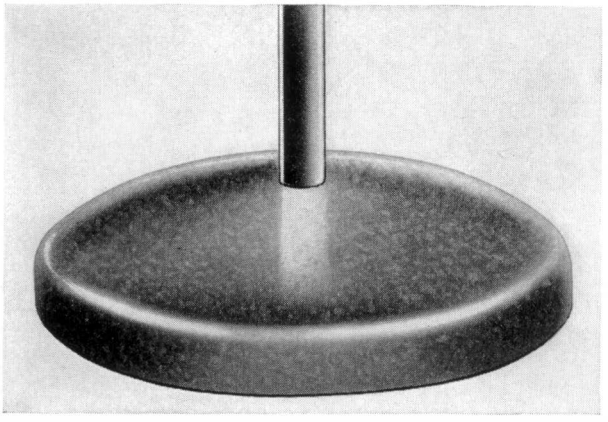
MODEL 102A



MODEL	SWITCH ARRANGEMENT	CABLE	CODE
101A	Two Wire Relay Switch normally open (No microphone switch)	4 ft. 4 Conductor Unshielded	RUCEG
102A	Relay normally open. Microphone switch normally open.	4 ft. 4 Conductor Unshielded	RUCEM

Stands and Accessories

The microphone stand is the only part of a sound system operated by the performer. Don't annoy the performer and the audience with a cheaply constructed stand. Shure stands have been scientifically designed by microphone engineers. They are sturdy, heavy stands stabilized with base cushioning for maximum reduction of noise and vibration pickup from the floor. Model S60. Code: RUSIM.
(Above stand to be announced later)



MODERN DESK STANDS

Model S36A. Beautiful, streamlined Desk Mount with stable support at correct height. Fits Shure connector - type Microphones, concealing plug in base. Adapter plate and tubing provided for other type microphones. Removable button at front for installation of 3/8" standard bushing switch or volume control. Iridescent Gray finish. Base: 2½" high, 5" wide, 7" long. Shipping weight 1½ pounds. Code: RUSEF.

CABLE TYPE TRANSFORMER

Model A86A. High quality Cable-Type Transformer. Matches 35 to 50 and 150 to 250 ohm microphones to high impedance amplifier input.

Compact, sturdy. Case diameter 1⅝", length 2⅞", 7 foot cable. Shipping weight 1½ pounds. Code: RUDEB.

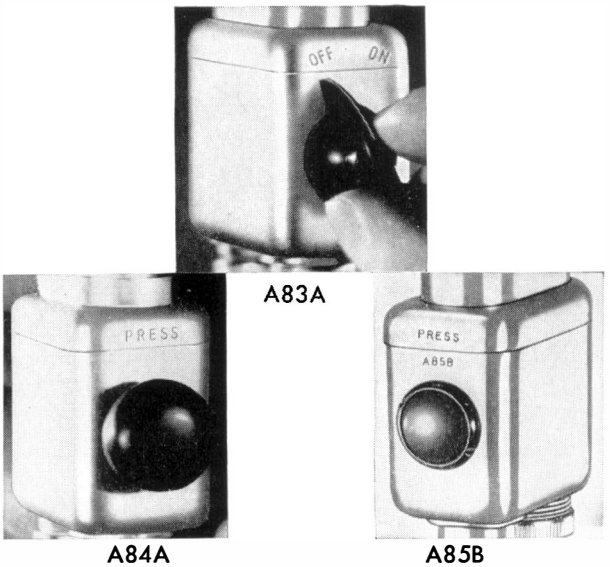
MICROPHONE "ON-OFF" SWITCHES

In many microphone applications a switch is not wanted at the microphone. Therefore switches are not built into Shure Microphones. But, whenever a switch is needed these "On-Off" switches plug into the microphone quickly and conveniently. You can depend on them. No soldering necessary.

Model A83A. Quickly attached to any cable-connector type Shure Microphone. Internal plug establishes connections. Bakelite arrow knob.
Code: RUNIM

Model A84A. Momentary "On-Off" Switch. Press-to-talk Bakelite disc.
Code: RUNID

Model A85B. Momentary Relay-Type Switch. Same "hand control" as A84A. 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, and only with crystal and high impedance dynamic microphones. Standard Shure cable-connector receptacle. Satin Chrome finish. Bakelite disc. 1¾" high x 1⅛" wide x 2" deep. Furnished without cable. Shipping weight ¾ pound.
Code: RUNAT

