

American MICROPHONES

Licensed under Pats. of The Brush Develop. Co. and Licensed by Electrical Research Prods. Inc. under U. S. Pat. of A. T. & T. Co., and Western Elec. Co., Inc.

VR2 DYNAMIC MICROPHONE

A Microphone with a NEW IDEA and a NEW USEFULNESS

For the first time, the many desirable characteristics found only in several different types of microphones have been combined in a single unit. The VR2 has an easily accessible external adjustment of the most important acoustical reactors in the dynamic microphone. A smooth change from a communication-type response, with a cutoff below 500 c. p. s., through a flat response to an augmented bass, attained by a simple, positive adjustment.

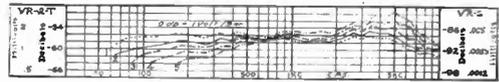
The response adjustment on the VR2 has a very broad effect and does not introduce narrow peaks. It is different from anything previously introduced.

Complete with 12½' cable and plug at microphone providing balanced line. Dull chrome finish. Net wt. less cable, 15 ozs. Hgt. 4". Greatest diameter 3".

VR2T Dynamic (38,000 ohms), Code: VARIT. List \$42.15

Available on order in 200 or 500 ohms.....List \$42.15
(Complete with 12½' cable)

VRT Dynamic (30-50 ohms), Code: VARIA.....List \$39.15
(Complete with 12½' cable)



The above graph illustrates the average response characteristics for the various settings as indicated on the scale.

D8T DYNAMIC MICROPHONE



THE D8T DYNAMIC MICROPHONE has been carefully designed to have a consistent, well-balanced response. It is exceptionally rugged and assures the user of trouble-free service over a long period of time.

The D8T is particularly useful for all types of public address installations, orchestra pick-up, as well as solo work and straight announcing.

The D8T is 3¼" long, 2" in diameter, weighs only 13 ozs. A swivel mounting permits either nondirectional or semidirectional pick-up. Comes complete with 12½' cable and plug at microphone and 5/8" x 27 thread for suspension or stand mounting. Platinum Chrome Finish.



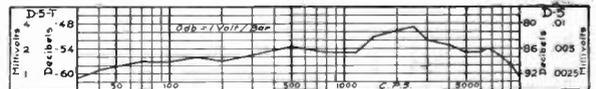
D8T Dynamic (38,000 ohms), Code: DATAH.....List \$30.00
Available on order in 200 or 500 ohms.....List \$30.00

D8 Dynamic (30-50 ohms), Code: DATAL.....List \$27.00

D5T DYNAMIC MICROPHONE

IN FOURTH YEAR PRODUCTION

THE D5T DYNAMIC MICROPHONE is well known. An excellent, diversified-purpose microphone. The dynamic is the most rugged type microphone and its life of trouble-free operation is indefinite. Being a pressure-operated instrument, the response is unaffected by either a close or distant sound source. The D5T approaches the ideal microphone for general use due to its versatility and dependability. Sensitivity: 52 db below 1 V/bar.



D5T Dynamic, 38,000 ohms, Code: DYHIM.....List Price \$39.00
Available on order in 200 or 500 ohms.....List Price \$39.00
D5 Dynamic, 30-50 ohms, Code: DYLOM.....List Price \$33.00

Moving-Coil, Permanent Magnet Dynamic • Semidirectional • Close or Distant Pick-up • Excellent Frequency Response • Freedom from Wind Noises • High Output, Low or High Impedance • Immune to Temperature Changes • Minimum Feed-Back (Flat Response) • Low-Level Mixing • Exceptionally Rugged.



American MICROPHONES

Licensed under Pats. of The Brush Develop. Co. and Licensed by Electrical Research Prods, Inc., under U. S. Pat. of A. T. & T. Co., and Western Elec. Co., Inc.

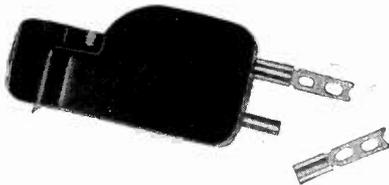
MC (MOVING COIL) PICKUP CARTRIDGES

HIGH { Needlepoint
Compliance
Output
Vertical
Compliance

LOW { Needle Pressure,
one-half ounce
Impedance,
35 ohms
Needle Talk
Distortion

Model	List Price	Needle Pressure Ounces	*Output Voltage	Response ±5 db	Terminals	Stylus **Semi-Replaceable	Code
MC-1C	\$ 7.50	½	0.1	50-5000	Pin Plug	Carboloy	Cabal
MC-1S	7.50	½	0.1	50-5000	Pin Plug	Sapphire	Cabin
MC-2C	10.00	½	0.1	50-7000	Pin Plug	Carboloy	Cable
MC-2S	10.00	½	0.1	50-7000	Pin Plug	Sapphire	Cache

*At 1000 cps using Columbia 10003-M Test Record and Model TMC transformer.
**Worn stylus can be replaced at our factory.



Insures Minimum Record Wear. Performance not affected by climatic conditions. Standard cartridge mounting holes. Semi-permanent stylus.

.003 volt open circuit output at 1000 cps, using Columbia Test Record 10003-M. Transformer TMC (Sub-motorboard mounting) develops 0.1 volt into high impedance amplifier "Phono" input under above test conditions.

TRANSFORMER TMC, Code: CADET.....List Price \$2.50

C6 CRYSTAL MICROPHONE

EXTREME SENSITIVITY. New crystal driving lever, twice as efficient as previously used, produces twice the voltage output with equal sound pressure.

BROADER RESPONSE. Results of new construction include extension of both low and high end.

BASS END IMPROVED. Naturalness insured by improvement in low frequency response.

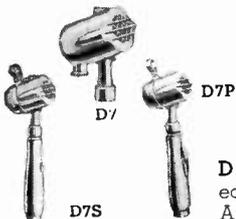
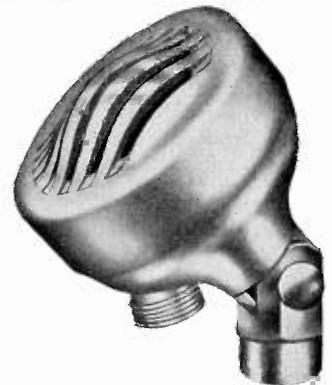
LONGER LINES. By increasing the voltage output, the cable length may be increased proportionately. In laboratory tests, regular cables 250 feet in length have been used with a net voltage sufficient to operate any standard high gain amplifier.

MECHANICAL NOISE REDUCED. Mechanical and stand noise is no longer a factor. The C6 method of crystal mounting reduces mechanical noises by 12 db.

LESS AMPLIFIER AND INDUCED NOISE. The high output of this microphone assures a very desirable signal-to-noise ratio.

SWIVEL HEAD. All angles for semidirectional and nondirectional pick-up are provided by the 5/8" x 27 (standard) mounting connector.

Complete with 7' cable and plug at microphone. Polished chrome finish. Net weight 8 oz. Over-all height 3". Diameter 2 3/8". 5/8x27 thread provided for suspension or stand mounting.
C6 Crystal, Code CESIX.....List Price \$18.00



THE "Clipper" DYNAMIC

D7 and D7T MICROPHONES equipped with 12 1/2' R/I cable and Amphenol plug. Chrome finish.

5/8-27 connector. Over-all height, 2 1/2". Diameter, 1 1/2". Net weight, 8 1/2 ozs.

APPLICATIONS: Excellent for communication purposes, airplane use, Marine safety-at-sea installations, police broadcasting, amateur communication, public address, indoor and outdoor installations.

D7T—High Imp., 38,000 or 500 or 200 Ohms;
Code: DISET.....List Price **\$27.00**

D7TP (Press-contact Switch),
Code: DIMAT.....List Price **\$31.00**

D7TS (Slide Switch), Code: DIAHT.....List Price **\$30.00**

D7—Low Impedance, 50 Ohms,
Code: DISEV.....List Price **\$24.00**

D7P (Press-contact Switch),
Code: DIMAR.....List Price **\$28.00**

D7S (Slide Switch), Code: DIAHL.....List Price **\$27.00**

RC CRYSTAL MICROPHONE

Complete with
**NON-BREAKABLE
PLASTIC STAND
and 7 foot Cable**



RC Crystal Microphone may also be mounted on any stand equipped with standard 5/8" x 27 thread. . . . An excellent microphone for Communication, Public Address or Amateur Radio.

**HOME RECORDING OR BROADCASTING
HIGH OUTPUT, GOOD QUALITY**

Base easily removed by quarter turn, releasing bayonet lock. Cable replacements accomplished by releasing set screw in back of microphone and pulling gently on spring cable protector.....List Price **\$10.90**

American MICROPHONES

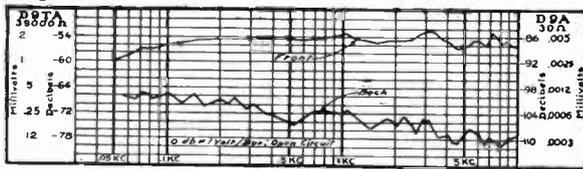
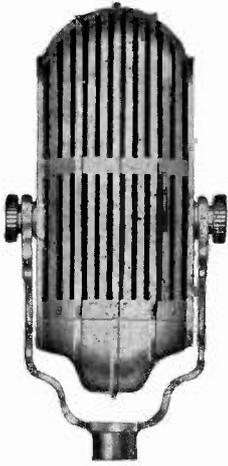
Licensed under Pats. of The Brush Develop. Co. and Licensed by Electrical Research Prods, Inc., under U. S. Pat. of A. T. & T. Co., and Western Elec. Co., Inc.

D9A Unidirectional MICROPHONE

GUARANTEED to produce 30% MORE VOLUME (power) than any microphone at twice the list price. UNIDIRECTIONAL, True CARDIOID pattern pickup, frequency response good to 10,000 c. p. s. Actual Tests are Convincing Arrange for Test with your Jobber

THE D9A DYNAMIC, a pressure-velocity combination microphone, with pick-up from front only, broad frequency response and high output, plus the usual dynamic microphone qualities of ruggedness, immunity to weather conditions, and circuit adaptability, should fill the majority of requirements.

The D9A Microphone is recommended for public address and general sound installations because its energy response field (cardioid of revolution) excludes extraneous pick-up and reduces feed-back by two-thirds. May be used for close talking due to the modified velocity section which also reduces wind noises to a minimum.



The above graph illustrates the average response characteristics for the D9A and D9AT. Voltage output levels, for 1 bar sound pressure (1 bar=1 dyne per sq. cm.) of the high and low impedance models. For 10 bar signal the output will be 20 db. higher.

Net weight, 2 1/2 lbs. Packed weight, 4 lbs. Height, 7 1/2"; depth, 2 1/4"; breadth, 2 1/2". Standard 3/8-27 thread provided for suspension or stand mounting. Finish: Satin Chrome.

25' Shielded Rubber-Jacketed Cable Supplied with each Microphone.

D9A, Low Imp. (50 ohms). Code: LOWEL.....List \$42.00

D9AT, High Imp. (38,000 ohms). Code: HIWEL.....List \$45.00
Available on Order in 200 or 500 ohms.....List \$45.00

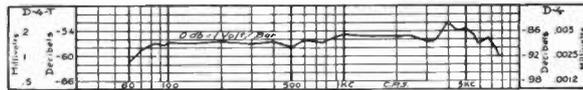
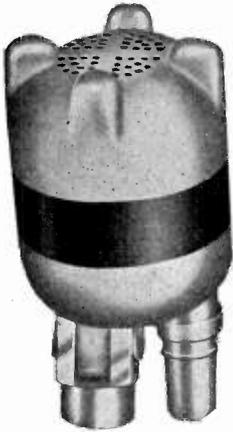
D4T DYNAMIC MICROPHONE

A QUALITY, LOW-PRICED, MOVING-COIL MICROPHONE. For general use where clear speech and natural music reproduction is required. This new AMERICAN microphone is a very efficient instrument, having a broad range, from 60 to 7500 c.p.s., and high output of -56 db (0 db=1 v/bar). The utility value lies not only in the quality and type of response but also in mechanical features, such as light weight (approximately 10 1/2 oz.), a full 180° vertical angular setting, and positive friction lock at the swivel.

The D4T, high impedance, is equipped with a single-contact, shielded plug. The 50, 200 and 500 ohm models are equipped with a two-conductor plug and have a balanced line out.

The D4 model is of voice-coil impedance, approximately 30 ohms. Lines up to several hundred feet may be used on all models except the high impedance, where line should be restricted.

The complete assembly includes 12 1/2 feet of shielded, rubber-covered cable and shielded plug. Finished in platinum chrome. Standard mounting, 3/8" x 27 thread.



D4T Dynamic (38,000 ohms), Code: DFORT.....List Price \$24.00

Available on order in 200 or 500 ohms.....List Price \$24.00

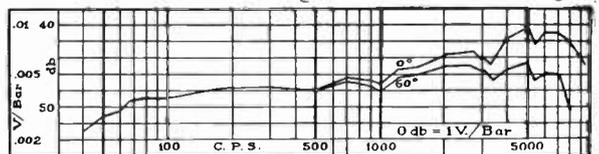
D4 Dynamic (30-50 ohms), Code: DEFOR.....List Price \$21.50

D6T DYNAMIC MICROPHONE

Ideal for general public address including stage sound-reinforcement, both permanent and portable installations. It is entirely suitable for playground and athletic field direction, police and amateur broadcasting, and recording.

Net weight, 1 3/4 lbs. Packed weight, 2 lbs. Height, 3 3/4", diameter 2 1/2". Standard 3/8-27 thread provided for suspension or stand mounting. Finish: Polished Chrome. 12 1/2' Shielded Rubber-Jacketed Cable supplied with each microphone.

characteristics may be had by varying the angle of the microphone to the source of sound. For nondirectional horizontal pick-up, the response is substantially flat.



D6T Dynamic (38,000 ohms), Code: DIXIT.....List \$33.00

Available on order in 200 or 500 ohms.....List \$33.00

D6 Dynamic (30-50 ohms), Code: DIXIE.....List \$30.00



Typical field calibration for the D6T. A choice of frequency

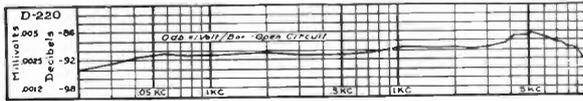
American MICROPHONES

Licensed under Pats. of The Brush Develop. Co. and Licensed by Electrical Research Prods. Inc., under U. S. Pat. of A. T. & T. Co. and Western Elec. Co., Inc.

D220 DYNAMIC MICROPHONES

A WIDE RANGE HIGH FIDELITY MOVING-COIL MICROPHONE

- ★ Two Dynamic Generators each with Specific Frequency Response.
- ★ Combined Outputs Electrically and Acoustically Coupled Produce an Ideal Response.
- ★ Total Band 25 to above 10,000 cps. Broad Crossover from 150 cps. to 5000 cps.
- ★ Crossover Band an Average for Both Generators Eliminates Peaks.



Complete with 25' cable. Balanced lines on low impedance models.

- D220T** Dynamic (38,000 ohms), Code: CROST LIST \$71.00
Available on order in 200-250 or 500 ohms LIST \$71.00
- D220** Dynamic (30-50 ohms), Code: CROSS LIST \$65.50



THREE TYPES OF RESPONSE FOR ALL PURPOSES

HIGH—For all purposes requiring richness in the higher frequencies. Slightly rising characteristic. (From 150 to 10,000 cps.)

FULL—For high fidelity requirements where smooth, flat response and broad range are necessary. (30 to above 10,000 cps.)

LOW—For pickup systems requiring embellished lows and good intermediate range. (25 to 5000 cps.)

C7 CRYSTAL MICROPHONES

The development of the new American Crystal Microphones, Model C7H and Model C7L, represents many features which have been available only in several previous types. The response characteristics have been chosen so that the C7 can be used equally well for recording with a minimum amount of amplifier equalization and also for public address. A new system of coupling the crystal element to the diaphragm is employed which produces a smoother response and 100% greater efficiency equivalent to double the output of usual direct drive type of coupling. High or low impedance may be had in the Model C7. An efficient transformer is used to reduce the inherent high impedance of the crystal generator to standard line impedances. Long lines with negligible losses may be used.

Complete with 12 1/2 ft. cable

- C7H** High Impedance. Code: CSEVN LIST \$24.50
C7L Available in 50 ohm or 200-250 ohm or 500 ohm. Code: CSEVL LIST \$29.00



American PHONOGRAPH PICKUPS

Licensed under Pats. of The Brush Develop. Co. and Licensed by Electrical Research Prods. Inc. under U. S. Pat. of A. T. & T. Co. and Western Elec. Co., Inc.

J-1 PHONOGRAPH PICKUP



LIST PRICE
\$5.50

The curved arm with off-set head was designed to provide optimum tracking for both ten and twelve inch records with minimum wear of record and stylus. Base of the arm is designed for single hole mounting. Assembly includes CR-1A Crystal Cartridge, twenty-four inch single conductor shielded wire, arm rest, mounting hardware and complete mounting instructions.

CR-1A CRYSTAL CARTRIDGE

CR-1A Cartridge is a high output, wide range unit, which incorporates a number of new developments in cartridge design. High output and improved response are obtained by a unique method used to drive the crystal element. The cartridge is supplied with pin plug connectors for ease of



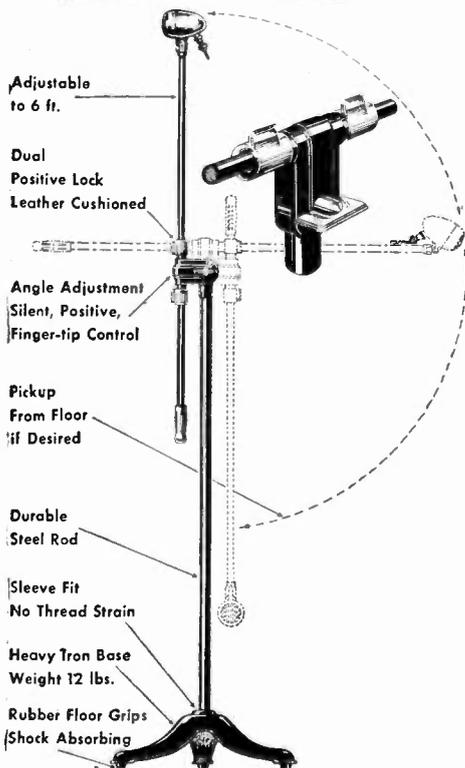
assembly into the arm—no soldering iron is required. The needle chuck design incorporates a "locked-in" feature whereby the chuck is prevented from moving when tension or pressure is applied to the needle screw. This feature also insures that the needle socket will remain centrally located in its opening in the cartridge. High needle point compliance and minimum record chatter are thereby guaranteed. The cartridge will operate satisfactorily with any conventional needles; however, its high-frequency response will vary somewhat with the type needle used. Best operation will be obtained with off-set needles using sapphire or precious metal styli.

Model	CR1A	CR2A	CR3A	PNMA
Needle Force, Ounces...	1 1/4	1 1/8	1 1/8	1 1/4
Output Voltage.....	3.	1.5	1.	2.
Response	50-6000	50-6000	50-6000	50-6000
Terminals	Pin Plug	Pin Plug	Pin Plug	Pin Plug
Needle Screw	Thumb	Thumb	Thumb	Thumb
Needle	Optional	Optional	Optional	Optional
Code	Cream	Creep	Crimp	Crest
List Price.....	\$4.00	\$4.00	\$4.00	\$8.00

American FLOOR STAND

New! FLOOR STAND WITH MANY USES

PLACE THE MIKE ADVANTAGEOUSLY FOR EFFICIENT PICKUP EXCELLENT FOR RECORDING AND ORCHESTRA PICKUP



HB3List Price **\$24.50**

Upper rod and fittings, polished chrome. Lower rod and angle adjustment, satin black. Microphone mounting, standard 5/8" x 27 thread.

Total net weight 16 lbs. Code: BOOME

Upper Assembly, including 34" chrome rod, as illustrated at right of stand.

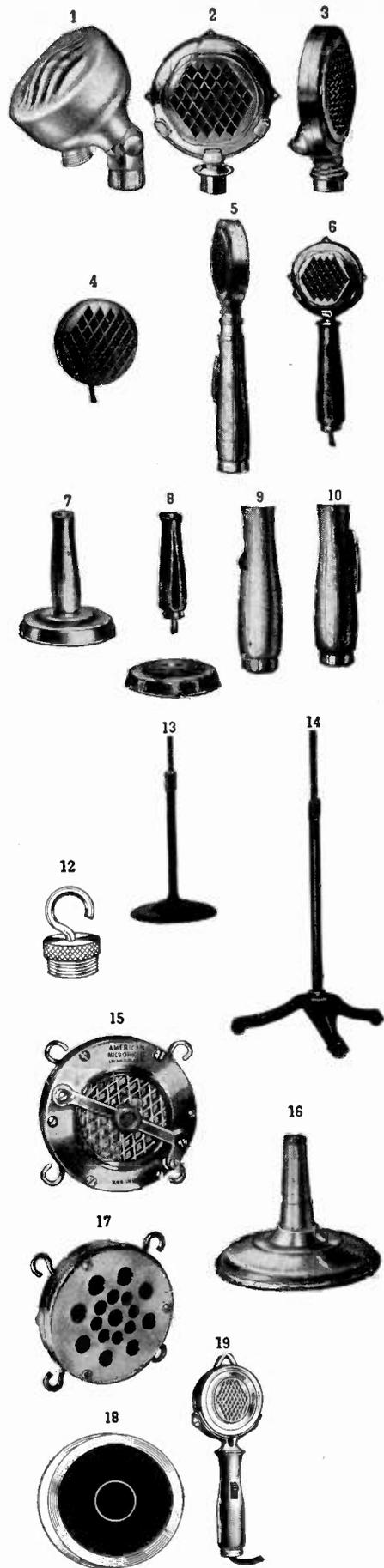
B3 List Price **\$8.75**

Microphone Mounting, Standard 5/8" x 27
Stand Mounting, Standard 1" x 27.

Code: TOPSE

American MICROPHONES

1. **C6 CRYSTAL MICROPHONE.** The best buy in a crystal microphone. New crystal driving lever, twice as efficient as previously used, produces twice the voltage output with equal sound pressure. Long cables, 250 feet or longer, may be used with this microphone. The increased output voltage assures only slight proportional losses in cable lengths. Provided with plug at microphone and mounting swivel with standard $\frac{5}{8}$ "x27 thread. Chrome finish. Net weight 8 ozs. Complete with 7' cable and microphone plug. Accessories 7, 8, 9, 10, 11, 12, 13, 14, and 16 available for use with this model.
C6 Crystal Microphone, Code: CESIX..... List Price \$18.00
2. **AG CRYSTAL MICROPHONE.** Preferred by crystal buyers for four years. Communication-type response. Equipped with mounting yoke, providing rear or through cable outlet. Standard $\frac{5}{8}$ " x 27 thread. Accessories 7, 8, 9, 10, 11, 12, 13, 14, and 16 available for use with this microphone.
AG Crystal Microphone, Code: AGTAL..... List Price \$24.50
3. **B9 CRYSTAL MICROPHONE.** Semi-directional. Recommended for public address. Chrome finish. $\frac{5}{8}$ "x 27 thread. Complete with 8' cable and plug at microphone. Accessories 7, 8, 9, 10, 11, 12, 13, 14, and 16 available for use with this microphone. Code: BENIN..... List Price \$24.50
4. **CL2 CRYSTAL LAPEL MICROPHONE.** Built especially for lapel use. Maximum sensitivity in voice range. $2\frac{1}{2}$ " diameter. Weight $1\frac{1}{2}$ ozs. Complete with 25' cloth-covered, shielded cable and clip for attaching to clothing.
CL2 Crystal Lapel Microphone, Code: LATAL..... List Price \$27.25
5. The B9 as a hand microphone. Chrome finish. Available with two types of switches. 8' cord. B9P with press-contact switch in handle, and B9S with slide switch in handle.
B9P Crystal Hand Microphone, Code: BECON..... List Price \$28.50
B9S Crystal Hand Microphone, Code: BEHAN..... List Price \$27.25
6. The AG as a hand microphone. Chrome finish. Available with two types of switches. 8' cord. AH using slide switch, and AGP using press-contact switch.
AH Crystal Hand Microphone, Code: AHTAL..... List Price \$27.50
AGP Crystal Hand Microphone, Code: AGPAH..... List Price \$28.50
7. **AG DESK STAND.** Consists of upright (handle) and base. Chrome finish
Code: AGESK List Price \$2.75
8. **AG HANDLE.** Upright of AG Stand. Easily attached to AG Base by half turn, bayonet lock. Chrome finish. Code: AGHAN..... List Price \$1.65
AG BASE. For use with AG Handle. Code: AGBAS..... List Price \$1.10
9. **AH HANDLE.** Upright of AG Stand with slide switch. Chrome finish.
Code: SHAND List Price \$3.00
10. **DH HANDLE.** Upright of AG Stand with press-contact switch. Chrome finish.
Code: DEPAH List Price \$4.10
12. **SUSPENSION EYE.** For suspending any microphone with standard $\frac{5}{8}$ "x27 thread. Chrome finish. Sturdy. Code: DYEYE..... List Price \$1.20
13. **BS BANQUET STAND.** Round base 8" in diameter. Rods 12". Extended height 24". Satin Black finish. Code: FUDAS..... List Price \$9.30
14. **FH3 and FL3 FLOOR STANDS.** Approved by the best sound studios. Positive, leather, friction-lock clutch. Noiseless operation. Rods 38". Extended height 6'. Three-contact, "floor grip," rubber-mounted base. FH3, studio model, net weight 15 lbs. FL3, public address model, net weight 10 lbs.
FH3 Floor Stand, Code: FUHET..... List Price \$18.50
FL3 Floor Stand, Code: FLEXR..... List Price \$12.50
15. **EL4 CARBON MICROPHONE.** Double button. Semi-stretched diaphragm. Good quality. Mounting yoke included. No ring or springs necessary.
Code: LITEG List Price \$8.75
16. **DD DESK STAND.** Round base, 4" upright. Net weight $1\frac{1}{4}$ lbs. $5\frac{1}{4}$ " base. Chrome finish. Code: DYNES..... List Price \$3.00
DS Desk Stand. Same as DD Stand except with $4\frac{1}{4}$ " base. Chrome finish.
Code: DINAC List Price \$3.00
17. **SJ CARBON MICROPHONE.** Single button. Sensitive. Chrome finish.
Code: JOHNE List Price \$6.00
18. **FP CARBON MICROPHONE.** New single-button, sensitive, carbon microphone. Operates in any position. For use in French phones and other types of telephone and listening devices. Code: FRONE..... List Price \$9.50
19. **CARBON HAND MICROPHONES WITH SLIDE SWITCH.** Chrome finish.
DB2, Double-button, Hand Mike, Code DBTWO..... List Price \$18.00
SB2, Single-button, Hand Mike, Code: SUTRO..... List Price \$12.00
Either above models with press-contact switch list \$1.00 extra.



