

RCA ELECTRONIC COMPONENTS

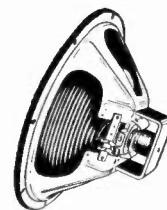
SPEAKERS — PICKUPS



PM LOUDSPEAKERS

QUALITY ENGINEERED TO INSURE DEPENDABLE PERFORMANCE

- Mounting Designed to RMA Standards.
- Dustproof, Rust-Resistant.
- Universal Transformer Mounting Bracket on All 4" x 6" and 5" PM's except Type 305S1.
- Felted Cone Gives Uniform Strength, Dependability and Smooth "Flutter-Free" Response.
- Rugged Mechanical Construction with Welded Housing Assembly.
- Exclusive RCA Magnet Clamping Spring Securely Locks Magnet in Position, except Types 423S1 and 304S2.
- Moisture-Resistant Voice-Coil Suspension Assures High Efficiency and Dependability.



RCA 12" PM Loudspeaker

SPECIFICATIONS Permanent Magnet Types

SIZE	TYPE No.	RESONANT FREQUENCY	MAGNET WEIGHT	VOICE COIL IMPEDANCE	MAXIMUM POWER HANDL'G CAP. (WATTS)	SUGG'D LIST PRICE
2" x 3"	423S1	250-365	1.5	11.8 ohms at 1000 cycles	0.125	\$ 4.30
4" (shallow pot type)	304S2	175-225	1.0	3.2 ohms at 400 cycles	3	3.50
4"	404S2	170-225	1.47	3.2 ohms at 400 cycles	3	3.80
4" x 6"	246S2	150-200	0.68	3.2 ohms at 400 cycles	3	3.50
4" x 6"	446S2	150-200	1.47	3.2 ohms at 400 cycles	3	4.00
5"	205S2	150-200	0.68	3.2 ohms at 400 cycles	3	3.40
5"	405S2	150-200	1.47	3.2 ohms at 400 cycles	3	3.90
5"	305S1	150-200	1.0	3.2 ohms at 400 cycles	3	3.60
5" x 7"	257S1	120-140	1.47	3.2 ohms at 400 cycles	6	5.20
8"	208S2	75-95	2.15	6-8 ohms at 400 cycles	8	6.25
8"	208S4	75-95	2.15	3.2 ohms at 400 cycles	8	6.25
12"	312S1	70-85	2.15	3.2 ohms at 400 cycles	12	9.00
12"	412S1	70-85	6.8	3.2 ohms at 400 cycles	12	11.50
12"	412S4	70-85	6.8	6-8 ohms at 400 cycles	12	12.50

Field Coil Types

SIZE	TYPE No.	RESONANT FREQUENCY	FIELD	VOICE COIL IMPEDANCE	MAXIMUM POWER HANDL'G CAP. (WATTS)	SUGG'D LIST PRICE
4" x 6"	746S1	150-200	450 ohms at 65 ma.	3.2 ohms at 400 cycles	3	\$ 5.50
5"	705S1	150-200	450 ohms at 65 ma.	3.2 ohms at 400 cycles	3	5.50
12"	712S1	70-85	1000 ohms at 70 ma.	3.2 ohms at 400 cycles	12	11.50

CRYSTAL PICKUPS

MAGIC TONE CELL

Replaces crystals in RCA Victor radio-phonographs and record players (1938 and later). Permanent-type jewel point stylus. At 400 cycles, it has approximate impedance of 200,000 ohms and an output of approximately 1½ volts. When used as

replacement for needle-type pickups, slight adjustment of phono input circuit may be required for best tone and volume. Installation data included. Stock No. 211X1. Sugg'd List Price: \$7.00.

SILENT SAPPHIRE

Interchangeable with 70 different phonograph crystals. Similar to Magic Tone Cell in design and characteristics, but smaller in size. Comes complete with crystal, mounting plate, screws, and complete electrical and mechanical installation data. (For additional information see RCA Crystal Pickup Data sheet, Form 2F479.) RCA Silent Sapphire, Stock No. 212X1. Sugg'd List Price: \$7.00.



RCA Magic Tone Cell

RCA Crystal	Sugg'd List Price
31050	\$4.20
31156	4.75
33122	4.20
37158	4.75
38598	7.25
38610	5.55
39919	7.25
70332	7.25
70339	7.00

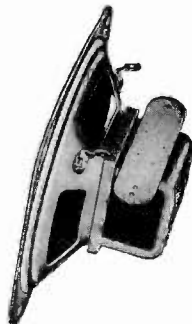
A complete line of Service Parts is available for all RCA apparatus.

All prices in effect 5/15/49.

GENERAL ELECTRIC

ALNICO 5 PM LOUDSPEAKERS

All component parts of the new Alnico 5 Loudspeakers are made to the rigid specifications of G-E quality control. This feature, in addition to highly efficient manufacturing skill, combined with the "know-how" of G-E engineers, has made these new superb speakers possible — unsurpassed in fidelity, dependability and durability.

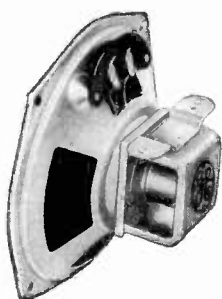


4"

GENERAL ELECTRIC'S new 4-inch speakers are the result of years of intensive engineering research to produce units of reduced size with maximum efficiency for use in small portable and table model receivers. In addition to having the "stay-bright" finish and the aluminum foil base voice coil, the new 4-inch speakers are considerably lighter in weight and more compact. This reduction in weight and space has been accomplished through the use of Alnico 5 magnet material, all-weld construction, and smaller yoke assembly.

5 1/4"

GENERAL ELECTRIC'S 5 1/4-IN. PM speakers have all been designed and developed to provide full, true, low notes and excellent high frequency definition for voice or music reproduction. Skillful designing has been applied to all details to assure the best possible results.



6 1/2"

GENERAL ELECTRIC 6 1/2-inch loudspeakers are the result of years of persistent development to improve performance. Never were ideas introduced and combined with better quality materials. Greater sensitivity and power capacity in more compact space was achieved by these methods.

8"

The NEW ALNICO 5 PERMANENT MAGNET material was chiefly responsible for maintaining the excellent performance of the G-E 8-inch speakers and still keeping the over-

all size smaller. The speakers are capable of handling full audio power with very little distortion. These speakers are recommended for quality in design and faithful reproducing characteristics.



10"

GENERAL ELECTRIC'S new 10-inch P.M. speakers are the result of application of latest developments in scientific laboratory tone reproduction. Especially designed for brilliant reproduction of voice and music. They represent a perfect balance in relative factors of performance ability, cost, and appearance.



12"

GENERAL ELECTRIC'S powerful 12-inch permanent magnet loudspeakers are designed to provide faithful tone reproduction at high levels. They equal or surpass the performance of electro-dynamic speakers of the same size. All weld construction has minimized distortion at maximum operation levels by eliminating vibration.

SPEAKER CHARACTERISTICS

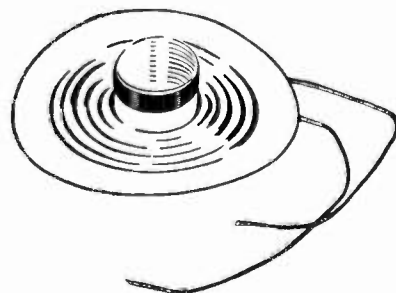
Cone Size, Inches	Speaker Type	Watts Output	Alnico 5 Mag. Wt. Oz.	VC Imp Ohms	List Price
4	S-400D	4	1.3	3.2	\$ 4.25
4	S-402D	4	1.0	3.2	4.00
4	S-403D	4	.68	3.2	3.75
5 1/4	S-525D	4	1.3	3.2	4.75
5 1/4	S-526D	4	1.0	3.2	4.35
5 1/4	S-527D	4	.68	3.2	4.00
6 1/2	S-625D	4	1.3	3.2	5.50
6 1/2	S-626D	4	1.0	3.2	5.00
6 1/2	S-650D	8	2.98	3.2	6.75
8	S-800D	8	2.98	3.2	8.95
8	S-810D	12	6.8	3.2	12.00
8	S-818D	12	6.8	8	12.50
10	S-1000D	12	6.8	3.2	15.25
10	S-1001D	25	14.5	8	24.75
10	S-1003D	25	9.0	8	18.50
10	S-1012D	12	3.16	3.2	10.25
10	S-1018D	12	6.8	8	15.75
12	S-1200D	12	6.8	3.2	16.50
12	S-1201D	25	14.5	8	29.50
12	S-1203D	25	9.0	8	20.50
12	S-1212D	12	3.16	3.2	11.25
12	S-1218D	12	6.8	8	17.00
6 x 9	S-703D	8	1.47	3.2	7.50

G-E LOUDSPEAKER FEATURES

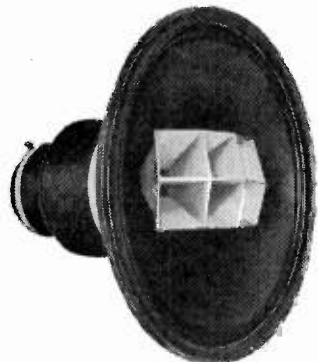
ALNICO 5 MAGNET MATERIAL is one of the great wartime engineering developments. Its energy per unit volume — approximately three times as great as other magnets — has enabled G-E engineers to design a new line of smaller speakers with better performance characteristics.

ALL WELD CONSTRUCTION of the newly designed G-E Alnico 5 Loudspeakers not only reduces the weight and size but also increases the rigidity necessary for perfect alignment of all parts. It also eliminates the possibility of dust and moisture accumulation and simplifies the replacement of damaged cones.

ALUMINUM FOIL BASE VOICE COILS only are used in all G-E permanent magnet speakers. Exact concentric location with the collar of the spider assembly insures excellent alignment. Humidity or excessive temperature variations do not affect the aluminum foil voice coils, making this type of speaker ideal for receivers designed for use in export markets.



PRICES ARE SUBJECT TO CHANGE WITHOUT NOTICE



MODEL 604B
DUPLEX SPEAKER



N-1000-B
Dividing Network

SPECIFICATIONS—604B DUPLEX SPEAKER

Area of Horizontal Distribution.....	60°
Area of Vertical Distribution.....	40°
Voice Coil Impedance.....	16 ohms
Dividing Network Impedance.....	16 ohms
Dividing Network Crossover.....	1000 cycles
Power Rating.....	30 watts
Weight (including network).....	40 lbs.
Diameter.....	15 1/2"
Depth.....	11 1/2"
List Price, less Network.....	\$166.67

The N-1000-B network associated with the 604B Duplex must be ordered as a separate item. List Price \$24.00.

The Altec Lansing Model 604B Duplex and associated N-1000B Network represents the finest loudspeaker on the market. Manufactured by the same company which makes the famous "Voice of the Theatre" loudspeaker systems used by leading motion picture theatres, this compact unit has all of the fine design principles and construction that have heretofore been available only in the most costly loudspeakers offered for professional use and laboratory standards. Price has not been spared to make the Duplex the peer of all loudspeakers.

The unusual features are (a) Two-way operation utilizing separate diaphragms and voice coils for high and low frequencies. (b) Multi-cellular horn to provide uniform sound distribution over a wide area. (c) Alnico No. 5 permanent magnets designed for total absence of external stray fields. (d) Both the high and low frequency voice coils made of edge-wise wound ribbon to provide 22% greater efficiency. (e) Large 3" low frequency voice coil for high power capacity. (f) Frequency response of 30 to 16,000 cycles more than spans FM range. (g) Low crossover of 1,000 cycles to assure that the cone will operate as a stiff piston. (h) Overall acoustic efficiency 3 to 5 db greater than the ordinary loudspeaker.

The Model 604B Duplex Loudspeaker and associated N-1000B Network are available separately, or can be supplied together in a number of specially constructed baffle cabinets as illustrated. The cabinet combinations are known as Duplex Loudspeaker Systems.

The Duplex Loudspeaker particularly meets the critical requirements of broadcast and recording studio monitoring, high quality public address and music distribution systems, and when used with 16 mm. sound equipment will increase the audience coverage many fold. Music lovers and discerning people require the Duplex for home use with fine phonograph records and FM reception.

After making acoustic measurements on hundreds of speakers and speaker systems, Altec Lansing makes this unqualified statement: to the best of our knowledge, the frequency response curve of the 604B Duplex cannot be equalled by any speaker unit or speaker system outside the large theatre-type systems!



MODEL 603B
DIA-CONE SPEAKER

MODEL 603B MULTICELL DIA-CONE SPEAKER

The Altec Lansing 603B Multicell Dia-Cone represents a fundamental improvement over the old 603. These new features make the 603B the unanimous choice of those who require an economical, high-quality speaker. For the sound man it offers high efficiency and wide angle sound distribution; music lovers will delight in its frequency response and freedom from distortion.

In the new 603B the magnets of Alnico V are 30% larger than before and in their massive magnetic circuit with no stray fields provide an almost 100% increase in efficiency (2.5 db over the old 603). An improved cone technique greatly increases the high frequency reproduction and smooths the overall response.

All of the features that contributed to the excellence of the old 603 have been retained. The 3" voice coil is wound with edge-wound aluminum ribbon, the Dia-Cone principle provides extended frequency response from the aluminum diaphragm over the voice coil, the multicell horn loads the high frequency diaphragm and gives smooth distribution of high frequencies over a wide angle, the large 15" cone insures full bass reproduction and large power-handling capacity.

SPECIFICATIONS—603B MULTICELL DIA-CONE SPEAKER

Area of Horizontal Distribution.....	60°
Area of Vertical Distribution.....	40°
Voice Coil Impedance.....	8 ohms
Voice Coil Diameter.....	3"
Power Rating.....	25 watts
Weight.....	18 lbs.
Diameter.....	15 3/4"
Depth.....	6 5/8"
List Price.....	\$84.00

The Altec Lansing Model 600B Dia-Cone Speaker is similar in design to the Model 603B Dia-Cone, using the exclusive Dia-Cone principle. It meets the needs of those who do not wish to invest in more expensive speakers, yet whose training, musical education, sound consciousness and discriminating hearing, demand faithful reproduction of sound.

The Model 600B Dia-Cone speaker has an Alnico V permanent magnet and is mounted in a 12" frame. It uses a 3" edgewise wound aluminum voice coil to which is mounted a domed aluminum alloy metal diaphragm and a seamless molded paper cone. The cone vibrates with the voice coil as a piston up to approximately 2,000 cycles. Above this frequency, the domed metal diaphragm, with its high mass stiffness, continues to operate as a piston with the voice coil, resulting in true reproduction of the higher frequencies.

Because of its efficiency, small space requirements, light weight and superior quality of reproduction, the Model 600B Dia-Cone Speaker is an ideal unit in the lower priced speaker field.

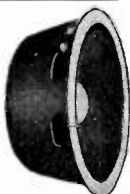
A completely new cone technique has extended and smoothed out the frequency response of the new 600B Multicell Dia-Cone to the point where this model represents a vast improvement over the earlier 600 model.



MODEL 600B
DIA-CONE
SPEAKER

SPECIFICATIONS—600B DIA-CONE SPEAKER

Voice Coil Impedance.....	8 ohms
Voice Coil Diameter.....	3"
Power Rating.....	20 watts
Weight.....	12 lbs.
Diameter.....	12 1/4"
Depth.....	5 3/4"
List Price.....	\$50.65



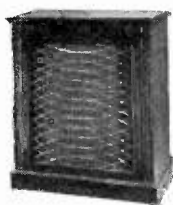
MODEL 400B
DIA-CONE SPEAKER

The Altec Lansing Model 400B Dia-Cone 8" speaker has been designed especially for uses where the benefits of a larger speaker can not be taken advantage of because of space and weight limitations.

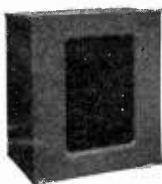
The Model 400B Dia-Cone is a low-priced, high-quality unit of very high efficiency—a much greater efficiency than is found in the ordinary 8" speakers. Its light weight and small size make it ideally adaptable for portable uses such as 16MM sound, magnetic recorders, and in installations such as airplanes, buses, etc.

SPECIFICATIONS—MODEL 400B DIA-CONE SPEAKER

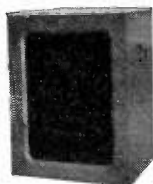
Voice Coil Impedance.....	8 ohms
Voice Coil Diameter.....	1 3/4"
Power Rating.....	12 watts
Required Amplifier Source Impedance.....	4-8 ohms
Weight.....	4 lbs.
Speaker Diameter.....	8 1/4"
Speaker Depth.....	3 3/8"
List Price.....	\$24.00



605



612



614



618



620

CABINETS

Altec Lansing offers a variety of baffle cabinets which are engineered for high quality sound reproduction. Construction is of heavy ply-wood, with all joints screwed and glued to eliminate spurious rattles. The interiors of the cabinets are well padded with fibreglass to prevent side reflections. The following cabinets are available for Altec Lansing speakers listed in this catalogue. Note

carefully the code numbers of the cabinets when ordering. The suffix letter indicates the size of the hole in the baffle necessary to accommodate the required speaker. For example: the 620A Cabinet will accommodate a 15" speaker; the 620B Cabinet will accommodate a 12" speaker; the 620C Cabinet will accommodate a 8" speaker. There is no other difference in the three types of cabinet.

604B Duplex	603B Multicell Dia-Cone	600B Dia-Cone	400B Dia-Cone
605A 612A 614A 620A	605A 612A 614A 620A	612B 614B 618B 620B	614C 618C 620C

Type 605
Furniture Cabinet.
Finish—Walnut or
Mahogany. Dimen-
sions: Height 38"
Width 30"
Depth 16".

List Price \$180.00

Type 612
Utility Cabinet.
Finish—Blue Gray.
Dimensions:
Height 29 1/2"
Width 25 1/2"
Depth 17 3/4".

List Price \$62.00

Type 614
Portable Utility
Cabinet. Finish—
Blue Gray. Dimen-
sions: Height 24 3/4"
Width 18 3/4"
Depth 14 1/4".

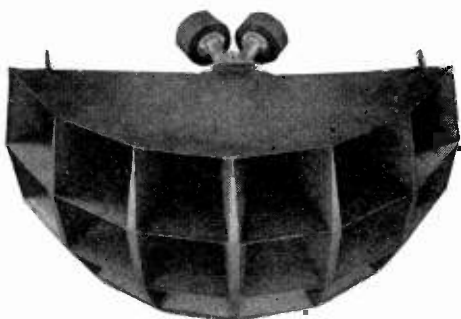
List Price \$56.00

Type 618
Small Portable Utility
Cabinet with slanting
front. Finish—Blue
Gray. Dimensions:
Height 22"
Width 17"
Depth 13 1/4".

List Price \$42.67

Type 620
Small Furniture Cab-
inet. Finish—Walnut,
Mahogany or White
Birch. Dimensions:
Height 33 1/2"
Width 26 1/2"
Depth 14 1/2".

List Price \$113.32



MULTICELLULAR HORNS

Altec Lansing multi-cellular horns are constructed from exponential horn cells grouped in different configurations to meet various sound distribution requirements. Each cell is a true exponential horn. The large multi-cellular horn provides the best way of covering long distances and large areas with high levels of quality acoustic power in the frequency range above 200-300 cycles. By choosing the proper configuration of cells, the sound output can be directed for even distribution over any horizontal and vertical area desired; and conversely, to a large degree the sound can be kept from unwanted areas such as walls and ceiling which might produce echoes, slaps, reverberations, etc. These horns find particular application in large buildings with high noise levels, reverberant cathedrals, ball parks, skating rinks, stadia, race tracks, airports, church carillons, sports arenas, etc.

The chart shows multicellular horns available. Note that a throat is not supplied as part of the multi-cellular horn and must be ordered separately according to the type required.

Horn Code #	Cell Configu- ration	Sound Distribution		Dimensions *L-W-H	Net Weight (Less Speakers)	LIST PRICE	Code No. Throat Required			Throat Code No.	LIST PRICE
		Hori- zontal	Verti- cal				1 Unit	2 Units	4 Units		
H-803	2 x 4	70°	35°	36 x 32 x 18	86	\$155.53	30162			30162	\$22.20
II-1003	2 x 5	90°	35°	35 x 40 x 18	131	216.67	30210	30170		30166	22.20
II-1203B	2 x 6	105°	35°	36 x 43 x 18	152	216.67	30210	30170		30210	22.20
I-1504	3 x 5	105°	60°	33 1/2 x 40 x 24	160	244.47	No.	No.	(2)30170	30170	44.40
II-1803	3 x 6	105°	53°	35 x 43 x 25	184	255.53	30166	30172		30172	44.40

* Overall length of horn including throat and 288 unit (s).

290 SPEAKER

The Altec Lansing 290 speaker unit is designed to fit on the throats of various Altec Lansing multi-cellular horns. Using Alnico 5 permanent magnet, its efficiency when mounted on a multi-cellular horn

is such that a sound level of 98 db (ref. 10⁻⁶ watts per square centimeter) is produced at five feet distance for an electrical input of 0.1 watt at 1000 cycles.

The use of tangential compliances in the diaphragm and edgewise wound ribbon wire in the voice coil provide maximum power handling capacity and acoustic output. Beryllium copper leads, spot-welded to the voice coil, provide heavy duty connections which will not fatigue under use. The entire diaphragm and voice coil assembly which is mounted in a cast bakelite ring, is field replaceable.

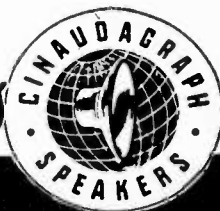
When using the 290 speaker unit for all range reproduction, it is necessary to attenuate the frequencies below 300 cycles which would otherwise damage the diaphragm and voice coil assembly. This attenuation may be accomplished by the proper sized capacitor either in the input or output circuit of the final power amplifier.

290 SPECIFICATIONS

Signal Capacity —40 watts for frequencies above 300 cps.
V. C. Impedance—24 ohms when operating under normal horn loading conditions.
Dimensions —6 1/4" Diameter x 4 3/4" Deep.
Weight —21 lbs.
List Price —\$200.00



Cinaudagraph Speakers



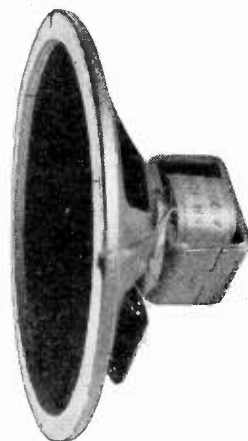
DIVISION OF AIREON MFG. CORP.

SALES OFFICE and FACTORY 1401 FAIRFAX TRAFFICWAY KANSAS CITY, KANSAS

FIELD COIL MODELS

Dustproof, all-welded construction with hum bucking coils or slugs.