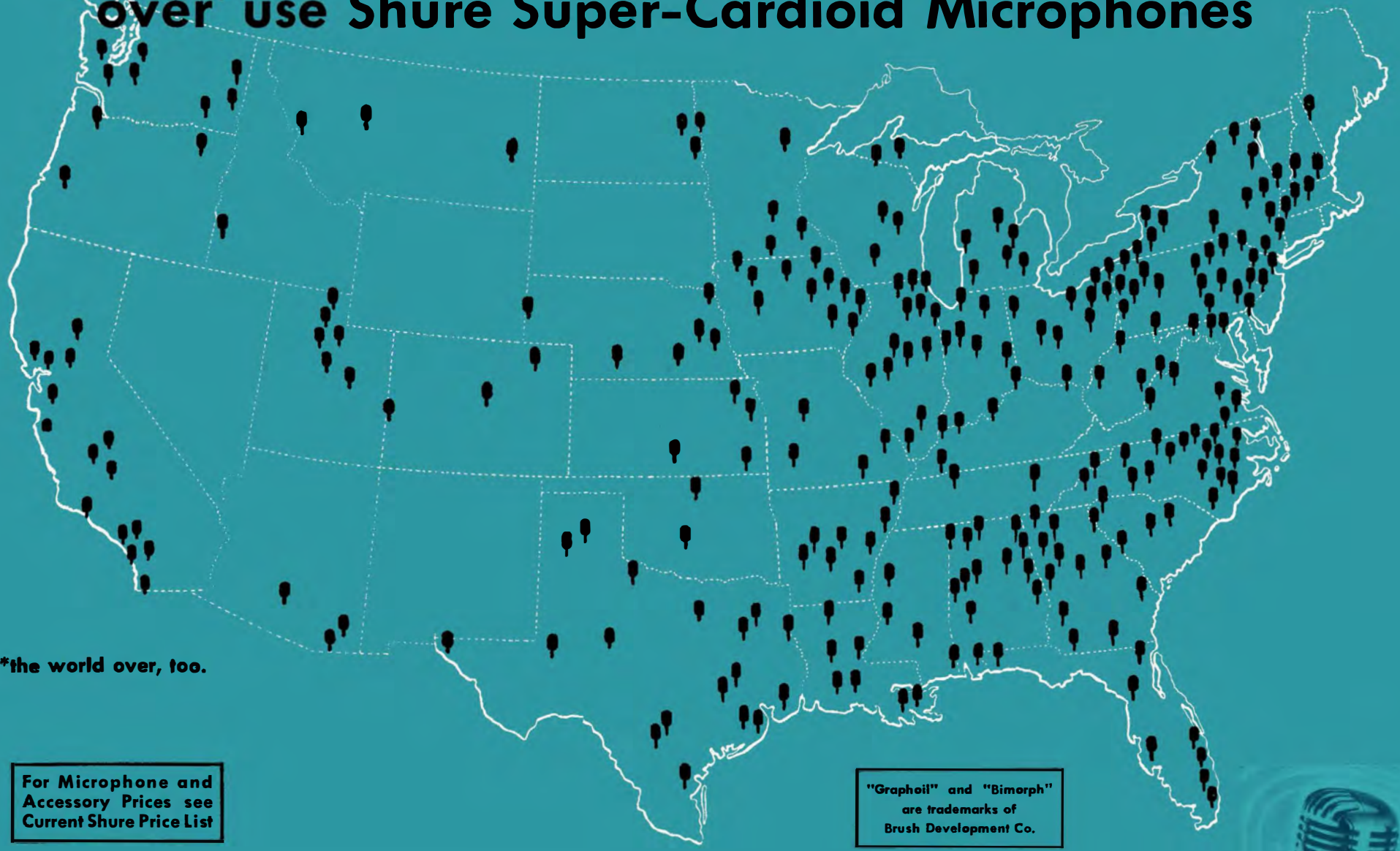


A83A

A84A

A85B

Leading Radio Broadcast Stations the nation over* use Shure Super-Cardioid Microphones



*the world over, too.

For Microphone and Accessory Prices see Current Shure Price List

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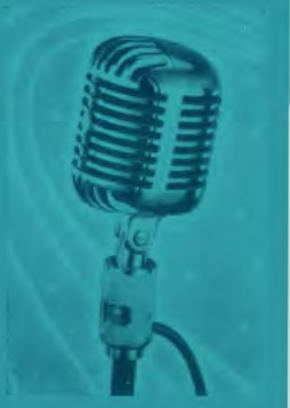

SHURE BROTHERS, Inc.

Microphones and Acoustic Devices

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