Licensed under Patents of The Brush Development Co., and Licensed by Electrical Research Products, Inc., under United States Patents of A. T. & T. Co. and Western Electric Co., Inc., for use only in Public Address Systems.

AMERICAN MICROPHONE CO., INC.

ASTATIC

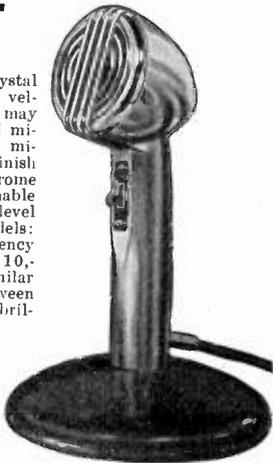
MICROPHONES

Astatic

KNOWN THE WORLD OVER
CONNEAUT, OHIO

"VELVET VOICE" CRYSTAL

• Here is a convertible type Crystal Microphone, providing ultra-smooth, velvety soft, wide range response, that may be used as desk, hand or floor stand microphone, to meet practically every microphone need. Beautiful gold finish housing and handle; bright chrome grille; brown baked enamel, detachable base; 15' shielded cable. Output level approximately —52 db. Two models: Model 200 with smooth, even frequency response characteristics from 30 to 10,000 c.p.s.; Model 241, with similar range but rising characteristics between 1500 and 5500 c.p.s. for added brilliance in speech range.



(Without Switch)	List Price
200—Code ASUVA	\$13.95
241—Code ASUVC	13.95
(With Off-On Switch)	
200-S—Code ASUVB	15.00
241-S—Code ASUVD	15.00

"VELVET VOICE" DYNAMIC

• This microphone is identical with Model 200, in appearance, but is equipped with a dynamic unit. Semi-directional. Exceptionally high output level of High Impedance Model, approximately —50 db. Frequency response, 30 to 10,000 c.p.s.

(Without Switch)	List Price
VDL —(50 ohms)—Code ASANA	\$19.95
VDH* —(High Impedance)—Code ASAND	22.50

*High impedance model only available with ON-OFF switch, \$1.40 extra.

"VELVET VOICE" CERAMIC

• Also identical in appearance with Model 200, but employing the amazing, new piezoelectric ceramic element. Recommended where high temperatures and humidity are service factors. Equipped with 7' cable. Output level approximately —62 db. Frequency response 30 to 10,000 c.p.s.

VC —(5 Meg.)—Substantially flat—Code ASAQR	\$13.15
VCL —(5 Meg.)—Rising characteristics—Code ASAPQ	13.15

Available with On-Off switch at \$1.05 extra

CRYSTAL MODEL D-104

• For close talking applications, such as radio amateur communications and similar uses. With high output level, approximately —45 db, it possesses definitely reduced R.F. feed-back tendencies. Yoke-driven, bridge-mounted Graphoil crystal element, shock-proof mounting and barometric compensation. Speech range frequency response from 30 to 7,500, rising 500 to 4,000 c.p.s. Chrome finish. Standard equipment includes interchangeable plug and connector, spring cable protector, 7' shielded cable.



CERAMIC MODEL D-104-C

• Duplicate of Crystal Model except for employment of ceramic element, which is immune to extremes of temperature and humidity. Performance comparable except for slightly lower output of approximately —58 db.

D-104 —Code ASUPA	List Price
	\$24.60
GD-104—Code ASVAX, with G-Stand	30.10
D-104-S—Code ASUPB, with S-Switch	27.35

"CARDINAL" CRYSTAL

• A sparkling, low-cost beauty with performance comparable to high-priced units. All-purpose microphone (see accessory list). Lifts from its streamlined, dark brown plastic desk stand for hand use. Wide range response, adaptable to standard AC or DC circuits, with 15' cable. Output level approximately —52 db.



	List Price
	(For Microphone only)
CX —Substantially flat—	
Code ASAOA	\$9.75
CX-1—Rising characteristics—	
Code ASAPZ	9.75

"CARDINAL" DYNAMIC

• Duplicate of Model CX in appearance, but equipped with dynamic unit.

	List Price
	(For Microphone only)
CDH—(High Impedance)	
Code ASAOF	\$19.50



"CARDINAL" CERAMIC

• Duplicate of Model CX in appearance, but employing ceramic element, which is immune to extremes of temperature and humidity. Equipped with 7' cable. Output approximately —62 db.

	List Price
	(For Microphone only)
CC —Substantially flat—Code ASAPU	\$8.95
CC-1—Rising characteristics—Code ASAPT	8.95

"CARDINAL" ACCESSORIES

• "Cardinal" plastic desk base, \$1.00; any model available with off-on switch, \$1.50 extra; hang-up hook, \$0.25; stand adapter, \$0.35.



The WR-SERIES

• The WR-Series, Multi-Unit Microphones, are highly recommended for studio, public address and high quality recording purposes. Substantially flat frequency response up to 10,000 cycles. Due to their special interior assembly design, the WR-Series Microphones are practically transparent to sound waves and cannot be acoustically overloaded. Model WR-20 may be used on cable up to 100 ft. with negligible loss of output and Model WR-40 is more than able to handle cable twice this length. Output level —56 db. Finish, bright chrome with satin chrome grille. Cable length, 25 ft.

	List Price
WR-20—Code ASVGZ	\$32.30
WR-40—Code ASVAL	43.25
(Available with S-Switch or G-Stand)	

Astatic Crystal Devices manufactured under Brush Development Co. patents.



ASTATIC

MICROPHONES AND STANDS

The JT-SERIES CRYSTAL & CERAMIC



• Because of their wide range of usefulness, excellent performance and low price, Astatic JT-Series Microphones are used extensively for amateur, public address and home recording. JT-Series Microphones are available in both wide and voice range models and, in addition to standard equipment, are furnished complete with concentric cable connector, convenient wood handle, interlocking metal base. Crystal model has 15' cable; ceramic, 7'. Wood handle may be removed and microphone used on floor stand. Crystal models' output level, —52 db, provides ample reserve for use with high gain amplifiers. Ceramic models' output approximately —62 db. Opalescent gray with bright chrome grille.

	List Price
JT-30 —Substantially flat—	
Code ASVLG	\$16.95
JT-40 —Rising characteristics—	
Code ASVLD	16.95
*JT-30-C—Substantially flat—	
Code ASVLF	16.15
*JT-40-C—Rising characteristics—	
Code ASVLO	16.15
*Ceramic Models.	

The DYNAMIC

• Model "DN" is a semi-directional, all-purpose dynamic microphone incorporating a new unitary moving coil system, and carefully proportioned acoustic circuit to highly damp the natural resonance of the moving system and provide a response characteristic substantially flat from 50 to 7,000 cycles. The "DN" design employs all features necessary for wide applicability, including Astatic's tilting-head, swivel mount, permitting semi- or non-directional positions. Opalescent gray and bright chrome finish. High impedance model only is available with Type S On-Off Switch (as illustrated) at \$27.50 extra.



	List Price
DN-50 —(50 ohms)—	
Code ASVNJ	\$21.90
DN-HZ—(High impedance)—	
Code ASVNG	24.60

(Both Models available with G-Stand)

LAPEL TYPE MODEL L-1

• This very small dual-diaphragm crystal microphone was developed to meet especially difficult pickup conditions. Equipment includes lapel-type spring clip and over-shoulder cord to permit wide latitude of movement. Output level —62 db. Frequency response uniform from 30 to 10,000 c.p.s. Finish, statuary bronze. Furnished with 25-ft. cable.



	List Price
Model L-1—Code ASUSN	\$27.35

MODEL K-2

• Because of its smooth, undistorted reproduction and the fact that it cannot be acoustically overloaded, Astatic Model K-2 Crystal Microphone is favored and extensively used. In this model, Astatic provides a small size, dual-diaphragm type crystal microphone for studio use, recording, dance bands, public address installations and general applications where quality performance is required. With dual crystal unit design, Model K-2 has twice the capacitance of the usual crystal microphone and correspondingly longer cable lengths may be used. Standard equipment includes plug and socket connector and 25-ft. cable. Output level —62 db. Bright chrome finish.



	List Price
K-2 —Code ASURX	\$30.10
K-2-S—Code ASURW,	
with S-Switch	32.85
GK-2—Code ASUZA,	
with G-Stand	35.55

CRYSTAL MODEL T-3

• Definitely established by long and continued popularity, Model T-3 Crystal Microphone is highly practical for many and varied applications. Its use is suggested for studio set-ups, with amateur rigs, intercommunicating systems, public address installations and for high-class recording purposes. Microphone head may be tilted with ease on unique swivel mounting and pickup pattern made semi- or non-directional, as desired. Output level —52 db. Frequency response substantially uniform from 30 to 10,000 cycles. Equipped with interchangeable plug and socket connector and 25 ft. cable. All chrome finish.



	List Price
T-3 —Code ASVCX	\$27.35
T-3-S—Code ASVCW, with S-Switch	30.10
GT-3—Code ASUZD, with G-Stand	32.85

CERAMIC MODEL T-3-C

• Duplicate of Model T-3 except for employment of heat and moisture-immune ceramic element. Output level —62 db with 7' cable.

	List Price
T-3-C —Code ASVCU	\$25.55
T-3-C-S—Code ASVCT, with S Switch	28.30

MICROPHONE STANDS AND ADAPTERS



MODEL	FINISH	PRICE
G Grip-to-Talk	Chrome & Gray	\$10.95
F Desk	Chrome & Gray	6.55
F-1 Desk	Chrome & Gray	3.25
E-5B Desk	Chrome & Brown	2.70
F-5G Desk	Chrome & Gray	2.70
F-11 Adapter	Chrome	3.50

Astatic Crystal Devices manufactured under Brush Development Co. patents.

ASTATIC

PICKUPS

Astatic

KNOWN THE WORLD OVER
CONNEAUT, OHIO

• The Specifications Chart shown on this page includes many types and sizes of Astatic Pickups for use with manually operated phonographs employing standard 78 RPM records of ten- and twelve-inch diameters, as well as Transcription Pickup Arms for use with all lateral transcriptions.

508 SERIES



510 SERIES



507



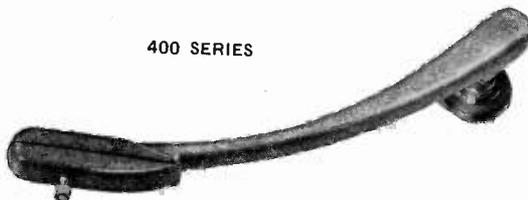
AB-8



AB-8M



400 SERIES



"S" SERIES



NOTICE: Pickup Models 508-MI-2, 510-MI-2 and 400-MI-2 are magnetic type units employing Astatic's revolutionary Magneto-Induction Cartridge. Three Equalizer-Amplifier Models, for use in conjunction with these pickups, are shown on Page D-12.

E4P TONE EQUALIZER

• Model E4P is an adjustable tone compensation network for use between crystal pickup and amplifier. Recommended for use with all crystal pickups. Complete instructions supplied.



E4P—Code ASVHD.....List Price \$3.30

Model	List Price	Finish	Cartridge Used	Frequency Range c.p.s.	Output Voltage Avg. at 1,000 c.p.s., Across 0.5 Meg. Load	Needle Pressure (Ounces)	Mounting Center	Application	Overall Length	Overall Height	Cable Length	Shipping Weight	Code
508-QT	\$18.35	Light	QT3-J	50 to 10,000*	0.85	1	8"	10" and 12" Records	8 3/4"	1 3/8"	13"	1 lb. 2 oz.	ASAYD
508-Nylon	17.20	Brown	Nylon 1-J	50 to 10,000†	1.0	1 1/4	8"		8 3/4"	1 3/8"	13"	1 lb. 2 oz.	ASAYJ
508-L-71	16.10	Hammerlin	L-71	50 to 8000	1.0	1 1/4	8"		8 3/4"	1 3/8"	13"	1 lb. 2 oz.	ASAYI
508-MI-2	16.95		MI-2J	50 to 12,000	0.1**	1	8"		8 3/4"	1 3/8"	13"	1 lb. 2 oz.	ASALG
510-QT	9.75	Smooth	QT3-J	50 to 10,000*	0.85	1	7"	10" and 12" Records	7 7/8"	1 1/8"	13"	1 lb. 2 oz.	ASAYL
510-L-72	7.50	Light	L-72	50 to 4000	3.5	1 1/4	7"		7 7/8"	1 1/8"	13"	1 lb. 2 oz.	ASAYK
510-MI-2	8.35	Brown Enamel	MI-2J	50 to 12,000	0.1**	1	7"		7 7/8"	1 1/8"	13"	1 lb. 2 oz.	ASALH
507-L40	5.50	Smooth Light Brown Enamel	L-40	50 to 4500	0.6	1 1/4	7"	10" and 12" Records	7 7/8"	1 1/8"	13"	1 lb. 2 oz.	ASAYH
400-QT	25.00	Light Brown Hammerlin	QT3-J	50 to 10,000*	0.85	1	10-1/8"	All Lateral Transcriptions	12 1/2"	1 1/8"	24"	1 lb. 8 oz.	ASBCH
400-QT-M	24.50		QT3-M	50 to 10,000*	0.85	1	10-1/8"		12 1/2"	min	24"	1 lb. 8 oz.	ASBCI
400-LT-M	23.10		LT1-M	50 to 10,000†	1.0	1	10-1/8"		12 1/2"	2-1/8"	24"	1 lb. 8 oz.	ASBCJ
400-Nylon	23.85		Nylon 1-J	50 to 10,000†	1.0	1 1/4	10-1/8"		12 1/2"	max.	24"	1 lb. 8 oz.	ASBCF
400-MI-2	23.60		MI-2J	50 to 12,000	0.1**	1	10-1/8"		12 1/2"		24"	1 lb. 8 oz.	ASALF
AB-8	11.15	Smooth Brown Enamel	B-2	50 to 4000	2.5	2 3/4	8"	10" and 12" Records	10 7/8"	2-3/8"	13"	2 lbs.	ASXfZ
AB-8M	13.90	Smooth Black Enamel	B-2	50 to 4000	2.5	2 3/4	7"		10 7/8"	2-3/8"	13"	2 lbs.	ASKEA
S-8	11.15	Black	B-2	50 to 4000	2.5	2 3/4	8"	10" and 12" Records	9-1/8"	2 1/8"	12"	1 lb. 10 oz.	ASWCA
S-12-B-2	13.90	Black Wrinkle	B-2	50 to 4000	2.5	2 3/4	12"	All Lateral Transcriptions	15"	2 1/8"	12 1/2"	2 lbs. 6 oz.	ASWEZ

Models B-10 and B-16 are available on special request.

*Exceptionally smooth response over entire frequency range with a gradual roll-off commencing at approximately 5,000 c.p.s.

†Exceptionally smooth response over entire frequency range with a gradual roll-off commencing at approximately 4,000 c.p.s.

**Columbia 10004 Test Record

Astatic Crystal Devices manufactured under Brush Development Co. patents.

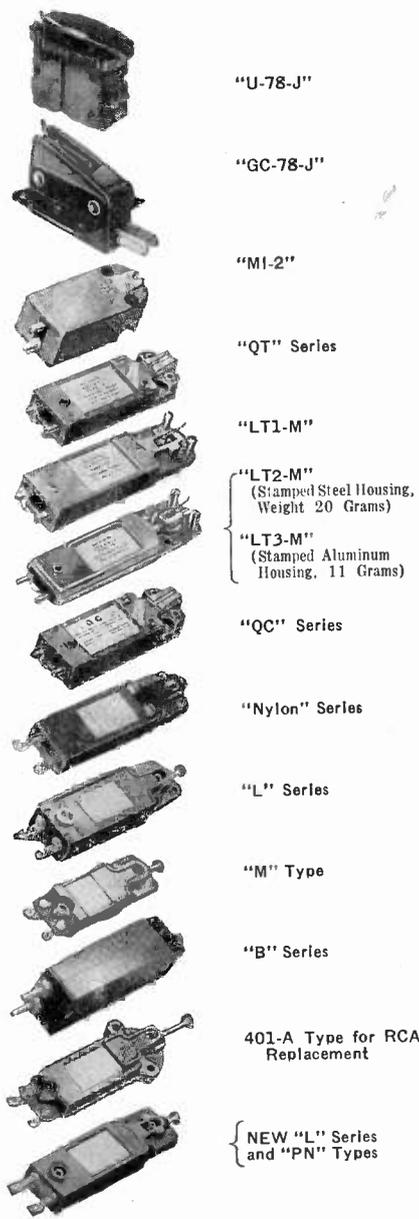
Astatic

KNOWN THE WORLD OVER CONNEAUT, OHIO

ASTATIC

CARTRIDGES AND NEEDLES

REPLACEMENT CARTRIDGES



"U-78-J"

"GC-78-J"

"MI-2"

"QT" Series

"LT1-M"

"LT2-M"
(Stamped Steel Housing,
Weight 20 Grams)

"LT3-M"
(Stamped Aluminum
Housing, 11 Grams)

"QC" Series

"Nylon" Series

"L" Series

"M" Type

"B" Series

401-A Type for RCA
Replacement

NEW "L" Series
and "PN" Types

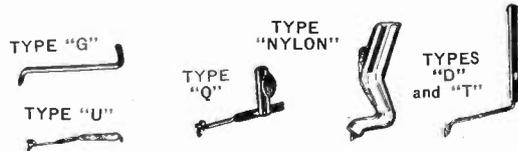
Model No.	Cartridge Type	List Price	Minimum Needle Pressure	Output Voltage	Frequency Range c.p.s.	Terminals	Needle Screw No.	Needle Type	Code
TYPE "MI"									
MI-2J	Magneto-Induction	\$ 7.50	1 oz.	0.1**	50 to 12,000	Pin	None	Fixed*	ASALX
TYPE "L" SERIES									
L-26A	Crystal	4.45	2 3/4 oz.	1.4	50 to 4500	Lug	3258	Optional	ASWVZ
L-40A	Crystal	4.45	1 1/4 oz.	0.6	50 to 4500	Lug	3530	Optional	ASWUA
TYPE "M"									
M-22	Crystal	5.55	2 3/4 oz.	2.9	50 to 6500	Lug	3258	Optional	ASWJM
TYPE "B" SERIES									
B-2	Crystal	5.55	2 3/4 oz.	2.5	50 to 4000	Universal	3205 or 3207	Optional	ASWHJ
B-4	Crystal	5.55	2 3/4 oz.	2.5	50 to 4000	3 Pin	3305 or 3207	Optional	ASWHH
SPECIAL TYPE FOR RCA REPLACEMENT									
401-A	Crystal	4.45	2 3/4 oz.	1.4	50 to 1500	Lug	3267	Optional	ASWTA
NEW TYPE "L" SERIES									
L-70A	Crystal	5.55	1 1/4 oz.	1.00	50 to 4000	Pin	3258	Optional	ASWVT
L-71A	Crystal	6.65	3 oz.	1.00	50 to 8000	Pin	3258	Optional	ASWVE
L-72A	Crystal	6.65	1 1/4 oz.	3.5	50 to 4000	Pin	3258	Optional	ASWVL
L-82A	Crystal	5.55	2 3/4 oz.	3.5	50 to 5000	Pin	3258	Optional	ASWSJ
L-92A	Crystal	6.00	1 oz.	2.25	50 to 7000	Pin	3258	Optional	ASWTR
TYPE "NYLON" ... NOTE: Exceptionally smooth response over entire frequency range with a gradual roll-off commencing at approximately 7,000 c.p.s.									
Nylon 1-J	Crystal	7.75	1 1/4 oz.	1.0	50 to 10,000	Pin	None	Nylon*	ASWVA
TYPE "LT" SERIES ... NOTE: Exceptionally smooth response over entire frequency range with a gradual roll-off commencing at approximately 4,000 c.p.s.									
LT1-M	Crystal	7.00	3/4 oz.	1.0	50 to 10,000	Pin	3530	"T" Needle†	ASKAA
LT2-M	Crystal	7.00	3/4 oz.	1.0	50 to 10,000	Pin	3530	"T" Needle†	ASKAC
LT3-M	Crystal	7.00	3/4 oz.	1.0	50 to 10,000	Pin	3530	"T" Needle†	ASKAE
TYPE "QT" SERIES ... NOTE: Exceptionally smooth response over entire frequency range with a gradual roll-off commencing at approximately 5,000 c.p.s.									
QT2-J	Crystal	8.90	1 oz.	0.85	50 to 10,000	Pin	None	"Q" Needle* ASXBJ	
QT2-M	Crystal	8.10	1 oz.	0.85	50 to 10,000	Pin	None	"Q" Needle* ASXBH	
QT3-J	Crystal	8.90	1 oz.	0.85	50 to 10,000	Pin	None	"Q" Needle* ASXBN	
QT3-M	Crystal	8.40	1 oz.	0.85	50 to 10,000	Pin	None	"Q" Needle* ASXBL	
TYPE "GC" ... NOTE: Employs ceramic element, unaffected by extremes of temperature and humidity.									
GC-78-J	Ceramic	7.40	12 gr.	0.7††	50 to 10,000	Pin	None	G-78*	ASWZI
TYPE "U"									
U-78-J	Crystal	8.90	5 gr.	0.5††	30 to 10,000	Pin	None	U-78*	ASWZG
TYPE "QC" ... NOTE: Employs ceramic element, unaffected by extremes of temperature and humidity.									
QC-J	Ceramic	8.90	1 oz.	0.5	50 to 10,000	Pin	None	Fixed*	ASAPL
"P. N." TYPES									
L-71A	PN Crystal	10.00	1 1/4 oz.	1.4	50 to 4000	Pin	3258	Optional	ASWVD
L-78	PN Crystal	11.15	1 oz.	1.4	50 to 4000	Pin	3258	Optional	ASWVO
SPECIAL PURPOSE TYPES									
Model	Cartridge Type	List Price	Minimum Needle Pressure	Output Voltage	Frequency Range c.p.s.	Needle Type	Application	Code	
PT	Crystal	\$ 5.00	1 oz.	1.4	50 to 10,000 Roll-off at 3000	Not Included	Replacement for Philco Parts—35-2671, 35-2671-1	ASWTB	
DOUBLE-NEEDLE MODEL									
MD	Crystal	9.90	1 oz.	1.0	50 to 7000	"D" Needle†	Market Record Changer	ASWTC	
NOTE: Cartridge types B, QT and Nylon also available with PN Crystal upon request.									

**Columbia 10004 Test Record *Sapphire Tipped ††Audio-tone Test Record †Precious Metal Tipped

EQUIVALENT TYPES OF DISCONTINUED CARTRIDGES

Discontinued Types	Equivalents	Discontinued Types	Equivalents	Discontinued Types	Equivalents
L-22A	L-26A	L-75A	L-70A	Nylon 1-M	Nylon 1-J
L-24A	L-82A	L-76	L-70A	MIP-1	QT3-M
L-25A	L-70A	L-80	L-78	MIP-1J	QT3-J
L-27A	L-26A	L-82V	L-82A	MIP-2	QT3-M
L-32A	L-26A	LP-6	LT1-M	MIP-3	QT3-J-PN
L-36A	L-82A	LP-21	Nylon Series or QT Series	QT-M	QT3-M
L-41A	L-40A	LP-23	Nylon Series or QT Series	MI-2M	QT3-J
L-46A	L-72A	M-23		MI-2J	MI-2J
L-50A	L-72A	B-1		LP-33	U-J
L-73A	L-73A	B-2		LP-78	U-78-J

REPLACEMENT NEEDLES



Type	Needle Tip Material	Radius	For use in Cartridge Types	List Price	Code
T	Precious Metal	3 mil	LT Series	\$1.50	ASXBE
Q-M	Precious Metal	3 mil	QT and LQ Series	2.50	ASXBF
Q-J	Sapphire	3 mil	QT and LQ Series	3.00	ASXWB
Nylon 1J	Sapphire	3 mil	Nylon Series	2.50	ASWVC
D	Precious Metal	3 mil	MD and LT-D Series	1.50	ASXBU
G-78-J	Sapphire	3 mil	GC-78 Series	2.50	ASWZS
G-78-M	Precious Metal	3 mil	GC-78 Series	1.50	ASWZU
U-78-J	Sapphire	3 mil	U-J Series	2.50	ASWZV
U-78-M	Precious Metal	3 mil	U-M Series	1.50	ASWZO

Model	Type	Maximum Recording Voltage	Useful Upper Limit	Finish	Dimensions	Net Weight	Code	List Price
X-26	Crystal	150 V. RMS	6,000 c.p.s.		1 3/8" x 3/8" x 3 1/4"	5 1/2 oz.	ASXMI	\$12.80
X-29A	Crystal	150 V. RMS	9,000 c.p.s.	Dark Brown Enamel	1 3/8" x 3/8" x 3 1/4"	5 1/2 oz.	ASXMH	12.80
M-41-8	Magnetic	3 V. RMS	7,000 c.p.s.		1 3/8" x 1 1/8" x 3 3/8"	3 1/2 oz.	ASXMF	12.80
M-41-8 (8 Ohms)								
M-41-500 (500 ohms)	Magnetic	30 V. RMS	7,000 c.p.s.		1 3/8" x 1 1/8" x 3 3/8"	3 1/2 oz.	ASXME	12.80

"RECORDING HEAD" MODELS X-26 and X-29A

"RECORDING HEAD" MODEL M-41

Astatic Crystal Devices manufactured under Brush Development Co. patents.

ASTATIC

**PICKUPS
FOR LONG-PLAYING AND
LOW SPEED RECORDS**

Astatic

KNOWN THE WORLD OVER CONNEAUT, OHIO

**MODEL 6D CRYSTAL
TURNOVER PICKUP**



● Switches from 33 1/2 or 45 RPM records to standard 78 with turn of knob at front. Plays both types of records at only eight-gram needle pressure, thus has no extra mechanism to change pressure when knob is turned, eliminating a potential source of trouble and varying reproduction quality. Employs LQD-1 Double-Needle Cartridge. Mounts seven inches from turn-table center, die-cast curved arm finished in dark brown Hammerlin.

**400-D TURNOVER
PICKUP**



● Turnover type transcription pickup adapted from famous Astatic Studio Master "400" conventional transcription arm. Plays 33 1/2, 45 or standard 78 RPM recordings at eight-gram needle pressure. Employs LQD-1 Double-Needle Crystal Cartridge. Notable excellence of frequency response, particularly at low frequencies. Gracefully curved, die-cast arm in light brown Hammerlin finish.

MODEL FL-33 PICKUP



● Does the work of three pickups. Its U-J Crystal Cartridge for either 33 1/2 or 45 RPM records is easily, instantly replaceable with the U-78-J Cartridge for playing standard records. No adjusting of needle pressure, nothing else to be done. Cartridges slip in and out like barrel and cap of non-threaded fountain pens. Special Type "U" Taper-Lock replaceable needle has tongue and groove arrangement to hold in position, removes merely by gripping small tab at rear of needle and sliding towards rear of cartridge. Novel design at base of FL-33 eliminates tone arm resonances, assures perfect tracking. Die-cast arm, finished in high gloss black and polished aluminum.