Size	Model	FIELD COIL			VOICE COIL		List Price
		Resistance	Watts	Imped.	Diam.	Watts	
3 1/2"	F3B2	450 ohms	3	3.2	1 1/2"	1.5	\$4.35
4"	F4B2	450	3	3.2	1 1/2"	2.	4.35
	F4B3	1000	3	3.2	1 1/2"	2.	4.35
	F4B4	1800 T300	3	3.2	1 1/2"	2.	4.35
	F4B6	2750	3	3.2	1 1/2"	2.	4.35
4" x 6"	F46B2	450	3	3.2	1 1/2"	2.5	5.00
	F46B60	60	3	3.2	1 1/2"	2.5	5.00
	F46B100	100	3	3.2	1 1/2"	2.5	5.00
	F46B3	1000	3	3.2	1 1/2"	2.5	5.00
5" Round	F46B24	1800	3	3.2	1 1/2"	2.5	5.00
	F5B1	6-volt	3	3.2	1 1/2"	2.5	4.55
	F5B2	450	3	3.2	1 1/2"	2.5	4.55
	F5B3	1000	3	3.2	1 1/2"	2.5	4.55
5" Pin Cush.	F5B6	2750	3	3.2	1 1/2"	2.5	4.55
	F5B60	60	3	3.2	1 1/2"	2.5	4.55
	F51B1	6-volt	3	3.2	1 1/2"	2.5	4.55
	F51B2	450	3	3.2	1 1/2"	2.5	4.55
5" x 7"	F51B3	1000	3	3.2	1 1/2"	2.5	4.55
	F51B24	1800	3	3.2	1 1/2"	2.5	4.55
	F51B6	2750	3	3.2	1 1/2"	2.5	4.55
	F57D2	450	4	3.2	3/4"	5.	6.50
6"	F57D3	1000	4	3.2	3/4"	5.	6.50
	F57D4	1800 T300	4	3.2	3/4"	5.	6.50
	F6B1	6-volt	3	3.2	1 1/2"	3.	5.00
	F6B2	450	3	3.2	1 1/2"	3.	5.00
6" x 9"	F6B3	1000	3	3.2	1 1/2"	3.	5.00
	F6B24	1800	3	3.2	1 1/2"	3.	5.00
	F6B6	2750	3	3.2	1 1/2"	3.	5.00
	F69D1	6-volt	4	3.2	3/4"	6.	7.50
7"	F69D2	450	4	3.2	3/4"	6.	7.50
	F69D3	1000	4	3.2	3/4"	6.	7.50
	F69D4	1800 T300	4	3.2	3/4"	6.	7.50
	F7D11	6-volt	4	3.2	3/4"	6.	6.50
7 1/2"	F7D11A*	6-volt	4	3.2	3/4"	6.	6.50
	F75D1	6-volt	4	3.2	3/4"	6.	7.00
	F8D3	1000	4	3.2	3/4"	6.	7.00
	F8D4	1800 T300	4	3.2	3/4"	6.	7.00
8"	F8D5	2500	4	3.2	3/4"	6.	7.00
	F8H8	600	8	8.	1"	8.	9.50
	F8H3	1000	8	8.	1"	8.	9.50
	F8H24	1800	8	8.	1"	8.	9.50
10"	F8H5	2500	8	8.	1"	8.	9.50
	F10H8	600	8	8.	1"	9.	10.50
	F10H3	1000	8	8.	1"	9.	10.50
	F10H24	1800	8	8.	1"	9.	10.50
12"	F10H5	2500	8	8.	1"	9.	10.50
	F12H8	600	8	8.	1"	10.	13.00
	F12H3	1000	8	8.	1"	10.	13.00
	F12H24	1800	8	8.	1"	10.	13.00
	F12H5	2500	8	8.	1"	10.	13.00



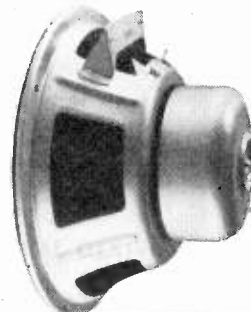
*Pot rotated 90 degrees

PUBLIC ADDRESS SPEAKERS

These units are primarily engineered for heavy duty public address service. They are conservatively rated, and are designed to give years of trouble-free service. The efficiency and the tone quality of these units are such that they are recommended for all purposes requiring heavy duty units.

Size	Model	Magnet	Voice Coil		List Price
		Alnico-5	Imped.	Diam.	
6"	P6J1	6.8 oz.	8	1"	\$10.75
8"	P8J1	6.8	8	1"	12.00
	P8L1†	10.	8	1 1/4"	20.00
10"	P10J1	6.8	8	1"	14.00
	P10L1	10.	8	1 1/4"	20.00
12"	P12J1	6.8	8	1"	15.00
	P12L1	10.	8	1 1/4"	21.00
	P12P1 (P12M1)	21.5	8	1 1/2"	40.00
	P15L1	10.	8	1 1/4"	30.00
15"	P15P2 (P15M2)	21.5	8	1 1/2"	45.00

†Waterproof cone and voice coil



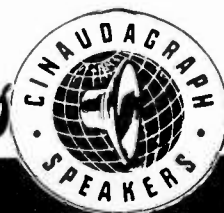
EXTENDED RANGE SPEAKERS

Designed expressly for F.M., television, and all installations requiring good performance to 10,000 c.p.s. and beyond. CINAXIAL models illustrated at left extend to 15,000 c.p.s. Not recommended for general public address use because of limited power handling capacity. Model P8JHF1 and P12JHF1 are single cone speakers; CIN-12A consists of 12" low frequency speaker and 3" high frequency speaker. CIN-15B and CIN-15C have 15" low frequency speaker and 5" high frequency units. Bridging networks are built-in, require no controls.

Size	Model	Magnet	Voice Coil		List Price
		Alnico-5	Imped.	Diam.	
8"	P8JHF1	6.8	8	1"	\$13.50
12"	P12JHF1	6.8	8	1"	17.00
12" Cinaxial	CIN-12A	4.64	8	1"	27.50
15" Cinaxial	CIN-15B	10.0	8	1 1/4"	47.50
	CIN-15C	21.5	8	1 1/2"	62.50



Cinaudagraph Speakers




DIVISION OF AIREON MFG. CORP.

SALES OFFICE and FACTORY 1401 FAIRFAX TRAFFICWAY KANSAS CITY, KANSAS

ALNICO 5—PERMANENT MAGNET SPEAKERS REPLACEMENT SPEAKERS

For all receivers, from the smallest to the larger models. Dustproof, all-welded construction, all magnets soldered.

Size	Model	Magnet Alnico-5	Voice Coil			List Price
			Imped.	Diam.	Watts	
	2 1/2"	P2A1	.68 oz.	3.2 ohms	1 1/8"	\$ 3.65
		P2C1	1.47	3.2	1 1/8"	4.25
	3 1/2"	P3A1	.68	3.2	1 1/8"	3.65
		P3C2	1.47	3.2	1 1/8"	4.25
		P3A2I	.68	45.	1 1/8"	4.25
	4"	P4A1	.68	3.2	1 1/8"	3.90
		P4C1	1.47	3.2	1 1/8"	4.50
		P4A2I	.68	45.	1 1/8"	4.50
	4" x 6"	P46A1	.68	3.2	1 1/8"	4.50
		P46C1	1.47	3.2	1 1/8"	5.10
	5" Round	P5A1	.68	3.2	1 1/8"	4.15
		P5C1	1.47	3.2	1 1/8"	4.75
		P52F1	3.16	3.2	3/4"	6.50
	5" Pin Cush.	P51A1	.68	3.2	1 1/8"	4.15
		P51C1	1.47	3.2	1 1/8"	4.75
		P51A2I	.68	45.	1 1/8"	4.75
	5 1/4" Pin Cush.	P53A1	.68	3.2	1 1/8"	4.65
		P53C1	1.47	3.2	1 1/8"	5.25
	5" x 7"	P57C1	1.47	3.2	1 1/8"	5.50
		P57F1	3.16	3.2	3/4"	7.25
	6 1/2" Pin Cush.	P6A1	.68	3.2	1 1/8"	4.65
		P6C1	1.47	3.2	1 1/8"	5.25
		P6F1	3.16	3.2	3/4"	7.00
		P6H1	4.64	3.2	1"	8.75
	6" x 9"	P69F1	3.16	3.2	3/4"	8.00
		P69H1	4.64	3.2	1"	9.75
	7" Pin Cush.	P7E2	2.15	3.2	3/4"	7.50
		P7E2A*	2.15	3.2	3/4"	7.50
		P7G2	3.16	3.2	1"	8.50
		P7H2	4.64	3.2	1"	10.00
	7 1/2"	P75F1	3.16	3.2	3/4"	8.00
		P75H1	4.64	3.2	1"	10.00
	8"	P8D1	1.47	3.2	3/4"	7.00
		P8G1	3.16	8.	1"	8.50
		P8G2	3.16	3.2	1"	8.50
		P8H1	4.64	8.	1"	10.00
	10"	P10G1	3.16	8.	1"	10.50
		P10H1	4.64	8.	1"	12.00
	12"	P12G1	3.16	8.	1"	11.50
		P12H1	4.64	8.	1"	13.00

*Pot Rotated 90 Degrees

TRANSFORMERS

FIXED IMPEDANCE

			List Price
1/2" x 1/2"	12A73	7000 ohms to 3.2 ohm V.C.	\$1.25
	12A43	4000 ohms to 3.2 ohm V.C.	1.25
	12A23	2000 ohms to 3.2 ohm V.C.	1.25
	12A53L	500 ohms to 3.2 ohm V.C.	1.25
7/8" x 5/8"	58A83	8000 ohms to 3.2 ohm V.C.	1.50
3/4" x 3/4"	34C53C	5000 ohms C.T. to 3.2 ohm V.C.	2.00
	34A53	5000 ohms to 3.2 ohm V.C.	2.00

ADJUSTABLE IMPEDANCE

			List Price
1/2" x 1/2"	12A3UL	Line to 3.2 ohm V.C.***	\$2.10
	12A3U	Plate to 3.2 ohm V.C.*	2.10
5/8" x 5/8"	58A3U	Plate to 3.2 ohm V.C.*	2.35
3/4" x 3/4"	34A8U	Plate to 8 ohm V.C.**	3.50
	34A8UL	Line to 8 ohm V.C.***	3.50
7/8" x 7/8"	78A8UL	Line to 8 ohm V.C.***	4.00

* Plate impedances of 2000, 4500, 7000 and 10,000 ohms (No C.T.)

** Plate impedances of 3000, 5000, 6600, 7000, 10,000 ohms (All C.T.)

*** Plate impedances of 2000, 1500, 1000 and 500 ohms (No C.T.)



Jensen



Standard Series speakers, although moderately priced, are exceptionally good in performance and are highly recommended for use in radio and television receivers, recorders, public address equipment, intercommunication systems and similar applications. Models listed on this page have been completely redesigned in every detail. Magnetic structures have been designed to achieve maximum gap energy, cones selected for uniformity of response, and all speakers are completely dust-proof. Models listed are standard fidelity response only. Standard Series speakers are finished in aluminum.

ALNICO 5 PM MODELS

These PM speakers embody the highly efficient Alnico 5 magnets which insure long life and highest efficiency. Because Alnico 5 magnets are many times more powerful, ounce for ounce, than their predecessors, speakers so equipped offer obvious advantages: lighter weight, for savings in shipping costs; and smaller size, for savings in space in cabinet installations.

Nominal Size	Model No.	Stock No.	†Gap Energy Level	DIMENSIONS, Inches			VOICE COIL			*Transformer Size	List Price
				O.D.	Depth	Baffle Opening	Diam. In.	Imped., Ohms	Power Watts		
12"	P12-S	ST-102	1.5	12 1/4	6 1/8	10 1/2	1	6-8	10.0	3/4 x 3/4"	\$16.50
	P12-T	ST-101	1.1	12 1/4	6 1/8	10 1/2	1	6-8	9.0	3/4 x 3/4"	11.85
10"	P10-S	ST-120	1.5	10 1/4	5 1/4	8 3/4	1	6-8	9.0	3/4 x 3/4"	15.25
	P10-T	ST-119	1.1	10 1/4	5 1/4	8 3/4	1	6-8	8.0	3/4 x 3/4"	10.65
6x9"	P69-S	ST-812	1.5	6 3/8 x 9 1/4	3 1/8	5 3/8 x 8 1/8	1	3-4	8.0	3/4 x 3/4"	12.50
	P69-T	ST-811	1.1	6 3/8 x 9 1/4	3 1/8	5 3/8 x 8 1/8	1	3-4	7.5	3/4 x 3/4"	9.60
8"	P8-S	ST-104	1.5	8 1/8	3 1/8	6 3/8	1	6-8	8.0	3/4 x 3/4"	12.25
	P8-T	ST-117	1.1	8 1/8	3 1/8	6 3/8	3/4	3-4	7.0	3/4 x 3/4"	9.50
7"	P7-S	ST-116	.74	8 1/8	3 1/8	6 3/8	3/4	3-4	6.0	5/8 x 5/8"	8.35
	P7-T	ST-115	.51	8 1/8	3 1/8	6 3/8	3/4	3-4	5.0	5/8 x 5/8"	7.30
6"	P6-T	ST-804	1.1	7 7/8	3 1/8	6	1	3-4	7.0	3/4 x 3/4"	9.25
	P7-T	ST-807	1.1	7 7/8	3 1/8	6	3/4	3-4	6.5	3/4 x 3/4"	8.75
5 1/4"	P7-U	ST-806	.74	7 7/8	3 1/8	6	3/4	3-4	5.5	5/8 x 5/8"	7.95
	P6-T	ST-112	1.1	6 1/8	3 1/8	5 1/4	3/4	3-4	6.0	5/8 x 5/8"	7.75
5"	P6-V	ST-110	.51	6 1/8	2 1/8	5 1/4	3/4	3-4	4.0	5/8 x 5/8"	6.10
	P6-W	ST-109	.36	6 1/8	2 1/8	5 1/4	3/4	3-4	3.5	1/2 x 1/2"	5.65
4"	P6-X	ST-108	.25	6 1/8	2 1/8	5 1/4	3/4	3-4	3.0	1/2 x 1/2"	5.00
5 1/4"	P52-S-V	ST-803	.51	5 1/4	2 1/2	4 1/2	3/8	3-4	4.0	5/8 x 5/8"	5.50
	P5-V	ST-107	.51	5	2 1/2	4	3/8	3-4	3.5	1/2 x 1/2"	5.40
5"	P5-X	ST-105	.25	5	2 1/4	4	3/8	3-4	2.5	1/2 x 1/2"	4.30
	P5-X	ST-740	.25	5	2 1/4	4	1/8	45-50	2.5	1/2 x 1/2"	4.95
4"	P4-X	ST-113	.25	5	2	3 1/2	3/8	3-4	2.0	1/2 x 1/2"	4.15
	P4-X	ST-739	.25	5	2	3 1/2	3/8	45-50	2.0	1/2 x 1/2"	4.85

*Size recommended. See Transformer listing.

†Millions of ergs.

§No transformer mounting facilities.

FIELD COIL MODELS

Like their PM counterparts, Standard Series field coil models have been completely redesigned and are equipped with hum neutralizing coils. Finish is aluminum. Models listed on this page are standard fidelity.

Nominal Size	Model No.	Stock No.	†Gap Energy Level	DIMENSIONS, Inches			VOICE COIL			FIELD		*Transformer Size	List Price
				O.D.	Depth	Baffle Opening	Diam. In.	Imped., Ohms	Pwr. Watts	Resist., Ohms	Power Watts		
12"	F12-S	ST-744	1.5	12 1/4	6 1/8	10 1/2	1	3-4	10.0	1000	8.5	3/4 x 3/4"	\$14.60
	F12-S	ST-173	1.5	12 1/4	6 1/8	10 1/2	1	3-4	10.0	1500	8.5	3/4 x 3/4"	14.60
10"	F10-S	ST-745	1.5	10 1/4	5 1/4	8 3/4	1	3-4	9.0	750	8.5	3/4 x 3/4"	12.25
	F10-S	ST-175	1.5	10 1/4	5 1/4	8 3/4	1	3-4	9.0	1500	8.5	3/4 x 3/4"	12.70
6x9"	F69-T	ST-814	1.1	6 3/8 x 9 1/4	4 1/8	5 3/8 x 8 1/8	1	3-4	7.5	4	6-volt	3/4 x 3/4"	9.25
	F69-U	ST-813	.74	6 3/8 x 9 1/4	3 3/8	5 3/8 x 8 1/8	3/4	3-4	6.0	4	6-volt	5/8 x 5/8"	7.95
8"	F8-S	ST-746	1.5	8 1/8	4 1/8	6 3/8	1	3-4	8.0	750	8.5	3/4 x 3/4"	10.65
	F8-S	ST-177	1.5	8 1/8	4 1/8	6 3/8	1	3-4	8.0	1500	8.5	3/4 x 3/4"	11.10
7"	F8-T	ST-179	1.1	8 1/8	4 1/8	6 3/8	3/4	3-4	7.0	1000	7.0	3/4 x 3/4"	8.85
	F8-T	ST-180	1.1	8 1/8	4 1/8	6 3/8	3/4	3-4	7.0	1800	7.0	3/4 x 3/4"	8.95
6"	F6-W	ST-736	.36	8 1/8	3 3/8	6 3/8	3/4	3-4	4.0	1000	5.0	5/8 x 5/8"	6.65
	F6-W	ST-737	.36	8 1/8	3 3/8	6 3/8	3/4	3-4	4.0	1800	5.0	5/8 x 5/8"	7.00
7"	F7-T	ST-809	1.1	7 7/8	3 1/8	6	1	3-4	7.0	4	6-volt	3/4 x 3/4"	8.65
	F7-U	ST-808	.74	7 7/8	3 1/8	6	3/4	3-4	5.5	4	6-volt	5/8 x 5/8"	7.45
6"	F6-U	ST-186	.74	6 1/8	3 3/8	5 1/4	3/4	3-4	5.0	1000	6.0	5/8 x 5/8"	6.75
	F6-U	ST-187	.74	6 1/8	3 3/8	5 1/4	3/4	3-4	5.0	1800	6.0	5/8 x 5/8"	6.75
5"	F6-X	ST-189	.25	6 1/8	2 1/8	5 1/4	3/4	3-4	3.0	450	4.5	1/2 x 1/2"	5.55
	F6-X	ST-166	.25	6 1/8	2 1/8	5 1/4	3/4	3-4	3.0	1000	4.5	1/2 x 1/2"	5.65
4"	F6-X	ST-168	.25	6 1/8	2 1/8	5 1/4	3/4	3-4	3.0	1800	4.5	1/2 x 1/2"	5.90
	F6-X	ST-190	.25	6 1/8	2 1/8	5 1/4	3/4	3-4	3.0	2800	4.5	1/2 x 1/2"	5.80
5"	F5-W	ST-191	.36	5	2 1/2	4	3/4	3-4	3.0	1000	5.0	1/2 x 1/2"	5.85
	F5-W	ST-192	.36	5	2 1/2	4	3/4	3-4	3.0	1800	5.0	1/2 x 1/2"	6.20
4"	F5-X	ST-194	.25	5	2 1/2	4	3/4	3-4	2.5	450	4.5	1/2 x 1/2"	5.35
	F5-X	ST-165	.25	5	2 1/2	4	3/4	3-4	2.5	1000	4.5	1/2 x 1/2"	5.40
4"	F5-X	ST-167	.25	5	2 1/2	4	3/4	3-4	2.5	1800	4.5	1/2 x 1/2"	5.65
	F5-X	ST-195	.25	5	2 1/2	4	3/4	3-4	2.5	2800	4.5	1/2 x 1/2"	5.60
4"	F4-X	ST-196	.25	5	2 1/4	3 1/2	3/4	3-4	2.0	450	4.5	1/2 x 1/2"	5.15
	F4-X	ST-164	.25	5	2 1/4	3 1/2	3/4	3-4	2.0	1000	4.5	1/2 x 1/2"	5.20
4"	F4-X	ST-198	.25	5	2 1/4	3 1/2	3/4	3-4	2.0	2800	4.5	1/2 x 1/2"	5.40

*Size recommended. See Transformer listing.

†Millions of ergs.

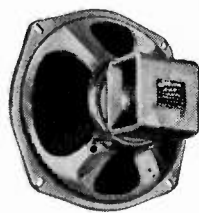
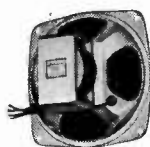
‡Tapped at 300 ohms. 1500-ohm section can be used at full power excitation. Field resistance for full excitation will rise approximately 20%.

§No transformer mounting facilities.

VOLUME AND RANGE CONTROLS

These "L Pad" type volume controls are highly satisfactory for use in voice coil circuits. Complete with pointer knob and escutcheons.

ST-276—Level Control, 6-8 ohms, 5 watts.....	\$2.20
ST-411—Level Control, 6-8 ohms, 15 watts.....	3.00
ST-606—Range Control, 16 ohms, 15 watts.....	3.00
ST-760—Level Control, 3-4 ohms, 5 watts.....	2.20
ST-761—Level Control, 500-600 ohms, 15 watts.....	3.50





Jensen

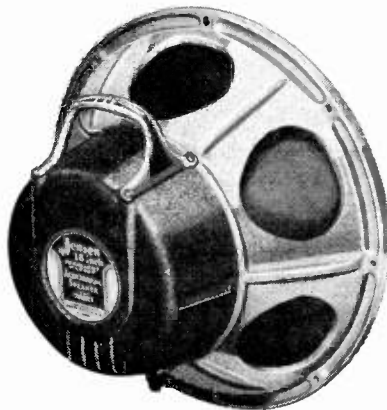
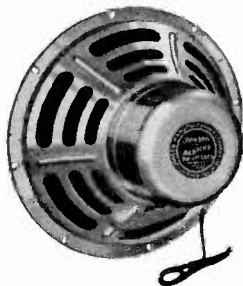


Concert SPEAKERS

JENSEN Concert Series speakers have long been known and acclaimed by the trade and by users for their plus performance. From the earliest days, Concert speakers have been recognized by such familiar designations as A12-PM, PM8-C and others and have been known as the finest speakers anywhere available for heavy-duty applications. Now, in greatly improved design, they are highly

recommended for any purpose where exceptional power handling ability and high-quality performance are essential. Standard fidelity models are listed on this page.

Concert speakers are attractively finished in blue-gray lacquer and completely dustproofed. Field coil models are equipped with hum neutralizing coils.



ALNICO 5 PM MODELS

Nominal Size	Model No.	Stock No.	†Gap Energy Level	DIMENSIONS, Inches			VOICE COIL			*Transformer Size	List Price
				O.D.	Depth	Baffle Opening	Diam. In.	Imped. Ohms	Power Watts		
15"	P15-N	ST-654	6.6	15 1/4	8	13 1/4	1 1/2	8	20.0	1x1"	\$55.00
	P15-P	ST-655	4.6	15 1/4	8	13 1/4	1 1/2	8	18.0	1x1"	47.25
	P15-Q	ST-678	3.2	15 1/4	8	13 1/4	1 1/2	8	16.0	7/8 x 7/8"	35.00
12"	P12-N	ST-656	6.6	12 1/8	7	10 1/2	1 1/2	8	18.0	1x1"	49.00
	P12-P	ST-657	4.6	12 1/8	6 7/8	10 1/2	1 1/2	8	16.0	7/8 x 7/8"	40.00
	P12-Q	ST-673	3.2	12 1/8	6 1/8	10 1/2	1 1/4	8	14.0	7/8 x 7/8"	27.75
	P12-R	ST-103	2.2	12 1/8	6 1/8	10 1/2	1	6-8	12.0	7/8 x 7/8"	19.50
10"	P10-Q	ST-676	3.2	10 1/8	5 1/4	8 3/4	1 1/4	8	12.0	7/8 x 7/8"	26.30
	P10-R	ST-121	2.2	10 1/8	5 1/4	8 3/4	1	6-8	10.0	7/8 x 7/8"	18.50
8"	P8-Q	ST-677	3.2	8 1/4	4 1/8	6 3/4	1 1/4	8	10.0	7/8 x 7/8"	24.20
	P8-R	ST-169	2.2	8 1/4	4	6 3/4	1	6-8	9.0	3/4 x 3/4"	15.25

Model P8-Q weatherproof design. No transformer mounting facilities.

FIELD COIL MODELS

Nominal Size	Model No.	Stock No.	†Gap Energy Level	DIMENSIONS, Inches			VOICE COIL			FIELD Resist. Ohms	Power Watts	*Transformer Size	List Price
				O.D.	Depth	Baffle Opening	Diam. In.	Imped. Ohms	Pwr. Watts				
15"	F15-N	ST-661	6.6	15 1/4	8 3/8	12 1/4	1 1/2	8	20.0	4000	17.5	1x1"	\$44.00
	F15-P	ST-662	6.6	15 1/4	8 3/8	12 1/4	1 1/2	8	20.0	5300	17.5	1x1"	44.00
	F15-Q	ST-663	3.2	15 1/4	8 3/8	12 1/4	1 1/4	8	16.0	1000	12.0	7/8 x 7/8"	28.50
12"	F12-N	ST-666	6.6	12 1/8	7 1/8	10 1/2	1 1/2	8	18.0	4000	17.5	1x1"	36.50
	F12-P	ST-667	6.6	12 1/8	7 1/8	10 1/2	1 1/2	8	18.0	5300	17.5	1x1"	36.50
	F12-Q	ST-668	3.2	12 1/8	7 1/8	10 1/2	1 1/4	8	14.0	1000	12.0	7/8 x 7/8"	21.00

*Size recommended. See Transformer listing. †Millions of ergs. Field resistance for full excitation will rise approximately 20%.

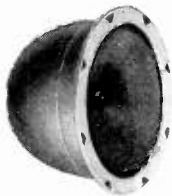
AUDITORIUM SPEAKERS†

The first highly-efficient large-size speaker was designed and produced by JENSEN in 1928. It was named the "Auditorium" and never were critics more consistent in its endorsement as the utmost in heavy-duty speakers. For more than 20 years JENSEN Auditorium speakers have set the highest standards for efficiency, response characteristics and faithful performance. Today, the Auditorium line has been completely redesigned and comprises undeniably the best known and most highly respected speakers available, second only to JENSEN Coaxials. They are recommended for theatres, public address systems, fine electronic musical instruments, where the utmost in quality reproduction and power handling ability are required.

Nominal Size	Model No.	Stock No.	†Gap Energy Levels	DIMENSIONS, Inches			VOICE COIL			*Transformer Size	List Price
				O.D.	Depth	Baffle Opening	Diam. In.	Imped. Ohms	Pwr. Watts		
18"	PMJ-18	ST-541	28.1	18	9 ¾	16 ¾	2 ½	8	30	1x1 ¼"	\$264.50
15"	P15-L	ST-758	13.6	15 ⅛	8	13 ¼	2	8	25	1x1 ¼"	108.60

*Size recommended. See Transformer listing. †Millions of ergs.

Q8P HIGH-FREQUENCY SPEAKER



Designed to reproduce the high frequencies from 4,000 to 15,000 cps., when used with dividing network (such as A40-1) and suitable low frequency speaker. Impedance, 16 ohms. Overall diameter, 5 1/2". Depth, 3 5/8". P.M. design.

Q8P—H.F. Speaker. ST-589. List Price.....\$14.65

ST-605—Mounting Arms. Set of 4. List Price..... \$1.60

A40-1 NETWORK



This uniquely designed two-channel network is offered to those who wish to assemble their own two-way speaker systems, or add a high-frequency speaker to an existing single speaker. Frequency division is at 4,000 cps., with an attenuation outside pass band of 10-12 db per octave. Low frequency channel will accommodate any suitable 8 ohm 12" or 15" speaker. High channel takes one to four Q8P High Frequency Speakers (16, 8 and 4 ohm taps). Input, 500 ohms. High Frequency Range Control Switch feature included. Specify

ST-604—List Price.....\$39.40



JENSEN HYPEX PROJECTORS



VH-24
VH-20
VH-15



VH-91



V-21

Because of the Hypex formula (Patent 2,388,262) giving wider sound distribution and greatly improved acoustical performance, JENSEN Hypex projectors are superior to the usual "exponential" type horns. The Alnico 5 unit is entirely enclosed within the one-piece rigid horn yet easily removed and replaced. Stainless steel and other corrosion-resistant materials and specially treated steel parts insure against weather exposure. Models VH-24, VH-20 and VH-15 have mounting brackets with clutch-type heavy "U" trunnions which afford complete flexibility of adjustment with positive locking into desired position. Weatherproof terminal boxes provide easy, solderless connections with no exposed terminals. Model VH-91 has a universal mounting bracket which permits pointing in any direction and secure locking by a single wing nut.

SPECIFICATIONS

Model No.	Stock No.	Cut-Off, CPS	Acoust. Path, In.	Coverage Angle Degrees	Power Rating Watts	Voice Coil Imped. Ohms	Diam. In.	Length, In.	Trans.* Core Size	List Price
VH-24	ST-685	110	58	75	25	16	25	22 3/4	1x1 1/4	\$74.50
VH-20	ST-684	140	52	80	25	16	21	20 1/4	1x1 1/4	63.00
VH-15	ST-757	180	36	90	15	8	16	15	3/4 x 3/4	47.00
VH-91	ST-171	300	16	100	15	8	8 7/8	7 5/8	5/8 x 5/8	32.50

*Not included.

HYPEX "Three-sixty" PROJECTORS



VR-11

Designed for the reproduction of speech and music signals at high efficiency where high noise levels exist. The Hypex formula, made famous by JENSEN Hypex projectors, is incorporated in their design giving greatly improved acoustical performance. With the sound distributed over a circle, they are especially suitable for installations where coverage of relatively large areas and suspension from the ceiling are desired. Model VR-11 is recommended for speech reproduction while Model VR-241, of larger size, is intended for speech and music reinforcement. Driver unit has phenolic diaphragm; VR-241 uses same diaphragm as VH-24 and VH-20; VR-11 uses same diaphragm as VH-15 and VH-91. VR-241 is equipped with weatherproof terminal box with connecting cable passing through rubber grommet and leads attached to screw terminals provided. VR-11 has two-conductor rubber-covered cable for connections. Both equipped with heavy eyebolt at top for suspension.



VR-241

SPECIFICATIONS

Model No.	Stock No.	Cut-Off, CPS	Acoust. Path, In.	Coverage Angle Degrees	Power Rating Watts	Voice Coil Imped. Ohms	Diam. In.	Length, In.	Trans.* Core Size	List Price
VR-241	ST-789	140	54	360	25	16	25	22	1x1	\$79.00
VR-11	ST-791	280	18	360	15	8	11	10 3/4	5/8 x 5/8	40.00

*Not included.

MODEL V-21 DRIVER UNIT

This driver unit incorporates the driver element used in the new Hypex projectors and is electrically and mechanically interchangeable with the former U-20 ST-630 and U-201 ST-732 Driver units. It is designed for replacement service on former Models H-20 ST-726, H-201 ST-733 and H-Y4 ST-727 Hypex horns. Unit is PM type and equipped with internal screw terminals. Flange is designed for 1/4" bolt attachment, with three 1/4" holes spaced 120 degrees apart on a radius of 2 3/4". Voice coil input 16 ohms and power rating 25 watts.

Model V-21 Driver Unit, ST-787.....List Price \$32.50



SPH-81

Model SPH-81 Projector, ST-633.....\$82.50
EA-5 Adjustable Stand, ST-730.....5.00

TYPE "S" PROJECTOR

These projectors are complete assemblies of specially designed driver unit and acoustic system, utilizing the Peri-Dynamic principle and correctly engineered projector horn. Response is unusually good in the 100-cycle region and good efficiency is maintained to 5500 cycles, thus qualifying the projector for music and speech reproduction. Projector is suitable for use indoors or out because it is completely weatherproofed. Complete with plugs but without stand.

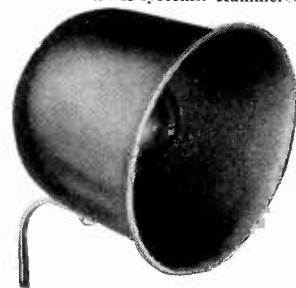
List Price

SPEECH MASTER PROJECTORS

Sturdy construction, overall mechanical protection, double dust-proofing, streamline design and exceptional acoustical performance recommend these projectors for paging and intercommunication. PM design. Good talk-back performance in PA systems. Hammered gray finish; chrome trim. RC 36" cord. Space within case for 1/2" x 1/2" transformer.



AR-10



AP-10

Model No.	Stock No.	V.C. Imped. Ohms	Power Watts	Diam. In.	Depth In.	List Price
AR-10	ST-590	3-4	5	5	4 1/2	\$16.50
AP-10	ST-591	45-50	5	5	4 1/2	17.00
AR-11	ST-592	3-4	5	5	4 1/2	13.90
AP-11	ST-593	45-50	5	5	4 1/2	14.35
AR-10	ST-643	3-4	6	10	8	20.00
AR-10	ST-644	45-50	6	10	8	20.75



Jensen



H-510

GENUINE JENSEN WIDE-RANGE SERIES

No longer is truly good listening ruled out by cost or size restrictions. Now music can come to life for everyone, for Genuine JENSEN Wide Range loudspeakers include small sizes as well as large . . . low-cost units as well as more expensive models.

The four new JENSEN Coaxial speakers which replace all previous models embody the latest developments in loudspeaker design: the Wide-Range ACOUSTIC LENS for h-f dispersion (in Model H-510), annular Diaplane radiators, and new Hypex contour h-f horns. As a result these speakers achieve thrillingly realistic instrumental



K-210



K-410
K-310

and vocal tone quality and subtly satisfying "presence" low in cost in comparison with previous highest-quality systems. The term "high-fidelity" applied to these Coaxial systems connotes wider frequency range, greater response uniformity and better polar characteristics.

Typical of JENSEN leadership is the ACOUSTIC LENS used on Model H-510 Coaxial. This lens acts in conjunction with the h-f horn to distribute h-f radiation uniformly over a wide angle, insuring constant balance and high quality reproduction throughout the whole room.

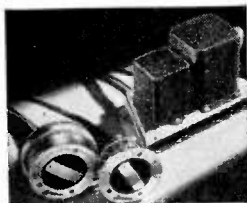
COAXIAL SPEAKERS

Nominal Size	Model No.	Stock No.	Input Imped. Ohms	Power Watts	Freq. Range Rating	Baffle Opening In.	O.D. In.	Depth In.	List Price
15"	H-510	ST-828	16	25	+7	13 1/2	15 1/8	9 1/8	\$135.00
15"	K-410	ST-829	16	20	+7	13 1/4	15 1/8	9	94.25
15"	K-310	ST-830	16	16	+7	13 1/4	15 1/8	8 1/8	56.25
12"	K-210	ST-831	8	12	+7	10 1/2	12 1/8	6 5/8	33.40

EXTENDED-RANGE LOUDSPEAKERS (+6 LIM)

Nominal Size	Model No.	Stock No.	*Gap Energy Level	Dimensions, Inches			Voice Coil		Pwr. Watts	Transformer Size†	List Price
				O.D.	Depth	Baffle Open	Diam. In.	Imped. Ohms			
15"	P15-NX	ST-817	6.6	15 1/8	8	13 1/4	1 1/2	8	18.0	1"x1"	\$57.25
12"	P12-NX	ST-819	6.6	12 1/8	7	10 1/2	1 1/2	8	16.0	1"x1"	51.00
	P12-RX	ST-885	2.2	12 1/8	6 1/8	10 1/2	1	6-8	11.0	7/8"x7/8"	21.50
	P12-SX	ST-821	1.5	12 1/8	6 1/8	10 1/2	1	6-8	9.0	7/8"x7/8"	18.00
10"	P10-RX	ST-886	2.2	10 1/8	5 1/4	8 3/4	1	6-8	9.0	7/8"x7/8"	20.50
	P10-SX	ST-823	1.5	10 1/8	5 1/4	8 3/4	1	6-8	8.0	7/8"x7/8"	16.75
8"	P8-RX	ST-887	2.2	8 1/8	4	6 3/4	1	6-8	8.0	3/4"x3/4"	17.75
	P8-SX	ST-825	1.5	8 1/8	3 1/8	6 3/4	1	6-8	7.0	3/4"x3/4"	14.20
6"	P6-TX	ST-826	1.1	6 1/8	3 3/8	5 1/4	3/4	3-4	5.0	5/8"x5/8"	9.00
5"	P5-TX	ST-827	1.1	5 1/8	2 5/8	4 1/8	3/4	3-4	4.0	1/2"x1/2"	8.00

*Millions of ergs. †Size recommended.



cabinet, satin brass flush-type escutcheons, bar knobs and mounting screws.

A-110 Control Network, ST-832.

List Price \$26.50

H-F CONTROL

"L"-type variable control for "shelving" high-frequency response of Model K-210 Coaxial. Impedance 16 ohms. Complete with flush-type satin brass escutcheon and bar knob.

ST-836 Control

List Price \$4.85

CONTROL NETWORK

Adjustable level and high-frequency range controls for Models H-510, K-410 and K-310 Coaxial speakers. Mounts directly on speaker housing. Plug-in connections. Input impedance 16 ohms. May be used with Impedance-Adjusting Transformers. Chassis complete with network, speaker connection cord and plug. Level Control and H-F Range Control on individual 30" cables for remote mounting on



IMPEDANCE-ADJUSTING TRANSFORMERS

Designed to provide alternative input impedances for Models H-510, K-410 and K-310 Coaxial speakers. High-fidelity. Switch on chassis gives choice of two impedance values. No wiring necessary, connecting plug inserted in socket on speaker terminal panel. May be used with Model A-110 Control Network.

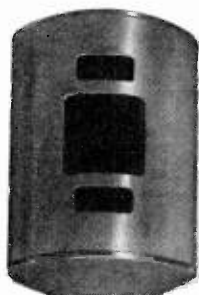
Model T-101 Transformer Assembly, ST-833. Impedance 4 and 8 ohms. List Price \$12.00 Net Each \$7.20

Model T-102 Transformer Assembly, ST-834. Impedances 500-600 and 250 ohms. List Price \$12.00.

Model T-103 Transformer Assembly, ST-835. Impedances 10,000 and 5,000 ohms, center tapped. For plate or high-impedance line coupling. List Price \$12.00.



Type D



Type H

BASS REFLEX CABINETS

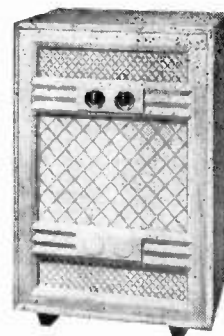
TYPE "M" CUSTOMODE cabinets bring new beauty and utility to the loudspeaker enclosures. Embodying the famous JENSEN Bass Reflex principle, they are designed to house 15" speakers. Although a basic CUSTOMODE unit, Type "M" cabinet may be used alone as a separate speaker cabinet. Four concealed cut-outs provided, any two of which may be removed for insertion of flush-type H-F and Level Controls. Foot Assembly furnished, loose, so cabinet may be placed on end or side as desired. Ample space atop cabinet for large receiver.

TYPE "D" Bass Reflex cabinets are handsomely styled, and are well constructed of beautifully striped satin finish veneer walnut, with inter-laced bronze strip grille over matching fabric.

TYPE "B" cabinets, inexpensive but durably built enclosures, are well constructed of impregnated composition board and finished in hammered brown lacquer.

TYPE "H" cabinets are sturdily built and incorporate the famous Bass Reflex principle. With front curved to a 14 1/4 inch radius, they are admirably shaped to fit into corners but may be placed in any number of positions as suggested. Type "H" cabinets are finished in brown opaque lacquer but may be refinished by the purchaser to match the locale of the installation. Brackets are furnished for mounting on wall or post. Only one size is offered—for 8-inch speakers—and JENSEN Model P-8-SH speaker is recommended for optimum performance although any 8-inch speaker may be used.

TYPE "J" cabinets incorporate the Peri-dynamic principle and are designed for wall or post mounting. These cabinets are finished in simulated brown leather with grained effect, with chrome-trimmed grille. JENSEN Model P6-TH speaker is recommended with this cabinet although any 6-inch speaker may be used. Furnished with brackets for mounting.



Type M



Type B

Type "M"

Model No.	Stock No.	Speaker Size	Finish	Height	Dimensions		Shipping Lbs.	List Price*
					Width	Depth		
M-252	ST-768	15"	Blonde	36"	24"	18"	—	
M-352	ST-788	15"	Cordovan	36"	24"	18"	—	

Type "D"

D-121	ST-156	12"	Walnut	31"	27 3/4"	13 3/8"	50	\$77.50
D-151	ST-157	15"	Walnut	31"	27 3/4"	13 3/8"	50	77.50
D-251	ST-763	15"	Blonde	31"	27 3/4"	13 3/8"	50	79.50
D-221	ST-762	12"	Blonde	31"	27 3/4"	13 3/8"	50	79.50

Type "B"

B-81	ST-741	8"		24"	18"	9 1/4"	19	31.50
B-121	ST-742	12"		27"	24 3/4"	13 1/2"	31	44.50
B-151	ST-743	15"		32 3/8"	27 3/8"	13 1/2"	50	52.75

Type "H"

H-81	ST-141	8"		22 1/2"	17 3/4"	8 1/2"	—	22.50
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Type "J"

J-61	ST-751	6"		16 3/4"	12 3/4"	6 1/4"	—	14.50
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REPRODUCERS

Speakers not installed. Cabinets and speakers shipped separately.

Model No.	Stock No.	Cabinet	Size	Model	List Price†
RM-255	ST-872	M-252	15"	H-510	
RM-256	ST-873	M-252	15"	K-410	
RM-257	ST-874	M-252	15"	K-310	
RM-355	ST-876	M-352	15"	H-510	
RM-356	ST-877	M-352	15"	K-410	
RM-357	ST-878	M-352	15"	K-310	
RD-155	ST-856	D-151	15"	H-510	\$187.75
RD-156	ST-857	D-151	15"	K-410	171.75
RD-157	ST-858	D-151	15"	K-310	133.75
RD-255	ST-860	D-251	15"	H-510	214.50
RD-256	ST-861	D-251	15"	K-410	173.75
RD-257	ST-862	D-251	15"	K-310	135.75
RD-123	ST-853	D-121	12"	K-210	110.90
RD-223	ST-854	D-221	12"	K-210	112.90
RB-157	ST-852	B-151	15"	H-510	\$187.75
RB-155	ST-850	B-151	15"	K-410	147.00
RB-156	ST-851	B-151	15"	K-310	109.00
RB-123	ST-848	B-121	12"	K-210	77.90



Jensen



IMPEDANCE MATCHING TRANSFORMERS

Loudspeakers are relatively low-impedance devices with voice coil impedance values ranging from 3 to 50 ohms. Vacuum tube power output stages on the other hand, are high-impedance devices with impedance load rated anywhere from 1,000 to 14,000 ohms. To reconcile these widely differing impedances, output or impedance matching transformers must be inserted between the signal output and the loudspeaker voice coil. To determine which transformer is to be used in any given case, first of all find out the impedance of the loudspeaker in question and then locate for that speaker the

transformer which will match nearest the impedance of the signal source. Differences of the order of 10% are usually of no importance but if a close match cannot be obtained, it is best to select an impedance value which will present a higher rather than lower-than-rated impedance to the output tubes. Thus where a 5,000-to-16 ohm transformer is needed, it would be better to select a 6,000-to-16 ohm unit than a 4,000-to-16 ohm unit. For full and complete treatise on impedance matching, consult Jensen Technical Monograph No. 2. (Price 25c).

ADJUSTABLE IMPEDANCE

Type "ZX" For matching conventional "plate" impedance values. Adjustments are easily made with flexible lead and pin-tip jack. Impedance values: voice coil, 4,500, 7,000, 10,000 and 14,000 ohms. All except voice coil are center-tapped for push-pull tubes.

Cased Type. Pin-Tip Adjustment. Not Mountable on Speaker.

Stock No.	Core Size	Impedance	Mfg. Ctrs. Inches	Power Watts	For Use With:	List Price
ZX-3000	1x1 1/4"	8	1 1/4 x 3 1/4	35.0	PLJ-18, PMJ-18, P15-L, P15-LL	\$17.15
ZX-3001	1x1 1/4"	16	1 1/4 x 3 1/4	35.0	VH-20, VH-24, VR-241, H-510	17.15

Uncased Type. Pin-Tip Adjustment. Mountable on Speaker.

ZX-1002	3/4 x 3/4"	6-8	2 1/2	10.0	P12-T, P10-S, P10-SX, P10-T, P8-R, P8-S, P8-SX, P8-RX, VH-15, VR-11	5.00
ZX-1005	3/4 x 3/4"	6-8	3 1/4	16.0	P15-Q, P12-P, P12-Q, P12-R, P12-RX, P12-S, P12-SX, P10-Q, P10-R, P10-RX, P8-P, P8-Q, P8-RX, K-210	7.20
ZX-1007	1x1"	8	3 1/4	25.0	P15-N, P15-NX, P15-P, P12-N, P12-NX	9.75

Type "ZY" Same as Type "ZX" except for matching "line" impedance values. Impedances: 500, 1,000, 1,500, 2,000 and voice coil. No center tap available.

Cased Type. Pin-Tip Adjustment. Not Mounted on Speaker.

ZY-4000	1x1 1/4"	8	1 1/4 x 3 1/4	35.0	PLJ-18, PMJ-18, P15-L, P15-LL	\$17.15
ZY-4001	1x1 1/4"	16	1 1/4 x 3 1/4	35.0	VH-20, VH-24, VR-241, H-510	17.15

Type "ZY" Pin-Tip Adjustment. Mountable on Speaker.

ZY-2005	1x1"	8	3 1/4	25.0	P15-N, P15-NX, P15-P, P12-N, P12-NX	9.75
ZY-2003	3/4 x 3/4"	6-8	3 1/4	16.0	P15-Q, P12-P, P12-Q, P12-R, P12-S, P12-SX, P10-Q, P10-R, P8-P, P8-Q, K-210	7.20
ZY-4004	3/4 x 3/4"	3-4	2 1/2	10.0	P8-T, P10-S, P10-SX, P10-T, P8-R, P8-S, P8-SX, VH-15, VR-11	5.00
ZY-2002	3/4 x 3/4"	6-8	2 1/2	10.0	P8-S, P8-SX, VH-15, VR-11	5.00
ZY-4002	3/4 x 3/4"	3-4	2 1/2	6.5	P8-U, P8-V, P6-T, P6-X, P6-V	3.35
ZY-4005	3/4 x 3/4"	6-8	2 1/2	6.5	VH-91	3.35

Types "ZP" and "ZL" Lower priced than "ZX" or "ZY" Types but perfectly satisfactory when used in proper application. Soldering iron required for making adjustments on terminal block.

"ZP" for "plate," "ZL" for line.

Solder Lug Terminals. Mountable on Speaker.

ZP-1023	1/2 x 1/2"	4500/3-4 7000/3-4 10000/3-4 14000/3-4	2	3.5	P6-X, P5-V, P5-X, P4-X, P5-TX	2.15
ZP-1025	1/2 x 1/2"	1500/3-4 2000/3-4 2500/3-4	2	3.5	P6-X, P5-V, P5-X, P4-X, P5-TX	2.15
ZL-2021	1/2 x 1/2"	500/3-4 1000/3-4 1500/3-4 2000/3-4	2	3.5	P6-X, P5-V, P5-X, P4-X, P5-TX	2.15
ZP-1024	3/4 x 3/4"	4500/3-4 7000/3-4 10000/3-4 14000/3-4	2 1/2	6.5	P8-U, P8-V, P6-T, P6-TX, P6-V	2.50
ZP-1026	3/4 x 3/4"	4500/6-8 7000/6-8 10000/6-8 14000/6-8	2 1/2	6.5	VH-91	2.50
ZL-2022	3/4 x 3/4"	500/6-8 1000/6-8 1500/6-8 2000/6-8	2 1/2	6.5	VH-91	2.50

Type "Z"

FIXED IMPEDANCE

Cased Type, Screw Terminals. Not Mountable on Speaker.

Stock No.	Impedance	For Use With:	List Price
Z-2731	500/16 or 8	PLJ-18, PMJ-18, P15-L, P15-LL, P15-NL, VH-20, VH-24	\$21.40
Z-2732	16/8	PLJ-18, PMJ-18, P15-L, P15-NL, VH-20, VH-24	20.25
Z-2733	16/8	XI-101	12.00

Uncased, Pig-tail Leads. Mountable on Speaker.

Z-1888	500/6-8		
Z-2386	*3000/6-8		
Z-2387	*5000/6-8	P15-N, P15-NX, P15-P, P12-N,	
Z-3341	*6000/6-8	P12-NX, P15-N, P12-N	\$6.00
Z-1891	*10000/6-8		
Z-2241	*14000/6-8		
Z-3346	500/16	VH-20, VH-24, VR-241	6.00
Z-3319	500/6-8		
Z-3320	*3000/6-8	P15-QX, P12-P, P12-SX, P12-R,	
Z-3321	*5000/6-8	P12-S, P12-SX, P10-Q, P10-R,	
Z-3318	*6000/6-8	P10-RX, P8-Q, P8-RX, F15-Q, F12-Q,	
Z-3322	*10000/6-8	P12-R, P12-RX, K-210	4.00
Z-3323	*14000/6-8		
Z-3329	500/3-4		
Z-3330	*8000/3-4		
Z-3331	*5000/3-4	P12-S	4.00
Z-3332	*6000/3-4		
Z-3333	*10000/3-4		
Z-3334	*14000/3-4		
Z-3324	500/6-8		
Z-3325	*3000/6-8		
Z-3326	*1500/6-8	P12-T, P10-S, P10-SX, P10-RX, P10-T,	
Z-3309	*7000/6-8	P8-R, P8-S, P8-SX, VH-15, VR-11	2.75
Z-3327	*10000/6-8		
Z-3328	*14000/6-8		

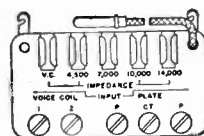
Cased Type, Solder Lug Terminals. Not Mountable on Speaker.