MODEL FLC-33 PICKUP



● The same important advancements in pickup engineering as the FL-33, in handsomely curved styling. Offers the same operating advantages, such as the three-in-one feature: one pickup plays 33 1/2, 45 and 78 RPM Records without changing needle pressure or making other adjustments, with the simple switching of slip-in cartridges. Perfect tracking, at only five-gram needle pressure, is assured by the revolutionary new base mounting assembly.

**FLT-33 TRANSCRIPTION
PICKUP**



● Never before, a pickup of such professional instrument quality and precision. Like the FL-33, this sleek transcription model employs the U-J Crystal Cartridge with one mil tip-radius needle, instantly replaceable with the U-78-J for playing 78 RPM Records. In addition, the U-TR Cartridge with 2.5 mil tip-radius may be inserted to play standard lateral broadcast transcriptions. Special ball-bearing, anti-resonance base is adjustable to desired height, as is unique arm-rest. Feather-touch needle pressure of five grams is accomplished by a revolutionary hinged division of the arm, which also contributes to perfect tracking and elimination of surface noise. Die-cast arm and base look their fine instrument part, with finish in telephone black. All three "U" Series Cartridges are available with diamond stylus tips instead of the regular sapphire.

**MODELS 510-QT-33 AND
510-MI-2-33 PICKUPS**



● Add Astatic's new anti-resonance swivel base, and the famous "QT" Crystal Cartridge with special one mil tip-radius, precious metal or jeweled stylus, to the popular Astatic Model 510 Pickup — and you have this new long-playing model, the finest performer in its price class. Permanently adjusted to six-gram needle pressure, its short mounting centers make it ideal for a host of long-playing applications. Outstanding characteristics are high uniform output and low needle point impedance. Die-cast arm, finished in Hammerlin opalescent grey. Specify Model 510-MI-2-33 for the same pickup, except for employment of Astatic's revolutionary Magneto-Induction Cartridge.

**MODEL 507-L-92-33
PICKUP**



● Bedrock price, with full professional performance standards retained. The new L-92-33 Crystal Cartridge employed is notable for high output, which affords excellent results in use with standard phonograph amplifiers, where other lower output cartridges are not satisfactory. Has universal, screw-type needle chuck to receive standard microgroove needles. Pickup is furnished without needle. Die-cast arm finished in opalescent grey Hammerlin. New, anti-friction swivel base.

**MODELS 400-QT-33 AND
400-MI-2-33
TRANSCRIPTION PICKUPS**



● The famous Astatic Studio Master "400" conventional transcription arm, adapted for long-playing transcriptions. Incorporates the improved base mounting assembly that eliminates arm resonances and assures perfect tracking, and the "QT" Crystal Cartridge with precious metal or sapphire stylus of one mil tip-radius. A peak standard of long-playing transcription performance. Die-cast arm, permanently adjusted at six-gram needle pressure. Grey Hammerlin finish. Specify Model 400-MI-2-33 for the same arm, except for employment of Astatic's Magneto-Induction Cartridge.

Model	List Price	Finish	Cartridge Used	Type	Stylus	Frequency Range c.p.s.	Output Voltage 1000 c.p.s. *5 Meg. Load	Needle Pressure	Application	Cable Length**	Shipping Weight	Code
6D	\$15.90	Dark Brown Hammerlin	LQD-1	Crystal	Precious Metal†† Sapphire††	50-7000	STD 1.2*** LP 0.9**	8 grams	Standard, 33 1/2 and 45 RPM Records	13"	2 lbs.	ASXHU
400-D	25.00	Light Brown Hammerlin	LQD-1	Crystal	Precious Metal†† Sapphire††	50-7000	STD 1.2*** LP 0.9**	8 grams	Standard, 33 1/2 and 45 RPM Records	24"	1 lb. 8 ozs.	ASDCN
FL-33	14.90	High Gloss Black	U-J	Crystal	Sapphire	30-10,000	0.5 volt*	5 grams	Long-Playing and Low-Speed Records	12"	14 ozs.	ASXCB
FLC-33	14.90	Black	U-J	Crystal	Sapphire	30-10,000	0.5 volt*	5 grams	Long-Playing and Low-Speed Records	12"	14 ozs.	ASXIL
FLT-33	43.90	Telephone Black	U-J	Crystal	Sapphire	30-10,000	0.5 volt*	5 grams	Long-Playing and Low-Speed Records	24"	3 lbs.	ASXIP
FLT-33X	73.90	Black	UX	Crystal	Diamond	30-10,000	0.5 volt*	5 grams	Long-Playing and Low-Speed Records	24"	3 lbs.	ASXIO
FL-78	14.90	High Gloss Hammerlin	U-78-J	Crystal	Sapphire	30-10,000	0.5 volt†	5 grams	Standard 78 RPM Records	12"	14 ozs.	ASXIT
FLC-78	14.90	Black	U-78-J	Crystal	Sapphire	30-10,000	0.5 volt†	5 grams	Standard 78 RPM Records	12"	14 ozs.	ASXIU
FLT-78	43.90	Telephone Black	U-78-J	Crystal	Sapphire	30-10,000	0.5 volt†	5 grams	Standard 78 RPM Records	24"	3 lbs.	ASXIS
FLT-78X	68.90	Black	U-78X	Crystal	Diamond	30-10,000	0.5 volt†	5 grams	Standard 78 RPM Records	24"	3 lbs.	ASXIR
FLT-TR	43.90	Telephone Black	U-TR	Crystal	Sapphire	30-10,000	0.5 volt†	5 grams	Broadcast Transcription	24"	3 lbs.	ASXIN
FLT-TRX	68.90	Black	U-TRX	Crystal	Diamond Tip Radius	30-10,000	0.5 volt†	5 grams	Broadcast Transcription	24"	3 lbs.	ASXIM
510-QT-M-33	10.25		QT-M-33	Crystal	Precious Metal	50-10,000	0.75 volt*	6 grams		13"	1 lb. 2 ozs.	ASAYO
510-QT-33	10.75		QT-J-33	Crystal	Sapphire	50-10,000	0.75 volt*	6 grams		13"	1 lb. 2 ozs.	ASAYP
510-MI-2-33	9.25	Opalescent Grey	MI-2J-33	Magnetic	Sapphire	50-12,000	28 millivolt**	6 grams	33 1/2 and 45 RPM Records	13"	1 lb. 2 ozs.	ASAYQ
507-L-92-33	8.00	Grey	L-92-33	Crystal	Not included	50-10,000	1.6 volt*	10 grams	45 RPM Records	13"	1 lb. 2 ozs.	ASWTT
400-QT-M-33	24.50	Hammerlin	QT-M-33	Crystal	Precious Metal	50-10,000	0.75 volt*	6 grams		24"	1 lb. 8 ozs.	ASBCK
400-QT-33	25.00		QT-J-33	Crystal	Sapphire	50-10,000	0.75 volt*	6 grams		24"	1 lb. 8 ozs.	ASBCL
400-MI-2-33	23.60		MI-2J-33	Magnetic		50-12,000	28 millivolt**	6 grams		24"	1 lb. 8 ozs.	ASBCM

*Columbia Test Record 281

†Columbia Test Record 10004M

††Precious metal stylus tip on 3 mil 78 RPM side. Sapphire stylus tip on 1 mil 45 and 33 1/2 RPM side.

**Audio-tone Test Record

***Super-Flexible, Single Conductor, Shielded

Astatic Crystal Devices manufactured under Brush Development Co. patents.

Astatic

KNOWN THE WORLD OVER CONNEAUT, OHIO

ASTATIC

**CARTRIDGES, NEEDLES, ETC.
FOR LONG-PLAYING AND
LOW SPEED RECORDS**



THE GC CERAMIC CARTRIDGE

• First major stride in cartridges employing ceramic elements since Astatic pioneered in this type unit. The first with replaceable needle. Takes "Type G" needle—with either one or three-mil tip-radius, precious metal or sapphire—which slips from its rubber chuck with a quarter turn sideways. Resistance to high temperatures and humidity is not the only additional advantage. Output has been

increased over that of any ceramic cartridge available. Light weight and six-gram needle pressure make it ideal for a great variety of modern applications. Model GC-J fits standard 1/2" mounting and RCA 45 RPM record changers. Model GC-1J fits RMA No. 2 Specifications for top mounting .453" mounting centers.

GC-J —Code ASWZK List Price \$7.40
GC-1J—Code ASWZII List Price \$7.40



THE CQ CRYSTAL CARTRIDGE

• A new Astatic design, featuring miniature size and five-gram weight. Model CQ-J fits standard 1/2" mounting and RCA 45 RPM record changers. Model CQ-1J fits RMA No. 2 Specifications for top mounting .453" mounting centers. Needle pressure five grams. Output 0.7 volts at 1,000 c.p.s. Employs one mil tip-radius, Q-33 needle. Cast aluminum housing.

CQ-J —Code ASXAZ List Price \$7.50
CQ-1J—Code ASXAI List Price \$7.50



**THE LQD DOUBLE-NEEDLE
CRYSTAL CARTRIDGE**

• The LQD Cartridge — for 45, 33 1/2 and 78 RPM Records — quickly became the first choice of many of the nation's largest users, on the basis of comparative listening tests, and is, today, the PROVED TOP PERFORMER for turnover type pickups. Outstanding for excellence of frequency response, particularly at low frequencies. A gentle pry with pen-knife removes ONE "Q" needle for replacement . . . without disturbing the other needle, without removing cartridge from tone arm. Gentle pressure snaps new needle into place. Stamped aluminum housing. Model LQD-1J, illustrated, has needle guards and front bracket for turnover knob. LQD-J furnished without guards or bracket.

LQD-J —Code ASXAL List Price \$9.50
LQD-1J—Code ASXAM List Price 9.50



THE U-J CRYSTAL CARTRIDGE*

• The unparalleled performance and triple duty service of the FL Series Pickups is largely due to the U-J Crystal Cartridge. A child can slip it instantly from the pickup and slip in the U-78-J or U-TL Crystal Cartridges to switch from 33 1/2 and 45 to 78 RPM records or broadcast transcriptions. Secures itself on slip-in principle, the same as barrel and cap of some modern fountain pens. No changing of needle pressure, nothing else to be done. Five-gram needle

pressure. Replaceable sapphire stylus with one mil tip-radius. The U-J replaces, and is interchangeable with, the discontinued LP-33. An ideal replacement for Philco Part 45-1609, Balanced Fidelity Reproducer. Code ASXAT List Price \$8.90

THE U-78-J CRYSTAL CARTRIDGE*

• Interchangeable with U-J Crystal Cartridge, in "FL" and "FLT" Series Pickups, to play conventional 78 RPM Records. See above description under U-J Cartridge. Five-gram needle pressure, has replaceable sapphire stylus with three mil tip-radius. Replaces LP-78 Cartridge. Code ASWZG List Price \$8.90

\$7.90 with FL-33, FLT-33 or FLT-TR Pickups

THE U-TR CRYSTAL CARTRIDGE*

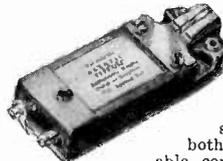
• Identical to U-J, except for 2.5 mil tip-radius needle for broadcast transcriptions. Code ASXAK List Price \$8.90

U-J with Diamond Stylus \$38.90; U-TR or U-78 \$33.90

* All "U" Series Cartridges are instantly interchangeable in the "FL" and "FLT" Series Pickups

**THE L-92-93
CRYSTAL CARTRIDGE**

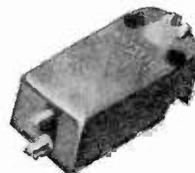
• High performance quality in a new, low-cost unit. Notably high output permits use with standard phonograph amplifiers, where other cartridges prove unsatisfactory. Reality of tone and absence of surface noise are almost unbelievable. Universal, screw type needle chuck receives any standard micro-groove needle. Stylus not furnished. Code ASWTS List Price \$6.00



**THE QT-M-33 AND QT-J-33
CRYSTAL CARTRIDGES**

• A famous Astatic Cartridge with a famous needle design—now adapted to the requirements of LI Recordings. The QT-M-33 employs a precious metal stylus and the QT-J-33, a sapphire type, both needles being the same unique, replaceable construction used in conventional QT Cartridges, except for one mil tip-radius.

QT-M-33—Code ASXBQ List Price \$8.40
QT-J-33—Code ASXBR List Price 8.90



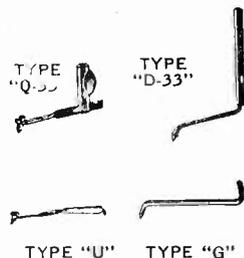
**THE MI-2J-73 MAGNETO-
INDUCTION CARTRIDGE**

• Peak fidelity of reproduction that LASTS, even under the most consistent service or adverse climatic conditions. Unchanging characteristics are result of radical reversal of engineering precedent and drastic simplification, which eliminate need for delicate handling and other common sources of trouble with magnetic type units. Troublesome, costly armature balancing problems also eliminated. Mumetal housing provides increased shielding effect for maximum reduction of hum. Fixed, sapphire stylus with one mil tip-radius. Code ASALW List Price \$7.50

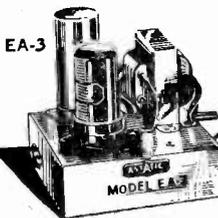
ASTATIC ONE MIL TIP-RADIUS NEEDLES

• The unique design of the Q-33-M (precious metal) and Q-33-J (sapphire) Needles reduces surface noise and needle talk, through increased vertical compliance. See LQD Cartridge for other features. The D-33 is for use with LT-D Cartridge. See FL-33 Pickup for features of "U" Type Taper-Lock Needle; see GC Cartridge for "G" Needle.

		List Price
Q-33-M	— Code ASXHT \$1.50
Q-33-J	— Code ASXBS 2.50
D-33	— Code ASXBV 1.50
U-J	— Code ASWZV 2.50
U-M	— Code ASWZP 1.50
G-M	— Code ASWZT 2.50
G-M	— Code ASWZV 1.50



THE EA-1, EA-2 AND EA-3 EQUALIZERS-AMPLIFIERS



• The Model EA-1 is a compact unit designed for installation in radio sets and audio amplifiers, and provides the necessary equalization and preamplification to adapt the MI-2J-33 Cartridge to standard phonograph input circuits. Provides "bass-boost." The Model EA-2, self-powered, provides adjustable "bass-boost," adjustable treble "roll-off," and selection of "turnover frequency." The Model EA-3 is a self-powered unit and provides "bass-boost" and equalization for the Magneto-Induction Cartridge.

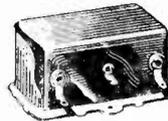
EA-1—Code ASAMP List Price \$ 9.90
EA-2—Code ASAMO List Price 39.50
EA-3—Code ASAMN List Price 15.95

THE FT FILTER-TRANSFORMER

• For broadcast station use with "FL" and "FLT" Series Pickups, to filter and match high impedance output of pickup to low impedance mixer circuits. Has output impedances of 37.5, 150 and 250 ohms. Code ASXMR List Price \$28.50

THE FL FILTER

• For best performance with highest quality speakers, the FL Filter is recommended as an accessory unit with "FL" and "FLT" Series Pickups. Controls high frequency response. Code ASXMS List Price \$6.90



Astatic Crystal Devices manufactured under
Brush Development Co. patents.

DYNAMIC AND CRYSTAL MICROPHONES

SHURE

SHURE MULTI-IMPEDANCE SUPER-CARDIOIDS



"556" SUPER-CARDIOID
(For Broadcast)

The new Shure Super-Cardioid Dynamic Microphones are Multi-Impedance Microphones—giving you three microphones in one. Gives you a choice of low, medium, or high impedance in one unit. Model "556" is specially designed for Broadcasting. Held within extremely close tolerances in frequency response. Features internally isolated cartridge and external vibration absorbing unit. Model "55" is a "General Purpose," high-quality dynamic. It is identical to the "556" in appearance with the exception of the external vibration absorbing unit. Following is technical data covering both models: Reduces reflections and reverberation—decreases random noise pickup by 73%. Smooth response from 40 to 15,000 cycles over wide angle at front—dead at rear. Single unit construction accomplished through Shure "Uniphase" principle (Patented). Floating moving coil system. Swivel head. Standard $\frac{5}{8}$ "—27 thread. "556" has convenient terminals for attaching longer length cables. "55" has built-in connector. Case $\frac{1}{4}$ " high, $\frac{3}{4}$ " wide, $\frac{1}{2}$ " deep. Ship. wts.: "556", $\frac{1}{2}$ lbs.; "55", 4 lbs.



"UNIDYNE" SUPER-CARDIOID DYNAMIC
(For General Purpose)

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

IMPEDANCE TABLE	OUTPUT LEVEL
L—35-50 ohms	56.1 db below 1 Milliwatt per 10 microbar signal
M—150-250 ohms	56.8 db below 1 Milliwatt per 10 microbar signal
H—High	57.5 db below 1 volt per microbar

Microbar = 1 dyne per sq. cm.



MODEL	CABLE	CODE	LIST PRICE
556	7 ft.	RUMUB	\$92.50
55	25 ft.	RUMUL	\$67.50

Microbar = one dyne per sq. cm.



Model "51"

"SONODYNE" HIGH-OUTPUT DYNAMIC

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

The rich satin chrome case is functionally designed for improved acoustical performance and modern appearance. Frequency response 60-10,000 c.p.s. The "Sonodyne" is ideal for all general-purpose use including public address,

wire and tape recording, communications and similar applications. Code: RUSON

IMPEDANCE TABLE		OUTPUT LEVEL	
L—35-50 ohms		53.0 db below 1 Milliwatt for 10 Microbar signal	
M—150-250 ohms		52.5 db below 1 Milliwatt for 10 Microbar signal	
H—High Impedance		52.0 db below 1 volt per Microbar	
MODEL	CABLE	SHPG. WEIGHT	LIST PRICE
51	20 ft.	$\frac{3}{2}$ lbs.	\$39.75

Microbar=one dyne per sq. cm.

"MONOPLEX" SUPER-CARDIOID CRYSTAL

A high-output, unidirectional microphone that ranks far above ordinary crystal microphones. The Super-Cardioid "Monoplex" is TWICE AS UNIDIRECTIONAL AS THE CARDIOID. It has a 14 to 1 front to rear pickup ratio and REDUCES PICKUP OF RANDOM SOUND BY 73%! The "Monoplex" employs the same type of acoustic phase-shifting network used in the

MODEL	CABLE	OUTPUT	IMPED.	LIST PRICE
737A	20 ft.	54.0 db below 1 volt per microbar	High Impedance	\$39.75

Microbar=one dyne per sq. cm.

Shure Broadcast microphones. New moisture-proofed "Metal Seal" crystal for long operating life. Case pivots at rear, can be pointed toward desired sound or upwards for horizontal plane pickup. The "Monoplex" is excellent for high-quality public address, communications, recording and similar applications. Operates under adverse conditions of background noise and reverberation where a conventional microphone would be practically useless. Built-in cable connector. Standard $\frac{5}{8}$ "—27 thread. Height 4". Width $3\frac{3}{8}$ ". Thickness $1\frac{7}{8}$ ". Shipping weight $2\frac{1}{4}$ lbs. Rich satin chrome finish.



Model 737A

Code: RUMON

SHURE

CRYSTAL AND CARBON MICROPHONES

707A CRYSTAL



707A SERIES

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

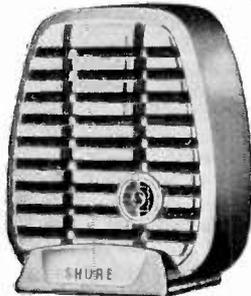
Pearl Gray case with rich satin chrome finish on front grille. The case is a heavy die casting. Standard 5/16"-27 thread. Diameter 2 3/8". Shipping weight 2 1/4 pounds. High impedance.

Code: 707A—RUDOF. 707A-20—RUDOK

MODEL	OUTPUT	CABLE	LIST PRICE
707A	51.0 db below 1 volt per microbar	7 ft.	\$14.50
707A—20	54.5 db below 1 volt per microbar	20 ft.	\$16.00

Microbar = one dyne per sq. cm.

THE "REX"



710 SERIES

Its extremely low price makes this striking hand-held crystal microphone a natural for hams, low-cost public address systems, and as a replacement for home recording microphones. A rugged unit designed for high speech intelligibility. The "Rex" saves further costs, as it needs no desk stand! Has a broad base, sits firmly on a table top without tipping over. Frequency response 60 to 9000 c.p.s. 7' shielded cable. Beautiful Burgundy-red metallic finish. Die-cast case complete with stand adapter. 2 2/3" wide, 3/4" high, 1 1/8" thick. High impedance.

Code: 710A—RUDEL. 710S—RUDET

MODEL	OUTPUT LEVEL	SHPG. WT.	LIST PRICE
710A	50 db below 1 volt per microbar	1 1/4 lb.	\$10.00
710S (with switch)	50 db below 1 volt per microbar	1 1/2 lb.	\$12.00

Microbar = 1 dyne per sq. cm.

STRATOLINER



708 SERIES

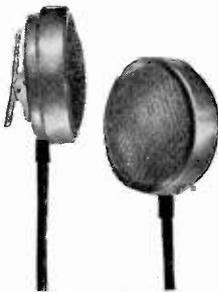
An expensive-looking microphone at moderate cost. Wide-range response (free from undesirable peaks) for good reproduction of either voice or music. Placed horizontally, the 708A is semi-directional; used vertically it becomes non-directional. Bimorph Crystal. A swivel permits 90° tilting of the microphone. Case dimensions: diameter 2 1/2", length 4 7/8". Standard thread 3/8"-27. Shipping weight 2 1/2 pounds. Frequency response is 60-8000 c.p.s. Pearl Gray finish. High impedance.

Code: 708A—RUDUM. 708-20—RUVAT

MODEL	OUTPUT LEVEL	CABLE	LIST PRICE
708-A	51.0 db below one volt per microbar	7 ft.	\$27.50
708—20	54.5 db below one volt per microbar	20 ft.	\$29.00

Microbar = one dyne per sq. cm.

SHURE 76B LAPEL MICROPHONE



No. 76B

Designed for Public Address, lecturing, portable transmitters, and all general uses for intelligible reproduction of speech. Pressure-actuated diaphragm-type crystal microphone. Graphoil Bimorph crystal, moisture-sealed. Microphone is inconspicuous, weighs only 1 1/2 ounces. Response from 40 to 6,000 c.p.s. High frequency response accentuated for maximum intelligibility. 1 7/8" diameter. Gray finish. Lapel clip. 25-foot shielded single-conductor cable. Shipping weight 1 pound. Output level: 57 db below 1 volt per bar. Code RULOP. List Price \$27.00.

COMMUNICATION CARBON MICROPHONES



MODEL "100" SERIES

A high-quality, carbon microphone specially designed for mobile equipment. Rugged, dependable unit with clear, crisp voice response and high output. Fits snugly into palm of hand. Heavy duty switch for push-to-talk performance. Furnished with hook for suspension and bracket for wall mounting, plus coiled-cord cable. Adopted as standard microphone by leading manufacturers of police transmitters. Output level: 5 db below 1 volt for 100 microbar speech signal. Net weight 14 oz. Shipping weight 1 1/4 pound. Case dimensions: 3 3/4" high, 1 3/4" deep, 2 3/4" wide. 70 to 80 ohms impedance.



MODEL "120"

The ideal general replacement carbon microphone for fixed station use. Can be used as a direct replacement for Shure microphones used by the leading communication equipment manufacturers. The "120" is a durable unit designed for high intelligibility of speech. Recommended for Police, Fire, Utility, Forestry, Transportation Services, etc. The "120" is a distinctive looking unit, will improve the appearance of any transmitting setup. It is furnished with a S36A desk stand, push button switch and 7' cable. Shipping weight 3 1/2 pounds. Code: RUCPE.

NOTE: Direct replacement for manufacturer's model 91A27.

MODEL	SWITCH ARRANGEMENT	CABLE	CODE	LIST PRICE
101C	Two Wire Relay Switch normally open (No microphone switch).	Coiled Cord 11" retracted 5' extended	RUCEG	\$30.00
102C	Relay normally open. Microphone switch normally open.	Coiled Cord 11" retracted 5' extended	RUCEM	\$30.00

Microbar = one dyne per sq. cm.

MODEL	OUTPUT LEVEL	IMPEDANCE	LIST PRICE
120	5 db below 1 volt per 100 microbar	70 to 80 ohms	\$40.00

Microbar = one dyne per sq. cm.

CONTROLLED RELUCTANCE MICROPHONES

SHURE

THE "HERCULES"



510 SERIES

The "Hercules" is a hand-held magnetic unit. Provides the ruggedness, clear reproduction, and high output long needed for Public Address, Communications, and Recording—AT AN AMAZINGLY LOW PRICE! Recommended for Announcing and Mobile Public Address Systems; Communications; Home Recording; high quality Inter-Communication. Ideal for general-purpose use in tropical countries and all coastal areas where humidity is a problem. The output voltage is induced in a coil of wire by causing a sound wave to modulate the reluctance of the magnetic circuit. By the control of this reluctance the utmost in quality and stability is achieved. High impedance is obtained without the use of a transformer. The "Hercules" can be used either Indoors or Outdoors. Fits snugly in the hand, sits firmly on a desk. Frequency response is 100 to 7,000 c.p.s. Furnished with 7' shielded cable. Green metallic finish. Die-cast case. Complete with stand adapter. 2 3/8" wide, 3/4" high, 1 1/2" thick.

MODEL	CABLE	OUTPUT LEVEL	IMPEDANCE	SHPG. WT.	CODE	LIST PRICE
510C	7 ft.	52.5 db below 1 volt per microbar	High	1 1/2 lb.	RUTUF	\$12.95
510S (with switch)	7 ft.	52.5 db below 1 volt per microbar	High	1 3/4 lb.	RUTUS	\$14.95

Microbar = one dyne per sq. cm.

THE "GREEN BULLET"



MODEL 520

The "Green Bullet" is a magnetic unit, especially designed to provide quality music and speech reproduction at moderate cost. It is practically immune to the effects of high temperatures and humidity. The "Green Bullet" has a stability assured by unique control of the reluctance of the magnetic system. It features: high output, good response, high impedance without the need of a transformer. The "Green Bullet" has a beautiful modern metallic green finish with a plated grille. Frequency response is 100 to 7,000 c.p.s. Furnished with 15' single-conductor shielded cable.

MODEL	CABLE	OUTPUT LEVEL	IMPEDANCE	SHPG. WT.	CODE	LIST PRICE
520	15 ft.	52.5 db below 1 volt per microbar	HIGH	1 1/2 lbs.	RUDAL	\$16.50

Microbar = 1 dyne per sq. cm.

THE "DISPATCHER"



MODEL 520SL

This new Controlled Reluctance unit is complete with the Model A88A "Grip-to-Talk Slide-to-Lock" Switch and the S36A Desk Stand. It is designed to handle the most severe field requirements of paging and dispatching systems. The "Dispatcher" is ideal for police, taxi-cab, railroad, airport, bus, truck, and all emergency communications work where dependability is vital. Large grip-bar assures positive contact. Firm downward pressure on grip-bar locks switch. NOTE: THE UNIT CAN BE PICKED UP WITHOUT ACTUATING THE MICROPHONE.

MODEL	OUTPUT	IMPED.	CODE	LIST PRICE
520SL	52.5 db below 1 volt per microbar	HIGH	RUDAN	\$32.00
520SL-20			RUDAF	\$33.50

Microbar = 1 dyne per sq. cm.

CONTROLLED RELUCTANCE CARTRIDGE



MODEL R5

The Model R5 Controlled Reluctance Microphone Cartridge is available for service installation and is also ideal for the replacement of crystal microphone cartridges in Shure cases of the Model 707A and Model 100 Series designs. It will also replace cartridges in cases of other manufacturers' models of similar design, where space permits. Complete installation instructions in English and Spanish are included. It is an acoustically controlled balanced-armature transducer ideal for both microphone and soft-speaker applications. Practically unaffected by heat and humidity. Supplied with rubber mounting ring. Overall diameter of mounting ring 2 1/4"; thickness of rubber ring 3/16". Overall depth of cartridge 7/8". Shipping weight 4 ounces.

Code: RUTUC. List Price: \$9.00

THE "RANGER"

The new Sure "Ranger" is a new development of a similar magnetic unit originally housed in microphones used by the Armed Forces. The "Ranger" is especially recommended for those applications where long lines are used, and a rugged hand-held microphone is needed. It is ideal for outdoor public address (sports arenas, athletic fields), mobile communications, fairs, audience participation shows, etc. The "Ranger" is designed for high speech intelligibility. Easy to use, fits snugly in the palm of the hand. Has heavy-duty single-throw, double-pole leaf-type switch for push-to-talk operation. Phosphor-bronze blades and silver contacts for maximum operating life. Furnished with 7' three-conductor shielded cable. Frequency response is 100 to 9,000 c.p.s.



505 SERIES

MODEL	CABLE	OUTPUT LEVEL	IMPEDANCE	SHPG. WT.	CODE	LIST PRICE
505B	7 ft.	47.0 db below 1 milliwatt per 10 microbar signal	150-250 ohms	1 1/4 lb.	RUDAY	\$25.00
505C	7 ft.	50.5 db below 1 volt per microbar	High	1 1/4 lb.	RUDAX	\$25.00

Microbar = 1 dyne per sq. cm.

MODERN DESK STAND

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



MODEL S36A

Model: S36A Code: RUSEF List Price: \$5.00

TAKE-APART STAND

Model S34B. Handy low-cost stand for desk or hand use. One twist of handle locks it securely in base for use as a table stand, or releases handle for use in hand. Metal base, wood handle. Metal top threaded $\frac{3}{8}$ "—27. Height over all $6\frac{1}{8}$ ". Base diam. $4\frac{1}{2}$ ". Length of handle $5\frac{7}{8}$ ". Shpg. wt. 1 lb.

Code: RUKAB List Price: \$2.50

Model A41B. Microphone handle only. Threaded $\frac{3}{8}$ "—27.

Code: RUJAD List Price: \$1.00



CABLE TYPE TRANSFORMER



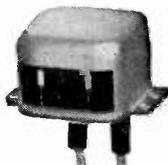
Model A86A is a high-quality cable-type transformer which offers additional versatility when used in conjunction with Shure Models 55, 556, and 51 Dynamic Microphones, which

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

Model: A86A Code: RUDEB List Price: \$15.25

TAPE RECORDING HEAD

The Shure Tape Recording Head is a high quality, precision-engineered unit incorporating recording, reproducing, and erasing in one head. Suitable for all types of tape recording: professional, semi-professional, experimental, technical, and amateur use. Records on half width of tape—for double-track recording.



TAPE MODEL 815

Model: 815 Code: RUWAT List Price: \$15.00

WIRE RECORDING HEAD



WIRE MODEL 812

The Shure magnetic Wire Recording Head is a high quality recording unit with recording, play-back, and signal erasure in one small unit. Has standard 4-prong adapter base. The Model "812" is a direct replacement unit for the improved Sears-Roebuck Wire Recorder.

Model: 812 Code: RUWIR List Price: \$15.00

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

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



MODEL A88A

Model: A88A

Code: RUNEL

List Price \$10.75

ON-OFF PRESS-TO-TALK SWITCHES



A83B



A84B



A85C

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

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

Code: RUNIM

List Price: \$6.00

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

Code: RUNID

List Price: \$7.00

Model A85C. Momentary Relay-Type switch. Press-to-talk Bakelite disc. Normally-open switch closes circuit comprising one conductor and shield of outgoing cable for operation of relay or other device; remaining conductor and shield of cable carry microphone output. Must be used with two-conductor shielded cable. Standard Shure cable-connector receptacle. Satin chrome finish. $1\frac{3}{4}$ " high x $1\frac{1}{8}$ " wide x 2" deep. Shipping weight $\frac{3}{4}$ pounds.

Code: RUNAT

List Price: \$10.00

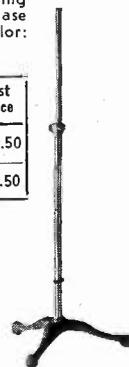
FLOOR STANDS

The new Shure Floor Stands have been designed to look smart and work perfectly. They will fit into any type of installation because of their design and rich hammered finish. Locking device has been life-tested 5,000 times. Stabilized base cushioning reduces floor noise pickup by 10 to 18 db. Color: Pearl Gray.

Model	Base Style	Weight of Base	Base Diam.	Height Adjustment	Shpg. Wt.	Code	List Price
S61	Round	9 $\frac{1}{4}$ lbs.	12"	44"—68"	13 lbs.	RUSIT	\$19.50
S65	Tri-pod	9 $\frac{1}{4}$ lbs.	17 $\frac{7}{8}$ "	46"—70"	15 lbs.	RUSIV	\$22.50



MODEL S61



MODEL S65

SHURE

CRYSTAL PHONOGRAPH PICKUPS

"VERTICAL DRIVE" CRYSTAL PICKUPS

Recommended for superlative reproduction of fine-groove vinylite and high quality standard-groove recordings. Arm is lightweight die-cast aluminum and tracks faithfully at 7 grams. These pickups have adequate output for the average audio stage, with extended frequency response. Turnover model (901D) has a knob for quick, easy turning to either fine-groove or standard-groove playback position.



Model 901 Series
"Vertical Drive"
Pickup

MODEL	TYPE	LIST PRICE	OUTPUT LEVEL	NEEDLE FORCE	RESPONSE TO	NEEDLE	SHURE NEEDLE NUMBER	SHPG. WT.	CODE
901MG	MG	\$12.75	1.0 V.*	5 grams	10,000 c.p.s.	.001" Sapphire	A65MG	12 oz.	RUZUG
901A	STD	\$11.75	1.1 V.**	7 grams	6,500 c.p.s.	.0027" Sapphire	A61A	12 oz.	RUZAY
	MG					.001" Sapphire	A65MG		
901D	STD	\$16.25	1.1 V.**	7 grams	6,000 c.p.s.	.0027" Osmium	A62A	12 oz.	RUZEL

*Output on Columbia 33 $\frac{1}{3}$ r.p.m. records and RCA 45 r.p.m. records. **Output with .0027" needle on 78 r.p.m. records.

"MUTED STYLUS" CRYSTAL PICKUPS

These pickups feature the famous amazingly quiet "Muted Stylus" Crystal Cartridges. Have low needle force with high output and smooth frequency response. Have unique needle guards and record and needle protection. Arm is lightweight die-cast aluminum with handy pickup handle. Model 900HS "Humi-Seal" has moisture-proofed, metal-seal crystal element and is highly recommended for use in humid areas.



Model 900 Series
"Muted Stylus"
Pickup

MODEL	TYPE	LIST PRICE	OUTPUT LEVEL	NEEDLE FORCE	RESPONSE TO	NEEDLE	SHURE NEEDLE NUMBER	SHPG. WT.	CODE
900B	STD	\$10.50	1.6 V.	1 $\frac{1}{8}$ oz.	4,500 c.p.s.	.0027" Osmium	A62A	12 oz.	RUZUD
900HS	"Humi-Seal" for Tropics	\$11.50	1.8 V.	1 $\frac{1}{8}$ oz.	4,500 c.p.s.	.0027" Osmium	A62A	12 oz.	RUZUA

"GLIDER" CRYSTAL PICKUPS

These modern lightweight aluminum crystal pickups employ a needle force of 1 $\frac{1}{8}$ ounces. They are recommended for good quality installations where low cost is essential. These pickups use high output, lever-type crystal cartridges. Arms are scientifically designed for low mass and maximum tracking. Supplied with easy-to-use arm rest. Reduce record and needle wear. Minimum surface noise, needle scratch and hiss.



Models 93A, 96A,
900MG
"Glider" Pickup

MODEL	TYPE	LIST PRICE	OUTPUT LEVEL	NEEDLE FORCE	RESPONSE TO	SHURE NEEDLE NUMBER	NEEDLE SCREW	SHPG. WT.	CODE
93A	STD	\$7.50	1.8 V.	1 $\frac{1}{8}$ oz.	6,000 c.p.s.	NONE	Set and Thumb	13 oz.	RUGLI
96A	Hi-Level	\$8.50	4.3 V.	1 $\frac{1}{8}$ oz.	6,000 c.p.s.	NONE	Set and Thumb	13 oz.	RUGAB
900MG	MG	\$12.50	1.0 V*	6 grams	8,500 c.p.s.	A64MG	Set Screw	13 oz.	RUZUZ

*Output for 33 $\frac{1}{3}$ r.p.m. fine groove records. Output 1.3 V. on R.C.A. 45 r.p.m. records.



2-5 Years
Average use



6 to 12 Months
Average use

SHURE "MUTED STYLUS" NEEDLES

MODEL	DESCRIPTION	LIST PRICE	CODE
A61A	STD-Sapphire	\$2.50	RUZAN
A62A	STD-Osmium	1.50	RUZAP
A63MG	MG-Osmium	1.50	RUGAZ
A64MG*	MG-Osmium	2.00	RUZAS
A65MG	MG-Sapphire	2.50	RUGAY

*Standard bent shank needle not illustrated.

CRYSTAL PICKUP CARTRIDGE DATA SHEET

SHURE

Manufacturers Column

Check this column for replacement numbers.

Shure Mir's No.	Shure Replacement
P30, -C	W60B
P30B, -W	W60A
P30D, -G,-S	W61B
P30E,-HS	W60HS
P35,-S	W65B
P70	W23B
P70A	W23A
P72,-AF	W22AB
P72A	W22A
P73,-A	W21A
P73AR,-R	W21AR
P75,-A	W21E
P76,-AF	W22AB
P76A	W22A
P77	W22AB
P77A	W22A
P79	W22AB
P87,-B	W57A
P87S	W58A
P88,-S	W59A
P89,-S	W56A
P89R	W56R
P90B,-C,-S	W58A
P90D	W57A
P92B	W58A
P93,-B,-C,-D	W57A
P93E	W60HS
P93MG	W53MG
P93S	W58A
P94,-B	W57A
P94E	W60HS
P95MG	W53MG
PN30,-S	W60PN
PN88,-S	W56PN
PN89,-D,-E,-S	W56PN
W40A	W59A
W41A	W59A
W42A	W42B
W57AN	W60A
99-180	W59A
99-181	W59A
99-182	W42B

"VERTICAL DRIVE" CRYSTAL CARTRIDGES are ideal for fine-groove vinylite and high quality standard-groove recordings. Minimum mass with maximum compliance. Needle chuck on vertical rather than on horizontal axis. Equipped with the famous "Muted Stylus" needle which plays with amazing quietness. Pin jacks included.

MODEL	TYPE	LIST PRICE	OUTPUT LEVEL	MIN. NEEDLE FORCE	RESPONSE TO	NET WEIGHT	SHURE NEEDLE NUMBER	CODE
W21A	MG	\$ 8.75	1.0 V.*	5 grams	10,000 c.p.s.	4½ grams	A65MG	RUVET
†W21AR	MG	8.75	1.0 V.*	5 grams	10,000 c.p.s.	4½ grams	A65MG	RUVAR
‡W21E	MG	8.75	1.0 V.*	5 grams	10,000 c.p.s.	4½ grams	A65MG	RUVAG
W22A	MG	11.75	1.0 V.*	6 grams	6,000 c.p.s.	5 grams	A65MG	RUYAL
	STD		1.1 V.**				A61A	
W22AB	MG	10.75	1.0 V.*	6 grams	6,000 c.p.s.	5 grams	A62A	RUVAX
	STD		1.1 V.**				A61A	
W23A	STD	8.75	1.1 V.**	6 grams	7,000 c.p.s.	4½ grams	A61A	RUVAY
W23B	STD	7.75	1.1 V.**	6 grams	7,000 c.p.s.	4½ grams	A62A	RUVER

† Special bracket for RCA Changer.

‡ With .453" mount for Oak changer.

*Output on Columbia 33½ r.p.m. records and RCA 45 r.p.m. records. **Output with .0027" needle on 78 r.p.m. records.

"LEVER-TYPE" CRYSTAL CARTRIDGES have extremely high needle point compliance and high voltage output. All standard needles will fit these cartridges. Furnished with easy-to-use pin jacks, eliminating need for soldering to cartridge terminals.

MODEL	TYPE	LIST PRICE	OUTPUT LEVEL	MIN. NEEDLE FORCE	RESPONSE TO	CASE MATERIAL	NEEDLE SCREW	CODE
W42B	STD	\$4.45	1.3 V.	1 oz.	5,000 c.p.s.	Steel	Thumb	RUGUB
†W53MG	MG	\$8.50	1.0 V.*	6 grams	8,500 c.p.s.	Aluminum	Set	RUGET
W56A	Hi-Level	\$6.65	4.3 V.	1½ oz.	6,000 c.p.s.	Aluminum	Thumb & Set	RUGUS
W56R	Cut.—Cart.	\$7.50	4.3 V.	1 oz.	10,000 c.p.s.	Steel	Thumb & Set	RUGEV
W57A	STD	\$5.55	1.6 V.	¾ oz.	6,000 c.p.s.	Aluminum	Thumb & Set	RUGLA
W58A	STD	\$5.55	1.6 V.	1 oz.	6,000 c.p.s.	Steel	Thumb & Set	RUGLU
W58HS**	"Humi-Seal"	\$6.55	1.6 V.	1 oz.	6,000 c.p.s.	Steel	Thumb & Set	RUGUY
W59A	STD	\$5.55	2.5 V.	1 oz.	6,000 c.p.s.	Steel	Thumb & Set	RUGAT
W56PN	PN Crystal	\$10.00	1.9 V.	1½ oz.	8,000 c.p.s.	Aluminum	Thumb & Set	RUTAR

*Output on 33½ r.p.m. fine groove records Output 1.3 V. on R.C.A. 45 r.p.m. records. **"Humi-Seal"—Moisture-proofed Rochelle Salt Crystal Cartridge.

†Furnished with A64MG needle.

"MUTED STYLUS" CRYSTAL CARTRIDGES are equipped with the famous amazingly quiet "Muted Stylus" needle to overcome problems of surface noise and distortion. Provide record-matched frequency response for clear, full, tone qualities. Rounded guards protect needle and record. Pin jacks included.

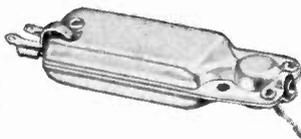
MODEL	TYPE	LIST PRICE	OUTPUT LEVEL	MIN. NEEDLE FORCE	RESPONSE TO	CASE MATERIAL	SHURE NEEDLE NUMBER	CODE
W60A	STD	\$8.50	1.6 V.	1 oz.	4,500 c.p.s.	Aluminum	A61A	RUSIS
W60B	STD	\$7.50	1.6 V.	1 oz.	4,500 c.p.s.	Aluminum	A62A	RUSID
W60HS	"Humi-Seal" for Tropics	\$8.50	1.8 V.	1 oz.	4,500 c.p.s.	Steel	A62A	RUSIB
W60PN	PN Crystal	\$13.00	0.7 V.	¾ oz.	4,500 c.p.s.	Aluminum	A62A	RUTAP
W61B	STD	\$7.50	1.6 V.	1 oz.	4,500 c.p.s.	Steel	A62A	RUSIC
W65B	High Output	\$8.50	4.0 V.	1 oz.	4,500 c.p.s.	Steel	A62A	RUSIG



"Vertical Drive" Cartridge W20 Series



Lever-Type Cartridge Series



"Muted Stylus" Cartridge W60 Series



"9 out of 10" Pack "TROPI-PAC"

CARTRIDGE REPLACEMENT PACK

"9-OUT-OF-TEN" PACK, Model W50B contains W60B, W58A, and W57A. List Price... \$18.50
 THE "TROPI-PAC" Model W50T, contains W60HS and W58HS. List Price... 15.00

No finer choice than

Electro-Voice

Microphones

Cardioid Unidirectional Microphones

IMPROVED CARDYNE BROADCAST DYNAMIC

True Cardioid with New Impedance Selector, New Dual-Type External Shock Mount, Smooth Wide Range Response, High Output.

Better than ever for high quality sound pick-up and reproduction. Response is improved . . . output increased. New impedance selector on rear of case instantly gives you high impedance (25,000 ohms) or match to all low impedances. New dual-type external shock mount prevents reproduction of external shocks and stand vibration, reduces side sway of microphone. Exclusive Acoustalloy diaphragm withstands severest service.

E-V MechanoPhase* principle gives wide angle front pick-up, dead at rear . . . cuts reverberation and random noise pick-ups . . . stops feedback . . . nearly doubles conventional pick-up range . . . provides clear, natural close-up response . . . permits increased loudspeaker volume . . . gives users more freedom of movement. Used in studio and remote broadcasting, disc and film recording, public address and communications.

Output level: 50 db below 1 volt/dyne/cm². Frequency response, substantially flat, 30-12,000 c.p.s. Highest quality die cast case beautifully finished in satin chromium. Tilttable head. $\frac{3}{8}$ "-27 thread. Cannon XL-3 connector. Internal shock absorber. "On-off" switch. 20 ft. shielded cable. Size $2\frac{1}{2}$ " x $3\frac{1}{2}$ " x 9" including stud. Net wt. $2\frac{1}{2}$ lbs.

CARDYNE II Model 731. List Price _____ **\$80.00**

(Also available without "On-Off" switch or with 50-250 ohm impedance selector.)

POPULAR CARDYNE DYNAMIC

CARDYNE I. Model 726. Performance characteristics similar to Model 731 above. Has Impedance Selector, but does not include external shock mount. Frequency response, substantially flat, 40-10,000 c.p.s. Output level -53 db. Has Amphenol MC-3 connector.

CARDYNE I. Model 726. List Price _____ **\$59.50**

(Model 345 External Shock Mount also available separately. List Price \$11.50)

MODERN CARDAX CRYSTAL

The First and Only High Level Cardioid Crystal Microphone with Dual Frequency Response.

Favorite of thousands! Easily solves everyday sound problems. E-V MechanoPhase* principle provides *true cardioid* unidirectivity. Wide angle front pick-up—lead at rear. E-V *Dual Frequency Response Selector* gives wide range flat response for high fidelity pick-up of voice and music, or rising characteristic for extra crispness of speech.

The CARDAX overcomes background noise, reverberation, feedback. Simplifies microphone and speaker placement. Permits greater loudspeaker volume levels. Highly recommended for public address, recording, remote broadcast, paging, dispatching, and communications.

Output level: -57 db for high fidelity; -48 db for rising response. Smart, compact, easily portable. Rich satin chromium finish. High capacity Metal Seal crystal—fully enclosed for greater moisture protection. Tilttable head. $\frac{3}{8}$ " -27 thread. Built-in cable connector. "On-Off" switch. Size $2\frac{1}{2}$ " x $2\frac{3}{4}$ " x $6\frac{1}{4}$ " including stud. Net wt. $1\frac{3}{4}$ lbs.

Cardax Model 950. List Price _____ **\$39.50**

*Patents Pending.

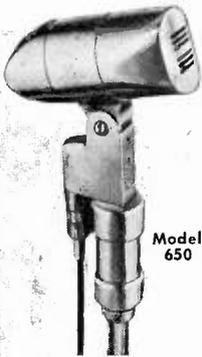


No finer choice than

Electro-Voice

Microphones

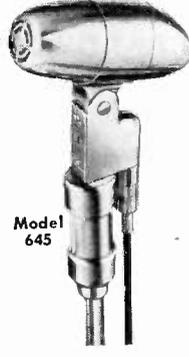
High Fidelity Broadcast Dynamics



Model 650



Model 635



Model 645

Ultra-Wide Range, Flat Response! High Output! Impedance Selector! Dual Shock Mount! Laboratory Calibrated. Proved in Studio and Remote Use!

Developed in cooperation with station and network engineers, E-V Broadcast Dynamic Microphones meet the most exacting requirements of modern, high fidelity FM and AM broadcast service. Performance-proved on important network programs. The bass end is smooth and flat. The highs are particularly clean and peak-free. High output level gives excellent signal to noise ratio.

Consistently accurate, ultra-wide-range, flat response is achieved through specially designed non-metallic Acoustalloy diaphragm and highly efficient magnetic structure. Close tolerances and individual laboratory control guarantee uniformity. Ideal for studio and remote broadcasting, audience participation, applause pick-up, recording, and high quality public address. Construction is extremely rugged and shock-resistant. Highest purity (99.99%) pressure cast case, finished in durable Satin Chromium.

Polar pattern is omnidirectional at low frequencies becoming directive at high frequencies. Recessed switch gives instant selection of 50 to 250 ohms impedance. Built-in Cannon XL-3 connector. Tilttable head. $\frac{5}{8}$ "-27 stand coupler. 20 ft. cable.

Model 650 Broadcast Dynamic. Frequency response, plus or minus 2.5 db, 40-15,000 cps. Output —46 db. Dual type external shock mount. Size $2\frac{1}{4}$ " x $4\frac{1}{2}$ " x $5\frac{1}{4}$ " including stud. Shock mount is $1\frac{1}{2}$ " x $3\frac{3}{4}$ ". Net wt., including shock mount, $2\frac{3}{4}$ lbs. List Price\$150.00

Model 645 Broadcast Dynamic. Frequency response, plus or minus 2.5 db, 40-15,000 cps. Output —50 db. Dual type external shock mount. Size $2\frac{1}{4}$ " x $4\frac{1}{2}$ " x $5\frac{1}{4}$ " including stud. Shock mount is $1\frac{1}{2}$ " x $3\frac{3}{4}$ ". Net wt., including shock mount, $2\frac{1}{4}$ lbs. List Price\$100.00

Model 635 Broadcast Dynamic. Frequency response, plus or minus 2.5 db, 60-13,000 cps. Output —53 db. Does not include external shock mount. Can be used in the hand or on a stand. Size 2 " x $4\frac{1}{4}$ " x $4\frac{1}{2}$ " including stud. Net wt., $1\frac{1}{2}$ lbs. List Price.....\$60.00

A GREAT NEW VALUE IN DYNAMIC and CRYSTAL

The MERCURY Models 611-911

E-V quality features make the MERCURY today's foremost value in low-cost general-purpose microphones. Adds smartness to economical public address and paging systems, recording equipment, ham rigs. Smooth response 50-8000 cps assures fine reproduction of voice and music. High output level. Non-directional, becoming directional at higher frequencies. Compact, rugged. "On-Off" switch. Tilttable head. Built-in cable connector. Highest purity (99.99%) pressure cast case. Satin Chromium finish. Size $2\frac{1}{2}$ " x $3\frac{1}{2}$ " x $6\frac{1}{4}$ " including stud.



Moving-coil Dynamic Models are available in Hi-Z (direct-to-grid, 25,000 ohms) 50, 150, 250, or 500 ohms impedance. Low impedances balanced to ground. Crystal Models are Hi-Z.

MERCURY Model 611-8. Dynamic. Output —53 db. Has E-V Acoustalloy diaphragm. 8 ft. cable. List Price\$29.50

MERCURY Model 611-20. Dynamic. With 20 ft. cable. List Price\$31.00

MERCURY Model 911-8. Crystal. Output —50 db. Fully enclosed Metal Seal crystal. 8 ft. cable. List Price\$22.50

MERCURY Model 911-20. Crystal. With 20 ft. cable. List Price\$24.00

Model 605 Durable Dynamic



Attractive, dependable, general-utility mike. Frequency response 50-7500 c.p.s., substantially flat. Output level 57 db below 1 volt/dyne/cm². Exclusive E-V Acoustalloy diaphragm. Pressure cast case, with 22° fixed tilt. $\frac{5}{8}$ "-27 thread. Built-in cable connector. Satin Chromium finish. Net wt., 12 ounces. Available in

Hi-Z (direct-to-grid, 25,000 ohms), 50, 200, or 250 ohms impedance. Low impedances not balanced to ground.

Model 605-8. With 8 ft. cable. List Price\$24.50

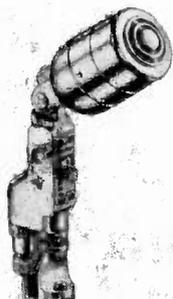
Model 605-20. With 20 ft. cable. List Price\$26.00

Model 805 Contact Microphone

For guitar, banjo, mandolin, violin or any vibrating musical instrument. Increases natural sound volume, enriches tonal effects. Easily installed. Frequency response 40-8,000 c.p.s. High impedance. Inertia type crystal, sealed against moisture and acoustic feedback. 15 ft. shielded cable. Size $2\frac{1}{4}$ " x 1 " x $7/16$ ". Net wt. 2 ounces.



Model 805. List Price\$15.00



Model 630—High Fidelity, High Output Dynamic

Finer performance than ever . . . in a moderately priced moving-coil dynamic! E-V Acoustalloy diaphragm provides exceptionally smooth response from 40-11000 c.p.s. Assures high quality reproduction of speech and music, indoors and outdoors. Compact, rugged . . . withstands heat, humidity and other severe operating conditions. Tilting head for directional or non-directional use. Built-in cable connector. $\frac{5}{8}$ "-27 thread. "On-Off" switch. Widely used in all types of applications. Highest purity pressure-cast case, finished in lustrous satin chromium. Output level 53 db below 1 volt/dyne/cm². Equipped with 20 ft. shielded cable. Net weight, $1\frac{1}{2}$ lbs. Available in Hi-Z (direct-to-grid, 25,000 ohms), 50, 200, 250, or 500 ohms impedance. Low impedances balanced to ground.