Stock No.	Impedance	For Use With:	List Price
Z-3344	500/8 or 4	PMJ-18, P15-L, P15-N, P15-NX	\$13.50
Z-3342	500/16 or 8	P15-N, P15-NX, P15-P, P12-N,	
Z-3343	500/8 or 4	P12-NX, VH-20, VH-24, VR-241	10.25

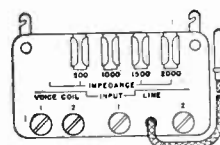
Uncased, Pig-tail Leads. Mountable on Speaker.

Z-3335	500/3-4		
Z-3336	*3000/3-4		
Z-3337	*4500/3-4	P8-T, F10-S, F8-S, F8-T	2.75
Z-3338	*7000/3-4		
Z-3339	*10000/3-4		
Z-3340	*11000/3-4		
Z-3310	500/3-4		
Z-3311	1500/3-4		
Z-3312	2000/3-4		
Z-3313	2500/3-4	P8-U, P8-V, P6-T, P6-TX, P6-V,	
Z-3314	*1500/3-4	P8-W, F6-U	1.90
Z-3315	*7000/3-4		
Z-3316	*10000/3-4		
Z-3317	*11000/3-4		
Z-3345	45-50/6-8	VH-91, VR-11	2.10
Z-3300	500/3-4		
Z-3301	1500/3-4		
Z-3302	2000/3-4	AP-10, AP-11, AR-10, P6-X, P5-TX,	
Z-3303	2500/3-4	P5-V, P5-X, P1-X, P6-X, F6-W,	
Z-3304	4500/3-4	F5-W, F5-X, F4-X, RK-51	1.50
Z-3305	*7500/3-4		
Z-3306	*10000/3-4		
Z-3307	*12000/3-4		
Z-3308	3-4 grid	All 3-4 ohm V.C. speakers	1.70

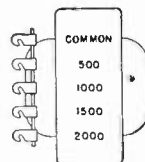
*Center-tapped



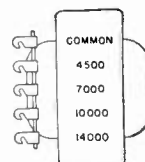
TYPE "ZX"



TYPE "ZY"



TYPE "ZL"



TYPE "ZP"



SPEAKERS

These speakers are engineered and manufactured solely for the replacement field for use in home receivers, auto sets, television sets and intercommunication systems. RMA standard dimensions. Fully dust-proofed. Baked aluminum enamel finish. RMA service guarantee. QUAM UNIVERSAL MOUNTING BRACKET comes with all 3 1/2" to 6 1/2" speakers and may be attached to any two of the four mounting holes in the U shaped pot.

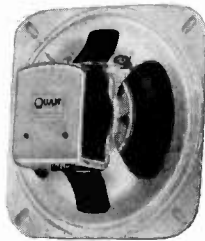


Figure A

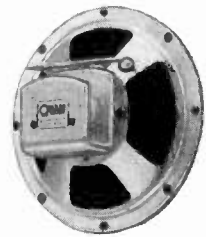
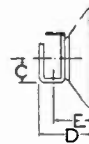


Figure B

ED — Electro Dynamic Speakers

PM — Permanent Magnet Speakers

TYPE	CAT. No.	SIZE	FIGURE	FIELD	MAX. WATTS INPUT (approx.)	DIMENSIONS IN INCHES			SHIP. WT., LBS.	LIST PRICE
						C	D	E		
ED	3E45	3 1/2"	A	†450 Ohms	2.5	1 1/4	1 7/8	1 1/4	3/4	\$ 4.40
PM	3A07	3 1/2"	A	.68 oz. Alnico 5	2.5	3/4	1 19/32	1 3/8	1/2	4.00
ED	4E45	4"	A	†450 Ohms	3	1 1/4	2	1 7/8	1	4.40
	4E10	4"	A	1000 Ohms	3	1 1/4	2	1 7/8	1	4.40
	4E27	4"	A	2700 Ohms	3	1 1/4	2	1 7/8	1	4.40
PM	4A07	4"	A	.68 oz. Alnico 5	3	3/4	1 23/32	1 5/8	1/2	4.00
	4A1	4"	A	1.0 oz. Alnico 5	3	1	2 3/8	1 9/8	3/4	4.25
	4A15	4"	A	1.47 oz. Alnico 5	3	1	2 1/8	1 9/8	3/4	4.70
ED	5EV6	5"	B	6 Volt	3.5	1 1/4	2 1/8	1 19/32	1 1/4	4.60
	5E45	5"	B	†450 Ohms	3.5	1 1/4	2 1/8	1 19/32	1	4.60
	5E10	5"	B	1000 Ohms	3.5	1 1/4	2 1/8	1 19/32	1	4.60
	5E18	5"	B	1800 Ohms	3.5	1 1/4	2 1/8	1 19/32	1 1/4	4.60
	5E27	5"	B	2700 Ohms	3.5	1 1/4	2 1/8	1 19/32	1	4.60
PM	5A07	5"	B	.68 oz. Alnico 5	3.5	3/4	1 7/8	1 7/8	3/4	4.20
	5A1	5"	B	1.0 oz. Alnico 5	3.5	1	2 5/8	1 1/8	1	4.45
	5A15	5"	B	1.47 oz. Alnico 5	3.5	1	2 5/8	1 1/8	1	4.85
ED	52EV6	5 1/4"	A	6 Volt	4	1 1/4	2 1/2	1 3/8	1 1/2	5.00
	52E10	5 1/4"	A	1000 Ohms	4	1 1/4	2 1/2	1 3/8	1 1/4	5.00
PM	52A1	5 1/4"	A	1.0 oz. Alnico 5	4	1	2 23/64	1 3/4	1	4.65
	52A21	5 1/4"	A	2.15 oz. Alnico 5	4	1 1/8	2 5/8	1 7/8	1 1/4	5.70
ED	6EV6	6 1/2"	D	6 Volt	5	1 1/4	2 23/32	2 1/32	1 1/2	5.40
	6EHV6	6 1/2"	D	6 Volt	6	1 31/64	2 25/32	2 1/8	1 3/4	6.10
	6E10	6 1/2"	D	1000 Ohms	5	1 1/4	2 23/32	2 1/32	1 1/2	5.40
	6E18	6 1/2"	D	1800 Ohms	5	1 1/4	2 23/32	2 1/32	1 1/2	5.40
	6E25	6 1/2"	D	2500 Ohms	5	1 1/4	2 23/32	2 1/32	1 1/2	5.40
PM	6A1	6 1/2"	D	1.0 oz. Alnico 5	5	1	2 5/8	2	1	4.80
	6A15	6 1/2"	D	1.47 oz. Alnico 5	5	1	2 5/8	2	1	5.20
	6A21	6 1/2"	D	2.15 oz. Alnico 5	5	1 1/8	2 7/8	2 1/8	1 1/4	5.85
	6A31	6 1/2"	D	3.16 oz. Alnico 5	6	1 3/8	3 11/64	2 9/32	1 1/2	6.75
ED	7EV6	7"	D	6 Volt	7	1 9/32	2 3/4	—	2	6.75
PM	7A21	7"	D	2.15 oz. Alnico 5	6	7/8	2 21/32	—	1	7.25
	7A31	7"	D	3.16 oz. Alnico 5	9	1 1/4	3 1/32	—	2	8.50
ED	8EV6	8"	D	6 Volt	7	1 1/4	3 9/32	—	1 3/4	6.75
	8E10	8"	D	1000 Ohms	7	1 1/4	3 9/32	—	1 1/2	6.75
	8EH10	8"	D	1000 Ohms	9	1 11/32	3 1 1/8	—	2 1/4	7.75
	8E18	8"	D	1800 Ohms	7	1 1/4	3 9/32	—	1 3/4	6.75
	8EH18	8"	D	1800 Ohms	9	1 11/32	3 1 1/8	—	2 1/4	7.75
	8E25	8"	D	2500 Ohms	7	1 1/4	3 9/32	—	1 3/4	6.75
	8EH25	8"	D	2500 Ohms	9	1 11/32	3 1 1/8	—	2 1/4	7.75
PM	8A21	8"	D	2.15 oz. Alnico 5	7	1 1/8	3 13/32	—	1 1/2	7.20
	8A31	8"	D	3.16 oz. Alnico 5	9	1 3/8	3 21/32	—	2 1/4	8.50

†450 ohm fields (equipped with hum bucking coils).

3 1/2" speakers — without Adjust-a-Cone suspension.

Voice coil impedance of above speakers is 3.2 ohms ± 10%.

QUAM DESCRIPTIVE PART NUMBERS: Of great convenience in ordering, because they convey the specifications of the speaker. First digit indicates size; second letter signifies type, i.e., E: Electro; A: Alnico V

Permanent Magnet; last numbers indicate either field resistance or magnet size in ounces. For example: #5E45 is a 5" Electro 450 ohm field; #4A1 is a 4" Alnico V P.M. with 1 oz. magnet.



SPEAKERS

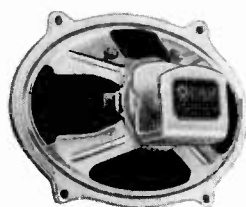


Figure C

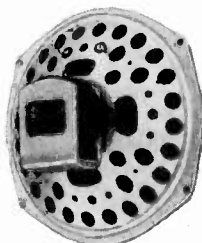
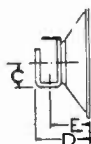


Figure D

QUAM speakers have been produced under the same management since 1923 and are used by leading set and sound manufacturers throughout the world. They are nationally advertised, fully protected by patents and their use insures customer satisfaction. Special field and voice coils are supplied in QUAM speakers to fit both television and intercom replacements upon request.

ED — Electro Dynamic Speakers

PM — Permanent Magnet Speakers

TYPE	CAT. No.	SIZE	FIGURE	FIELD	MAX. WATTS INPUT (approx.)	DIMENSIONS IN INCHES			SHIP. WT., LBS.	LIST PRICE
						C	D	E		
ED	10E60	10"	B	600 Ohms	10	1 3/4	5 1/8	—	4	\$10.50
	10E10	10"	B	1000 Ohms	10	1 3/4	5 1/8	—	4	10.50
	10E15	10"	B	1500 Ohms	10	1 3/4	5 1/8	—	4	10.50
	10E25	10"	B	2500 Ohms	10	1 3/4	5 1/8	—	4	10.50
PM	10A31	10"	B	3.16 oz. Alnico 5	9	1 3/8	4 1/2	—	2 3/4	10.50
	10A4A	10"	B	4.64 oz. Alnico 5	10	1 3/8	4 1/2	—	3 1/4	11.70
	10A6A	10"	B	6.8 oz. Alnico 5	12	1 7/8	4 5/8	—	3 1/2	13.60
ED	12E60	12"	B	600 Ohms	12	1 3/4	5 5/8	—	5	12.65
	12E10	12"	B	1000 Ohms	12	1 3/4	5 5/8	—	5	12.65
	12E15	12"	B	1500 Ohms	12	1 3/4	5 5/8	—	5	12.65
	12E25	12"	B	2500 Ohms	12	1 3/4	5 5/8	—	5 1/4	12.65
PM	12A31A	12"	B	3.2 oz. Alnico 5	10	1 1/4	4 1 9/32	—	3 3/4	11.35
	12A4A	12"	B	4.64 oz. Alnico 5	12	1 3/8	5 1/8	—	4	12.65
	12A6A	12"	B	6.8 oz. Alnico 5	14	1 7/8	5 1/4	—	4 3/4	14.50
ED	46E45	4" x 6"	C	†450 Ohms	3.5	1 5/64	2 15/64	1 5/8	1 1/4	5.30
	46E10	4" x 6"	C	1000 Ohms	3.5	1 5/64	2 15/64	1 5/8	1 1/4	5.30
	46E15	4" x 6"	C	1500 Ohms	3.5	1 5/64	2 15/64	1 5/8	1 1/4	5.30
PM	46A07	4" x 6"	C	.68 oz. Alnico 5	3.5	3/4	1 1/8	1 27/64	3/4	4.45
	46A1	4" x 6"	C	1.0 oz. Alnico 5	3.5	1	2 1/4	1 9/16	1	4.75
	46A15	4" x 6"	C	1.47 oz. Alnico 5	3.5	1	2 1/4	1 9/16	1	5.15
ED	57E45	5" x 7"	C	†450 Ohms	5	1 1/4	3 1/64	2 1 1/32	1 1/2	6.00
	57E10	5" x 7"	C	1000 Ohms	5	1 1/4	3 1/64	2 1 1/32	1 1/2	6.00
PM	57A1	5" x 7"	C	1.0 oz. Alnico 5	5	1	2 57/64	2 9/32	1	5.40
	57A15	5" x 7"	C	1.47 oz. Alnico 5	5	1	2 57/64	2 9/32	1	5.80
	57A21	5" x 7"	C	2.15 oz. Alnico 5	5	1 1/8	3 3/64	2 13/32	1 1/4	6.45
ED	69EV6	6" x 9"	C	6 Volt	8	1	3 1 1/8	—	2	7.50
PM	69A2	6" x 9"	C	1.4 oz. Alnico 5	8	7/8	2 1 5/8	—	1 1/2	7.50
	69A3	6" x 9"	C	3.2 oz. Alnico 5	10	1 1/4	3 3 5/8	—	1 3/4	8.95

†450 ohm fields (equipped with hum bucking coils).

Voice coil impedance of above speakers is 3.2 ohms \pm 10%.

PUBLIC ADDRESS SPEAKERS

PM	8A4	8"	B	4.64 oz. Alnico 5	12	1 3/8	3 3/4	—	2 1/2	\$10.20
	8A6	8"	B	6.8 oz. Alnico 5	12	1 7/8	3 3/8	—	3	12.10
PM	10A4	10"	B	4.64 oz. Alnico 5	14	1 3/8	4 1/2	—	3 1/4	11.70
	10A6	10"	B	6.8 oz. Alnico 5	14	1 7/8	4 5/8	—	3 1/2	13.60
	10A10	10"	B	10 oz. Alnico 5	20	1 3/8	4 2 1/64	—	3 1/2	18.00
PM	12A4	12"	B	4.64 oz. Alnico 5	15	1 3/8	5 1/8	—	4	12.65
	12A6	12"	B	6.8 oz. Alnico 5	15	1 7/8	5 1/4	—	4 3/4	14.50
	12A10	12"	B	10 oz. Alnico 5	25	1 3/8	4 1 1/8	—	4 3/4	19.00

Voice coil impedance of above speakers is 6-8 ohms.

QUAM ADJUST-A-CONE SUSPENSION

While in other speakers, the spider is cemented in place with no means of accurate final adjustment, the QUAM method permits precision centering of the voice coil in a final production operation.

QUAM U SHAPED COIL POT

A patented feature used throughout the QUAM replacement line, provides an unbroken flux path of sufficient cross section to carry the full energy of the magnetic field.

Permoflux

Coronet SUPREME HI-FIDELITY SERIES Pat. Applied For

Never before such quality Hi-Fidelity Wide Range performance for so little money. Surpasses previous single, dual unit or coaxial speakers without the attendant irritation often experienced due to phase and amplitude distortion inherent in the latter type. High level, uniform reproduction.

Advance engineering features include: (1) Stability at low resonance values heretofore unattainable, (2) Resonance and alignment not affected by humidity variations, (3) Strength of cone anulus increased capacity 5 to 10 times. Comparative tests prove that CORONET Series have all desired qualities demanded in wide range Hi-Fidelity speakers . . . and at low cost.

SPECIFICATIONS

Size and Shape		Model No. or Code	Magnet Data Flux Gauss	Data Approx. Wt.	Voice Diam- eter	Coil Data Impe- dance	Watts	Over all Depth	List Price
12 1/2"	Round	125Z-8	15000	3 lbs.	2"	8 ohms	20	7 3/4"	\$75.00
15 1/2"	Round	155Z-8	15000	3 lbs.	2"	8 ohms	35	8 5/8"	90.00
SUPER DELUXE HIGH FIDELITY MODELS — Extra Heavy Magnets — With Pot Covers									
The Deluxe speakers listed below incorporate many of the same engineering features of the CORONET Series, unexcelled where frequency response of 50 to 12,000 cycles is desired.									
8"	Round	8WP-8-1	10000	8.0	1 1/4"	8	10	3 1/32"	\$22.50
10"	Round	10WP-8-1	10000	8.0	1 1/4"	8	11	5	25.00
12"	Round	12WP-8-1	10000	8.0	1 1/4"	8	12	5 7/8"	27.50
15"	Round	15WP-8-1	10000	8.0	1 1/4"	8	15	8 5/8"	35.00
DELUXE HIGH FIDELITY MODELS — Heavy Magnets — No Pot Covers									
6"	P.C.	6L-1	10000	3.0	3/4"	3.2	5	3 1/32"	\$ 9.00
8"	Round	8T-8-1	10000	6.0	1"	8	8	4	14.00
10"	Round	10T-8-1	10000	6.0	1"	8	9	4 13/32"	16.00
12"	Round	12T-8-1	10000	6.0	1"	8	10	5 3/8"	18.00
STANDARD HI-FIDELITY DELUXE P.M. SPEAKERS					Extended range for the finest installations requiring ultimate in sound reproduction.				
8"	Round	80SP-8	8500	4.0	1"	8	8-10	4 1/2"	\$12.50
10"	Round	10SP-8	8500	4.0	1"	8	10-13	5	14.50
12"	Round	12SP-8	8500	4.0	1"	8	12-15	5 7/8"	17.50

Permoflux

ELECTRO MAGNET DYNAMIC SPEAKERS

Precision wound, high efficiency field coils and precision engineered hum bucking circuits make Permoflux Electro Magnet Dynamic Speakers the outstanding leaders in electro dynamic sound reproduction.

Size and Shape		Model No. or Code	Field Coil Data Resistance	Data Watts	Voice Diam- eter	Coil Data Impe- dance	Watts	Over- all Depth	List Price
4"	TV Square	407	60	4	9/16"	3.2	2-4	2 3/8"	\$ 5.00
		408	100	4	9/16"	3.2	2-4	2 3/8"	5.00
		401	450	4	9/16"	3.2	2-4	2 7/32"	5.00
4x6"	Ellip. TV	4607	60	4	9/16"	3.2	2-4	2 9/16"	5.75
		4608	100	4	9/16"	3.2	2-4	2 9/16"	5.75
5"	TV	4507	60	4	9/16"	3.2	2-4	2 7/16"	5.25
		4508	100	4	9/16"	3.2	2-4	2 7/16"	5.25
		4501	450	4	9/16"	3.2	2-4	2 7/16"	5.25
		4502	1000	4	9/16"	3.2	2-4	2 7/16"	5.25
		4504	1800	4	9/16"	3.2	2-4	2 7/16"	5.25
6"		601	450	4	9/16"	3.2	3-6	2 27/32"	5.75
		602	1000	4	9/16"	3.2	3-6	2 27/32"	5.75
		604	1800	4	9/16"	3.2	3-6	2 27/32"	5.75
10"	Round	1049	600	10	1"	3.2	9-12	4 17/32"	11.00
		1042	1000	10	1"	3.2	9-12	4 17/32"	11.00
12"	Round	1249	600	10	1"	3.2	10-15	5 3/32"	13.00
		1242	1000	10	1"	3.2	10-15	5 3/32"	13.00

FOR AUTO RADIO SPEAKERS SEE OTHER SIDE IN PM SPECIFICATIONS

Permoflux

PERMANENT MAGNET DYNAMIC SPEAKERS

... with Powerful ALNICO 5 Magnets ...

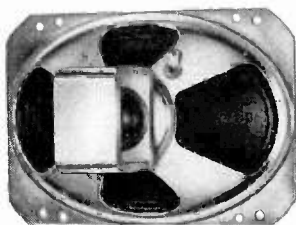
Like all Permoflux electronic and acoustical products, Permoflux PM Speakers, with their powerful, light weight Alnico 5 Magnets, are engineered to the highest performance standards. Their over-all sensitivity, wide frequency response and rugged mechanical design make them favorites wherever fidelity of

tone is an important consideration. Because of modern and efficient manufacturing methods and quality control systems which assure remarkable uniformity in production, Permoflux Speakers attain the performance originally engineered into them. The years of development experience behind the perfection achieved in Permoflux Speakers assures the finest sound reproduction in every application.

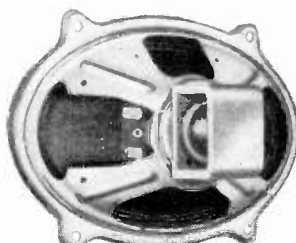
SPECIFICATIONS

Size and Shape		Model No. or Code	Magnet Data Flux† Gauss	Approx. Wt.	Voice Coil Data Diameter Impedance Ohms	Watts	Over- all Depth	List Price
2½"	Square	*25A	6000	.5	9/16"	3.2	1 7/16	\$ 4.00
		*25C	9000	1.5	9/16"	3.2	1 7/8	4.75
3"	Square	*3A	6000	.5	9/16"	3.2	1 1/2	4.00
		*3C	9000	1.5	9/16"	3.2	1 9/32	4.75
3¼"	Square	*32A	6000	.5	9/16"	3.2	1 3/4	4.00
		*32C	9000	1.5	9/16"	3.2	2	4.75
4"	Square	*4A	6000	.5	9/16"	3.2	1 5/32	4.00
		*4C	9000	1.5	9/16"	3.2	2 3/16	4.75
	Intercom. Weatherproof	*4A1	6000	.5	9/16"	45 ohm	1 5/32	5.00
		*4CW	9000	1.5	9/16"	3.2	2 3/16	5.50
4x6"	Ellip.	*46A	6000	.5	9/16"	3.2	1 7/8	4.75
		*46C	9000	1.5	9/16"	3.2	2 9/32	5.50
5"	P.C.	*45A	6000	.5	9/16"	3.2	1 9/32	4.25
		*45C	9000	1.5	9/16"	3.2	2 5/16	5.00
	Intercom. Weatherproof	*45A1	6000	.5	9/16"	45 ohm	1 9/32	5.25
		*45CW	9000	1.5	9/16"	3.2	2 5/16	5.75
5"	Round	*45AR	6000	.5	9/16"	3.2	2	4.25
		*45CR	9000	1.5	9/16"	3.2	2 1/4	5.00
5¼"	Square Auto Auto	*52A	6000	.5	9/16"	3.2	2 3/16	4.75
		*52C	9000	1.5	9/16"	3.2	2 15/32	5.25
		*52K	8500	2.0	3/4"	3.2	2 1/2	6.00
5x7"	Ellip. Auto Auto Auto	57C	9000	1.5	9/16"	3.2	2 15/32	5.75
		57K	8500	2.0	3/4"	3.2	3	7.00
		**57KA	8500	2.0	3/4"	3.2	3	7.00
6"	P.C. Auto Auto	*6A	6000	.5	9/16"	3.2	2 3/4	4.75
		*6C	9000	1.5	9/16"	3.2	2 23/32	5.50
		*6K	8500	2.0	3/4"	3.2	2 3/4	6.25
6x9"	Ellip. Auto	69K	8500	2.0	3/4"	3.2	3 15/32	7.50
		**69KA	8500	2.0	3/4"	3.2	3 15/32	7.50
7"	P.C. Auto Auto	7K	8500	2.0	3/4"	3.2	3 3/16	7.00
		**7KA	8500	2.0	3/4"	3.2	3 3/16	7.00
8"	P.C. Auto	75K	8500	2.0	3/4"	3.2	3 1/32	7.50
		75L	10000	3.0	3/4"	3.2	3 9/16	8.25
		75S	8500	4.0	1"	3.2	3 13/16	10.00
10"	Round	10L	10000	3.0	3/4"	3.2	4 9/16	9.75
		10S	8500	4.0	1"	3.2	4 7/32	12.50
12"	Round	12L	10000	3.0	3/4"	3.2	5 3/32	11.50
		12S	8500	4.0	1"	3.2	5 3/32	14.00

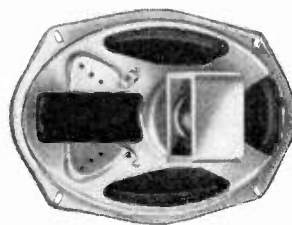
NOTE . . . † The efficiency or sensitivity of a speaker is proportional to the flux density provided by the magnet. When the voice coil diameter is increased to provide greater watts power handling capacity, a larger magnet is required to give same flux density.
* Equipped with Universal Mounting Brackets. ** Pot Rotated 90°.