Model 630. List Price\$36.50

Model 606—DIFFERENTIAL* DYNAMIC

Effectively used in airport control towers, police dispatching, special events broadcasting, close-talking public address, and high noise industrial applications. Through exclusive E-V DIFFERENTIAL* principle, surrounding or distant sounds are cancelled out. Transmitted speech gets through clearly and completely. Frequency response, substantially flat 100-6000 c.p.s. Output level: 57 db below 1 volt/dyne/cm². E-V Acoustalloy diaphragm. Withstands severe service. Built-in cable connector. Pressure cast metal case, finished in satin chromium. Head at 22° fixed tilt. $\frac{5}{8}$ "-27 thread. Net wt., 12 ounces. Available in Hi-Z (direct-to-grid 25,000 ohms), 50, 200, or 250 ohms. Low impedances not balanced to ground.

Model 606-8. With 8 ft. cable. List Price\$36.50

Model 606-20. With 20 ft. cable. List Price\$38.00

*Patent Number 2,350,010



No finer choice than

Electro-Voice

Microphones

Mobil Mikes

Model 600-D Dynamic Mobil-Mike

Specially designed for clear, crisp speech transmission in communications, public address, call systems and recording. Frequency response, substantially flat, 100-6000 c.p.s. gives higher articulation, provides more usable power level, and is less fatiguing to the listener. Output level: 55 db below 1 volt/dyne/cm². High impact black phenolic case. E-V Acoustalloy diaphragm. Extremely rugged, for indoor and outdoor use. Press-to-talk switch controls relay. Panel mounting bracket. Equipped with 6 ft. shielded cable. Size 2 1/4" x 2" x 4". Net weight, 8 ounces. Available in Hi-Z (direct-to-grid, 25,000 ohms), 50, 200, 250, or 500 ohms impedance. Low impedance balanced to ground.



Model 600-D. List Price \$35.00
Model 600-DL. With switch lock. List Price \$36.50

Model 210—Carbon Mobil-Mike

Gives high intelligibility speech transmission. Used in police, fire, taxi, aircraft, marine and amateur communications, mobile public address, paging, dispatching and speech recording. Extra rugged, high impact black phenolic case. Withstands severest service indoors and outdoors. Frequency response substantially flat 100-4000 c.p.s. for high articulation. Output level: 10 db. below 1 volt/100 dynes/cm². Single button. Press-to-talk switch. 5 ft. cable. Standard dash mounting clip. Size 2 1/4" x 2" x 4". Net wt. 7 ounces.



Model 210. List Price \$25.00
Model 210-L. List Price \$26.50

(Also available for exact replacement in Motorola, RCA, G. E. and similar equipment.)

Model 205—Hand-Held DIFFERENTIAL* CARBON

Close-talking, noise-cancelling microphone designed for maximum intelligibility under intense noise. Used in police, aircraft, marine, industrial and other communications applications; also in high power sound projection. Fits in the hand. Operates in all positions. High impact phenolic case, with panel mounting bracket on back. Blast proof, waterproof, shock resistant. Withstands temperatures from -40° to +185° F. Frequency response, substantially flat from 100-4000 c.p.s. Output level: 10 db below 1 volt/100 dynes/cm². 10-50 m. a. button current. Press-to-talk switch actuates button and relay. Equipped with 5 ft. cable. Size 2 3/4" x 2 1/4" x 4". Net weight 7 ounces.



Model 205. List Price \$30.00
Model 205-L. With switch lock. List Price \$31.50

Model 602—Hand-Held DIFFERENTIAL* DYNAMIC

Close-talking, noise-cancelling speech microphone for use where ambient noise is 100 db or more. Assures high articulation. Especially suitable for marine, industrial and emergency communications, high power sound projection, and for speech in any windy, wet or extremely hot or cold location. Frequency response, substantially flat, 100-6000 c.p.s. Output level: 55 db. below 1 volt/dyne/cm². E-V Acoustalloy diaphragm. High impact phenolic case. Press-to-talk switch controls relay. Panel mounting bracket. size 2 1/4" x 2" x 4". Net weight, 8 ounces. Equipped with 6 ft. shielded cable. Available in Hi-Z (direct-to-grid, 25,000 ohms), 50, 200, 250, or 500 ohms impedance.



Model 602. List Price \$40.00
Model 602-L. With switch lock. List Price \$41.50

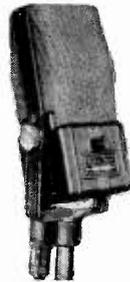
Velocity

High Fidelity, Bi-Directional, High Output

E-V design provides superb pick-up and reproduction of voice and music, for indoor public address, broadcasting and recording. Favorite of well-known orchestras and sound engineers. Response is substantially flat over a wide frequency range. Equal front and back pick-up with longer pick-up range; zero pick-up at sides, top and bottom. Proper tilting and placement of microphone reduces feed-back and random noise—permit increased volume levels. Open-type, reflection-free housing. Internal shock absorber mounting. One-piece frame and internal mounting structure give extra ruggedness.

Model V-3 All Impedance Velocity

Combines all popular impedances in one microphone. Impedance selector provides high impedance or match all low impedances. Low impedances balanced to ground. Substantially flat response 40-10,000 c.p.s. Output —53 db. Locking cradle for tilting microphone. Built-in cable connector. 3/8"-27 thread. Bronze gun metal finish. Size 3 1/2" x 2 3/4" x 8" including stud. 20 ft. shielded cable. Net wt., 2 1/2 lbs. Model V-3. List Price \$60.00



Model V-2A Velocity Microphone

Similar to the V-3, but without Vari-Z selector. Choice of single standard impedance: 50, 250, 500 ohms, or Hi-Z (35,000 ohms). Frequency response, substantially flat, 40-10,000 c.p.s. Output —53 db. Locking cradle mounting. Built-in cable connector. 3/8"-27 thread. Bronze gun metal finish. Size 3 1/2" x 2 3/4" x 8" including stud. 20 ft. shielded cable. Net weight, 2 1/2 lbs.

Model V-2A. List Price \$50.00

Model V-1A Smaller-Size Velocity

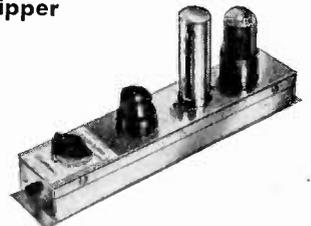
Unsurpassed at such moderate cost. Gives you high fidelity, bi-directional advantages in a compact, smaller size microphone. For public address, recording and remote broadcasting. Substantially flat response 40-9000 c.p.s. Output —59 db. Locking cradle mounting. Built-in cable connector. 3/8"-27 thread. Satin chromium finish. Size 2 3/4" x 2 1/8" x 6 1/2" including stud. 20 ft. shielded cable. Net wt., 2 lbs. Available in Hi-Z (35,000 ohms), 50, 250 or 500 ohms impedance. Low impedances not balanced to ground.

Model V-1A. List Price \$40.00



Model 1000 Speech Clipper

Clips the tops and bottoms from speech frequencies which rise above a pre-set amplitude — increases the ratio of consonant to vowel intensity. Adds greatly to articulation and intelligibility in speech transmission, especially in the presence of high QRM or QRN. Attenuates sidebands above 3000 c.p.s. Holds modulation at 100%. Clipping: 3-20 db. Response: 200-3000 c.p.s. Operates directly from any high impedance microphone into microphone input of conventional speech amplifier. Uses type 6SC7 and 6H6 tubes. Requires 150 volts at 5 ma and 6.3 volts at .6 amp. Input terminal: PCIM connector. Output terminal: 18" shielded cable. Compact, sturdy, aluminum case. Size 10 1/4" x 2" x 4 1/2". Comes wired, with tubes. Easy to install. List Price \$24.50



No finer choice than

Electro-Voice

Microphones

Multi-Purpose CENTURY Microphone

DESIGNED FOR ALL
LOW COST APPLICATIONS



CRYSTAL • DYNAMIC • CARBON

Brilliantly engineered and superbly styled low-cost microphones. Complete adaptability permits widest use in public address, paging, recording, communications. Choice of crystal, dynamic or carbon types. Can be used in any position—stands by itself on table or desk—rests on its back—can be comfortably handheld, mounted on a stand or suspended overhead. Highest purity pressure-cast case is finished in lustrous gray-brown. Rugged, light weight. Size 3" x 2-3/16" x 1".



ON FLOOR OR
DESK STAND

ON MODEL 415
DESK MOUNT

FITS EASILY
IN HAND

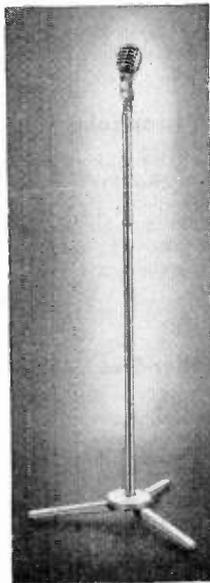
Model 915—Century Crystal
Combines excellent frequency range, high level and mounting flexibility. Case provides ample shielding and stability. Moisture-sealed crystal. High impedance. Output -50 db. Frequency response 60-7500 c.p.s. 7 1/2 ft. black glazed cloth covered, shielded cable and 5/8"-27 thread stand adapter. Net wt. only 6 ounces.
Model 915. List Price\$10.00
Model 915-S. With slide-to-talk switch. List Price\$11.50

Model 215—Century Carbon
Provides high output—high articulation—exceptionally low hiss level (50 db below normal speech)—low distortion. Responds well in all positions. Positive Fiberglass carbon retention (E-V Patent). Normalized diaphragm seat (E-V Patent). Output -26 db using input transformer. Voltage developed by normal speech (100 dynes): .56. Speech response 200-4000 c.p.s. Single button. 48" cable and 5/8"-27 thread stand adapter. Net wt. only 6 ounces.
Model 215. List Price\$8.25
Model 215-S. With slide-to-talk switch. List Price\$9.75

Model 615—Century Dynamic
Has exclusive non-crushable Acoustalloy diaphragm. Withstands severe service. Output -57 db. Frequency response 55-7500 c.p.s. High impedance. 7 1/2 ft. black glazed cloth covered, shielded cable and 5/8"-27 thread stand adapter. Net wt. only 8 ounces.
Model 615. List Price\$16.50
Model 615-S. With slide-to-talk shorting switch. List Price \$18.00
Model 415. Reclining Desk Stand. Mounts Century at 15° tilt. Gray-Brown finish. Size 2 1/2" x 2 1/4" x 1". Net wt. 4 oz. List Price.....\$1.50

Century Mobil-Mikes
Designed for high articulation in radio amateur communications. Equipped with slide-to-talk relay control switch, 48" cable, and hang-up hook for dash mounting.
Model 215-SR. Carbon. List\$10.00
Model 615-SR. Dynamic. List\$20.00
Model 415. Reclining Desk Stand. Mounts Century at 15° tilt. Gray-Brown finish. Size 2 1/2" x 2 1/4" x 1". Net wt. 4 oz. List Price.....\$1.50

ELECTRO-VOICE FLOOR AND DESK STANDS



Model 425—Deluxe Floor Stand



In this unique floor stand, all dead weight is eliminated, but full stability retained. Simply press red button to raise or lower shaft with same one hand. Locks automatically by releasing button. Shaft can be rotated without any adjustment device. Adjustable legs permit placing flush against wall or speaker's table. Easy to assemble or take apart. Folds into small, compact, portable package. Highest purity pressure-cast base. Satin chromium finish. Height adjustment 37" to 66". 3-leg spread 17". Net wt. 7 1/2 lbs. Shipping. wt., 9 lbs.

Model 425. List Price\$24.50

Model 430—Utility Floor Stand



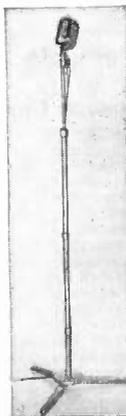
Gives solid support, yet light in weight. Single button gives instant control of shaft height. Shaft may easily be rotated. Modern, sturdy, high-pressure-cast base. One bolt locks 3 legs in position. Comes apart to make small, compact package. Attractive Gray finish. Extension shaft finished in satin chromium. Height adjustment 36" to 65", 3-leg spread 17". Net wt. 7 1/2 lbs. Shipping wt., 9 lbs.

Model 430. List Price\$15.00

Model 432 Comb. Banquet & Floor Stand

3-section take-apart gives handy 4-way use: (1) Banquet stand, extends from 19" to 34"; (2) chair-height floor stand, extends from 26" to 41"; (3) short floor stand, extends from 36" to 51"; (4) conventional floor stand, extends from 44" to 59". Easy to assemble or take apart. Makes compact, portable package. Red button gives instant finger-tip control of shaft height. Three-legged, locking-type, adjustable folding base; can be placed flush against pulpit, stage or speaker's rostrum. Attractive gray-brown finish. Extension shaft finished in Satin Chromium. Net wt., 8 lbs.

Model 432. List Price\$20.00



Model 424—Desk Stand

Small, light weight. Designed for use with E-V Models 210, 205, 600-D and 602. Made of aluminum. Easily lifted with microphone in hand. Very stable on desk or table. Rubber base buttons. Satin finish. Size 4 1/4" x 4 1/4" x 3 3/4". Net wt., 4 oz.

Model 424. Desk Stand. List Price\$4.00



Model 423—Desk Stand

Modern, sturdy, round die cast base. Rests firmly. Satin chromium finish. Rubber base buttons. 5/8"-27 thread. Base diameter 5 1/4". Net wt. 1 lb. Choice of 3" or 6" stem riser.

Model 423. List Price\$4.00



Model 427—Desk Stand

Attractive pressure-cast round base rests stably on desk or table. 6" stem riser. Lustrous gray-brown finish. 5/8"-27 thread. Base diameter 4 3/4". Net wt. 5/8 lb.

Model 427. List Price\$2.50



Low Impedance Microphone-to-Grid Matching Transformers

The windings of these transformers have low distributed capacity and are amply shielded against inductive hum by a high permeability shield, inside a pressure cast case. Designed for mounting on amplifier chassis or in series with the microphone line.

Model 502—Designed for 50 and 250 ohm (500 ohms optional) microphones. Broadcast fidelity. Frequency response 40-20,000 c.p.s. ± 1 db. for either speech or music. MC-4 input connector. List Price\$13.50

"Break-in" Touch-to-Talk Stand

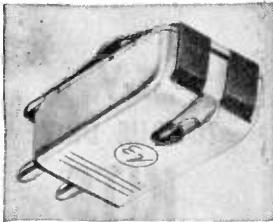
Fits any microphone with standard 5/8"-27 thread. Specially designed, lever-type switch for relay operation or microphone "On-Off" — closes or opens instantly, or locks in "talk" position, with light finger-tip action. Single pole, double throw. Finished in Satin Chromium, with gray plastic switch lever.

Model 428. Stand with switch. Ht. 7". Net wt. 1 1/4 lbs. Base dia. 5 1/4". List Price\$12.50

Model 328. Touch-to-Talk Switch only. Height 6 1/4". Net wt. 8 oz. List Price\$9.50

Model 628. Complete with E-V 605-8 Hi-Z Dynamic Microphone. 8 ft. cable. List Price\$37.00

Model 629. Complete with E-V 606-8 Hi-Z Differential Dynamic Microphone. 8 ft. cable. List Price\$49.00



E-V Series 12 TORQUE DRIVE CRYSTAL CARTRIDGES for 78 rpm Records

Basic 3 Replace Over 150 Standard Models

The Series 12, with only 3 basic models, provides virtually universal replacement for 78 rpm cartridges. Enables immediate replacement of any one of over 150 types in general use. Simplifies and speeds servicing. TORQUE DRIVE quiets surface noise, muffles needle talk, cancels distortion — assures finer reproduction — preserves records and needles — gives new life to old, worn records. Silicone moisture-proofed. Aluminum case. Color coded for voltage. Size 1-3/32" x 11/16" x 5/16". Weighs only 1/5 oz. Complete with mounting hardware and replaceable 3-mil Osmium-tip or Sapphire-tip needle.

Model L-12 (low voltage) Model M12 (medium voltage) Model H12 (high voltage)

with 3-mil Osmium-tip needle. List Price\$7.50

Model L12-5 (low voltage) Model M12-5 (medium voltage)

with 3-mil Sapphire-tip needle. List Price\$8.50

Model O-3. Replacement 3-mil Osmium-tip needle. List\$1.50

Model S-3. Replacement 3-mil Sapphire-tip needle. List\$2.50

(Also available in variable reluctance Magnetic type. See listing in table on other side.)

REPLACEMENT FOR						
ELECTRO-VOICE	ASTATIC		SHURE		WEBSTER	RCA
MODEL M12 Medium Voltage (Red)	L-22A	L-76S	P30	P93C	E4 N4	31050*
	L-25A	L-76AS	P30B	P93D	E4-1 N6	31156*
	L-26A	LT-M	P30C	P93E	E-9 N6P	32632*
	L-27A	LT-MA	P30D	P93S	F1 N6P-4	33122*
	L-32A	LT1-M	P30E	P94	F1P NB	33217*
	L-70	LT1-MA	P30S	P94B	F2 N8P	33905*
	L-70A	LT2-M	P87	P94E	F2P N9	34225*
	L-70S	LT2-MA	P87B	W42A	F3P N11	34307*
	L-70AS	LT3-M	P87S	W57A	F4P N11P	34710*
	L-71	1-J	P90B	W57AN	F5	35171*
	L-71A	1-M	P90C	W58A	F5P	37158*
	L-71S	401-A	P90D	W60A	F6	39686*
	L-71AS		P90S	W60B	F6P	
	L-76		P93	W60HS	N2	
L-76A		P93B	W61B	N3		
					AMERICAN	
					S-1	
ELECTRO-VOICE	ASTATIC		SHURE		WEBSTER	AMERICAN
MODEL H12 High Voltage (Blue)	L-24A	L-72S	P88	W56A	C-2†	CR1A
	L-36A	L-72AS	P88S	W59A	C-3†	CR2A
	L-46A	L-82	P89	99-180	C-6†	S2
	L-50A	L-82A	P89S	99-181	N-10	
	L-72	L-82V	W40A		N-10P	
L-72A	M-23	W41A		N-10P-1		
ELECTRO-VOICE	ASTATIC				WEBSTER	RCA
MODEL L12 Low Voltage (Yellow)	L-40A	LP-6	QC	QT-3JA	C5†	71173
	L-41A	LP-21	QT-J	QT-3M	F3	70339
	L-75	LP-23	QT-M	QT-3MA	F7P	70338
	L-75A	MLP-1	QT-2J		N3	
	L-75S	MLP-1J	QT-2M		N5	
	L-75AS	MLP-2	QT-3J		N7	

Use "A" mounting plate furnished with cartridges (1/2" hole centers) for all replacements except those marked with an * or †.

* Use "B" mounting plate furnished (3/8" to 1/2" hole centers).

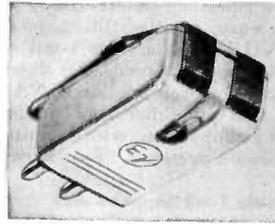
† Use "C" mounting plate furnished (Webster Side Flange).

All Model 12 Cartridges equivalent to ASTATIC "A" type except Tone Arm Rest Button is not supplied.

It is recommended that the lower voltage cartridge consistent with volume level be installed.

NOTE: Models M12, H12 and L12 have Osmium-tip Needle. For Cartridge with Sapphire-tip Needle, specify Model M12-5 or L12-5.

● Revolutionary TORQUE-DRIVE* gives you today's most efficient crystal cartridge for both 1-mil (.001) and 3-mil (.003) records. Its playing quality . . . its accurate, noiseless, distortion-free performance . . . are unexcelled. Proved by comparison, it is being used more and more in 78, 45 and 33 1/3 rpm single-speed and multi-speed record players. FEATURES: Highest compliance (softness of needle-touch to record) per volt output. Small size, low mass, light weight. Greatly multiplied needle-force to crystal for ample voltage output. Ideal frequency response. Excellent tracking. Zero output for vertical movement. No bearings or bushings to cause friction or to age and wear. Easy mounting. Replaceable long-life whisker-type needle. Silicone moisture-proofing for longer crystal life.



E-V Series 14 TORQUE DRIVE CRYSTAL CARTRIDGES for 33 1/3 and 45 rpm

Now in Thousands of Record Changers

Selected and specified as original equipment by critical engineers . . . the Series 14 is performing brilliantly today in many thousands of record changers. Tracks perfectly at 5 grams pressure, with very high needle compliance (softness of needle-touch to record). Frequency response closely follows NAB standard curve. Output is .9 volt on RCA 12-5-31V record at 1000 cps. Accurately reproduces the new fine groove high fidelity recordings. Silicone moisture-proofing gives crystal far longer life. Aluminum case, color coded. Size 1-3/32" x 11/16" x 5/16". Weighs only 1/5 oz. Replaceable 1-mil (.001) needle.

Model 14. Complete with 1-mil Osmium-tip needle, and mounting hardware. List Price\$7.50

Model 14-A. Same, less mounting hardware. List Price\$7.00

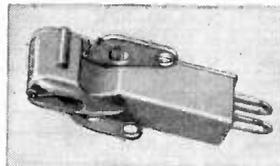
Model 14-5. Complete with 1-mil Sapphire-tip needle, and mounting hardware. List Price\$8.50

Model 14-AS. Same, less mounting hardware. List Price\$8.00

Model O-1. Replacement 1-mil Osmium-tip needle. List\$1.50

Model S-1. Replacement 1-mil Sapphire-tip needle. List\$2.50

(Also available in variable reluctance Magnetic type. See listing in table on other side.)



E-V Series 34 ORTHOGONAL TORQUE DRIVE for 45 and 33 1/3 rpm

New Orthogonal (vertical type) crystal cartridge — with 5/8" and 1/2" hole spacing — designed as replacement in 45 and 33 1/3 rpm changers. Brings to the record player valuable benefits of E-V TORQUE DRIVE. Tracks at 5 grams pressure. Extra high compliance (softness of needle-touch to record), well above unity. Frequency response is smooth, peak-free out beyond 10,000 cps. for wide range high fidelity reproduction. Output is 1.1 volt on RCA 12-5-31V record at 1000 cps. Silicone moisture-proofed. Simple to install. Replaceable 1-mil (.001) needle.

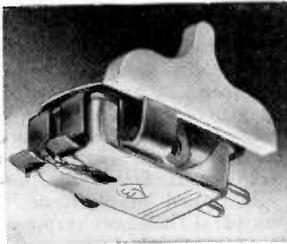
Model 34. With 1-mil Osmium-tip needle. List Price\$6.50

Model 34-S. With 1-mil Sapphire-tip needle. List Price\$7.50

Model O-1. Replacement 1-mil Osmium-tip needle. List\$1.50

Model S-1. Replacement 1-mil Sapphire-tip needle. List\$2.50

* Electro-Voice Pat. Pend.
Licensed under Brush Patents



E-V Series 16 TWILT TORQUE DRIVE for All Three Speeds



E-V TORQUE DRIVE KITS

Superbly plays 45, 33½ and 78 rpm records, with a single twin-tip replaceable needle, without weight change, with tracking pressure of only 6 grams . . . and does it with all the fidelity, the smoothness, the efficiency inherent only in E-V TORQUE DRIVE. With easy, positive-tilting, snap action, you merely tilt the TWILT to select the 1-mil or 3-mil needle tip, for fast or slow speed records. Set down is accurate. Frequency response closely follows NAB standard curve. Output is .9 volt on either tip. Mounts easily in most any standard pickup arm, with nothing more required than reducing needle pressure. "Fast-Slow" decal indicator.

- Model 16-TT. Complete with twin-tip 1-mil Sapphire and 3-mil Osmium needle. List Price \$10.00
 Model 16. Same, but without tilting mechanism. List Price \$9.00
 Model SO-13. Replacement needle. Twin-tip 1-mil Sapphire and 3-mil Osmium. List Price \$3.00
 Model OO-13. Replacement needle. Twin-tip 1-mil and 3-mil Osmium. List Price \$2.50
 Model SS-13. Replacement needle. Twin-tip 1-mil and 3-mil Sapphire. List Price \$3.50
 (See listing below for variable reluctance Magnetic type.)

SPEED SALES AND SERVICE

E-V Series 12 Cartridges are available individually or in handy Sales and Service Kits. These Kits serve as eye-catching self-selling displays, speed replacement service, save ordering-time and servicing-time. Each Kit listed below contains the basic 3 that enable you to replace any one of over 150 standard models . . . immediately. Also has replacement needles in handy holders for quick sales. Color coding for voltage on every cartridge. Mounting hardware in each cartridge container.

- KIT "A" (All Osmium-tip). Contains: 6 cartridges, with needles; 4 extra needles; replacement chart. Total List Price \$51.00
 KIT "B" (All Sapphire-tip). Contains: 6 cartridges, with needles; 4 extra needles; replacement chart. Total List Price \$61.00

VARIABLE RELUCTANCE MAGNETIC CARTRIDGES

E-V Phono Pick-up Cartridges are also available in variable reluctance Magnetic type. Easily used with E-V Model 503 Transformer-Filter, which provides the necessary matching network. Does not require a pre-amplifier. If the Magnetic cartridges are used with a pre-amp., the input to the pre-amp. should be 500 ohms. (See listing in table below).