4" x 6" MODELS



5" x 7" MODELS



6" x 9" MODELS

RACON

Speakers Horn Units Horns



RE-ENTRANT TRUMPETS



RE-35 RE-60 RE-50

A compact trumpet of the double re-entrant type, made to occupy a small space, yet having a long air column and delivering highly concentrated sound with the greatest efficiency over long distances. RACON RE-ENTRANT TRUMPETS have base and inside tone arm made of aluminum castings, outside bell of heavy gauge aluminum spinning; RE-35, RE-50, RE-60 have center of RACON ACOUSTIC material to

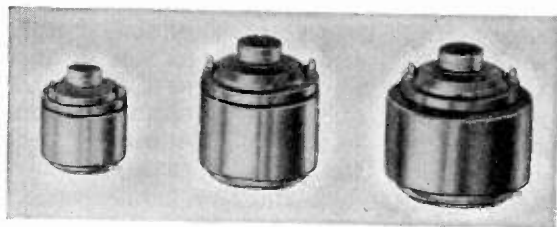
prevent resonant effects prevalent in all large reflecting surfaces. Sturdy construction makes them practi-

cally abuse-proof. Supplied with U-bracket mounting (ratchet swivel type on request). RE-60 and RE-50 have wide band frequency characteristics suitable for best musical reproduction. RE-35 and RE-25 most suitable for band music. All have high degree of intelligibility and are excellent for indoor or outdoor use. Chime systems, recreation centres, sound trucks, railroad and bus terminals, arenas, camps, and noisy factories where there is a high noise level to be overridden.

Model No.	Acoustic Length	Bell Diam.	Over-all Length	Cut-off (cycles)	Distrib. Angle	Net Wt., lb.	Code	List Price
RE-60	6'	26"	28"	112	45°	12 1/2	REMOL	\$66.00
RE-50	4 1/2'	24 1/2"	23 1/2"	140	50°	11 1/2	REMOY	45.00
RE-35	3 1/2'	19"	16 1/4"	175	55°	8	REMOX	32.50
RE-25	2 1/2'	13 1/2"	11"	225	60°	5 3/4	REMOD	25.00

Waterproof Permanent Magnet Driver Units

Latest improvements are incorporated in these driver units. Higher watt-handling capacity, greater effi-



PM-608

PM-615

PM-623

ciency and practically lifetime operation. Finest grade of Alnico V steel magnets and Armco magnetic iron throughout. All steel parts plated to prevent corrosion. Units are magnetized, using an electromagnetic cutout switch which gives the maximum flux density obtainable in the gap. All magnets are measured for flux density and each unit is tested with special apparatus for power handling capacity as well as 300-volt ground-test, making for uniformity and ability to withstand all types of service.

Long life plastic diaphragm and formers. Aluminum wire for voice coil to increase efficiency. Life-time leads. Completely waterproof, yet diaphragm easily removed if necessary.

NEW SUPER X UNITS USING LATEST ALNICO V MAGNETS

Model No.	Weight Net	Weight Ship.	Flux Density per sq. cm.	Frequency Range	Imp.	Diam.	Ht.	Thread	Capacity (watts) Peak	Operating	Code	List Price
PM-623	3 lb.	9 lb.	15,500 gaussess	80-7000	15	5 1/4"	4 1/2"	1 3/8 x 18	65	35	RETIX	\$50.00
PM-615	6 1/2 lb.	7 1/2 lb.	13,500 gaussess	90-7000	15	4 1/4"	4 1/2"	1 3/8 x 18	60	30	RETIN	35.00
PM-608	5 lb.	6 lb.	11,000 gaussess	90-6500	15	4"	3 1/4"	1 3/8 x 18	50	25	RETIP	25.00

HIGH EFFICIENCY LINE MATCHING TRANSFORMERS

A series of transformers designed to have wide band frequency transmission with minimum loss. Small in size yet able to handle necessary power requirements. All Models vacuum impregnated.

Model No.	Type	Capacity	Impedance Primary	Secondary	Code	List Price
TR10S	Strapped	10 watt	500 ohm	15	RANFO	\$2.45
TR10SV	Strapped	10 watt	250, 500, 1000, 2500	15	RANFT	2.70
TR15C	Cased	15 watt	500 ohm	15	RASHO	4.60
TR25S	Strapped	25 watt	500 ohm	15	RANGO	3.60
TR25SV	Strapped	25 watt	250, 500, 1000, 2500	15	RANGT	4.10

DIAPHRAGM REPLACEMENTS

Model No.	Description	Voice Coil Diameter	*Net Price
RA-400	Large Full Dome Bakelized Diaphragm	2"	\$3.60
WE-500	Large Reverse Dome Bakelized Diaphragm	2"	3.60
BA-600	Small Reverse Dome Bakelized Diaphragm	1 1/4"	1.75
BA-700	Small Reverse Dome Metal Diaphragm	1 1/4"	1.35
RA-401	Large Head Assembly with Full Dome Bakelized Diaphragm	2"	5.25
WE-501	Large Head Assembly with Reverse Dome Bakelized Diaphragm	2"	5.25
BA-601	Small Head Assembly with Reverse Dome Bakelized Diaphragm	1 1/4"	2.75
BA-701	Small Head Assembly with Reverse Dome Metal Diaphragm	1 1/4"	2.35

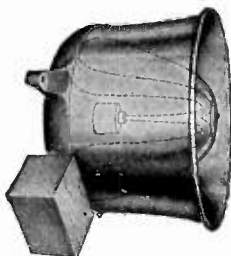
RACON

Speakers Horn Units Horns



DOUBLE RE-ENTRANT MARINE SPEAKERS

A highly efficient double re-entrant type of horn. The Regular, Midget and Miniature Marine speakers are approved by the U. S. Coast Guard for all Emergency Loudspeaker Systems on ships, under the 53rd Supplement of the Bureau, after tests made by the Bureau of Standards, Washington, D. C. These Marine Speakers are used both as Loudspeakers and as Microphones. The driver Unit and connections are all enclosed, making a completely waterproof speaker not affected by temperature or weather, including use at sea. Made from a heavy aluminum spinning, having a base of heavy aluminum casting. Has special non-corrosive Aluminum casting; baked chromatic Undercoat Finish plus outside lacquer finish. Uses latest type of driver units. Supplied for three-legged flush type rear or U-bracket mounting. All Speakers have waterproof boxes for interior mounting of transformers. Can be used where space is limited, on board



MR-30M



MG-21J

ship, on deck, interior or pilot house, rail and bus terminals, in locomotives, railroad yards, police and fire cars, paging systems or anywhere high noise levels are to be overridden. (U-bracket supplied on request at small additional cost.)

Model No.	Frequency Range	Distribution Angle	Bell Diam.	Capacity (watts) Operating Peak	Imp.	Description	Over-all Length	Net Wt., lb.	Code	List Price
MR-30M	250-6000	50°	14"	30 60	15	Regular	10"	25	REDIX	\$130.00
MR-32M	250-6000	50°	14"	60 120	8	2-Unit	18½"	38	REDIT	185.00
MG-21J	350-6000	55°	9½"	25 50	15	Midget with Jr. Unit	6¾"	11½	RASOM	55.00
MG-22J	330-6000	47°	12"	25 40	15	Midget Long Bell	9¾"	12½	RECUT	57.50
MG-21B	350-6000	55°	9½"	20 35	15	Midget with Baby Unit	6¾"	7½	RASOB	40.00
MN-15B	450-6000	65°	6¼"	20 35	15	Miniature	4¾"	4½	REDUP	31.00
MN-16B	440-6000	65°	10¼"	20 35	15	Miniature Long Bell	10¼"	6¼	REDIG	33.50

RE-ENTRANT PAGING SPEAKERS



RE-15 RE-12



MN-16B



DW-9R

A compact type of double re-entrant speaker to fit all types of paging applications. Some ratchet wall type mountings, others flush wall type or U-bracket. Extremely efficient. Will override high noise levels. Mechanically constructed to be non-resonant so as to transmit all sound through the mouth. In all models but DW-9R driver unit is completely cased. Can be used indoors or outdoors. Excellent sound energy

coverage as well as wide angle pick-up when used as a "talkback" from distances unobtainable with microphones. Designed for use where space is limited, but high noise levels are present. Rail and bus stations, on trains, in locomotives, on docks, on police and fire cars, for inter-com systems in schools, hospitals, offices and factories.

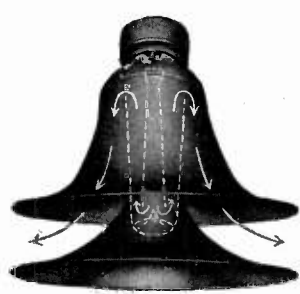
Model No.	Frequency Range	Distribution Angle	Operatg. Capacity	Nominal Imp.	Type Mounting	Bell Diam.	Over-all Length	Net Wt., lb.	Code	List Price
RE-15	350- 8,500	60°	20 watts	15 ohms	Swivel Ratchet & Bracket	9"	9¾"	4¾	REMAC	\$34.00
RE-12	450-10,000	65°	10 watts	15 ohms	Swivel Ratchet & Bracket	7"	6½"	2½	REMAB	26.00
MN-16B	440- 6,000	65°	20 watts	15 ohms	U-Bracket	10¼"	10¼"	6¼	REDIG	33.50
DW-9R	750-10,000	80°	8 watts	15 ohms	Flush Mounting	5"	2¼"	1½	REDOX	27.50



RACON

Speakers Horn Units Horns

RADIAL RE-ENTRANT HORNS & SPEAKERS



SR-35R
SR-60R



SR-15R
SR-12R

A weatherproof double re-entrant type horn and speaker designed to project sound over a complete circumference of 360°. These are constructed to be non-resonant and in models SR-35R and SR-60R the centre reflecting surface is of Racon Patented Acoustic Material. The deflectors are aluminum covered with this same material.

The two larger models can be used for the reproduction of music and speech and all models can be used for announcing and paging. The SR-60R is ideal for reproduction of church chimes.

Models SR-35R and SR-60R employ a standard thread and may be used with any Racon driver unit. Models SR-15R and SR-12R are supplied complete with built-in driver unit.

Model No.	Acoustic Length	Width	Length	Cut-off (cycles)	Net Weight	Mounting	Code	List Price
*SR-60R	6 1/2'	36"	34 1/2"	115	35 lb.	U-Bracket	RADAL	\$85.00
*SR-35R	4'	17"	16"	175	10 1/2 lb.	U-Bracket	RADAK	40.00
SR-15R	20"	12"	12"	330	5 lb.	Swivel Ratchet & Wall Bracket	RADAS	36.50
SR-12R	15"	9"	9"	440	2 3/4 lb.	Swivel Ratchet & Wall Bracket	RADAB	28.50

* Re-entrant horn only.

CONE SPEAKER PROJECTORS

PROJECTOR TYPE

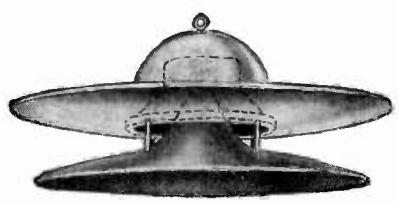


CP-12A

Efficient, rugged, suitable for indoor and outdoor use. All projectors have steel back enclosures and waterproof overlap. Provided with two offset mounting hooks.

Model No.	Cone Size	Bell Diam.	Length	Description	Code	List Price
CP-8A	8"	15"	15"	Aluminum Bell; Steel Back	RUMIX	\$11.00
CP-8AW	8"	15"	15"	Aluminum Bell; Steel Back acoustically damped; cone opening protected by wire screening and silk gauze	RIFLE	12.50
CP-12A	12"	17"	20"	Aluminum Bell; Steel Back	RUMID	13.50
CP-12AW	12"	17"	20"	Aluminum Bell; Steel Back acoustically damped; cone opening protected by wire screening and silk gauze	ROBOT	15.50

RADIAL TYPE



CR-6 CR-12

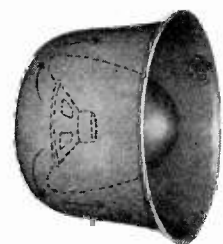
Speaker is designed to project sound over a complete circumference of 360 degrees, distributing the sound with even intensity and emphasizing the high frequency response lacking in direct cone speakers. Particularly adapted for use in factories and in auditoriums where complete coverage is desired. Can be camouflaged to blend with ceiling architecture.

IN ALL RACON RADIAL CONE HOUSINGS the upper deflector is made of heavy gauge steel, back cone cover of steel, and lower deflector of RACON ACOUSTIC material to prevent resonant effects prevalent in all metal reflecting surfaces. Stormproofed for all weather conditions. These cone housings are furnished without speakers.

Model No.	Cone Size	Bell Diam.	Depth	Net Weight	Code	List Price
CR-12	12" or 10"	31"	14"	10 lb.	RADAG	\$31.00
CR-6	6" or 5"	17"	7"	3 1/2 lb.	RADAC	11.50

(Specify size of cone speaker to be installed.)

MARINE TYPE



CM-5 CM-8 CM-12

A re-entrant speaker housing of the Marine type for cone operation. Owing to construction this housing can be used outdoors, as well, in all weather and temperatures without damage. Cone diaphragm is protected not only from direct contact of rain, but also from physical damage. Can be used for voice or music reproduction.

IN ALL RACON CONE MARINE SPEAKER HOUSINGS bell is made of heavy gauge aluminum; cone mounting is made of aluminum casting; centre bullet is made of Patented RACON ACOUSTIC material to prevent resonant effects. Material is stormproofed for all weather conditions. Housings are supplied without Cone Speakers.

Model No.	Cone Size	Bell Diam.	Depth	Net Weight	Code	List Price
CM-12	12"	24"	15"	10 lb.	RELIM	\$40.50
CM-8	8"	17 1/2"	11 1/2"	4 1/2 lb.	REFIM	21.50
CM-5	5"	10 1/2"	8 1/2"	2 1/4 lb.	REKIM	12.00

RACON

Speakers Horn Units Horns



STRAIGHT TRUMPETS



DT-423
DT-424
DT-425
DT-427

QT-444

ST-414
ST-415
ST-417

The most efficient horns obtainable. Output from any straight trumpet is approximately 2 DB higher than corresponding re-entrant type with the same input. This is because straight trumpets lack the attenuation from re-entrance and reflection which is inherent in all re-entrant horns. Will override extremely high noise level, indoors or outdoors.

"DeLuxe" and "Stormproof" Trumpets are made of Racon Acoustic Cloth processed by a patented method which gives a non-vibratory wall, thereby increasing the output of the horn without loss due to wall vibration. Supplied for indoor use (DeLuxe type) and for outdoor use (Stormproof type)—guaranteed for life in all kinds of weather and temperature.

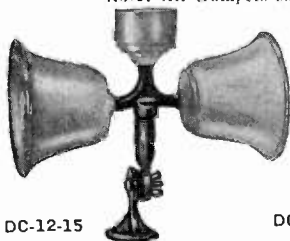
"All Aluminum" Trumpets are made of heavy gauge aluminum spinning with rolled beaded edge and cast aluminum throat sections.

"Unbreakable" Trumpets are made of heavy gauge aluminum spinning reinforced and damped with Patented Racon Acoustic Material to prevent wall vibration.

Larger sizes are useful for chime systems, airports, stadiums, parks, playgrounds, music festivals, for both excellent speech and music. Smaller sizes for railroad and bus terminals, waiting rooms, factories.

Model No.	Air Column (length)	Units Required	Cut-off (cycles)	Distribution Angle	Bell Diam.	Material	Net Weight	Code	List Price
ST-415A	6'	1	115	45°	30"	Unbreakable	21 lb.	REGON	\$121.00
DT-425A	6'	2	115	50°	30"	Unbreakable	23 lb.	REGAY	129.50
QT-444A	6'	4	115	50°	30"	Unbreakable	30 lb.	RECUR	200.00
ST-414A	6'	1	115	45°	30"	Stormproof	23 lb.	RIDER	95.00
DT-424A	6'	2	115	50°	30"	Stormproof	25 lb.	RYDOX	103.50
ST-417A	6'	1	115	45°	30"	All Aluminum	19 lb.	RHINO	87.50
DT-427A	6'	2	115	50°	30"	All Aluminum	21 lb.	RHOMB	96.00
ST-414B	6'	1	115	45°	30"	DeLuxe	18 lb.	RHYME	79.50
DT-424B	6'	2	115	50°	30"	DeLuxe	21 lb.	RYPAN	88.00
ST-416A	4½'	1	145	50°	25"	Unbreakable	15 lb.	REFIX	93.50
ST-412A	4½'	1	145	50°	25"	Stormproof	18 lb.	RACEY	71.00
ST-413A	4½'	1	145	50°	25"	All Aluminum	11 lb.	RIANT	65.00
DT-423A	4½'	2	145	55°	25"	All Aluminum	16½ lb.	RIBES	73.50
ST-412B	4½'	1	145	50°	25"	DeLuxe	16 lb.	RANCH	52.50
ST-411A	3½'	1	195	50°	22"	Stormproof	12 lb.	RENEW	50.00
ST-410A	3½'	1	195	50°	22"	All Aluminum	7 lb.	REPEX	35.00
ST-411B	3½'	1	195	50°	22"	DeLuxe	10 lb.	REMIT	35.00
ST-251A	2'	1	250	55°	12"	Stormproof	2¼ lb.	RISAT	17.50
ST-251B	2'	1	250	55°	12"	All Aluminum	2 lb.	RIMAD	15.00
ST-251C	2'	1	250	55°	12"	DeLuxe	1¾ lb.	RIKAL	12.50

Note: All trumpets supplied on request with ratchet swivel mounting bracket at a charge of 35c net ea. additional.



DC-12-15



DC-302A



DC-2U

MULTIPLE HORN CONNECTORS

Connectors made for two straight trumpets to give wide angle coverage from use with one Driver unit. Made of Cast Bronze with loose coupling for unit connection. Also connector for two small Re-entrant Trumpets (RE-12 or RE-15) with one unit for coverage 180° apart; Cast Aluminum; supplied with swivel type wall bracket.

Model No.	Description	Material	List
DC-302A	2 St. Trumpet Connector 75° Dispersion Angle	Bronze	RADIX \$17.00
DC-12-15	2 Re-entrant Trumpet Connector 180° apart	Aluminum	RAMAC 15.00
DC-2U	Dual Unit Connector for all standard thread horns to permit the use of two driver units on one horn	Bronze	RADAX 15.00

ACCESSORIES



RB-150A



TB-150

Steel Swivel Brackets for Cone Projectors

For wall or truck mounting. Has tooth ratchet swivel and pipe connection to give 180° angular movement. Can be used on any Racon Cone Projector.

Model No.	Description	Cone Size	Code	List Price
RB-150	Without Base	8" or 12"	RAMIS	\$3.50
RB-150A	With Base	8" or 12"	RAMIT	5.00

Bronze Swivel Bracket for Re-entrant Trumpets

A three-legged base and ratchet connection for mounting a Re-entrant Trumpet on wall or truck. Made of Cast Bronze. Over-all height 9".

Model No.	Code	List Price
TB-150	RAMUG	\$6.00

RACON

Speakers Horn Units Horns



CHU-2

CELLULAR HORNS

This series of tweeters provides an economical and effective method of extending the range of conventional cone speakers. When used in conjunction with any well-designed 12"-15" cone speaker, a uniform response range is provided, from the lowest frequency of the cone to the limits of present-day program material. Response is essentially flat to 12,000 cycles, with usable output to 15,000 cycles. Cellular horn design permits wide angle distribution. All models must be used with a crossover network for optimum performance. The networks listed below are recommended and when employed, any of the tweeter models may be used with amplifiers having an output rating to 25-30 watts.

Model No.	Description	Freq. Range	Dispersion Angle Horizontal Vertical	Material	Code	List Price
CHU-1	High Freq. Speaker	900-12000	100° 50°	Cloth & Casting	RACAM	\$30.00
CHU-2	Two Cell Horn	900-12000	100° 50°	Casting	RALUX	37.50

CROSSOVER NETWORKS

Model No.	Description	Code	List Price
CON-15R	Variable Audio Taper Resistor Capacitor Network	RAFIR	\$11.00
CON-20	Variable Audio Taper Resistor Capacitor Inductive Network	RADUX	22.50

COMPLETE REPRODUCERS

Model No.	Description	Response	Size	List Price
CG-95	Cellular Grand 5-Watt	70-12000	11" x 15" x 11" deep	\$ 94.50
CG-115	Cellular Grand 20-Watt	60-12000	15" x 21" x 12" deep	115.00
DHU-1	High Freq. Cellular Tweeter Assembly with boxed network in beautiful metal case	900-12000	12" x 8" x 12" deep	51.00

NEW! RACON MICROPHONE STANDS

All floor models have heavy cast iron base finished in black crinkle. All tubing of brass with heavy wall thickness and burnished chromium plated finish. Uses 5/8" inner tubing and 7/8" outer tubing. Table and banquet models use loaded heavy spun steel bases with special turned-in beading —will not scratch the finest polished table top.

RACON LATEST IMPROVED CLUTCH ACTION

A TOUCH to move the extension tubing up or down. Set in any position. No slipping, no wearing of fibre bushings, no turning and tightening of clutches, no turning of thumb screws to hold position of mike.

Special Improved Clutch supplied as part of mike stand or supplied as extra part to be added to old or new microphone stand to convert to latest type; merely remove old clutch arrangement and screw latest device to outer tubing for permanent adjustment.



Model No. FS-10-12



Model No. TS-20

Model No.	Base	Clutch	Type	Height Adjustment	Net Weight	Code	List Price
FS-10-12	12"	Standard	Adjustable Floor	35"-65"	14 lbs.	REFAL	\$11.00
FS-10-12S	12"	*Special	Adjustable Floor	35"-65"	14 lbs.	REFAX	13.50
FS- 8-10	10"	Standard	Adjustable Floor	36"-66"	10 lbs.	RINAL	10.00
FS- 8-10S	10"	*Special	Adjustable Floor	36"-66"	10 lbs.	RINAX	12.50
BS-40	7 1/2"	Standard	Adjustable Banquet	19"-32"	2 1/2 lbs.	RIBET	7.00
TS-20	5 1/2"	Standard	Adjustable Table	7"-10"	1 1/4 lbs.	RODAT	5.00
TS-18	5 1/2"	Standard	Fixed Table	7"	1 lb.	RODAS	3.25
SC-3		Special Clutch, threaded to fit standard 7/8"-27 threaded tubing		3"		RECAx	3.50

* RACON LATEST IMPROVED CLUTCH ACTION.



Model No. FS-8-10



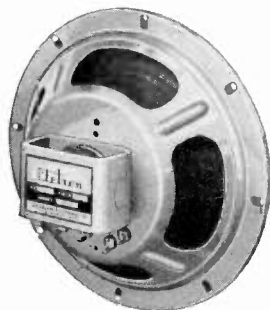
Model No. SC-3

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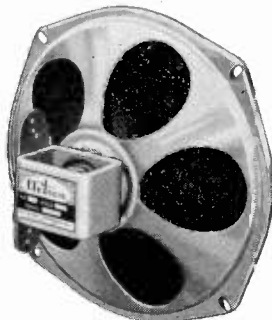
When writing for additional
information or when ordering
from sources of supply listed
in this book, please mention

RADIO'S MASTER

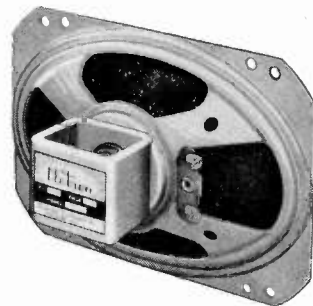
ALUMINUM VOICE COILS ASSURE HIGH FIDELITY



PM-8E



PM-6E



PM-46B

ALNICO V PERMANENT MAGNET SPEAKERS

SIZE INCHES	CATALOG NUMBER	MAGNET WEIGHT OUNCES	VOICE COIL SIZE & IMPEDANCE	WATTS	MOUNTING HOLE CENTERS INCHES	DEPTH INCHES	LIST PRICE
STANDARD GROUP							
3	PM-3A	.68	3.2 ohms $\frac{9}{16}$ "	2-4	$2 \frac{13}{16} \times 2 \frac{13}{16}$	$1 \frac{23}{32}$	\$ 3.65
4	PM-4A	.68	3.2 ohms $\frac{9}{16}$ "	2-4	$3 \frac{5}{16} \times 3 \frac{5}{16}$	$1 \frac{7}{8}$	3.85
4	PM-4B	1.00	3.2 ohms $\frac{9}{16}$ "	2-4	$3 \frac{5}{16} \times 3 \frac{5}{16}$	$2 \frac{1}{16}$	4.10
4	PM-4C	1.47	3.2 ohms $\frac{9}{16}$ "	2-4	$3 \frac{5}{16} \times 3 \frac{5}{16}$	$2 \frac{1}{16}$	4.50
5	PM-5A	.68	3.2 ohms $\frac{9}{16}$ "	2-4	$3 \frac{5}{16} \times 3 \frac{5}{16}$	$2 \frac{5}{32}$	4.10
5	PM-5B	1.00	3.2 ohms $\frac{9}{16}$ "	2-4	$3 \frac{5}{16} \times 3 \frac{5}{16}$	$2 \frac{11}{32}$	4.35
5	PM-5C	1.47	3.2 ohms $\frac{9}{16}$ "	2-4	$3 \frac{5}{16} \times 3 \frac{5}{16}$	$2 \frac{11}{32}$	4.75
6	PM-6B	1.00	3.2 ohms $\frac{9}{16}$ "	2-4	$4 \frac{3}{8} \times 4 \frac{3}{8}$	$2 \frac{21}{32}$	4.75
6	PM-6C	1.47	3.2 ohms $\frac{9}{16}$ "	2-4	$4 \frac{3}{8} \times 4 \frac{3}{8}$	$2 \frac{21}{32}$	5.10
6	PM-6E	2.15	3.2 ohms $\frac{3}{4}$ "	4-9	$4 \frac{3}{8} \times 4 \frac{3}{8}$	$2 \frac{15}{16}$	5.75
6	PM-6F	3.16	3.2 ohms $\frac{3}{4}$ "	4-9	$4 \frac{3}{8} \times 4 \frac{3}{8}$	$2 \frac{15}{16}$	6.75
8	PM-8D	1.47	3.2 ohms $\frac{3}{4}$ "	4-9	$5 \frac{7}{16} \times 5 \frac{7}{16}$	$3 \frac{3}{16}$	6.85
8	PM-8E	2.15	3.2 ohms $\frac{3}{4}$ "	4-9	$5 \frac{7}{16} \times 5 \frac{7}{16}$	$3 \frac{3}{16}$	7.10
8	PM-8F	3.16	3.2 ohms $\frac{3}{4}$ "	4-9	$5 \frac{7}{16} \times 5 \frac{7}{16}$	$3 \frac{3}{16}$	8.25
10	PM-10G	3.16	3.2 ohms 1"	6-12	$6 \frac{13}{16} \times 6 \frac{13}{16}$	$4 \frac{1}{8}$	10.25
10	PM-10H	4.64	3.2 ohms 1"	6-12	$6 \frac{13}{16} \times 6 \frac{13}{16}$	$4 \frac{5}{8}$	12.50
12	PM-12G	3.16	3.2 ohms 1"	6-12	$8 \frac{1}{4} \times 8 \frac{1}{4}$	$4 \frac{5}{8}$	11.50
12	PM-12H	4.64	3.2 ohms 1"	6-12	$8 \frac{1}{4} \times 8 \frac{1}{4}$	$5 \frac{3}{8}$	13.75
PUBLIC ADDRESS GROUP							
8	PM-8J	6.80	8 ohms 1"	6-12	$5 \frac{7}{16} \times 5 \frac{7}{16}$	$4 \frac{3}{8}$	12.00
8	PM-8L	10.00	8 ohms $1 \frac{1}{4}$ "	12-20	$5 \frac{7}{16} \times 5 \frac{7}{16}$	$4 \frac{3}{8}$	14.75
10	PM-10J	6.80	8 ohms 1"	6-12	$6 \frac{13}{16} \times 6 \frac{13}{16}$	$4 \frac{5}{8}$	15.00
10	PM-10L	10.00	8 ohms $1 \frac{1}{4}$ "	12-20	$6 \frac{13}{16} \times 6 \frac{13}{16}$	$4 \frac{5}{8}$	17.75
12	PM-12J	6.80	8 ohms 1"	6-12	$8 \frac{1}{4} \times 8 \frac{1}{4}$	$7 \frac{3}{4}$	16.00
12	PM-12L	10.00	8 ohms $1 \frac{1}{4}$ "	12-20	$8 \frac{1}{4} \times 8 \frac{1}{4}$	$7 \frac{3}{4}$	19.75
12	PM-12M	14.70	8 ohms $1 \frac{1}{4}$ "	15-25	$8 \frac{1}{4} \times 8 \frac{1}{4}$	$7 \frac{3}{4}$	27.50
12	PM-12P	21.50	8 ohms $1 \frac{1}{2}$ "	20-30	$8 \frac{1}{4} \times 8 \frac{1}{4}$	$7 \frac{3}{4}$	37.50
15	PM-15P	21.50	8 ohms $1 \frac{1}{2}$ "	20-30	$10 \frac{1}{4} \times 10 \frac{1}{4}$	$8 \frac{7}{8}$	45.00
OVAL GROUP							
4 x 6	PM-46B	1.00	3.2 ohms $\frac{9}{16}$ "	2-4	$3 \frac{5}{8} \times 4 \frac{5}{8}$	$2 \frac{7}{32}$	4.65
4 x 6	PM-46C	1.47	3.2 ohms $\frac{9}{16}$ "	2-4	$3 \frac{5}{8} \times 4 \frac{5}{8}$	$2 \frac{7}{32}$	5.05
5 x 7	PM-57C	1.47	3.2 ohms $\frac{9}{16}$ "	2-4	$4 \frac{11}{32} \times 4 \frac{11}{32}$	$2 \frac{7}{8}$	5.65
5 x 7	PM-57E	2.15	3.2 ohms $\frac{3}{4}$ "	4-9	$4 \frac{11}{32} \times 4 \frac{11}{32}$	$3 \frac{1}{4}$	6.75
5 x 7	PM-57F	3.16	3.2 ohms $\frac{3}{4}$ "	4-9	$4 \frac{11}{32} \times 4 \frac{11}{32}$	$3 \frac{1}{4}$	7.75
6 x 9	PM-69D	1.47	3.2 ohms $\frac{3}{4}$ "	4-9	$4 \frac{5}{8} \times 6 \frac{9}{16}$	$3 \frac{9}{16}$	6.95
6 x 9	PM-69E	2.15	3.2 ohms $\frac{3}{4}$ "	4-9	$4 \frac{5}{8} \times 6 \frac{9}{16}$	$3 \frac{9}{16}$	7.85
6 x 9	PM-69F	3.16	3.2 ohms 1"	4-9	$4 \frac{5}{8} \times 6 \frac{9}{16}$	$3 \frac{9}{16}$	8.85
AUTO REPLACEMENT GROUP							
$5 \frac{1}{4}$	PM-5CA	1.47	3.2 ohms $\frac{9}{16}$ "	2-4	4 x 4	$2 \frac{15}{32}$	5.15
$6 \frac{1}{4}$	PM-6EA	2.15	3.2 ohms $\frac{3}{4}$ "	4-9	$4 \frac{3}{4} \times 4 \frac{3}{4}$	$3 \frac{3}{16}$	5.85
7	PM-7EA	2.15	3.2 ohms $\frac{3}{4}$ "	4-9	$4 \frac{1}{4} \times 5 \frac{3}{4}$	$3 \frac{1}{4}$	6.95
7	PM-7FA	3.16	3.2 ohms 1"	4-9	$4 \frac{1}{4} \times 5 \frac{3}{4}$	$3 \frac{5}{16}$	7.95
WIDE RANGE GROUP							
8	PM-8JW	6.80	8 ohms 1"	6-12	$5 \frac{7}{16} \times 5 \frac{7}{16}$	$4 \frac{3}{8}$	14.25
12	PM-12MW	14.70	8 ohms $1 \frac{1}{4}$ "	15-25	$8 \frac{1}{4} \times 8 \frac{1}{4}$	$7 \frac{3}{4}$	29.50

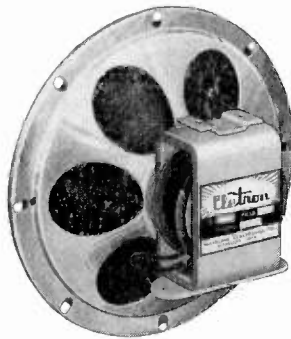
See notes at bottom of next page.

Cletron RADIO SPEAKERS
CLEVELAND ELECTRONICS, INC. CLEVELAND, OHIO

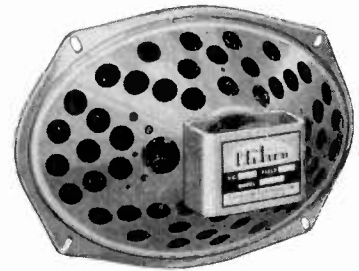
EXTRA STRONG CONSTRUCTION PROVIDES LONGER LIFE



ED-345



ED-810



ED-6945

ELECTRO DYNAMIC SPEAKERS

SIZE INCHES	CATALOG NUMBER	FIELD RESISTANCE	VOICE COIL SIZE & IMPEDANCE	WATTS	MOUNTING HOLE CENTERS INCHES	DEPTH INCHES	LIST PRICE
STANDARD GROUP							
3	ED-345	450 ohms	3.2 ohms $\frac{9}{16}$ "	2-4	$2\frac{13}{16} \times 2\frac{13}{16}$	$2\frac{1}{32}$	\$ 4.35
4	ED-445	450 ohms	3.2 ohms $\frac{9}{16}$ "	2-4	$3\frac{5}{16} \times 3\frac{5}{16}$	$2\frac{3}{16}$	4.50
5	ED-545	450 ohms	3.2 ohms $\frac{9}{16}$ "	2-4	$3\frac{5}{16} \times 3\frac{5}{16}$	$2\frac{7}{16}$	4.75
5	ED-510	1000 ohms	3.2 ohms $\frac{9}{16}$ "	2-4	$3\frac{5}{16} \times 3\frac{5}{16}$	$2\frac{7}{16}$	4.75
5	ED-518	1800 ohms*	3.2 ohms $\frac{9}{16}$ "	2-4	$3\frac{5}{16} \times 3\frac{5}{16}$	$2\frac{7}{16}$	4.75
6	ED-645	450 ohms	3.2 ohms $\frac{3}{4}$ "	4-9	$4\frac{3}{8} \times 4\frac{3}{8}$	$2\frac{15}{16}$	5.50
6	ED-610	1000 ohms	3.2 ohms $\frac{3}{4}$ "	4-9	$4\frac{3}{8} \times 4\frac{3}{8}$	$2\frac{15}{16}$	5.50
6	ED-618	1800 ohms*	3.2 ohms $\frac{3}{4}$ "	4-9	$4\frac{3}{8} \times 4\frac{3}{8}$	$2\frac{15}{16}$	5.50
8	ED-810	1000 ohms	3.2 ohms $\frac{3}{4}$ "	4-9	$5\frac{7}{16} \times 5\frac{7}{16}$	$3\frac{3}{16}$	6.85
8	ED-818	1800 ohms*	3.2 ohms $\frac{3}{4}$ "	4-9	$5\frac{7}{16} \times 5\frac{7}{16}$	$3\frac{3}{16}$	6.85
10	ED-1010	1000 ohms	3.2 ohms 1"	6-12	$6\frac{13}{16} \times 6\frac{13}{16}$	$4\frac{5}{8}$	10.50
10	ED-1018	1800 ohms*	3.2 ohms 1"	6-12	$6\frac{13}{16} \times 6\frac{13}{16}$	$4\frac{5}{8}$	10.65
12	ED-1210	1000 ohms	3.2 ohms 1"	6-12	$8\frac{1}{4} \times 8\frac{1}{4}$	$5\frac{3}{8}$	12.75
12	ED-1218	1800 ohms*	3.2 ohms 1"	6-12	$8\frac{1}{4} \times 8\frac{1}{4}$	$5\frac{3}{8}$	12.90
OVAL GROUP							
4 x 6	ED-4645	450 ohms	3.2 ohms $\frac{9}{16}$ "	2-4	$3\frac{5}{8} \times 4\frac{5}{8}$	$2\frac{3}{8}$	5.25
4 x 6	ED-4610	1000 ohms	3.2 ohms $\frac{9}{16}$ "	2-4	$3\frac{5}{8} \times 4\frac{5}{8}$	$2\frac{3}{8}$	5.25
5 x 7	ED-5745	450 ohms	3.2 ohms $\frac{3}{4}$ "	4-9	$4\frac{11}{32} \times 4\frac{11}{32}$	$3\frac{1}{4}$	6.25
5 x 7	ED-5710	1000 ohms	3.2 ohms $\frac{3}{4}$ "	4-9	$4\frac{11}{32} \times 4\frac{11}{32}$	$3\frac{1}{4}$	6.25
6 x 9	ED-6945	450 ohms	3.2 ohms $\frac{3}{4}$ "	4-9	$4\frac{5}{8} \times 6\frac{9}{16}$	$3\frac{9}{16}$	7.35
6 x 9	ED-6910	1000 ohms	3.2 ohms $\frac{3}{4}$ "	4-9	$4\frac{5}{8} \times 6\frac{9}{16}$	$3\frac{9}{16}$	7.35
TV REPLACEMENT GROUP							
5	ED-5T6	60 ohms	3.2 ohms $\frac{9}{16}$ "	2-4	$3\frac{5}{16} \times 3\frac{5}{16}$	$2\frac{7}{16}$	4.75
5	ED-5T10	100 ohms	3.2 ohms $\frac{9}{16}$ "	2-4	$3\frac{5}{16} \times 3\frac{5}{16}$	$2\frac{7}{16}$	4.75
4 x 6	ED-46T6	60 ohms	3.2 ohms $\frac{9}{16}$ "	2-4	$3\frac{5}{8} \times 4\frac{5}{8}$	$2\frac{3}{8}$	5.25
4 x 6	ED-46T10	100 ohms	3.2 ohms $\frac{9}{16}$ "	2-4	$3\frac{5}{8} \times 4\frac{5}{8}$	$2\frac{3}{8}$	5.25
AUTO REPLACEMENT GROUP							
4	ED-4Y6	4 ohms	3.2 ohms $\frac{9}{16}$ "	2-4	$3\frac{5}{16} \times 3\frac{5}{16}$	$2\frac{3}{16}$	4.50
5	ED-5Y6	4 ohms	3.2 ohms $\frac{9}{16}$ "	2-4	$3\frac{5}{16} \times 3\frac{5}{16}$	$2\frac{7}{16}$	4.75
5 1/4	ED-5S6	4 ohms	3.2 ohms $\frac{9}{16}$ "	2-4	4 x 4	$2\frac{15}{32}$	5.15
6	ED-6Y6	4 ohms	3.2 ohms $\frac{3}{4}$ "	4-9	$4\frac{3}{8} \times 4\frac{3}{8}$	$3\frac{3}{16}$	5.50
6 1/4	ED-6S6	4 ohms	3.2 ohms $\frac{3}{4}$ "	4-9	$4\frac{3}{4} \times 4\frac{3}{4}$	$3\frac{3}{16}$	5.75
7	ED-7Y6	4 ohms	3.2 ohms 1"	4-9	$4\frac{1}{4} \times 5\frac{3}{4}$	$3\frac{5}{16}$	6.75
6 x 9	ED-69Y6	4 ohms	3.2 ohms 1"	4-9	$4\frac{5}{8} \times 6\frac{9}{16}$	$3\frac{9}{16}$	7.45

NOTE: * Tapped at 300 ohms.

NOTE: 3 - 4 - 5 1/4 - 6 - 6 1/4 inch speakers have square type mountings.

NOTE: 5 - 8 - 10 - 12 - 15 inch speakers have round type mountings.

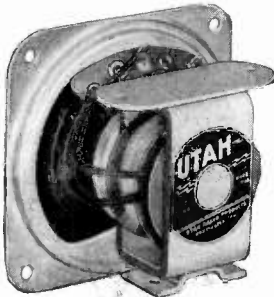
NOTE: Transformer Mounting Brackets and 2 drilled and tapped holes in Pot are provided on the smaller speakers.

Electro RADIO SPEAKERS

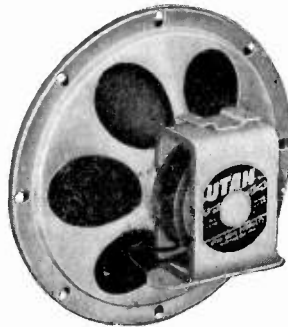
CLEVELAND ELECTRONICS, INC. CLEVELAND, OHIO



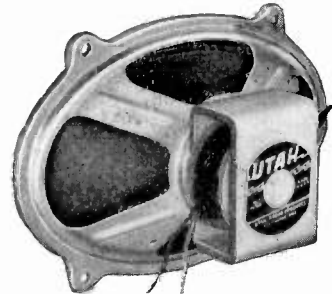
STRONG CONSTRUCTION



SE345



SE625



SE5710

ELECTRO DYNAMIC SPEAKERS

AUTO

Utah Catalog Number	Voice Coil Impedance Ohms	Voice Coil Diameter Inches	Optimum Audio Watts	Field Resistance Ohms	List Price Each
SE5Y6	3-4	$\frac{3}{16}$	2-4	4	\$ 5.05
SE5S6	3-4	$\frac{3}{4}$	2-4	4	5.45
SE6S6	3-4	$\frac{3}{4}$	4-9	4	5.45
SE7Y6	3-4	$\frac{3}{4}$	4-9	4	7.45
SE7Y6A	3-4	$\frac{3}{4}$	4-9	4	7.45
SE7Z6	3-4	$\frac{3}{4}$	4-9	4	7.75
SE69Y6	3-4	$\frac{3}{4}$	4-9	4	7.95

OVAL

Utah Catalog Number	Voice Coil Impedance Ohms	Voice Coil Diameter Inches	Optimum Audio Watts	Field Resistance Ohms	List Price Each
SE4645	3-4	$\frac{0}{16}$	2-4	450	\$ 5.45
SE4610	3-4	$\frac{0}{16}$	2-4	1000	5.55
SE4618	3-4	$\frac{0}{16}$	2-4	1800	5.55
SE4627	3-4	$\frac{0}{16}$	2-4	2750	5.55
SE5745	3-4	$\frac{3}{4}$	4-9	450	6.25
SE5710	3-4	$\frac{3}{4}$	4-9	1000	6.50
SE5718	3-4	$\frac{3}{4}$	4-9	1800	6.50
SE5727	3-4	$\frac{3}{4}$	4-9	2750	6.50
SE6945	3-4	$\frac{3}{4}$	4-9	450	7.25
SE6910	3-4	$\frac{3}{4}$	4-9	1000	7.50
SE6918	3-4	$\frac{3}{4}$	4-9	1800	7.50
SE6927	3-4	$\frac{3}{4}$	4-9	2750	7.50

STANDARD

Utah Catalog Number	Voice Coil Impedance Ohms	Voice Coil Diameter Inches	Optimum Audio Watts	Field Resistance Ohms	List Price Each
SE345	3-4	$\frac{0}{16}$	2-4	450	\$ 4.70
SE310	3-4	$\frac{0}{16}$	2-4	1000	4.75
SE318	3-4	$\frac{0}{16}$	2-4	1800	4.75
SE327	3-4	$\frac{0}{16}$	2-4	2750	4.75
SE445	3-4	$\frac{0}{16}$	2-4	450	4.80
SE410	3-4	$\frac{0}{16}$	2-4	1000	4.90
SE418	3-4	$\frac{0}{16}$	2-4	1800	4.90
SE427	3-4	$\frac{0}{16}$	2-4	2750	4.90
SE545	3-4	$\frac{0}{16}$	2-4	450	4.90
SE510	3-4	$\frac{0}{16}$	2-4	1000	5.00
SE518	3-4	$\frac{0}{16}$	2-4	1800	5.00
SE527	3-4	$\frac{0}{16}$	2-4	2750	5.00
SE645	3-4	$\frac{3}{4}$	4-9	450	5.85
SE610	3-4	$\frac{3}{4}$	4-9	1000	6.00
SE618	3-4	$\frac{3}{4}$	4-9	1800	6.00
SE625	3-4	$\frac{3}{4}$	4-9	2500	6.00
SE810	3-4	$\frac{3}{4}$	4-9	1000	7.30
SE818	3-4	$\frac{3}{4}$	4-9	1800	7.55
SE825	3-4	$\frac{3}{4}$	4-9	2500	7.55
SE1010	3-4	1	6-12	1000	12.00
SE1015	3-4	1	6-12	1500	12.25
SE1025	3-4	1	6-12	2500	12.25
SE1210	3-4	1	6-12	1000	14.00
SE1215	3-4	1	6-12	1500	14.25
SE1225	3-4	1	6-12	2500	14.25
SE1510	8	$1\frac{1}{2}$	20-30	1000	27.00
SE1515	8	$1\frac{1}{2}$	20-30	1500	28.00
SE1525	8	$1\frac{1}{2}$	20-30	2500	28.00

UNIVERSAL OUTPUT TRANSFORMERS

Mfg. Style	Utah Catalog Number	Primary Impedances	Secondary	Nominal Wattage	Core Size Inches	Dimensions A Inches	B Inches	C Inches	Mounting Centers Inches	List Price Each
D	7364	Any tube combination	Any V.C.	8	$\frac{3}{4}$ x $\frac{5}{8}$	$1\frac{3}{4}$ x $1\frac{1}{2}$	$1\frac{3}{4}$ x $1\frac{1}{2}$	$2\frac{3}{4}$ x $2\frac{3}{4}$		\$2.50
E	5999	Any tube combination	Any V.C.	12	$\frac{3}{4}$ x $\frac{3}{4}$	$2\frac{1}{2}$ x $1\frac{1}{2}$	$1\frac{1}{2}$ x $1\frac{1}{2}$	$2\frac{3}{4}$ x $2\frac{3}{4}$		3.00

UNIVERSAL LINE TRANSFORMERS

D	8747-B	560-1000-1500-2000 ohms	3-4 & 6-8 ohms	8	$\frac{3}{4}$ x $\frac{3}{4}$	$1\frac{3}{4}$ x $1\frac{1}{2}$	$1\frac{1}{2}$ x $1\frac{1}{2}$	$2\frac{3}{4}$ x $2\frac{3}{4}$		
E	8749-B	500-1000-1500-2000 ohms	3-4 & 6-8 ohms	12	$\frac{3}{4}$ x $\frac{3}{4}$	$2\frac{1}{2}$ x $1\frac{1}{2}$	$1\frac{1}{2}$ x $1\frac{1}{2}$	$2\frac{3}{4}$ x $2\frac{3}{4}$		2.50

SINGLE OUTPUT TRANSFORMERS

D	8770-A	2500 ohms	3-4 ohms	3.5	$\frac{1}{2}$ x $\frac{1}{2}$	$1\frac{1}{2}$ x $1\frac{1}{2}$	$1\frac{1}{2}$ x $1\frac{1}{2}$	$2\frac{3}{4}$ x $2\frac{3}{4}$	2	1.45
D	8771-A	5000 ohms	3-4 ohms	3.5	$\frac{1}{2}$ x $\frac{1}{2}$	$1\frac{1}{2}$ x $1\frac{1}{2}$	$1\frac{1}{2}$ x $1\frac{1}{2}$	$2\frac{3}{4}$ x $2\frac{3}{4}$	2	1.45
D	8772-A	7000 ohms	3-4 ohms	3.5	$\frac{1}{2}$ x $\frac{1}{2}$	$1\frac{1}{2}$ x $1\frac{1}{2}$	$1\frac{1}{2}$ x $1\frac{1}{2}$	$2\frac{3}{4}$ x $2\frac{3}{4}$	2	1.45
D	8773-A	10000 ohms*	3-4 ohms	6.5	$\frac{1}{2}$ x $\frac{1}{2}$	$1\frac{1}{2}$ x $1\frac{1}{2}$	$1\frac{1}{2}$ x $1\frac{1}{2}$	$2\frac{3}{4}$ x $2\frac{3}{4}$	2	1.90

Note: * Center tapped.