ELECTRO-VOICE PHONO PICKUP CARTRIDGES

Model	Description	Type	Application	Needle-Tip	Tracking Force	Output Voltage	Color Code	Net Wt.	List Price
L12	With Mtg. Hardware	Crystal	78 RPM	.003" Osmium	½ oz.	Low	Yellow	8 grams	\$ 7.40
L12-S	With Mtg. Hardware	Crystal	78 RPM	.003" Sapphire	½ oz.	Low	Yellow	8 grams	8.50
M12	With Mtg. Hardware	Crystal	78 RPM	.003" Osmium	½ oz.	Medium	Maroon	8 grams	7.50
M12-S	With Mtg. Hardware	Crystal	78 RPM	.003" Sapphire	½ oz.	Medium	Maroon	8 grams	8.50
H12	With Mtg. Hardware	Crystal	78 RPM	.003" Osmium	1 oz.	High	Blue	8 grams	7.50
14	With Mtg. Hardware	Crystal	45, 33½ RPM	.001" Osmium	5 grams	.9 volt*	Green-Red Dot	8 grams	7.50
14-S	With Mtg. Hardware	Crystal	45, 33½ RPM	.001" Sapphire	5 grams	.9 volt*	Green-Red Dot	8 grams	8.50
14-A	Less Mtg. Hardware	Crystal	45, 33½ RPM	.001" Osmium	5 grams	.9 volt*	Green-Red Dot	6 grams	7.00
14-AS	Less Mtg. Hardware	Crystal	45, 33½ RPM	.001" Sapphire	5 grams	.9 volt*	Green-Red Dot	6 grams	8.00
16-TT	TWILT (Twin-Tilt)	Crystal	78, 45, 33½ RPM	.001" Sapphire-.003" Osmium	6 grams	.9 volt*		12 grams	10.00
16	Less Tilt. Mechanism	Crystal	78, 45, 33½ RPM	.001" Sapphire-.003" Osmium	6 grams	.9 volt*		6 grams	9.00
16-STT	TWILT (Twin-Tilt)	Crystal	78, 45, 33½ RPM	.001" Sapphire-.003" Sapphire	6 grams	.9 volt*		12 grams	10.50
16-S	Less Tilt. Mechanism	Crystal	78, 45, 33½ RPM	.001" Sapphire-.003" Sapphire	6 grams	.9 volt*		6 grams	9.50
16-OTT	TWILT (Twin-Tilt)	Crystal	78, 45, 33½ RPM	.001" Osmium-.003" Osmium	6 grams	.9 volt*		12 grams	9.50
16-O	Less Tilt. Mechanism	Crystal	78, 45, 33½ RPM	.001" Osmium-.003" Osmium	6 grams	.9 volt*		6 grams	8.50
34	5/8"-1/2" Hole Space	Crystal	45, 33½ RPM	.001" Osmium	5 grams	1.1 volt*	Grey-Red Dot	5 grams	6.50
34-S	5/8"-1/2" Hole Space	Crystal	45, 33½ RPM	.001" Sapphire	5 grams	1.1 volt*	Grey-Red Dot	5 grams	7.50
20	With Mtg. Hardware	Magnetic	78 RPM	.003" Osmium	15 grams	.070 volt†	Black	12 grams	7.50
20-S	With Mtg. Hardware	Magnetic	78 RPM	.003" Sapphire	15 grams	.070 volt†	Black	12 grams	8.50
22	With Mtg. Hardware	Magnetic	45, 33½ RPM	.001" Osmium	6 grams	.060 volt††	Black-Red Dot	12 grams	7.50
22-S	With Mtg. Hardware	Magnetic	45, 33½ RPM	.001" Sapphire	6 grams	.060 volt††	Black-Red Dot	12 grams	8.50
26-TT	TWILT (Twin-Tilt)	Magnetic	78, 45, 33½ RPM	.001" Sapphire-.003" Osmium	8 grams	.060 volt††	Black	16 grams	10.00
26	Less Tilt. Mechanism	Magnetic	78, 45, 33½ RPM	.001" Sapphire-.003" Osmium	8 grams	.060 volt††	Black	10 grams	9.00
26-STT	TWILT (Twin-Tilt)	Magnetic	78, 45, 33½ RPM	.001" Sapphire-.003" Sapphire	8 grams	.060 volt††	Black	16 grams	10.50
26-S	Less Tilt. Mechanism	Magnetic	78, 45, 33½ RPM	.001" Sapphire-.003" Sapphire	8 grams	.060 volt††	Black	10 grams	9.50
26-OTT	TWILT (Twin-Tilt)	Magnetic	78, 45, 33½ RPM	.001" Osmium-.003" Osmium	8 grams	.060 volt††	Black	16 grams	9.50
26-O	Less Tilt. Mechanism	Magnetic	78, 45, 33½ RPM	.001" Osmium-.003" Osmium	8 grams	.060 volt††	Black	10 grams	8.50
503	Transformer-Filter	For Series 20, 22, 26	Magnetic Cartridges					3 ½ ozs.	10.00

ELECTRO-VOICE REPLACEMENT NEEDLES

O-3	Needle Only	Single-tip	For Series 12 and 20	.003" Osmium		Yellow	1.50
S-3	Needle Only	Single-tip	For Series 12 and 20	.003" Sapphire		Blue	2.50
O-1	Needle Only	Single-tip	For Series 14, 34, 22	.001" Osmium		Orange	1.50
S-1	Needle Only	Single-tip	For Series 14, 34, 22	.001" Sapphire		Red	2.50
SO-13	Needle Only	Twin-Tip	For Series 16 and 26	.001" Sapphire-.003" Osmium		Orange	3.00
OO-13	Needle Only	Twin-Tip	For Series 16 and 26	.001" Osmium-.003" Osmium		Yellow	2.50
SS-13	Needle Only	Twin-Tip	For Series 16 and 26	.001" Sapphire-.003" Sapphire		Blue	3.50

*On RCA 12-5-31V Record at 1000 c.p.s. †On Columbia 10004 Record at 1000 c.p.s. Output is .7 volt with E-V Model 503 Transformer-Filter. ††On Columbia 10004 Record at 1000 c.p.s. Output is .6 volt with E-V Model 503 Transformer-Filter.

Microphones BY TURNER



GENERAL PURPOSE MICROPHONES

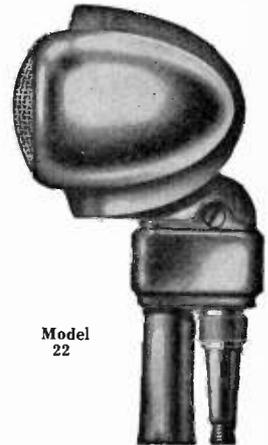
The Famous Turner 22X — 22D Crystal or Dynamic — Tops in value — tops in performance. Accurate pickup and faithful reproduction have made these units the most popular general purpose microphones on the market. $\frac{5}{8}$ " — 27 standard coupler.

22X CRYSTAL gives clear reproduction. Smartly engineered design cuts feedback to minimum. 90 degree tilting head. Built-in wind-gag permits outdoor operation. Crystal impregnated against moisture in mechanical shock proof mounting. Automatic barometric compensator. Level 52 db below 1 volt/dyne/sq. cm. Response: ± 5 db from 50 — 9000 c.p.s. Complete with 7 ft. removable cable set. Satin chrome finish. List.....\$20.00

22D DYNAMIC. Same appearance as 22X but has high level dynamic cartridge. Dependable indoors and out. Reproduces smoothly at all frequencies. Level: 54 db below 1 volt/dyne/sq. cm. at high impedance. Response: ± 5 db from 50 — 9000 c.p.s. Complete with tilting head, 7 ft. removable cable set.

200 ohms, 500 ohms, or high impedance. List.....\$25.50

50 ohms. List..... 23.50



Model 22

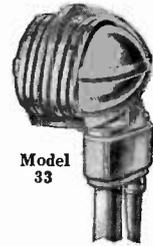
High performance at moderate cost

33X — 33D CRYSTAL OR DYNAMIC — Recommended for quality P.A., recording, and communications work, the Turner 33X Crystal has a high quality 2-element crystal. Built for indoor or outdoor use with crystal impregnated against moisture, automatic barometric compensation, and mechanical-shock proofing. Will not blast from close speaking. Level 52 db below 1 volt/dyne/sq. cm. Response: ± 5 db from 50 — 9000 c.p.s. Handsome streamline case finished in satin chrome. Complete with tilting head, and 20 ft. removable cable set.

List.....\$24.50

33D DYNAMIC. Same appearance as 33X but with smooth high level dynamic circuit. Level: 54 db below 1 volt/dyne/sq. cm. at high impedance. Response: ± 5 db from 30 — 9000 c.p.s. Complete with 20 ft. cable set.

200 ohms 500 ohms, or high impedance. List.....\$27.00
50 ohms. List..... 25.00



Model 33

Attractive, high fidelity semi-directional crystal microphone

34X CRYSTAL — A microphone whose beauty is exceeded only by its performance. The 34X is the ideal all around semi-directional crystal microphone for use where feedback and acoustic conditions are unusually difficult. Advanced engineering design with full 90 degree tilting head permits tilting to most advantageous position to reduce audience noise and background disturbances. The 34X utilizes a moisture proof crystal, automatic barometric compensator, and is blast- and mechanical-

shock proofed. Level: 52 db below 1 volt/dyne/sq. cm. Response: ± 5 db from 50 — 10,000 c.p.s. Satin chrome finish. Complete with 20 ft. removable cable set.

List.....\$29.00

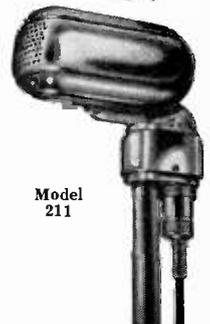


Model 34

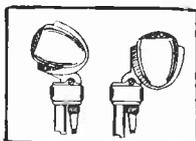
Broadcast Quality Dynamic

MODEL 211 — Precision engineered for outstanding performance the Turner 211 Dynamic utilizes a new type magnet structure and acoustic network. The high frequency range is extended and the extreme lows raised 2 to 4 decibels. Unique diaphragm structure results in extremely low harmonic and phase distortion without sacrifice of high output level. A sensitive unit yet ruggedly built for dependable use indoors or out under the most difficult acoustic and climate conditions. Withstands rough handling. For quality recording, P.A., sound system, and broadcast work, including FM. Level: 54 db below 1 volt/dyne/sq. cm.

at high impedance. Response: ± 5 db from 30 — 10,000 c.p.s. Equipped with tilting head, balanced line output connection, and 20 ft. 2-conductor, heavy duty removable cable set. Satin chrome finish.
200 ohms, 500 ohms, or high impedance. List.....\$47.50
50 ohms. List..... 45.00



Model 211



TILTING HEADS

Models 5X, 5D, 22X, 22D, 33X, 33D, 34X, and 211 are all equipped with 90° tilting heads.



MODEL "S" SWITCH EQUIPMENT

Turner Microphones in Models 22X, 22D, 33X, 33D, 34X, 5X, and 5D are available with built-in slide switch illustrated. Shorts the line quietly. Permits fingertip control of microphone regardless of distance from amplifier. Furnished only on order with Turner Microphones. (When ordering designate "S" plus microphone Model No. Example: "S22X".) For Switch Models add \$2.00 to list price.

Licensed under U. S. patents of the American Telephone and Telegraph Company, and Western Electric Company, Incorporated. Crystals licensed under patents of the Brush Development Company.

THE TURNER COMPANY



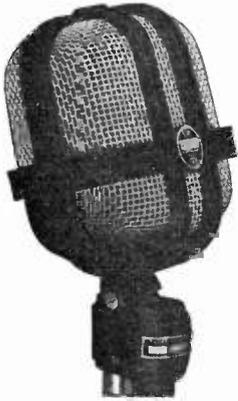
Microphones BY TURNER

MODEL 77 CARDIOID (Left)

New Super-Cardioid microphone of advanced design

Impressively styled, the new Turner Model 77 is brilliantly engineered with a combination 2-element interior structure. Improved circuit design utilizes both pressure and velocity operated units in series. Sound is effectively controlled to produce the true Super-Cardioid pickup pattern which reduces feedback to the minimum. The Model 77 features a wide range pickup at the front and a sharply attenuated output at the rear . . . with approximately 15 db discrimination between front and rear at all frequencies. Response: ± 5 db from 70 — 10,000 c.p.s. Level: 62 db below 1 volt/dyne/sq. cm. at high impedance. Built-in switch giving 50, 200, 500 ohms, or high impedance output permits use with any standard equipment. Smooth tilting action and quick-disconnect plug. Standard $\frac{5}{8}$ " — 27 mounting. Finished in gun-metal gray and/or chrome. Complete with 20 ft. balanced line removable cable set.

Model 77 Cardioid. List\$77.00



Model 77

MODEL 87 VELOCITY (Right)

High fidelity response and bi-directional pickup

Developed to bring world famous Turner dependability to the velocity microphone field. Exceptional quality and trouble-free operation. Engineered with single element ribbon and Alnio V magnet for maximum sensitivity. Well shielded output transformers exclude hum pickup. Bi-directional figure 8 pickup pattern with smooth response within ± 5 db from 80 — 10,000 c.p.s. for most exacting studio work. Level: 62 db below 1 volt/dyne/sq. sm. at high impedance. 4-position output switch permits use with any 50, 200, 500 ohm, or high impedance input. Equipped with universal swivel mounting, $\frac{5}{8}$ " — 27 thread. Richly finished in gun-metal gray with satin chrome screen. Complete with 20 ft. attached balanced line cable.

Model 87 Velocity. List\$47.50



Model 87



Models 99 & 999

FAMOUS TURNER MODEL 99 DYNAMIC

MODEL 99 DYNAMIC is the most rugged microphone in the entire Turner line. Withstands toughest climate and temperature changes. Adjustable saddle. Fits any standard mike stand. Semi- or non-directional operation. Broadcast studios, large city police departments, and internationally famous manufacturers specify Turner 99 for crisp, clear results. Baked gunmetal finish. Level: 52 db below 1 volt/dyne/sq. cm. at high impedance. Response: ± 5 db from 40 — 9000 c.p.s. Complete with 20 ft. removable cable set.

200 ohms, 500 ohms, or high impedance. List\$34.00
50 ohms. List 31.50

999 BALANCED LINE DYNAMIC

Same professional appearance as Model 99. Voice coil and transformer leads are insulated from ground and microphone case. Line is balanced to the ground. Assures studio results under critical conditions. Gunmetal finish. Level: 52 db below 1 volt/dyne/sq. cm. at high impedance. Response: ± 5 db from 40 — 9000 c.p.s. With 3-pin polarized locking connector and 20 ft. balanced line low-capacity cable.

200 ohms, 500 ohms or high impedance. List\$37.50
50 ohms. List 35.00

U9S DYNAMIC

Four impedances at your fingertips

Whatever impedance you need — 50 ohms, 200 ohms, 500 ohms or high impedance — you can get it quickly with the turn of the switch on the Turner Model U9S Dynamic. Same precision engineering and rugged construction as the Model 999 with built-in tapped multi-impedance transformer. Fill practically all needs with one microphone. A smooth, dependable performer at all impedances and frequencies. Level: 52 db below 1 volt/dyne/sq. cm. at high impedance. Response: ± 5 db from 40 — 9000 c.p.s.

Complete with 20 ft. balanced line removable cable set. List\$40.00



Model U9S

Microphones BY TURNER

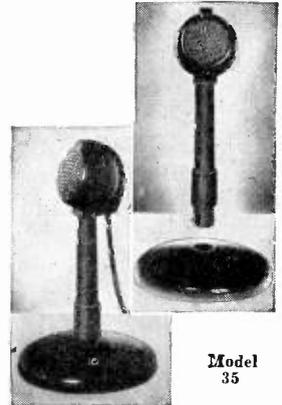


MODEL 35X FIREBALL

A new crystal desk microphone with instantly detachable base

Handsome, convenient and low priced. Model 35X is as easy to use as a fountain-pen desk set. It can be used as a desk microphone or a hand-held unit. A quarter turn releases handle from base instantly or locks it securely. The Model 35X is engineered with a high quality crystal circuit to give smooth performance to both voice and music pickups. Response: 70 — 7000 c.p.s. Level 52 db below 1 volt/dyne/sq. cm. Unit includes microphone with handle, base, and 7 ft. attached cable.

Model 35X. List \$13.25



Model 35

THE TURNER "Hand-D" 9X or 9D Crystal or Dynamic

A rugged, all around multi-purpose microphone

One of the handiest and most useful microphones made. Hang it, hold it, or mount on any standard desk or floor stand. Especially engineered for maximum response to voice. "Hand-D" also delivers smooth, natural response to music pickups. Ideal for stage, paging, public address, amateur, police car, and traveling mike applications. Positive contact slide switch permits on-off operation.* Complete with 7 ft. removable cable set.

9D DYNAMIC

Recommended for more severe service conditions and extremes of climate and temperature. Level: 52 db below 1 volt/dyne/sq. cm. at high impedance. Response: ± 8 db from 60 — 7000 c.p.s. 200 ohms, 500 ohms or high impedance. List \$27.00
50 ohms. List 25.00

9X CRYSTAL

Equipped with high quality, shock mounted, humidity protected crystal for indoor or outdoor use. Level: 52 db below 1 volt/dyne/sq. cm. Response: ± 5 db from 60 — 7000 c.p.s.
List \$23.50



Model 9

* Also available with precision heavy duty push-to-talk switch at \$2.50 list additional. Specify: "With H.D. Push-Talk Sw."

New, lightweight, low cost hand microphone with unusually fine response characteristics

TURNER 20X CRYSTAL — Designed to appeal to users of home recorders, economical public address, paging and call systems, and amateurs. Response to voice and music is smooth and even over a desirable range of frequencies. Level: 54 db below 1 volt/dyne/sq. cm. Response: ± 5 db from 50 — 7000 c.p.s. High quality crystal impregnated against moisture, mechanical-shock proofed. Lightweight, natural to hold and use. Equipped with hook ring for hanging. Finished in baked brown enamel. Complete with 7 ft. attached cable. List \$12.85

Also available with Slidelock Switch at \$2.00 extra list.



Model 20

New, modern, convenient hand held general purpose microphones

15X CRYSTAL — 15D DYNAMIC — For public address, call systems, police communications, speech recording, amateurs, and broadcasting where hand-held microphones are required. Balanced to fit the hand naturally. When not in use it may be hung from a hook. Engineered for smooth response over a wide range of useful frequencies. Finished in attractive gunmetal and equipped with 20 ft. attached shielded cable.

15X CRYSTAL. Level: 52 db below 1 volt/dyne/sq. cm. Response: ± 5 db from 40 — 8000 c.p.s. Humidity sealed crystal.
List \$25.00

"Push-to-talk" thumb switch optional at \$2.50 extra list.

15D DYNAMIC. For more severe operating conditions: Level: 54 db below 1 volt/dyne/sq. cm. at high impedance. Response: ± 5 db from 40 — 7000 c.p.s. 200 ohms, 500 ohms, or high impedance.
List \$30.00

50 ohms. List 27.50
"Push-to-talk" thumb switch optional at \$2.50 extra list.

15D-NC NOISE CANCELING DYNAMIC — For intelligible communications under adverse background noise conditions. Same case and finish as 15D. Circuit designed for use in factories, machine shops, railroad yards, aircraft, and other places where extreme background noise interferes with communications. The 15D-NC transmits only when spoken to at close range. Unwanted sound canceled out. Level: 52 db below 1 volt/dyne/sq. cm. at high impedance. Response: 50 — 5000 c.p.s.

200 ohms, 500 ohms, or high impedance.
List \$32.50

50 ohms. List 30.00
"Push-to-talk" thumb switch optional at \$2.50 extra list.



Model 15



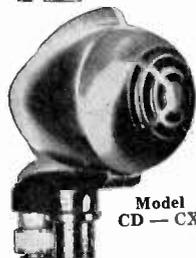
Microphones BY TURNER

TURNER CHALLENGERS

Turner Challengers offer performance, quality, and appearance usually found in microphones selling at twice their low cost. Engineered with a substantially flat response they give clear cut reproduction of both voice and music. Crystal models are complete with shock proof mounting, barometric compensation, moisture sealed crystal, and wind-gag to prevent blasting. Dynamic units are built to give dependable service indoors or out. You can rely on Turner Challengers — they are fully guaranteed.



Model
BD — BX



Model
CD — CX

BD DYNAMIC — Same appearance as BX. Equipped with dynamic cartridge. Works equally well indoors or out. Level: 52 db below 1 volt/dyne/sq. cm. at high impedance. Response: ± 8 db from 50 — 6000 c.p.s. Complete with 7 ft. attached cable. 50 ohms, 200 ohms, 500 ohms, or high impedance. List.....\$15.75

CD DYNAMIC — Same style and finish as CX. High quality magnets. 7 ft. removable cable set. Level: 52 db below 1 volt/dyne/sq. cm. at high impedance. Response: ± 8 db from 50 — 7000 c.p.s. 50 ohms, 200 ohms, 500 ohms, or high impedance. List.....\$19.50

BX CRYSTAL — Ideal for recording, P.A., and amateur work. Brown enamel finish. Level: 52 db below 1 volt/dyne/sq. cm. Response: ± 5 db from 50 — 6000 c.p.s. Complete with 7 ft. attached cable. List.....\$10.85

CX CRYSTAL — Satin chrome finish with 7 ft. removable cable set. $\frac{5}{8}$ " — 27 standard coupler mounting. Level: 52 db below 1 volt/dyne/sq. cm. Response: ± 5 db from 50 — 7000 c.p.s. List.....\$16.25

MODEL VT-73

New improved crystal desk microphone engineered for quality speech

A world-wide favorite with amateurs for crisp, clear reports, the Turner VT-73 is also recommended for quality speech recording and public address work. Highest quality humidity sealed crystal. Rising curvature of response between 500 — 4000 c.p.s. increases intelligibility at effective voice frequencies without overmodulation. Shielded 2-conductor cable reduces R.F. pickup and harmonic resonance problems. Head is adjustable through 60° to almost any position. Level: 52 db below 1 volt/dyne/sq. cm. Response: ± 5 db from 50 — 7000 c.p.s. Complete with ball swivel head, stand, and 7 ft. attached cable. Finished in black crinkle and chrome.

List.....\$21.50



L40 LAPEL MICROPHONE

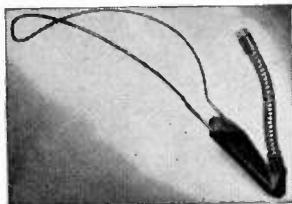
Small, lightweight and inconspicuous the L40 can be worn in the lapel used with the 3H, or concealed. Highest quality moisture sealed crystal produces high signal level. Engineered for crisp, clear speech reproduction. Chest sounds damped out. Comfortable to wear. Alligator clip secures unit to clothing. Level: 52 db below 1 volt/dyne/sq. cm. Response ± 8 db from 50 — 8000 c.p.s. Complete with 20 ft. attached cable. List.....\$25.00

TURNER "THIRD-HAND" MODEL 3H

Slips over your head in a jiffy and holds microphone close to your mouth, where you get excellent volume without feedback. As natural to wear as a necktie, and lets you use both hands elsewhere. Stays out of your line of vision. Talk close without craning your neck; cuts down background noises.

Can be used with long line, as traveling microphone. Ideal for window demonstrations. Has $\frac{5}{8}$ " — 27 thread. Recommended for use with Turner microphones, as they will not blast from close speaking. Can be furnished with microphone switch when ordered with Turner microphone.

List.....\$5.00



List.....\$5.00
For switch when ordered with Turner Microphone, add \$1.00 list.

MICROPHONES HEARING AID

Small compact, lightweight crystal microphone cartridges for new hearing aids or replacement. Exceptionally high signal level and smooth response. Flush to panel mounting. Send for details.

Model HA-7L. List.....\$8.00
Model HA-12S. List (shown) 8.00



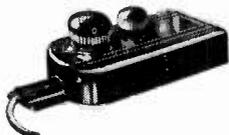
MAGNETIC CONTACT PICKUPS FOR MUSICAL INSTRUMENTS

MODEL MM

Standard magnetic pickup. Provides uniform response over entire musical range. High impedance output. Easily and quickly attached. Complete with 20 ft. cable and finish.

With built-in volume control. List.....\$18.00

Without volume control. List 15.75
With phone plug attached to cable, add \$1.00 list.



"MIP" DELUXE

Turner's newest pickup. High level ALNICO V circuit. Gives immense volume and improved tone from any string instrument. Easily installed without tools or adhesives. High impedance output. Works directly into the grid circuit of any two-stage or larger amplifier. Polished chromium finish. Complete with built-in volume control, 20 ft. shielded cable, and mounting device for attaching to any string instrument. Built to stand abuse. List.....\$23.50

With phone plug attached to cable add \$1.00 list.



THE TURNER COMPANY

Prices subject to change without notice

PREFERRED BY LEADING P. A. MEN THE WORLD OVER



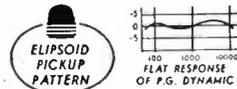
•UNI-DIRECTIONAL

NEW SUPERIOR ELIPSOID PICKUP PATTERN

•ELIMINATES FEEDBACK

TROUBLE BECAUSE IT HAS LOWEST FEED BACK POINT OF ALL DIAPHRAGM TYPE MICROPHONES

•FLAT RESPONSE. FREE FROM ANNOYING PEAKS, GIVING STUDIO QUALITY REPRODUCTION



The P.G. diaphragm follows air particle velocity where amplitude is a GRADIENT of the PRESSURE. In ordinary dynamics amplitude is restricted from following air particle velocity. The P.G. DYNAMIC is a radical improvement in this type of microphone. You can actually hear the difference. Case is designed according to modern acoustic principles. Rugged, not affected by temperature, altitude or humidity. Has unusually high output.

Model PGH —hi-imp. } **\$32.00**
Model PGL —50 ohms } **List**

Output—55 db
 Freq. Resp.40-10000 CPS
 Cable Length25 ft.
 FinishChrome
 SwitchYes
 Cable ConnectorYes
 Stand Thread5/8-27
 Ship. Wt.2½ lbs.



PLASTIC BAFFLE FOR P.G. DYNAMIC
 Increases output of the microphone 4 db. Especially useful when performer is at distance of 12" or more. Excellent for picking up entire stage, bands, etc. Snaps into place.
 Model PGList \$1.50

Model PGAH—hi-imp. } **\$25.00**
Model PGAL —50 ohms } **List**

Output—60 db
 Freq. Resp.70-8000 CPS
 Cable Length12 ft.
 FinishChrome
 SwitchYes
 Cable ConnectorYes
 Stand Thread5/8-27
 Ship. Wt.2½ lbs.

AMPERITE MICROPHONE STANDS

Scientifically designed, Amperite stands feature:

1. Positive, non-sliding clutch. Will never wear out, never require adjustment. Will not "creep".
2. Shock-absorbing rubber bottom.

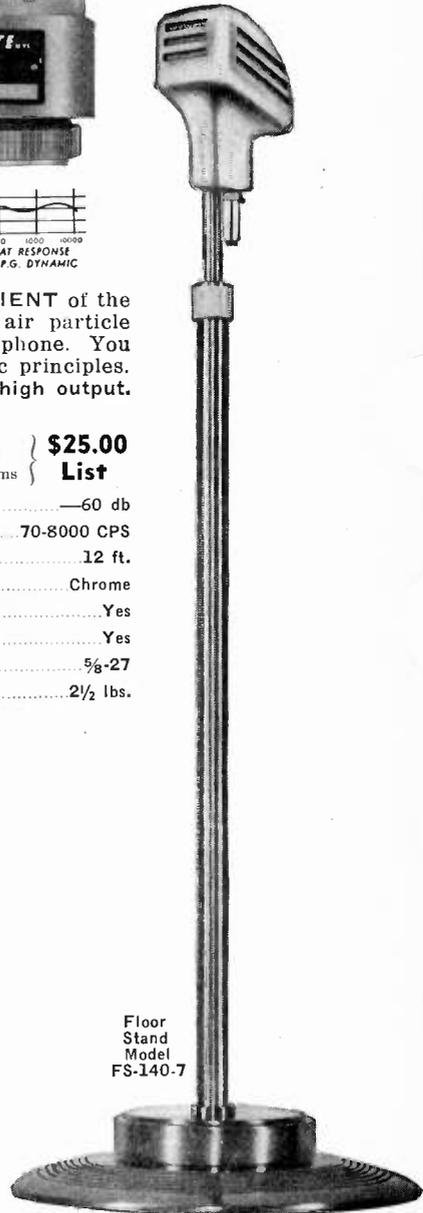
The microphone can be rotated without loosening clutch.