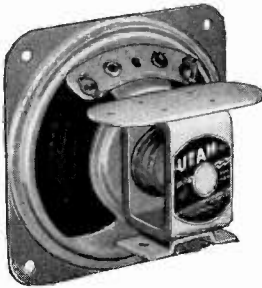
TUBE APPLICATIONS:

8770-A: 25L6, 25B6, 35L6, 35B5, 35A5, 50B5, 50L6; 8771-A: 6V6, 25A6, 6AQ5; 8772-A: 6F6, 6K6, 6AC5; 8773-A: PP6F6, PP6K6, PP6V6, PP6AC5

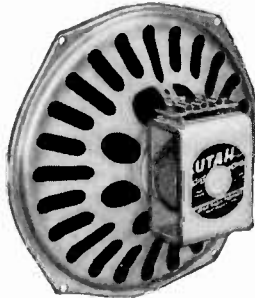
• See Next Page for Utah's PM Speakers •

UTAH SPEAKERS, HUNTINGTON, INDIANA

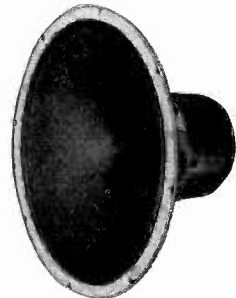
ALUMINUM VOICE COILS



SP3A



SP7EA



SP12LW

PERMANENT MAGNET SPEAKERS

AUTO

Utah Catalog Number	Voice Coil Impedance Ohms	Voice Coil Diameter Inches	Optimum Audio Watts	Alnico V Weight Ounces	List Price Each
SP5DA	3-4	$\frac{9}{16}$	4-9	2.15	6.95
SP6EA	3-4	$\frac{9}{16}$	2-4	1.47	\$ 5.65
SP69D	3-4	$\frac{9}{16}$	4-9	2.15	7.95
SP7EA	3-4	$\frac{9}{16}$	4-9	1.47	7.90

OVAL

Utah Catalog Number	Voice Coil Impedance Ohms	Voice Coil Diameter Inches	Optimum Audio Watts	Alnico V Weight Ounces	List Price Each
SP46B	3-4	$\frac{9}{16}$	2-4	1.00	\$ 4.75
SP46C	3-4	$\frac{9}{16}$	2-4	1.47	5.70
SP57C	3-4	$\frac{9}{16}$	2-4	1.47	6.20
SP57E	3-4	$\frac{9}{16}$	4-9	2.15	7.45
SP57F	3-4	$\frac{9}{16}$	4-9	3.16	8.50
SP69D	3-4	$\frac{9}{16}$	4-9	1.47	7.90
SP69E	3-4	$\frac{9}{16}$	4-9	2.15	8.45
SP69F	3-4	$\frac{9}{16}$	4-9	3.16	8.95

WIDE RANGE and PA

Utah Catalog Number	Voice Coil Impedance Ohms	Voice Coil Diameter Inches	Optimum Audio Watts	Alnico V Weight Ounces	List Price Each
SP8JW	8	1	6-12	6.80	\$15.10
SP12LW	8	1 $\frac{1}{4}$	12-20	10.00	24.25
SP12M	8	1 $\frac{1}{4}$	15-25	14.70	29.50
SP12P	8	1 $\frac{1}{2}$	20-30	21.50	39.50
SP15P	8	1 $\frac{1}{2}$	20-30	21.50	47.50
SP15R	8	2	30-40	31.80	62.50

OUTDOOR

Utah Catalog Number	Voice Coil Impedance Ohms	Voice Coil Diameter Inches	Optimum Audio Watts	Alnico V Weight Ounces	List Price Each
SP4CO	3-4	$\frac{9}{16}$	2-4	1.47	\$ 5.25
SP5CO	3-4	$\frac{9}{16}$	2-4	1.47	5.60
SP6EO	3-4	$\frac{9}{16}$	4-9	2.15	7.00

STANDARD

Utah Catalog Number	Voice Coil Impedance Ohms	Voice Coil Diameter Inches	Optimum Audio Watts	Alnico V Weight Ounces	List Price Each
SP2A	3-4	$\frac{9}{16}$	1-2	.68	\$ 3.65
SP3A	3-4	$\frac{9}{16}$	2-4	.68	3.65
SP3B	3-4	$\frac{9}{16}$	2-4	1.00	3.95
SP3C	3-4	$\frac{9}{16}$	2-4	1.47	4.40
SP4A	3-4	$\frac{9}{16}$	2-4	.68	3.90
SP4B	3-4	$\frac{9}{16}$	2-4	1.00	4.22
SP4C	3-4	$\frac{9}{16}$	2-4	1.47	4.58
SP5A	3-4	$\frac{9}{16}$	2-4	.68	4.16
SP5B	3-4	$\frac{9}{16}$	2-4	1.00	4.49
SP5C	3-4	$\frac{9}{16}$	2-4	1.47	4.85
SP6B	3-4	$\frac{9}{16}$	2-4	1.00	4.95
SP6C	3-4	$\frac{9}{16}$	2-4	1.47	5.27
SP6D	3-4	$\frac{9}{16}$	4-9	1.47	5.69
SP6E	3-4	$\frac{9}{16}$	4-9	2.15	6.24
SP6F	3-4	$\frac{9}{16}$	4-9	3.16	6.93
SP8D	3-4	$\frac{9}{16}$	4-9	1.47	7.00
SP8E	3-4	$\frac{9}{16}$	4-9	2.15	7.45
SP8F	3-4	$\frac{9}{16}$	4-9	3.16	8.95
SP8J	3-4	1	6-12	6.80	13.32
SP8K	8	1 $\frac{1}{4}$	12-20	6.80	14.75
SP10G	3-4	1	6-12	3.16	10.45
SP10H	3-4	1	6-12	4.64	12.50
SP10J	3-4	1	6-12	6.80	15.20
SP10L	8	1 $\frac{1}{4}$	12-20	10.00	18.25
SP12G	3-4	1	6-12	3.16	11.75
SP12H	3-4	1	6-12	4.64	14.00
SP12J	3-4	1	6-12	6.80	16.25
SP12K	8	1 $\frac{1}{4}$	12-20	6.80	17.50
SP12L	8	1 $\frac{1}{4}$	12-20	10.00	20.75

INTER-COMMUNICATION

Utah Catalog Number	Voice Coil Impedance Ohms	Voice Coil Diameter Inches	Optimum Audio Watts	Alnico V Weight Ounces	List Price Each
SP4AI	44	$\frac{9}{16}$	2-4	.68	\$ 4.60
SP5AI	44	$\frac{9}{16}$	2-4	.68	4.85

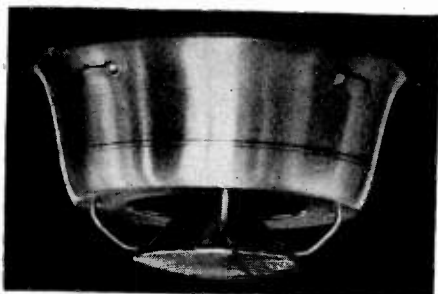
• See Preceding Page for Utah's EM Speakers •

UTAH SPEAKERS, HUNTINGTON, INDIANA

"Heard Everywhere"

FLUSH MOUNTING CEILING BAFFLES

WITH "FLOATING CONICAL ACTION"



Model Nos.

BL6-A
BL8-A
BL12-A
BL6-C
BL8-C
BL6-PC
BL8-PC

PATENTED
IN THE U.S.A.
AND CANADA

DESCRIPTION OF BAFFLE

The flush mounting ceiling baffle is designed to mount flush to the ceiling quickly by inserting 4 toggle bolts, completely sealing back of housing to the ceiling. This baffle is recommended for normal ceilings. Uniform sound reproduction at 360° giving CONTROLLED SOUND evenly in all directions. Baffle is made of spun metal, of either 18 or 20 gauge aluminum or copper. Heavy ¼" jute lines interior with louvres on sides for proper pressure relief.

DIMENSIONS OF VARIOUS MODEL BAFFLES

6" models — 9¾" at top x 4¼" deep.
8" models — 13½" at top x 4¾" deep.
12" models — 18¾" at top x 8" deep.

Model No.	Type	Spkr. Size for Baffle	Material	Finish	List Price
BL6 - A	Flush Mounting	6"	Aluminum	Satin	13.00
BL6 - A	Flush Mounting	6"	Aluminum	Pol'd	13.50
BL8 - A	Flush Mounting	8"	Aluminum	Satin	22.00
BL8 - A	Flush Mounting	8"	Aluminum	Pol'd	24.00
BL12-A	Flush Mounting	12"	Aluminum	Pol'd	29.00
BL12-A	Flush Mounting	12"	Aluminum	Satin	27.00

ARCHITECTS' SPECIFICATIONS

This speaker baffle housing contains a half inch flange at top with 4 holes evenly placed for proper mounting to the ceiling. The lower metal cone is mounted to the housing by 4 one-quarter inch formed metal rods having 4 hard rubber grommets preventing metallic resonance. The upper part of the rods are threaded and mount through a tempered masonite speaker ring. All hardware furnished complete with each baffle.

Recessed Wall Type Directional Speaker Baffles

DESCRIPTION

This speaker trim ring is made of spun metal, 18 or 20 gauge aluminum or copper. Flocked metal color grille cloth protects speaker cone—masonite ring with 4 round head screws mounts through housing for mounting speaker. Housing has a depth of ½" and a half inch flange for mounting housing to wall.

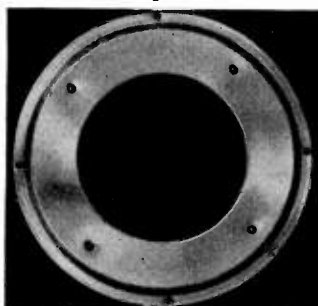
Model No.	Type	Spkr. Size for Baffle	Material	Finish	List Price
RS6 - A	Recessed Wall	6"	Aluminum	Satin	2.40
RS6 - A	Recessed Wall	6"	Aluminum	Pol'd	2.65
RS8 - A	Recessed Wall	8"	Aluminum	Satin	11.00
RS8 - A	Recessed Wall	8"	Aluminum	Pol'd	14.00
RS12-A	Recessed Wall	12"	Aluminum	Satin	14.00
RS12-A	Recessed Wall	12"	Aluminum	Pol'd	16.00

Model Nos.

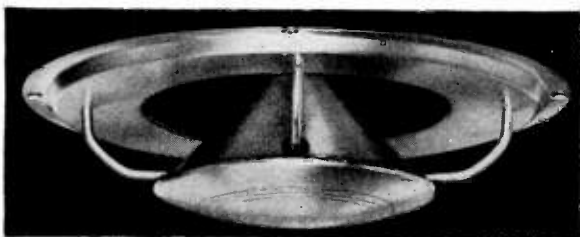
RS8-C RS6-A
RS8-PC RS8-A
RS12-C RS12-A
RS6-PC RS6-C

FEATURES

Concealment of speakers.
Easily installed.
Finished to match surroundings.



For Low Ceilings



Model Nos: AL12-C AL12-PC AL6-PC AL8-PC
 AL6-A AL8-A AL12-A AL6-C AL8-C

DIMENSIONS OF VARIOUS MODEL BAFFLES

The overall diameter at top of housing flange:

6" model — 9¾" in diameter, depth ½"
8" model — 11¾" in diameter, depth ½"
12" model — 16½" in diameter, depth 1"

DESCRIPTION

The false ceiling speaker housing is made of either 18 or 20 gauge aluminum or copper. Housing is spun metal, having a depth of ½" and a half inch flange for mounting housing to ceiling. The lower metal cone is mounted to the housing by 4 one-quarter inch formed metal rods having 4 hard rubber grommets preventing metallic resonance. The upper part of the rods are threaded and mount through a tempered masonite speaker wing. All hardware furnished complete with each baffle. The sound coverage of this baffle is approximately 360°.

Model No.	Type	Spkr. Size for Baffle	Material	Finish	Price
AL6 - A	False Ceiling	6"	Aluminum	Satin	6.50
AL6 - A	False Ceiling	6"	Aluminum	Pol'd	7.00
AL8 - A	False Ceiling	8"	Aluminum	Satin	13.50
AL8 - A	False Ceiling	8"	Aluminum	Pol'd	15.00
AL12-A	False Ceiling	12"	Aluminum	Satin	17.00
AL12-A	False Ceiling	12"	Aluminum	Pol'd	18.00

LOWELL METAL PRODUCTS CORPORATION • ST. LOUIS, MO., U.S.A.



JIM LANSING SIGNATURE SPEAKERS

JAMES B. LANSING SOUND, Inc.



JIM LANSING SIGNATURE SPEAKERS are engineered and precision fabricated to supply without compromise the finest loud speaker performance possible.

GENERAL PURPOSE SPEAKER SPECIFICATIONS

D-130 — 15 INCH

Power Input.....	20 Watts
Impedance (nominal).....	15 Ohms
Resonant Frequency.....	55 Cycles
Outside Diameter.....	15 $\frac{3}{8}$ ins.
Depth.....	5 $\frac{5}{8}$ ins.
Field.....	Perm. Mag.
Voice Coil Diameter.....	4 ins.
Mounting Dimen.....	R.M.A. Std.
Net Weight.....	19 pounds

LIST PRICE \$77.50

D-131 — 12 INCH

Power Input.....	12 Watts
Impedance (nominal).....	16 Ohms
Resonant Frequency.....	65 Cycles
Outside Diameter.....	12 $\frac{1}{2}$ ins.
Depth.....	5 ins.
Field.....	Perm. Mag.
Voice Coil Diameter.....	4 ins.
Mounting Dimen.....	R.M.A. Std.
Net Weight.....	17 pounds

LIST PRICE \$69.50

208 — 8 INCH

Power Input.....	12 Watts
Impedance (nominal).....	8 Ohms
Resonant Frequency.....	90 Cycles
Outside Diameter.....	8 $\frac{1}{2}$ ins.
Depth.....	2 $\frac{7}{8}$ ins.
Field.....	Perm. Mag.
Voice Coil Diameter.....	2 ins.
Mounting Dimen.....	R.M.A. Std.
Net Weight.....	4 pounds

LIST PRICE \$34.50

All Jim Lansing general purpose speakers utilize exceedingly large Alnico V Permanent Magnets, edge wound aluminum ribbon voice coils, aluminum high frequency center diaphragm vented to the rear to eliminate non-linear compression effects, and heavy, extremely rigid, cast aluminum frames.

TWO-WAY SYSTEMS, COMPONENTS AND SPECIFICATIONS



D-130A

15 INCH LOW FREQUENCY UNIT

Power Input.....	25 Watts
Impedance (nominal).....	16 Ohms
Resonant Frequency.....	40 Cycles
Outside Diameter.....	15 $\frac{3}{8}$ ins.
Depth.....	5 $\frac{5}{8}$ ins.
Field.....	Perm. Mag.
Voice Coil Diameter.....	4 ins.
Mounting Dimen.....	R.M.A. Std.
Net Weight.....	19 pounds

LIST PRICE \$97.50

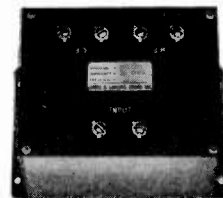


D-175H

HIGH FREQUENCY UNIT AND HORN

Power Input.....	12 Watts Peak above 1200 C.P.S. — 4 db attenuator built into N-1000 Network permits use in 25 Watt system
Impedance (nominal).....	16 Ohms
Field.....	Perm. Mag.
Outside Diameter.....	4 $\frac{1}{2}$ ins.
Weight.....	11 pounds

LIST PRICE \$140.00



N-1000

DIVIDING NETWORK

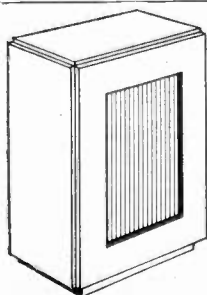
Input Impedance.....	16 Ohms
Output Impedance.....	16 Ohms (each section)
Net Weight.....	6 pounds

LIST PRICE \$48.00

D-1001 TWO-WAY KIT INCLUDES THE FOLLOWING UNITS:

ONE D-130A, ONE D-175H AND ONE N-1000 LIST PRICE \$275.00

The D-1001 Kit provides the basic Jim Lansing Two-Way system for use where critical listeners demand flawless reproduction of the entire frequency range.



CABINETS

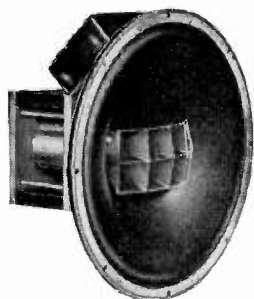
D-1000	Gray utility cabinet with D-1001 components installed.....	List Price \$365.00
D-1002	Dark Mahogany furniture cabinet with D-1001 components installed.....	List Price 395.00
D-1003	Bleached Mahogany furniture cabinet with D-1001 components installed.....	List Price 410.00
D-1004	Corner cabinet, dark Mahogany, two D-130A, one D-175H and N-1000 installed.....	List Price 497.50
D-1005	Corner cabinet, bleached Mahogany, two D-130A, one D-175H and N-1000 installed.....	List Price 512.50
C-502D	Dark Mahogany furniture cabinet with D-130 speaker installed.....	List Price 177.00
C-503D	Dark Mahogany furniture cabinet with D-131 speaker installed.....	List Price 169.00
C-504D	Bleached Mahogany furniture cabinet with D-130 speaker installed.....	List Price 192.00
C-505D	Bleached Mahogany furniture cabinet with D-131 speaker installed.....	List Price 184.00

TRU SONIC

Speaker Systems for

Theater and Home

SPEAKERS

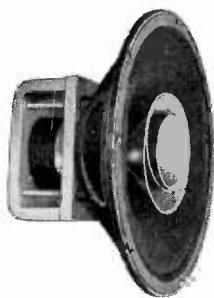


MODEL P-52A Coaxial Speaker

Combines in a single assembly a Low-Frequency unit of the cone type, a High-Frequency unit of the multicellular type and the complementary 2-channel crossover. Ideal for AM and FM reception, broadcast station monitoring and sound-motion picture reproduction. *Electrical Characteristics:* (1) Power input: 20 Watts; (2) Crossover Frequency: 12,000 C.P.S.; (3) High-Frequency distribution: $80^\circ \times 40^\circ$; (4) Field Excitation: $6\frac{1}{2}$ lb. Alnico 5; (5) Input impedance: 16 Ohms; (6) Frequency response: ± 5 db from 40 to 14,000 C.P.S.; (7) Cone resonance: 41 cycles.

Physical Characteristics: (1) Overall Diameter: $15\frac{1}{8}"$; (2) Baffle Opening: $13\frac{1}{2}"$; (3) Depth behind mounting panel $10"$; (4) Net Weight: 30 Pounds.

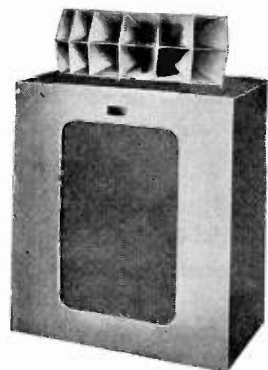
Licensed under Western Electric Patents. **Price \$205 List.**



MODEL P-52FR and P-22FR Co-Spiral Speakers

Subdues deficiencies both in the set itself and in source material. Built with the same precision limits and same engineering skill found in all Tru-Sonic units. Especially designed as a replacement speaker . . . Full 15 watts of power handling capacity. Seamless molded curvilinear cone of new design. Two acoustic sections, one for reproducing lowest bass, and one for extended high tones. Reproducing range 40 to 14,000 cycles. Powerful Alnico 5 magnet. Greatest electro-acoustic transfer efficiency and widest range of any speaker utilizing one voice coil. 90° High-Frequency dispersion. Silver Spiral differential diffuser. *Specifications:* (1) Power Input: 15 Watts; (2) $2\frac{1}{2}$ lb. Alnico 5; (3) Input Impedance: 8 or 16 Ohms; (4) Overall Diameter: $15\frac{1}{2}"$; (5) Net Weight: 23 lbs. . . . Licensed under Western Electric Patents.

Price, Model P-52FR, 15" dia. \$80; Model P-22FR, 12" dia. \$70 List.



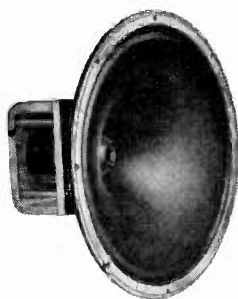
MODEL P-52HF Separate 2-Way System

In order to provide a de luxe presentation for the most discriminating audience, Stephens engineers have designed the Tru-Sonic Separate 2-Way Speaker System. Space requirements are greater than for the Tru-Sonic Coaxial unit, for in order to extend the tone range and permit the ultimate in realism, larger physical proportions are necessary. The P-52HF is standard in the Tru-Sonic Model 52U Utility Cabinet. Components consist of a Tru-Sonic Type P-15 High-Frequency Driver, a Model P-52LX Low-Frequency Driver, a Series 800 High-Frequency Cellular Horn and a Model 800X Crossover. *Electrical Characteristics:* (1) Power input: 20 Watts; (2) Crossover frequency: 800 cycles; (3) Number of high-frequency cells: 8, 10 or 12 (See below); (4) $6\frac{1}{2}$ lb. Alnico 5; (5) Input impedance: 16 Ohms; (6) Cone resonance: 41 cycles; (7) Frequency response: ± 5 db from 40 to 14,000 cycles. Weight: 130 lbs. Licensed under Western Electric Patents. **Price, with 2x4 horn \$320, with 2x5 horn \$332.50, with 2x6 horn \$345, with 2x4 horn in 52SD Cabinet \$440 List.**

MODEL P-52LX and P-22L Low-Frequency Drivers

Low-Frequency driver components for Tru-Sonic Separate 2-Way Systems. (Model P-52LX illustrated and described. P-22L same as P-52LX except 12" cone diameter and $2\frac{1}{2}$ -lb. magnet.) Powerful 15" speaker with curvilinear-designed, highly efficient seamless moulded and moisture-resistant cone. Suspension compliance has been carefully calculated to promote ideal piston-like action of the diaphragm. Effective driving area is approximately 125 sq. inches. Voice coil is 2" in diameter, treated with a refined temperature-resistant varnish, and wound with highly conductive copper wire. *Electrical Characteristics:* (1) Power Input: 20 Watts; (2) 4 lb. Alnico 5; (3) Input Impedance: 8 or 16 Ohms; (4) Cone Resonance: 41 cycles. *Physical Characteristics:* (1) Overall Diameter: $15\frac{1}{8}"$; (2) Baffle Opening: $13\frac{1}{2}"$; (3) Depth behind Mounting Panel: $8\frac{1}{8}"$; (4) Net Weight: 25 Pounds; (5) Mounting Dimensions: RMA Standard. Licensed under Western Electric Patents . . . **Price, Model P-52LX \$80;**

P-22L \$70 List.



STEPHENS MANUFACTURING CORPORATION



Speaker Systems for

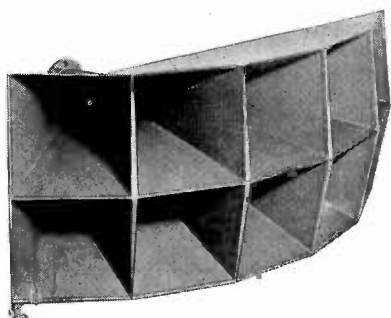
Theater and Home

Components for 2-Way Speaker Systems

Several systems of different crossover frequency and size may be assembled from the components shown here. However the same series of horns must be used with crossover networks of the same series number. For example, P-30 and P-40 Drivers should be used only with Series 400 and 600 Horns and Crossovers. The P-15 Driver is used with the Series 800 Horns and Crossovers only. It is desirable to use the lowest crossover and complementary components that the individual's space limitations and economy will permit. On the Series 400-600 Crossovers 2L-F, 8 ohm drivers, preferably Model P-52LX, are recommended.

HIGH-FREQUENCY HORNS

In order for the listener who is off the axis to receive his balanced proportion of high to low tones, the high-frequency beam must be properly deflected. This is accomplished in Tru-Sonic standard High-Frequency Horns by utilizing multiple cells nested together so as to provide coverage through a large horizontal angle and a smaller vertical angle. The normal listening area is entirely served in this manner with high frequencies. The High-Frequency Horn serves an additional important purpose: its design provides proper acoustic loading on the high-frequency unit without which it cannot operate efficiently.