The action up and down is smooth, pneumatic-like.

AMPERITE MICROPHONE STANDS—SPECIFICATIONS

Model	Description	Base Wt.	Base Spread	Height Range	Thread	List Gunmetal or Chrome	Ship. Wt.
FS-14	Floor Stand	14 lb.	12"	37"-55"	3/8-27"	\$18.00	15 lb.
DS-M	Comb. desk & Banquet Desk only	6 lb.	7½"	16"-24"	5/8-27"	12.00	11 lb.
DS	Desk only	6 lb.	7½"	3"	5/8-27"	6.00	11 lb.
5D	Desk Stand	1½ lb.	5"	6"	& 1/8" P. 5/8-27"	4.00	3 lb.

Floor Stand Model FS-140-7



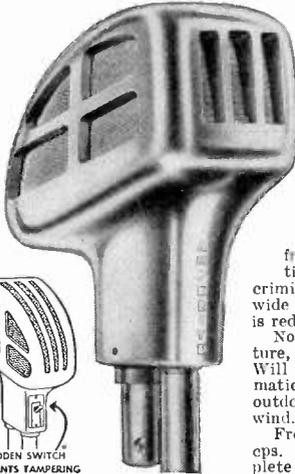
PREFERRED BY LEADING P. A. MEN THE WORLD OVER



New STUDIO "Ribbon" MICROPHONE

Models R80H—R80L

**A "Blastproof" Velocity
Eliminates Feedback Troubles**



HIDDEN SWITCH PREVENTS TAMPERING

The finest in microphones, regardless of price. Reproduction is of the very highest type. Excellent for broadcasting, recording and public address. Eliminates feedback troubles. Will not become "boomy" on close talking. An entire orchestra can be faithfully reproduced.

Pick-up angle 120° front and back with practically no frequency discrimination. In spite of the wide pick-up angle, feedback is reduced to a minimum.

Not affected by temperature, altitude or humidity. Will operate under any climatic conditions—indoors or outdoors. Not affected by wind.

Frequency range 40-14,000 cps. Output—56 db. Complete with switch, (optional), cable connector and 25' cable. Finish—Chrome. Stand thread, Standard 5/8"—27.

- | | |
|---------------------------------|-------------------------|
| Model R80L—200 ohms output..... | List \$80.00 |
| R80H—High impedance..... | List 80.00 |
| 50 ohms available. | Shipping Weight 10 lbs. |

New "RIBBON" MICROPHONE, RBHG—RBLG

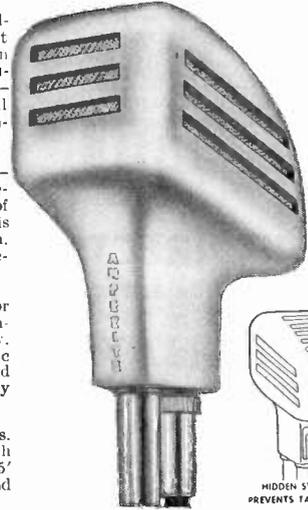
**Automatically Adjusted for Close or Distant Pick-Up
A "Blastproof" Velocity**

Studio reproduction—low feedback. A "ribbon" microphone that brings broadcast quality within everyone's reach. Perfectly natural reproduction on close talking—you can even shout into it. Will also faithfully reproduce an entire orchestra.

Pick up angle front and back—120° with practically no frequency discrimination. In spite of wide pick-up angle—feedback is reduced to an absolute minimum. Low feedback is due to flat response of the microphone.

Excellent for studio—P. A. or recording. Not affected by temperature, altitude or humidity. Can be used under all climatic conditions, and will withstand rough handling. Not affected by wind.

Frequency range 50-11,000 cps. Output—62 db. Complete with switch, cable connector, and 25' cable. Finish—Chrome. Stand thread—Standard 5/8"—27.



HIDDEN SWITCH PREVENTS TAMPERING

- | | |
|---------------------------------|------------------------|
| Model RBHG—High impedance..... | List \$42.00 |
| Model RBLG—200 ohms output..... | List 42.00 |
| 50 ohms available. | Shipping Weight 8 lbs. |

COMPACT VELOCITY, ACH—ACL

The smallest complete velocity ever made

Compact—yet a complete Amperite "Ribbon" Microphone including transformer, switch and cable connector. Recommended wherever a compact microphone is a necessity. Can be used either as a hand microphone or on a stand. Frequency range 120 to 8,000 cps. Output—65 db.

Complete with switch—cable connector—12' cable. Stand thread—Standard 5/8"—27.

- | | |
|--------------------------------|------------------------|
| Model ACH—High impedance..... | List \$32.00 |
| Model ACL—200 ohms output..... | List 32.00 |
| 50 ohms available. | Shipping Weight 5 lbs. |



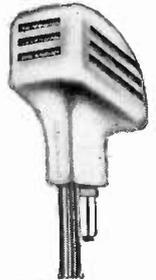
New RSHG—RSLG "RIBBON" MICROPHONES

Although low in price the RSHG and RSLG are excellent "ribbon" microphones built to Amperite standards. Can be used for P.A. or recording. Feedback very low. Not boomy on close talking—you can shout into it—or pick up an entire orchestra.

Not affected by temperature, humidity or altitude. Not affected by wind.

Output—60 db. Frequency response—70 to 8,000 cps. Complete with switch, cable connector, and 12' cable. Finish—Baked Enamel. Stand thread—Standard 5/8"—27.

- | | |
|---------------------------------|------------------------|
| Model RSHG—High impedance..... | List \$32.00 |
| Model RSLG—200 ohms output..... | List 32.00 |
| 50 ohms available. | Shipping Weight 8 lbs. |



Amperite 7JH—7JL VELOCITY MICROPHONE

"Lapel" Type

Reproduction is so perfect—you can hardly tell a microphone is working. Free from annoying peaks or mechanical reproduction. Output does not change with any position of the head. It can be concealed in clothing. Will operate under all climatic conditions. Usually low feedback. Frequency range 60-7,000 cps. Output—63 db. Cable length 25'. Rubber case.

- | | |
|--------------------------------|------------------------|
| Model 7JH—High impedance..... | List \$32.00 |
| Model 7JL—200 ohms output..... | List 32.00 |
| 50 ohms available. | Shipping Weight 3 lbs. |



AMPERITE KONTAK MIKE FOR MUSICAL INSTRUMENTS



(Model SKH)



(Model KKH)

Gives natural reinforcement without peaks. Easily attached without tools. Will operate with either low or high-gain amplifiers. Frequency response 40 to 9000 cps. Output—40 db.

Shipping Weight 2 lbs.

- | | |
|---|--------------|
| Model SKH—High impedance..... | List \$12.00 |
| Model KKH—With Hand Volume Control..... | List 18.00 |
| Model KF—Foot Pedal Only..... | List 18.00 |

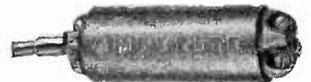
Low impedance available in model SKH at same price.

Model LGP—Input Transformer (Cable Type)

Enables the use of low impedance microphones and cable lengths up to 5,000' with amplifiers having high impedance input. Special shielding eliminates hum pick-up. Can be used with 25, 50, or 200 ohm microphones. Output connects directly into high impedance input of amplifier.

- | | |
|--|-------------|
| Standard grade recommended for speech, Laboratory grade for music. | |
| Model LGP—Standard—60 to 2,000 cps..... | List \$8.00 |
| Model LGP—Lab—40 to 14,000 cps..... | List 10.00 |

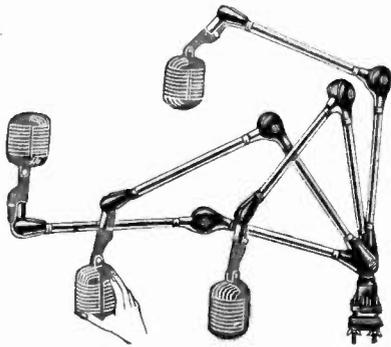
Shipping Weight 3 lbs.



FLEXO



MIKESTER



**GENERAL MODEL
No. 1**

Clamps or screws to any horizontal or angular position. Two bolts clamp base firmly to surface up to 3" thick assuring greater stability. Bolts removable to allow for screw fastening.

Packed 1 to carton. Shipping weight: 4 3/4 lbs. Price, \$12.00

SHOCKPROOF: Shockproof, noise reducing materials used throughout.

CABLE IN PLACE: Clips hold cable neatly in place and provide quick changeover for mike replacement.

BOTH HANDS FREE: Permits both hands free for plane, train or police dispatching, or switchboard operator.

UNIVERSAL RANGE of ADJUSTMENT

Flexo Mikester is as flexible as the hand itself. Here is the ideal stand that permits you to instantly position mike exactly where needed to exactly fit the speaker or any other application desired, for greatest comfort and efficiency.

LONG REACH

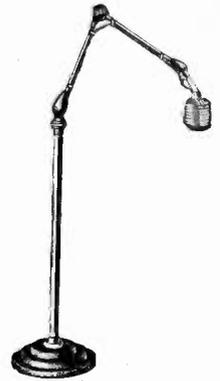
Swings out 36" in any direction when fully extended. The New Flexo Mikester will handle any mike up to 4 lbs. in weight.



**BRACKET MODEL
No. 2**

Same except with bracket for wall or vertical screw mounting. Packed 1 to carton. Shipping weight 5 1/4 lbs.

Price, \$12.00



**FLOOR MODEL
No. 3**

Same except on 40" floor stand. Required where portability is desired for traveling orchestras, etc. Also for piano, studio, night club, orchestra, auditorium. Large, heavy 13 1/2" base.

Packed in 2 cartons and 1 shipping tube. Shipping weight: 23 lbs.

Price, \$20.25

Finished in durable Royale Gray to match any mike.

FLEXO MIKESTER USES

Radio broadcast or recording studios, sport-casting events, airport, railroad, ship or police communication systems, offices, switchboards, auditoriums, factories, theatres, dance halls, night clubs, schools, churches, hotels.

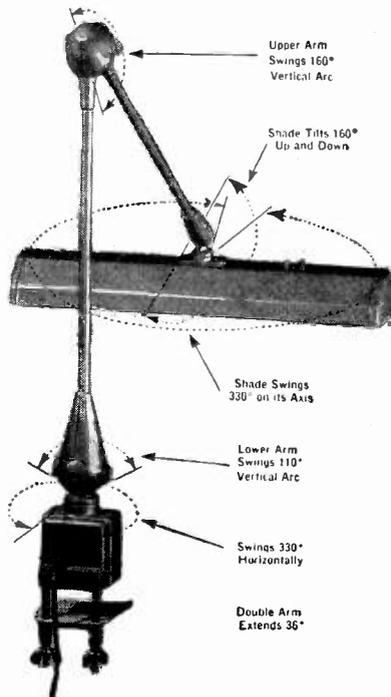
FLEXO ADJUSTABLE LAMP

**GENERAL MODEL
No. 4303**

2-LITER

Flexo is a versatile lamp. Patented spring controlled swivelling devices offer smooth, silent, sure adjustment to any position without loosening or tightening screws or nuts. It will stay-put in a set position, yet moves easily to any other desired positions at a mere touch of the hand. Because of its versatility, Flexo is popular in both home and industry, providing cool, diffused, correct lighting for any task requiring the attentive use of the eyes.

GENERAL MODEL: Two bolts clamp base firmly to any surface up to 3" thick. Bolts removable for screw fastening.



Double-arm extension — 36" long.

Voltage and Current — 105-125 volts, 60-cycle, A.C.

Finish — oven-fired Royale Statuary Bronze, with reflectors in porcelain white. Also available in gray to match other office or shop equipment.

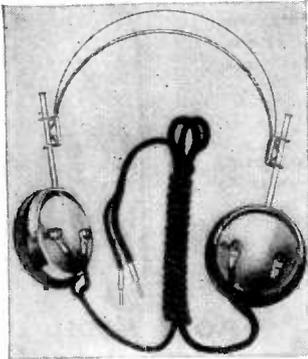
Uses two 15-watt T8 Fluorescent Lamps.

Shipping Weight — 9 lbs.

Price, \$16.75*

SUGGESTED USERS: Machinists, inspectors, assemblers, artists, draftsmen, engineers, photographers, tool and die makers, repairmen, architects, accountants, engravers, jewelers, watchmakers, hobbyists, laboratory technicians, office workers, etc.

HEADPHONES By C. F. CANNON



**BRANDES "SUPERIOR"
Matched Tone Headset**

A rugged headset, millions of which are in use all over the world. Large size diaphragms of 2 1/8" diameter assure efficient performance. Outside terminals, with polished aluminum cases and bakelite caps. Double coils, two in each receiver. Chrome steel magnets. Steel headband with permanent adjustment. 4 1/2 ft. cotton covered cord.

BS-2—2000 ohms D.C. List \$3.50

**BRANDES "ADMIRAL"
Matched Tone Headset**

The Brandes "Admiral" is of the same general construction as the Brandes Superior, but has terminals on the inside.

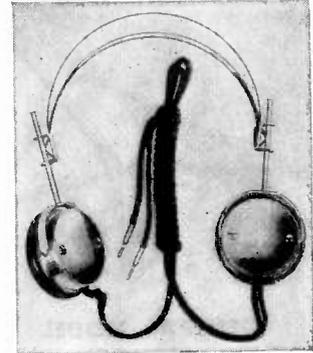
BA-2—2000 ohms D.C. List \$3.75
BA-3—3000 ohms D.C. List 4.25
BA-5—5000 ohms D.C. List 5.75



**THE "CHIEF"
Cannon-Ball Bakelite Headset**

A high quality headset of durable molded black plastic. Attractive in appearance, it is a sensitive and practical phone for every headset use. Inside terminals. Diameter of diaphragm is 2 1/8". Double coils, two in each receiver. Chrome steel magnets 1/4" diameter. Supplied with braid-covered headband with permanent adjustment and no removable parts. Cotton covered cord, 4 1/2 ft. long.

CC-2—2000 ohms D.C. List \$4.00
CC-3—3000 ohms D.C. List 4.50
CC-5—5000 ohms D.C. List 5.50



**THE "MASTER"
Cannon-Ball Headset**

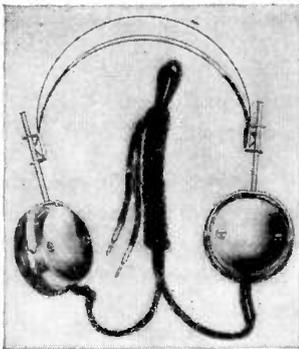
Used extensively in hospitals and other institutions as well as for general purposes, and is especially recommended for institutions. Inside terminals Aluminum cases with black bakelite caps. Spring steel adjustable headband with no removable parts. Diaphragm 2 1/8" diameter. Double coils. Chrome steel magnets. 4 1/2 ft. cotton-covered cord.

MC-2—2000 ohms D.C. List \$3.50
MC-3—3000 ohms D.C. List 4.00
MC-5—5000 ohms D.C. List 5.50

**THE "DIXIE"
Cannon-Ball Headset**

The "Dixie" is of the same general construction as the "Master" headset except that the terminals are on the outside.

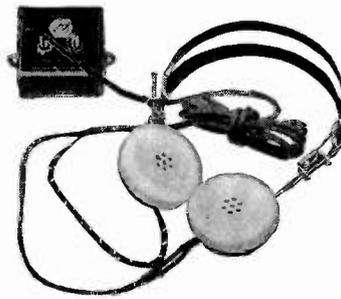
CD-2—2000 ohms D.C. List \$3.00
CD-3—3000 ohms D.C. List 3.25



**CANNON-BALL "EMPIRE"
Lightweight Headset**

A low-priced light-weight headset with large magnet and double coils. Reproduces with clarity and good volume. Diameter of diaphragm is 1 3/8". Polished aluminum cases with bakelite caps. Steel adjustable headband. 4 1/2 ft. cord. Inside terminal connections.

EC-2—2000 ohms D.C. List \$2.75
EC-3—3000 ohms D.C. List 3.00



**CANNON-BALL HEARING AID
For Radio**

Provides perfect reception for private listening without disturbing others. Can be attached to any radio and permits listening to phones alone, speaker alone, or both together, as desired.

With single phone List \$5.75
With double phones List \$8.00



**CANNON-BALL "GRAND"
Single Headphone**

Equal in clarity and volume to most double headsets, efficient and attractive. Permits listening while being addressed by others. Concealed terminals. Diaphragm 1 3/8". Aluminum case and bakelite caps. Chrome steel magnet, double coils. 4 1/2 ft. cord. Spring steel headband permanently attached.

SG-1—1000 ohms D.C. List \$1.85

Phones can be supplied with any resistance required or with variations to meet special requirements. Sanitary plastic covered cords available for institutional use. Write for special quotation.

TELEX MONOSET
UNDER-CHIN HEADSET



TELEX MONOSET*

Successor to the Headset...

TELEX Monoset SPECIFICATIONS

SENSITIVITY—

88 db. above .00024 dynes per sq. cm. for 10 microwatt input.

IMPEDANCES—

128 ohms, 500 ohms, 2000 ohms.

PRICES—

	List	Dealer Net
Monoset with standard cord	\$12.40	\$7.44
Monoset with volume-control cord	16.40	9.84
Standard cord	3.75	2.25
Volume-control cord	7.75	4.65

CONSTRUCTION—

Weight: 1.2 oz.

Sealed magnetic receiver. Unbreakable, grey polished Tenite construction.

Removable plastic eartips.

5' tinsel cord with standard plug.



Stethoscope design of the Telex Monoset eliminates headachy pressure—instrument swings lightly *under* the chin. Wear it for hours without fatigue! Here's the *modern* way to hear with a headset!

Telex Monoset delivers sound directly *into* the ear—blocks out background noise, aids weak signals. Optional volume control on cord may be adjusted from where you sit or as you move about.

Entire instrument ruggedly built of unbreakable Tenite. Fine, sealed magnetic receiver gives excellent fidelity and response.

Many Uses
for
Monosets
in . . .

- Communications
- Multiple listening
- Broadcast Monitoring
- Office Dictation equipment
- Aircraft radio
- Wired Sound—Beauty Shops
- Electronic Labs
- Record Shops

TELEX, Telex Park, Minneapolis, Minnesota

Manufacturers of

TELEX Twinset,* TELEX Earsel,* TELEX Pillow Speaker, TELEX Precision Hearing Aids

Trademark*

TELEX TWINSET
THE MODERN HEADSET

No Pressure on the ears

WITH

TELEX TWINSET*

The Improved, Modern Headset

New TELEX Twinset pipes the signal directly into the ears—without pinching or pressure. Less listening fatigue, because this 1.6 oz. marvel is the lightest twin-receiver headset made!

TELEX Twinset adjusts simply to any shape head. Its high fidelity and sensitivity adapt it perfectly to any headset need—amateur, experimental, commercial or business.

Receiver rests lightly at the temples—self-locking sound arm may be adjusted to fit *into* the ear . . . blocking out all background noise. Or, ear tip may float a fraction of an inch away *with nothing whatever touching the ear!* Both receivers are in phase. Weighted diaphragms are sealed against dust and moisture. Headband is so flexible instrument may be coiled up and slipped into the pocket!

SCORES OF TWINSET USES

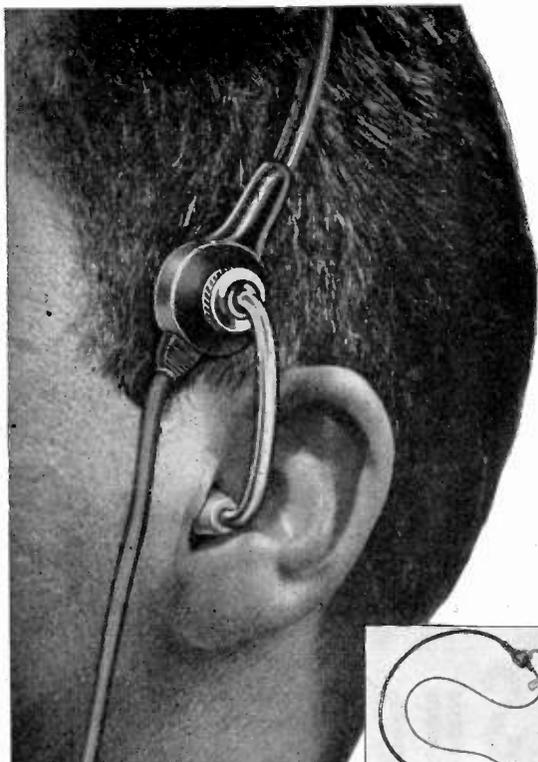
- ▶ Amateur and Commercial Communications
- ▶ Dispatching
- ▶ Broadcast Monitoring
- ▶ Stenographic Transcribing
- ▶ Pilot and Control Tower
- ▶ Theaters and Record Stores
- ▶ Ship's Radio
- ▶ Hospitals
- ▶ Electronic Labs
- ▶ Any Headset Application

TELEX, Telex Park, Minneapolis, Minnesota

Manufacturers of

TELEX Monoset* • TELEX Earset* • TELEX Pillow Speaker • TELEX Precision Hearing Aids

Trademark*



TELEX TWINSET* SPECIFICATIONS

SENSITIVITY—

101 db above .000204 dynes per sq. cm. for 10 microwatts input.

IMPEDANCES—

1000 ohms (brown) 64 ohms (yellow) (Coding visible inside female socket).

CONSTRUCTION—

Weight: 1/6 oz. Tenite plastic and bright nickel for all major parts.

Headband: Z-nickel steel wire cased in plastic.

Single 5-foot Monocord plugs into either receiver.

Special cord with built-in volume control available.

PRICES—

	List	Dealer Net
Twinset only	\$11.25	\$6.75
Twinset with cord	15.00	9.00
Monocord only	3.75	2.25



TELEX EARSET
CLEVER NEW EARPHONE

*Newest
Earphone out!*

TELEX EARSET*

- ▶ Weighs only 1/2 oz!
- ▶ Slips *onto* the ear—no headband
- ▶ Fits either ear
- ▶ High quality response
- ▶ Comfortable modern design

TELEX EARSET* SPECIFICATIONS

SENSITIVITY—

Comfortable listening level with .3 milliwatt input.

IMPEDANCES—

128 ohms, 2000 ohms.

PRICES—

	List	Dealer Net
Earset only	\$ 6.75	\$4.05
Earset		
with cord	10.50	6.30
Standard cord	3.75	2.25

CONSTRUCTION—

Weight: 1/2 oz.
Clear plastic ear frame.
Sealed, rust-proof receiver.
5' Monocord with standard phone plug connection.

DOZENS OF USES—

- Stenographic transcribing
- Switchboards
- Testing
- Code Practice
- Multiple listening
- Production line checks
- Monitoring
- Lab Measurements



You've never seen such a slick little rig in your life! The new TELEX EARSET completely outmodes all single-receiver earphones!

No headband to muss or pull the hair . . . no pressure on the ear at all! Instead, a flat plastic frame slips over the tip of the ear—holds the sensitive, high-fidelity receiver exactly right for best hearing. TELEX EARSET can't fall or slide off—so light the user promptly forgets it's there. Fits any shape or size ear—right or left.

Stenos and switchboard operators love the way the trim little TELEX EARSET tucks away in their hair. Technicians and monitors like the easy way it can be dropped into a shirt or vest pocket. Receiver itself is sealed against dust and corrosion—flexible, detachable single cord connection.



You've never seen anything like TELEX EARSET*
Better ask to see one today!

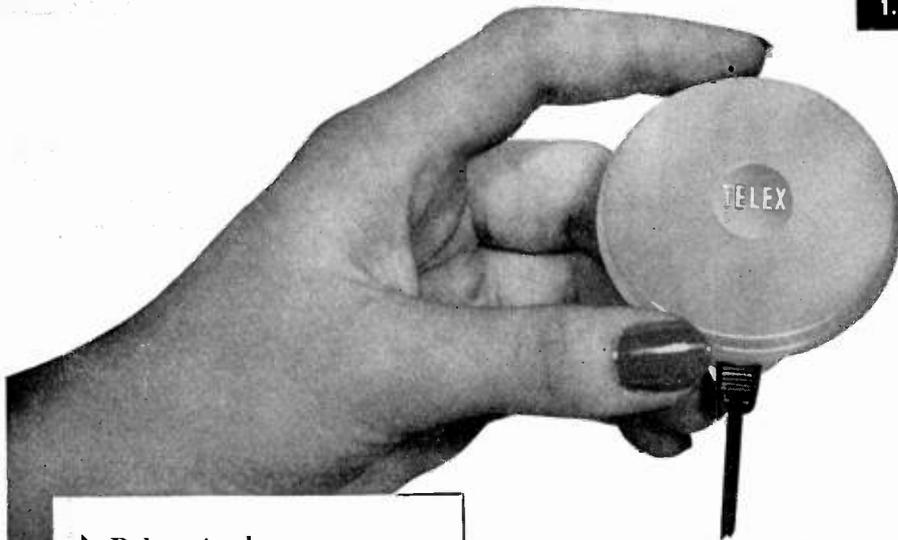
TELEX, Telex Park, Minneapolis, Minnesota

Manufacturers of

TELEX Monoset* • TELEX Twinset* • TELEX Pillow Speaker • TELEX Precision Hearing Aids

Trademark*

TELEX PILLOW SPEAKER
1.1 OUNCE MINIATURE



- ▶ Palm-sized
- ▶ Weight: Only 1.1 oz.
- ▶ Sealed, rustproof Diaphragm
- ▶ Sturdy plastic cover

**TELEX PILLOW SPEAKER
USES**

- Hotels • Hospitals • Headrests
on Trains, Buses, Airlines • Home
- Dormitories

SPECIFICATIONS

IMPEDANCES—

128 ohms, 2000 ohms.
(Impedances up to 12,000 ohms
available on special order.)

PRICES—

	List	Dealer Net
Pillow Speaker only	\$ 7.20	\$4.32
Pillow Speaker with cord	10.95	6.57
Standard cord	3.75	2.25

SENSITIVITY—

One milliwatt for comfortable
listening. Frequency range 50 to
4,000 cycles without distortion.

CONSTRUCTION—

Weight: 1.1 oz.
Diameter: 2 1/4"
Max. Thickness: 11/16"

CORD—

Model 2548—5 feet.
2-conductor, 4-strand silverplated
tinsel with flexible single jacket
insulation.
Weight: 1.4 oz.



NOW... IMPROVED
**HIGH FIDELITY
PILLOW SPEAKER
FROM TELEX**

**Big-Loudspeaker FIDELITY
with Headset PRIVACY**

Sensitive, high-fidelity Telex Pillow Speaker tucks
away beneath pillow, headrest or cushion! Virtually
unbreakable, smaller than your palm, easily sterilized
by immersion in alcohol. Weight only 1.1 oz.!

Housing and assembly molded in one piece; coil wound
with Formex insulated wire; diaphragm hermetically
sealed, rustproof. Entire assembly completely shock-
proof! Slots in edge of cover release sound non-
directionally. Detachable flexible cord.

*Listen to Whatever You Want... Whenever,
Wherever with TELEX PILLOW SPEAKER*

TELEX, Telex Park, Minneapolis, Minnesota

Manufacturers of

TELEX Twinset* • TELEX Monoset* • TELEX Earset* • TELEX Precision Hearing Aids

Trademark*

TRIMM

HEADSETS

KNOWN AROUND THE WORLD



MADE IN U.S.A. SINCE 1922

FEATHERWEIGHT



The world famous TRIMM Featherweight. Recognized as a leading quality headset. Weighs 4½ oz. complete with two units, 5-foot moisture-proof wear-resisting cord. Bakelite shell and cap. Magnet of highest quality cobalt steel alloy. Pole pieces of finest magnetic iron. Coils especially impregnated. A custom-built phone throughout. Standard resistances.

24,000-OHM IMP. SPECIAL for amateurs, the result of years of experience in producing fine headsets.

- No. 106—Double, adjustable nickel-plated headband.....\$10.00
- No. 107—Double, fabric-covered wire headband..... 10.00

STANDARD FEATHERWEIGHT HEADSETS are available in a wide range of resistances up to 5000 ohms d. c. (24,000 ohms imp.).

- No. 100—Double Headset with nickel-plated headband.....\$10.00
- No. 104—Double Headset with fabric-covered wire headband. 10.00

PROFESSIONAL

The choice of countless users... the original TRIMM headset. Watch case bipolar type design, cap and shell molded of brown bakelite (unless specified otherwise). Magnet of forged chrome steel, coils impregnated. Cord and tinsel moisture-proof, 5-foot length. Concealed terminals. Fabric-covered wire headband (double headset only). Standard resistances for double headsets, 10, 78, 600, 2000, 3000, 4000 ohm d. c.



- No. 70—Double Headset\$5.00
- No. 72—Single Headset 2.80

DEPENDABLE



When a high-grade headset is desired but price must be considered, choose the Dependable. Bakelite caps and shells. Extra heavy bar chrome steel magnets, 5-ft. tinsel cord, plastic-covered wire headband.

- No. 65—Double Headset, 2000 ohms d. c.\$4.15
- No. 67—Single Headset, 1000 ohms d. c. only, wire headband. 2.15

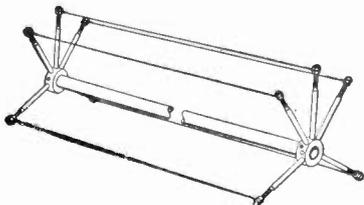
ARMY-NAVY HEADSETS

Very sensitive. 6-ft. water-proof cord, phone tip terminals. Leather headband. Bipolar magnets. Weighs 2 lbs. Available in 2 impedances.



- No. K29D—Double Headset, 2200 ohms d. c. (20,000 ohms Imp.) \$16.00
- No. W28D—Double Headset, 112 ohms d. c. (600 ohms Imp.) 16.00

ANTENNA MATCHING STARS



Unique impedance transforming device for use with multi-element beams raising antenna impedance to that of the line. Consists of a pair of hubs into which a number of spokes up to 8 are assembled, star-shaped assemblies are attached to far ends of driven element. From the ends of the spokes are stretched wires parallel to driven element of array.

- No. 910-A—Antenna Matching Star Kit. Two stars with 5 spokes each, adjusting nuts, set screws, hub bored for 5/8" max. O. D. tubing.....\$9.00
 - No. 910-B—Same as 910-A except hub bored for 1" max. O. D. tubing 9.00
 - No. 912-A—Spokes (2) for #910 kit.... .80
- See Bulletin R-1 for further information on Antenna Matching Stars.

A C M E

A superior headset in the lightweight low price field. Cap and shell of molded bakelite. Chrome steel magnets. Weighs six ounces complete. 4½-foot cord.



- No. 25—Double headset, 4000 ohms d. c. \$3.00
- No. 25—Double headset, 2000 ohms d. c. 2.75
- No. 27—Single headset, 2000 ohms d. c. 1.80
- No. 27—Single headset, 1000 ohms d. c. 1.65

TRIMM "E"

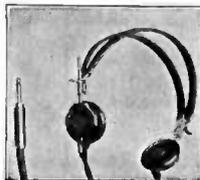
Lightweight headset. Cobalt steel magnets. Weighs about 5 ozs. Two units, No. 681 fabric headband, 5-foot tinsel cord, 2000 ohms d. c.



- No. E-41—Double Headset.....\$3.30

COMMERCIAL

The most ruggedly constructed yet lightweight headset available. Practically non-breakable. Shell and caps molded of special high strength plastic, dia. 2½", depth ¾", cord, 5-foot tinsel, moisture-proof construction, type 501 telephone-type plug attached.



- Leather-covered headband. This headset is recommended for monitoring service because of its high quality performance.
- No. 156—Double Headset, 600 ohms Imp. per pair.....\$16.00
- No. 157—Double Headset, 17,000 ohms Imp. per pair 16.00
- No. 158—Double Headset, 600 ohms Imp. per pair, no plug 14.50
- No. 159—Double Headset, 17,000 ohms Imp. per pair, no plug 14.50

STETH-A-PHONE

Widely used for secretarial transcribing machines, beauty parlor multi-channel radios, etc. Stainless, satin-chrome finished tubes, removable ear tips, cord, and phone plug.



- No. 50—2500 ohms Imp.....\$11.00
- No. 51—500 ohms Imp..... 11.00
- No. 52—125 ohms Imp..... 11.00

R E X

A fine headset of bipolar construction having a laminated magnet structure of the best grade chrome steel; shell of polished aluminum; molded plastic cap; terminals entirely enclosed, 4½-foot length.



- No. 30—Double Headset, 2000 ohms d. c. \$3.40
- No. 30—Double Headset, 4000 ohms d. c. 3.80
- No. 30—Double Headset, 20M ohms Imp. 3.60
- No. 32—Single Headset, 1000 ohms d. c. 1.95
- No. 32—Single Headset, 2000 ohms d. c. 2.20

TRIMM "B"

Suggested for hospital installations. Bakelite cap and shell. Chrome steel magnets. Fabric headband, 5-ft. moisture-proof cord.



- B-42—Double Headset, 2000 ohms d. c. \$8.00
- B-43—Double Headset, 600 ohms Imp. 8.00

See TRIMM general catalog for cords, headset replacement parts and special types of headsets. Prices subject to change without notice.

TRIMM

HEADSETS

KNOWN AROUND THE WORLD



MADE IN U.S.A. SINCE 1922

GROUP HEARING AID COMPONENTS

SINGLE EARPHONES — "FEATHERWEIGHT" SERIES

LORGNETTE HANDLE AND HEADBAND TYPES



The most widely used earphones, for group hearing aid systems in churches, theatres, mortuaries, etc., are of the "Featherweight" series. The acoustic response of these has been found, over a period of years, to be especially suitable for this class of service. The unit is molded of high strength black plastic material, measures 2 1/8" in diameter, has a maximum thickness of 3/4" and weighs approximately 1 1/4 ounces. A variety of ohmages are available, but most users will find the following table useful.

D.C. RESISTANCE	IMPEDANCE	APPLICATIONS
76 ohms	300 ohms	Low Impedance Lines (up to 50 ohms)
1000 ohms	4500 ohms	High Impedance Lines (200-500 ohms)
2000 ohms	9000 ohms	Large Installations on High Impedance Lines (500 ohms)



No. 110

No. 120			
No. 110	Single Earphone, non-adjustable headband type No. 685 (Specify ohmage)		\$ 6.50
No. 112	Single Earphone, adjustable headband type No. 688 (Specify ohmage)		6.50
No. 115	Single Earphone, non-adjustable headband type No. 685, with No. 450 volume control in cord		11.00
No. 120	Single Earphone, lorgnette handle type No. 670 (Specify ohmage)		7.50
No. 125	Single Earphone, lorgnette handle type No. 670, with No. 450 volume control in cord (Specify ohmage)		12.00

Phone plugs, although not included as part of the earphones, in the listing above, are required in most applications. These can be supplied attached to the units if so ordered. (See No. 512.)

VOLUME CONTROLS AND OUTLET BOXES



No. 460

Outlet Boxes 460 and 461 are recommended for the majority of installations, combines in a single unit volume control, phone jack, and terminal strip for incoming circuit. No. 460 has brown wrinkle finish to harmonize with woodwork. No. 461 has a glossy ivory finish to improve visibility in theatres. Standard ohmages, 1000 ohms for low impedance lines and 10,000 ohms for high impedance lines (up to 500 ohms). On special orders 25,000 and 50,000 ohms can be supplied at slight additional cost.

No. 460—Outlet Box (Brown—Specify ohmage).....\$4.00

No. 461—Outlet Box (Ivory—Specify ohmage)..... 4.00



No. 450

No. 450—Volume control inserted in cord type. Includes cord (No. 838-2 1/2') from control to plug, black plastic housing, all rounded edges. Measures 2" long. Standard ohmages 1000 and 10,000 ohms..... 4.95

No. 477—Outlet box, dual jack, brown finish, same general details as No. 460..... 3.50

No. 478—Outlet box, dual jack, ivory finish..... 3.50

No. 480—Outlet box, dual jack, brown finish, similar to No. 477 except artificial load inserted by withdrawal of phone plug... 4.00

No. 481—Outlet box, same as No. 480 except ivory finish 4.00

No. 484—Outlet box, single jack, brown finish..... 3.00

No. 485—Outlet box, single jack, ivory finish..... 3.00

"A variety of special types of junction and outlet boxes can be supplied to customers' specifications."



No. 480

See additional bulletins and catalog pages published by TRIMM, Inc., on group hearing aid installations.

Prices subject to change without notice.

PHONE PLUGS

Most compact plug. Bakelite with nickel plated stem. Cord tips held tightly by screws. Easily attached to cord.



No. 512—Flat plug.....\$0.65

No. 511—Plug, standard type, bakelite shell and nickel plated stem. Easily attached to cords.....\$0.70

EAR CUSHIONS



No. 654.....\$1.35

Sponge rubber ear cushions provide maximum ease in wearing headsets. Fits TRIMM Featherweight, Commercial, Acme, Rex, and "E" types.

ADDITIONAL PRODUCTS* MANUFACTURED BY TRIMM

WIRE WOUND POTENTIOMETERS
and RHEOSTATS

L and T-PADS

MIDGET EARPHONES

INSTITUTIONAL HEADSETS

SPECIAL ARMY-NAVY
PLUGS and JACKS

PATCH CORDS

REPLACEMENT CORDS

* Write for special bulletins
on these products.

ASTATIC

**PICKUPS
FOR LONG-PLAYING AND
LOW SPEED RECORDS**



**MODEL 6D CRYSTAL
TURNOVER PICKUP**



• Switches from 33 1/2 or 45 RPM records to standard 78 with turn of knob at front. Plays both types of records at only eight-gram needle pressure, thus has no extra mechanism to change pressure when knob is turned, eliminating a potential source of trouble and varying reproduction quality. Employs LQD-1 Double-Needle Cartridge. Mounts seven inches from turn-table center, die-cast curved arm finished in dark brown Hammerlin.

MODEL FLC-33 PICKUP



• The same important advancements in pickup engineering as the FL-33, in handsomely curved styling. Offers the same operating advantages, such as the three-in-one feature: one pickup plays 33 1/2, 45 and 78 RPM Records without changing needle pressure or making other adjustments, with the simple switching of slip-in cartridges. Perfect tracking, at only five-gram needle pressure, is assured by the revolutionary new base mounting assembly.

**MODELS 510-QT-33 AND
510-MI-2-33 PICKUPS**



• Add Astatic's new anti-resonance swivel base, and the famous "QT" Crystal Cartridge with special one mil tip-radius, precious metal or jeweled stylus, to the popular Astatic Model 510 Pickup — and you have this new long-playing model, the finest performer in its price class. Permanently adjusted to six-gram needle pressure, its short mounting centers make it ideal for a host of long-playing applications. Outstanding characteristics are high uniform output and low needle point impedance. Die-cast arm, finished in Hammerlin opalescent grey. Specify Model 510-MI-2-33 for the same pickup, except for employment of Astatic's revolutionary Magneto-Induction Cartridge.

**400-D TURNOVER
PICKUP**



• Turnover type transcription pickup adapted from famous Astatic Studio Master "400" conventional transcription arm. Plays 33 1/2, 45 or standard 78 RPM recordings at eight-gram needle pressure. Employs LQD-1 Double-Needle Crystal Cartridge. Notable excellence of frequency response, particularly at low frequencies. Gracefully curved, die-cast arm in light brown Hammerlin finish.

**FLT-33 TRANSCRIPTION
PICKUP**



• Never before, a pickup of such professional instrument quality and precision. Like the FL-33, this sleek transcription model employs the U-J Crystal Cartridge with one mil tip-radius needle, instantly replaceable with the U-78-J for playing 78 RPM Records. In addition, the U-TR Cartridge with 2.5 mil tip-radius may be inserted to play standard lateral broadcast transcriptions. Special ball-bearing, anti-resonance base is adjustable to desired height, as is unique arm-rest. Feather-touch needle pressure of five grams is accomplished by a revolutionary hinged division of the arm, which also contributes to perfect tracking and elimination of surface noise. Die-cast arm and base look their fine instrument part, with finish in telephone black. All three "U" Series Cartridges are available with diamond stylus tips instead of the regular sapphire.

**MODEL 507-L-92-33
PICKUP**



• Bedrock price, with full professional performance standards retained. The new L-92-33 Crystal Cartridge employed is notable for high output, which affords excellent results in use with standard phonograph amplifiers, where other lower output cartridges are not satisfactory. Has universal, screw-type needle chuck to receive standard microgroove needles. Pickup is furnished without needle. Die-cast arm finished in opalescent grey Hammerlin. New, anti-friction swivel base.

MODEL FL-33 PICKUP



• Does the work of three pickups. Its U-J Crystal Cartridge for either 33 1/2 or 45 RPM records is easily, instantly replaceable with the U-78-J Cartridge for playing standard records. No adjusting of needle pressure, nothing else to be done. Cartridges slip in and out like barrel and cap of non-threaded fountain pens. Special Type "U" Taper-Lock replaceable needle has tongue and groove arrangement to hold in position, removes merely by gripping small tab at rear of needle and sliding towards rear of cartridge. Novel design at base of FL-33 eliminates tone arm resonances, assures perfect tracking. Die-cast arm, finished in high gloss black and polished aluminum.

**MODELS 400-QT-33 AND
400-MI-2-33
TRANSCRIPTION PICKUPS**



• The famous Astatic Studio Master "400" conventional transcription arm, adapted for long-playing transcriptions. Incorporates the improved base mounting assembly that eliminates arm resonances and assures perfect tracking, and the "QT" Crystal Cartridge with precious metal or sapphire stylus of one mil tip-radius. A peak standard of long-playing transcription performance. Die-cast arm, permanently adjusted at six-gram needle pressure. Grey Hammerlin finish. Specify Model 400-MI-2-33 for the same arm, except for employment of Astatic's Magneto-Induction Cartridge.

Model	List Price	Finish	Cartridge Used	Type	Stylus	Frequency Range c.p.s.	Output Voltage 1000 c.p.s. 0.5 Meg. Load	Needle Pressure	Application	Cable Length**	Shipping Weight	Code
6D	\$15.90	Dark Brown Hammerlin	LQD-1	Crystal	Precious Metal†† Sapphire††	50 - 7000	STD 1.2*** LP 0.9*	8 grams	Standard, 33 1/2 and 45 RPM Records	13"	2 lbs.	ASXHU
400-D	25.00	Light Brown Hammerlin	LQD-1	Crystal	Precious Metal†† Sapphire††	50 - 7000	STD 1.2*** LP 0.9*	8 grams	Standard, 33 1/2 and 45 RPM Records	24"	1 lb. 8 ozs.	ASDCN
FL-33	14.90	High Gloss Black	U-J	Crystal	Sapphire	30 - 10,000	0.5 volt*	5 grams	Long-Playing and Low-Speed Records	12"	14 ozs.	ASXGB
FLC-33	14.90	Black	U-J	Crystal	Sapphire	30 - 10,000	0.5 volt*	5 grams		12"	14 ozs.	ASXIL
FLT-33	43.90	Telephone Black	U-J	Crystal	Sapphire	30 - 10,000	0.5 volt*	5 grams		24"	3 lbs.	ASXIP
FLT-33X	73.90	Black	U-X	Crystal	Diamond	30 - 10,000	0.5 volt*	5 grams	24"	3 lbs.	ASXIO	
FL-78	14.90	High Gloss Black	U-78-J	Crystal	Sapphire	30 - 10,000	0.5 volt†	5 grams	Standard 78 RPM Records	12"	14 ozs.	ASXIT
FLC-78	14.90	Black	U-78-J	Crystal	Sapphire	30 - 10,000	0.5 volt†	5 grams		12"	14 ozs.	ASXIU
FLT-78	43.90	Telephone Black	U-78-J	Crystal	Sapphire	30 - 10,000	0.5 volt†	5 grams		24"	3 lbs.	ASXIS
FLT-78X	68.90	Black	U-78X	Crystal	Diamond	30 - 10,000	0.5 volt†	5 grams	24"	3 lbs.	ASXIR	
FLT-TR	43.90	Telephone Black	U-TR	Crystal	Sapphire †	30 - 10,000	0.5 volt†	5 grams	Broadcast Transcription	24"	3 lbs.	ASXIN
FLT-TRX	68.90	Black	U-TRX	Crystal	Diamond †	30 - 10,000	0.5 volt†	5 grams		24"	3 lbs.	ASXIM
310-QT-M-33	10.25		QT-M-33	Crystal	Precious Metal	50 - 10,000	0.75 volt*	6 grams	Records	13"	1 lb. 2 ozs.	ASAYO
510-QT-33	10.75		QT-J-33	Crystal	Sapphire	50 - 10,000	0.75 volt*	6 grams		13"	1 lb. 2 ozs.	ASAYP
510-MI-2-33	9.35	Opalescent Grey	MI-2J-33	Magnetic	Sapphire	50 - 12,000	28 millivolt*	6 grams		33 1/2 and 45 RPM	13"	1 lb. 2 ozs.
507-L-92-33	8.00	Grey	L-92-33	Crystal	Not included	50 - 10,000	1.6 volt*	10 grams	Records	13"	1 lb. 2 ozs.	ASWTT
400-QT-M-33	24.50	Hammerlin	QT-M-33	Crystal	Precious Metal	50 - 10,000	0.75 volt*	6 grams		24"	1 lb. 8 ozs.	ASBCT
400-QT-33	25.00		QT-J-33	Crystal	Sapphire	50 - 10,000	0.75 volt*	6 grams		24"	1 lb. 8 ozs.	ASBCL
400-MI-2-33	23.60		MI-2J-33	Magnetic	Sapphire	50 - 12,000	28 millivolt*	6 grams	24"	1 lb. 8 ozs.	ASBCM	

*Columbia Test Record 281

†Columbia Test Record 10001M

††Precious metal stylus tip on 3 mil 78 RPM side. Sapphire stylus tip on 1 mil 45 and 33 1/2 RPM side.

***Audio-tone Test Record

**Super-Flexible, Single Conductor, Shielded

Astatic Crystal Devices manufactured under Brush Development Co. patents.

Astatic

KNOWN THE WORLD OVER CONNEAUT, OHIO

ASTATIC

CARTRIDGES, NEEDLES, ETC. FOR LONG-PLAYING AND LOW SPEED RECORDS



THE GC CERAMIC CARTRIDGE

● First major stride in cartridges employing ceramic elements since Astatic pioneered in this type unit. The first with replaceable needle. Takes "Type G" needle—with either one or three-mil tip-radius, precious metal or sapphire—which slips from its rubber chuck with a quarter turn sideways. Resistance to high temperatures and humidity is not the only additional advantage. Output has been

increased over that of any ceramic cartridge available. Light weight and six-gram needle pressure make it ideal for a great variety of modern applications. Model GC-J fits standard 1/2" mounting and RCA 45 RPM record changers. Model GC-1J fits RMA No. 2 Specifications for top mounting .453" mounting centers.

GC-J — Code ASWZK List Price \$7.40
GC-1J — Code ASWZL List Price 7.40



THE CQ CRYSTAL CARTRIDGE

● A new Astatic design, featuring miniature size and five-gram weight. Model CQ-J fits standard 1/2" mounting and RCA 45 RPM record changers. Model CQ-1J fits RMA No. 2 Specifications for top mounting .453" mounting centers. Needle pressure five grams. Output 0.7 volts at 1,000 c.p.s. Employs one mil tip-radius, Q-33 needle. Cast aluminum housing.

CQ-J — Code ASXAZ List Price \$7.50
CQ-1J — Code ASXAI List Price 7.50



THE LQD DOUBLE-NEEDLE CRYSTAL CARTRIDGE

● The LQD Cartridge — for 45, 33 1/2 and 78 RPM Records — quickly became the first choice of many of the nation's largest users, on the basis of comparative listening tests, and is, today, the PROVED TOP PERFORMER for turnover type pickups. Outstanding for excellence of frequency response, particularly at low frequencies. A gentle pry with pen-knife removes ONE "Q" needle for replacement . . . without disturbing the other needle, without removing cartridge from tone arm. Gentle pressure snaps new needle into place. Stamped aluminum housing. Model LQD-1J, illustrated, has needle guards and front bracket for turnover knob. LQD-J furnished without guards or bracket.

LQD-J — Code ASXAL List Price \$9.50
LQD-1J — Code ASXAM List Price 9.50



THE U-J CRYSTAL CARTRIDGE*

● The unparalleled performance and triple duty service of the PL Series Pickups is largely due to the U-J Crystal Cartridge. A child can slip it instantly from the pickup and slip in the U-78-J or U-TL Crystal Cartridges to switch from 33 1/2 and 45 to 78 RPM records or broadcast transcriptions. Secures itself on slip-in principle, the same as barrel and cap of some modern fountain pens. No changing of needle pressure, nothing else to be done. Five-gram needle

pressure. Replaceable sapphire stylus with one mil tip-radius. The U-J replaces, and is interchangeable with, the discontinued LP-33. An ideal replacement for Philco Part 45-1609, Balanced Fidelity Reproducer. Code ASXAT List Price \$8.90

THE U-78-J CRYSTAL CARTRIDGE*

● Interchangeable with U-J Crystal Cartridge, in "FL" and "FLT" Series Pickups, to play conventional 78 RPM Records. See above description under U-J Cartridge. Five-gram needle pressure, has replaceable sapphire stylus with three mil tip-radius. Replaces LP-78 Cartridge. Code ASWZG List Price \$8.90

\$7.90 with FL-33, FLT-33 or FLT-TR Pickups

THE U-TR CRYSTAL CARTRIDGE*

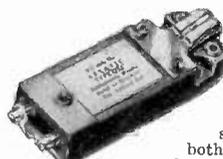
● Identical to U-J, except for 2.5 mil tip-radius needle for broadcast transcriptions. Code ASXAK List Price \$8.90

U-J with Diamond Stylus \$38.90; U-TR or U-78 \$33.90
* All "U" Series Cartridges are instantly interchangeable in the "FL" and "FLT" Series Pickups



THE L-92-33 CRYSTAL CARTRIDGE

● High performance quality in a new, low-cost unit. Notably high output permits use with standard phonograph amplifiers, where other cartridges prove unsatisfactory. Reality of tone and absence of surface noise are almost unbelievable. Universal, screw type needle chuck receives any standard micro-groove needle. Stylus not furnished. Code ASWTS List Price \$6.00



THE QT-M-33 AND QT-J-33 CRYSTAL CARTRIDGES

● A famous Astatic Cartridge with a famous needle design—now adapted to the requirements of LP Recordings. The QT-M-33 employs a precious metal stylus and the QT-J-33, a sapphire type, both needles being the same unique, replaceable construction used in conventional QT Cartridges, except for one mil tip-radius.

QT-M-33—Code ASXBQ List Price \$8.40
QT-J-33—Code ASXBR List Price 8.90



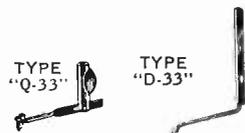
THE MI-2J-33 MAGNETO-INDUCTION CARTRIDGE

● Peak fidelity of reproduction that LASTS, even under the most consistent service or adverse climatic conditions. Unchanging characteristics are result of radical reversal of engineering precedent and drastic simplification, which eliminate need for delicate handling and other common sources of trouble with magnetic type units. Troublesome, costly armature balancing problems also eliminated. Mumetal housing provides increased shielding effect for maximum reduction of hum. Fixed, sapphire stylus with one mil tip-radius. Code ASALW List Price \$7.50

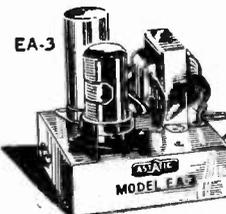
ASTATIC ONE MIL TIP-RADIUS NEEDLES

● The unique design of the Q-33-M (precious metal) and Q-33-J (sapphire) Needles reduces surface noise and needle talk, through increased vertical compliance. See LQD Cartridge for other features. The D-33 is for use with LT-D Cartridge. See FL-33 Pickup for features of "U" Type Taper-Lock Needle; see GC Cartridge for "G" Needle.

	List Price
Q-33-M — Code ASXBT	\$1.50
Q-33-J — Code ASXBS	2.50
D-33 — Code ASXHV	1.50
U-J — Code ASWZK	2.50
U-M — Code ASWZP	1.50
G-M — Code ASWZT	2.50
G-M — Code ASWZV	1.50



THE EA-1, EA-2 AND EA-3 EQUALIZERS-AMPLIFIERS



● The Model EA-1 is a compact unit designed for installation in radio sets and audio amplifiers, and provides the necessary equalization and preamplification to adapt the MI-2J-33 Cartridge to standard phonograph input circuits. Provides "bass-boost." The Model EA-2, self-powered, provides adjustable "bass-boost," adjustable treble "roll-off," and selection of "turnover frequency." The Model EA-3 is a self-powered unit and provides "bass-boost" and equalization for the Magneto-Induction Cartridge.

EA-1—Code ANAMP List Price \$ 9.90
EA-2—Code ASAMO List Price 39.50
EA-3—Code ASAMN List Price 15.95

THE FT FILTER-TRANSFORMER

● For broadcast station use with "FL" and "FLT" Series Pickups, to filter and match high impedance output of pickup to low impedance mixer circuits. Has output impedances of 37.5, 150 and 250 ohms. Code ASXMR List Price \$28.50

THE FL FILTER

● For best performance with highest quality speakers, the FL Filter is recommended as an accessory unit with "FL" and "FLT" Series Pickups. Controls high frequency response. Code ASXMS List Price \$6.90



Astatic Crystal Devices manufactured under
Brush Development Co. patents.