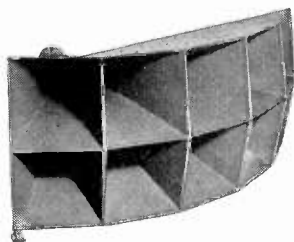


SERIES 400

Model 425H Horn. Takes P-30 or P-40 Driver. 400 cycle, 2 x 5 configuration, 40° x 100° dispersion. 43"W x 17½"D x 31½"H overall. Weight: 65 lbs. **Price, \$200 List.**

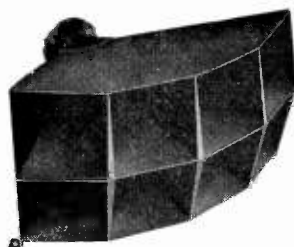
Model 436H Horn and Y Throat. For larger theaters. Takes 2 P-30 or P-40 Drivers. 400 cycle, 3 x 6 configuration, 60° x 120° dispersion. 56"W x 28½"D x 33"H overall. Weight: 135 lbs. **Price, \$340 List.**

Both Model 425H and 436H Horns take Model 400X Crossover. Size of each 400 cycle cell: 8" x 8" x 29". Intercepts 20° solid angle.



SERIES 600

Model 625H Horn. Takes P-30 or P-40 Driver and Model 600X Crossover. 600 cycle, 2 x 5 configuration, 40° x 100° dispersion. 23½"W x 16½"D x 11½"H overall. Size of each 600 cycle cell: 5" x 5" x 15". Intercepts 20° solid angle. Weight: 35 lbs. **Price, \$110 List.**



SERIES 800

Model 824H Horn. 800 cycle, 2 x 4 configuration, 40° x 80° dispersion. 16"W x 10"D x 11½"H overall. Weight: 15 lbs. **Price, \$50 List.**

Model 825H Horn. 800 cycle, 2 x 5 configuration, 40° x 100° dispersion. 18"W x 10"D x 11½"H overall. Weight: 18 lbs. **Price, \$67.50 List.**

Model 826H Horn. 800 cycle, 2 x 6 configuration, 40° x 120° dispersion. 20"W x 10"D x 11½"H overall. Weight: 20 lbs. **Price, \$75 List.**

All Series 800 Horns take a P-15 Driver and Model 800X Crossover. Size of each 800 cycle cell: 4" x 4" x 11". Intercepts 20° solid angle.

STEPHENS MANUFACTURING CORPORATION

TRU SONIC

Speaker Systems for

Theater and Home

Components for 2-Way Speaker Systems

HIGH-FREQUENCY DRIVERS

As generators of acoustic power in the upper end of the audible spectrum, the Tru-Sonic High-Frequency units present a perfect blend of sound-engineered design and listener preference. Acoustic response, in combination with Low-Frequency units, has been adjusted to levels picked as being most pleasing to a large majority of selected listeners. Actual listening tests on scores of representative groups of people have dictated the design of the acoustic proportions in the critical compression chamber.



TYPE P-40

40-Watt PM. Range: 350-16000 cycles.
16 Ohms. Dia. 7", Depth overall 5½".
Weight: 35 lbs.

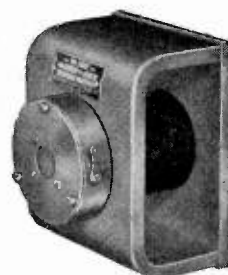
Price, \$200 List



TYPE P-30

30-Watt PM. Range: 350-16000 cycles.
16 Ohms. Dia. 6", Depth overall 4".
Weight: 25 lbs.

Price, \$120 List



TYPE P-15

20-Watt PM. Range: 500-16000 cycles.
16 Ohms. Dimensions: 4" x 6" x 3¾"
overall. Weight: 12 lbs.

Price, \$70 List

LOW-LOSS CROSSOVERS

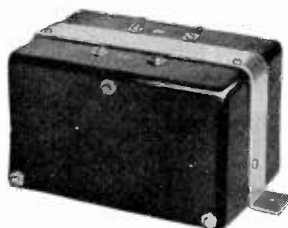
By means of the Tru-Sonic Dividing Network, or electrical crossover, the Low-Frequency reproducer receives the lower portion of the audible spectrum. The High-Frequency reproducer receives the energy carrying the treble tones and distributes them throughout the entire listening area without loss of level. Enclosed in non-metallic containers to eliminate distortion with varying frequency, the design of these crossovers allows 12 db attenuation per octave, the standard in universal practice. Attenuation is 3 db at crossover frequency; phase rotation is 270°. Low insertion loss through perfected construction is ½ db. Input impedance 16 ohms, high output impedance 16 ohms on all models.



MODEL 400X

400 cycle, up to 80 watts. 6"W x 4"D
x 4"H overall. Weight: 10 lbs.

Price, \$95 List



MODEL 600X

600 cycles, up to 80 watts. 5"W x 3¾"D
x 3¾"H overall. Weight: 8 lbs.

Price, \$67.50 List



MODEL 800X

800 cycle, up to 40 watts. 5"W x 3¾"D
x 3¾"H overall. Weight 6 lbs.

Price, \$45 List

STEPHENS MANUFACTURING CORPORATION

TRU SONIC

Speaker Systems for

Theater and Home

De Luxe 2-Way Systems and Cabinets

MODEL P-63HF: Specially designed for reproduction of the very highest quality source material; ideal for theaters and auditoriums up to 1750 seats. Over-size components make possible low level operation with negligible distortion for the de luxe FM station monitor room.

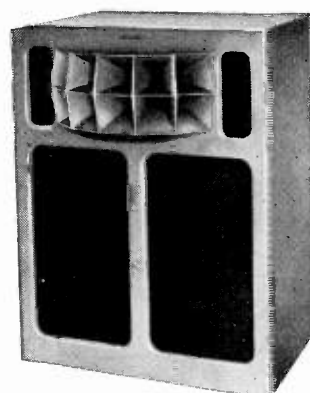
Conservatively rated at 30 watts to permit full dynamic impact at high levels of operation, it employs a 600 cycle crossover to relieve the two Model P-52LX, 15", 20-watt low frequency drivers of high frequencies and consequent inter-modulation and cone breakup. Radical design permits horn loading down to 60 cycles. Special chamber behind drivers reinforces bass to 30 cycles. 2 x 5, 10 cell, 100° x 40° H-F dispersing horn. Model P-30, 30-watt H-F driver extends range beyond 15,000 cycles with efficiency over 50%. Total Alnico 5 magnet over 11 pounds. Equipped with H-F attenuator to perfectly balance room acoustics. Size, 25" deep by 36" wide by 45" high, allows this unit to be employed under practically any space limitation. Input: 16 ohms.

Wt.: 245 lbs. **Price, \$675 List.**

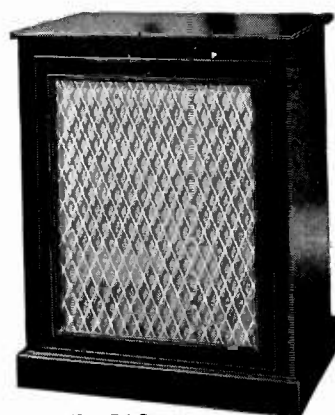


MODEL P-63HF-SD

2-Way System in Period Cabinet, mahogany or bleached blonde (please specify). 30 cycle, 36"W x 25"D x 45½"H. Wt.: 245 lbs. **Price, \$807.50 List.**



MODEL P-63HF



MODEL 52SD

MODEL 52SD

Period De Luxe Cabinet, mahogany or bleached blonde (please specify). 8 cu. ft., 37 cycle, 15" baffle. 28¾"W x 19"D x 36½"H. Weight: 80 lbs.

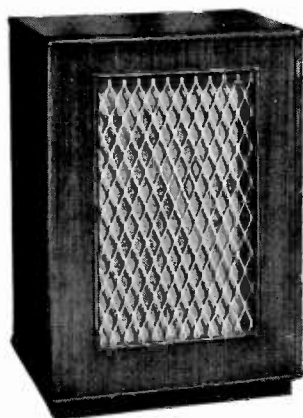
Price, \$180 List.

With P-52A Coaxial Speaker,

\$385 List.

With P-52HF 2-Way System,

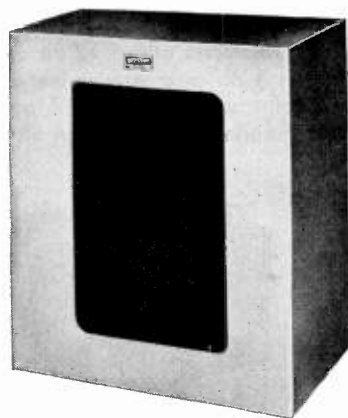
\$440 List.



MODEL 52D

De Luxe Cabinet in either mahogany or bleached blonde (please specify). 6 cu. ft., 42 cycle, 15" baffle. 23½"W x 16½"D x 34½"H. Weight: 75 lbs.

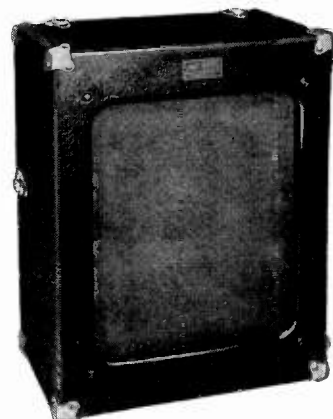
Price, \$130 List



MODEL 52U

Gray Utility Cabinet, wine flocked grill, ¾" Pine Plywood, 6 cu. ft., 42 cycle (specify 12" or 15" baffle). 23½"W x 17"D x 32"H. Weight: 70 lbs.

Price, \$60 List



MODEL 52P

Portable cabinet in black leatherette with chrome hardware (specify 12" or 15" baffle). 18"W x 12"D x 23¾"H. Weight: 28 lbs.

Price, \$75 List

STEPHENS MANUFACTURING CORPORATION

ATLAS SOUND CORPORATION



NEW ATLAS "ALNICO-V-PLUS" MAGNETIC CIRCUIT Model PD-V Driver Units (Full-Phenolic Unbreakable Diaphragms)



MODEL PD-8V
Power . . . 25 watts
Impedance . . 16 ohms
Frequency . . 90 to 10,000
List Price . . \$40.00



MODEL PD-5VH
Power . . . 25 watts
Impedance . . 16 ohms
Frequency . . 90 to 9000
List Price . . \$32.50



MODEL PD-4V
Power . . . 25 watts
Impedance . . 16 ohms
Frequency . . 90 to 6000
List Price . . \$25.00



MODEL PD-3V
Power . . . 12 watts
Impedance . . 8 ohms
Frequency . . 100 to 6000
List Price . . \$22.50

All models include the new ATLAS Alnico "V-PLUS" super-efficient magnetic assembly with its energy per unit volume over three times as great as any used before . . . Magnetically Shielded . . . Hermetically Sealed . . . One piece, unbreakable, high-temperature and fatigue-proof full phenolic diaphragm. All models 1 3/8"-18 thread size.



"DR" RE-ENTRANT — REFLEX — PROJECTORS Non-resonant - Stormproof - Uniform response - Rugged construction

The utmost in performance can be obtained from these new, non-resonant reflex projectors. All resonance is eliminated by fibre gasket seals and special rubber rim which dampens rim vibration. The bracket mounting assembly is securely fastened to a main body steel casting which guarantees long life under extreme conditions of mechanical strain. All spinings are of weather-resistant, heavy gauge aluminum, finished in a high lustre gray enamel.

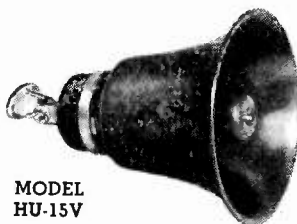
MODEL	Air Column	Dispersion	Low Frequency	Length	Diameter	LIST PRICE
DR-32	2 1/2 ft.	75°	175 c.p.s.	12 in.	14 in.	\$23.50
DR-42	3 1/2 ft.	80°	135 c.p.s.	15 in.	21 in.	28.00
DR-54	4 1/2 ft.	90°	105 c.p.s.	18 in.	26 in.	40.00
DR-72	6 ft.	100°	85 c.p.s.	25 in.	31 in.	60.00

NEW ATLAS "ALNICO-V-PLUS" PAGING & TALK-BACK SPEAKERS Complete with unbreakable super-efficient "V-PLUS" Driver Unit

These speakers include the newly developed, unbreakable, hermetically-sealed driver units using the Alnico "V-PLUS" magnetic circuit. They offer a maximum of efficiency as a reproducer, and the utmost in performance as a microphone, in talk-back circuits. The new, improved ball swivel mounting bracket permits quick and simple directional adjustment in every position, horizontal and vertical. All aluminum construction, finished in high lustre gray enamel.



MODEL HU-12
Power . . . 3 watts
Impedance . . 8 ohms
Frequency . . 375 to 9000
Length . . . 7 1/2 in.
Diameter . . 6 1/4 in.
Air Column . . 13 1/2 in.
List Price . . \$23.00



MODEL HU-15V
Power . . . 12 watts
Impedance . . 8 ohms
Frequency . . 300 to 7000
Length . . . 11 in.
Diameter . . 8 1/2 in.
Air Column . . 15 in.
List Price . . \$29.75



MODEL HU-24V
Power . . . 12 watts
Impedance . . 8 ohms
Frequency . . 200 to 7000
Length . . . 15 in.
Diameter . . 10 in.
Air Column . . 24 in.
List Price . . \$32.75

NEW ATLAS "ALNICO-V-PLUS" DUAL PROJECTORS Two-way Projector complete with Driver Unit

This two-way speaker projects sound of equal intensity in a dual manner. Also excellent for talk-back application. Reduces cost of installation and offers installation advantages when used in critical locations of long corridors, industrial plants, and similar locations. All aluminum construction finished in gray lustre enamel. Universal mounting bracket. Power: 12 watts. Impedance: 8 ohms.

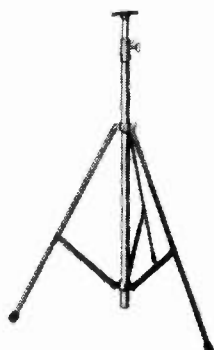


MODEL	Overall Length	Bell Diameter	LIST PRICE
TP-15V	15 1/2 in.	8 1/2 in.	\$44.00
TP-24V	22 in.	10 in.	49.50



ATLAS SOUND CORPORATION

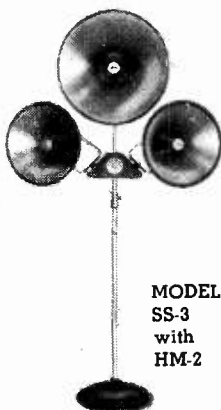
SPEAKER SUPPORT STANDS



MODEL SS-2

Both models extend from five to ten feet. Heavy steel construction finished in gray enamel and cadmium plating. PS-1 top fitting supplied. The HM-2 permits the use of three "DR" Projectors on a single support stand.

MODEL	LIST PRICE
SS-2	\$35.00
SS-3	30.00
HM-2	15.00



MODEL SS-3 with HM-2

PIPE STANCHION FITTING



"DR" re-entrant or "RC" radial "U" brackets adapted to 3/4" pipe fittings. This steel adaptor has holes properly located to match holes in "U" bracket. All mounting bolts supplied. Female 3/4" pipe thread.

MODEL PS-1 LIST PRICE \$2.00

TWO UNIT TO ONE PROJECTOR ADAPTOR



When it is found necessary to obtain the greatest possible power output from a single projector the H-2U is recommended. This device permits the use of two driver units with any type of projector. Construction: Cast aluminum. All threads 1 1/8"-18.

MODEL H-2U LIST PRICE \$10.00

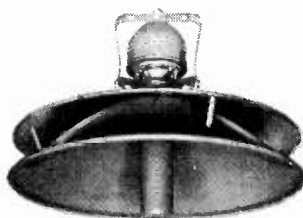
SPEAKER POWER VOLUME CONTROL



For adjusting volume of individual speakers. Power handling: 10 watts constant. Complete as illustrated.

MODEL RC-1 LIST PRICE \$5.00

RADIAL DRIVER UNIT PROJECTOR



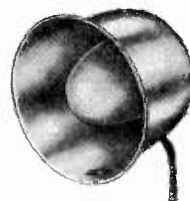
- Non-resonant.
- Dual Rubber Rims.
- 100% Storm-Proof.
- Uniform 360° Coverage.

The advantage of 360° coverage often permits the use of one speaker where normally a multiple of directional projectors may be required. The radial projectors are of all-aluminum construction finished in a weather-proof gray enamel. Thread size 1 1/8"-18. The use of the H-2U two-unit adaptor will double the power output for single projector high power application.

MODEL	RC-36	RC-48
Air Column	3 ft.	4 ft.
Bell Diameter	24 in.	28 in.
Overall Height	18 in.	21 in.
LIST PRICE (horn only)	\$40.00	\$50.00

MARINE Midget PROJECTOR for 5" Cone Speakers

- Re-entrant.
- Weatherproof.
- Efficient.
- Compact.



Will accommodate any standard 5" cone speaker. The efficient means of loading the cone diaphragm greatly increases the normal efficiency of any cone speaker. Offers protection against weather and mechanical abuse. Universal steel mounting bracket supplied. Bell diameter 10 inches . . . Overall length 8 inches . . . Finish: Gray enamel. Supplied less cone speaker unit.

MODEL WX-5

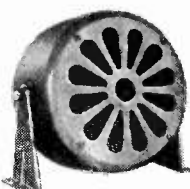
LIST PRICE \$13.50

TWO-WAY ENCLOSURE for 8" Cone Speakers

The front and back wave of the speaker is utilized to assist in good sound coverage in long corridors and central locations. Adjustable wall or ceiling mounting brackets supplied. All steel finished in gray enamel. Cloth screens on both sides. Speaker mounting screws included. Outside diameter 10" . . . Depth 5".

MODEL TW-8

LIST PRICE \$8.25

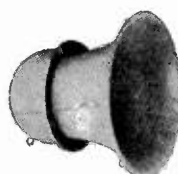


PARABOLIC BAFFLES for 12" Cone Speaker

All steel construction, waterproof interlock seal between sections. All mounting bolts and hanging loops supplied. Finished in gray enamel.

Model	SM-12
Diam.	20 in.
Bell Length	18 in.
Speaker Size	12 in.

LIST PRICE \$14.50 \$15.50



BAFFLE MOUNTING FIXTURE

Offers convenient mounting for Parabolic Baffles. Complete adjustable saddle fixture and base pedestal as illustrated.

MODEL ST-8

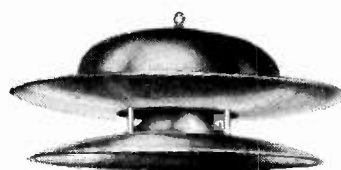
LIST PRICE \$5.25



RADIAL CONE SPEAKER PROJECTOR

for 12-inch Cone Speakers

360° Coverage



This radial projector offers an excellent baffle for any standard 12" diameter standard cone speaker and produces smooth and uniform 360° coverage. With a good grade of cone speaker it will adequately load the reproducer down to 60 cycles. The enclosure is designed to shed water and can, therefore, be used indoors and out. Finished in gray enamel . . . Outside diameter 29 inches . . . Overall height 13 inches

MODEL L-360

LIST PRICE \$35.00

ATLAS SOUND CORPORATION



"FULL GRIP — VELVET ACTION" Microphone Stands

No slipping - No rattle - No noise - No scratching - No wear



MS-10C
Leader

MS-12C
Standard

MS-11C
Standard
DeLuxe

MS-20
Profes-
sional

MS-24
Studio
DeLuxe

CS-1
Collapsible

CS-32
2-piece
Demountable

CS-33
3-piece
Demountable

The "Full Grip" Clutch offers an extended length clutch body, permitting a secure, full-hand grip. The clutch mechanism is inner-lined with a wear-proof bakelite locking collet which grips without jamming, slipping, or sudden dropping. All bases are functionally designed to offer maximum stability for a given base weight. The maximum base mass is located at the outer periphery of the casting where the concentrated

weight is most useful. All bases include self-leveling, shock-absorbent base pads, plus three additional "anti-tip" points located between the base pads. The complete tube assemblies of all models are "super-chrome" plated, assuring "life-time" wear. All models terminate in a $\frac{5}{8}$ "-27 carefully machined thread.

MODEL	Weight	Base Finish	Tube Finish	Height Adjst.	Base Diam.	LIST PRICE
MS-10C	9 lbs.	Gray Shrivel	Full Chrome	35" to 64"	10"	\$ 8.25
MS-12C	12 lbs.	Gray Shrivel	Full Chrome	35" to 65"	10"	9.00
MS-11C	12 lbs.	Full Chrome	Full Chrome	35" to 65"	10"	11.00
†MS-20	15 lbs.	Gray Shrivel	Full Chrome	42" to 72"	12"	13.50
†MS-24	24 lbs.	Chrome & Gray Shrivel	Full Chrome	42" to 72"	17"	19.00
*CS-1	5 lbs.	Cadmium Plated	Full Chrome	23" to 62"	Collapsible	17.00
*CS-32	4 lbs.	Chrome & Gray	Full Chrome	36" to 64"	Demountable	9.00
*CS-33	3 lbs.	Hammerloid	Full Chrome	26" to 64"	Demountable	11.00

*Each stand is individually packed complete in a single carton.

†The MS-20 and MS-24 use large diameter, oversize, telescoping brass tube assemblies ($\frac{7}{8}$ " telescoping tube — $1\frac{1}{8}$ " base tube) resulting in a handsome and fine-appearing stand that supple-

ments the professional appearance of large-size high quality microphones.

‡Collapsible to a minimum overall length of 23 inches.

NEW AUTOMATIC "Sleeve Action" MICROPHONE STAND

Quiet . . . No Rasp . . . Smooth . . . No Jolt or Jar

This amazing new automatic "Sleeve Action" clutch mechanism is a fully automatic means of adjusting the height of a microphone stand. A slight downward pressure on the "Sleeve Action" control permits the telescoping section to be lowered. To raise the stand, the telescoping tube can be grasped at any point and simply extended. The new "Sleeve Action" is built

for life-time use. It cannot creep or change position without a deliberate pressure on the actuating sleeve control.

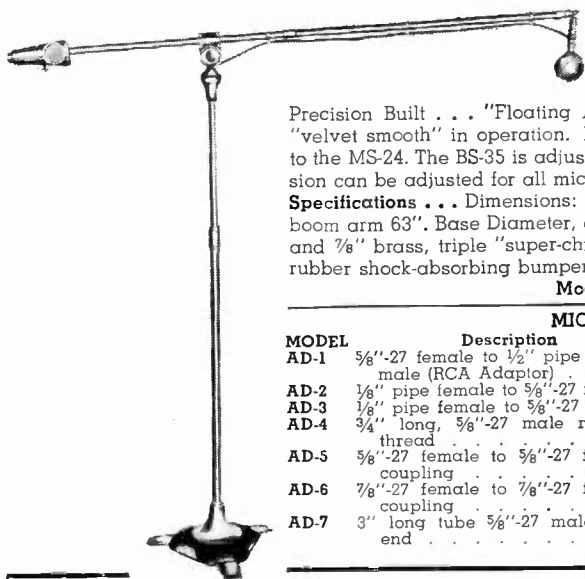
The quality of materials, plating, and general specifications are identical to the "Full Grip" models described above. The "Sleeve Action" stand is available in two models; either full chrome or shrivel base.

MODEL	Weight	Base Finish	Tube Finish	Height Adjst.	Base Diam.	LIST PRICE
MS-12S	12 lbs.	Gray Shrivel	Full Chrome	35" to 65"	10"	\$16.00
MS-11S	12 lbs.	Full Chrome	Full Chrome	35" to 65"	10"	18.00



ATLAS SOUND CORPORATION

PROFESSIONAL BOOM STAND



Finger-Tip Control by "Floating Action"
Precision Built — Attractively Styled
For Every Application
Professional Studio Microphone Support

Precision Built . . . "Floating Action" Stand . . . All moving parts and locking adjustments are "velvet smooth" in operation. By simple and quick removal of the boom arm, the stand is similar to the MS-24. The BS-35 is adjustable vertically and horizontally. The counterweight and boom extension can be adjusted for all microphone weights and various extensions.

Specifications . . . Dimensions: Maximum vertical extension 72", minimum 48". Length of horizontal boom arm 63". Base Diameter, at floor contact points, 17". Total weight 35 lbs. Tube diameters 1 1/8" and 7/8" brass, triple "super-chrome" plated . . . Base finished in chromium and gun-metal shrivel, rubber shock-absorbing bumpers. Snap-on hangers for holding cable to boom section supplied.

Model BS-35

List Price \$55.00

MICROPHONE ADAPTORS AND FITTINGS

MODEL	Description	LIST PRICE	MODEL	Description	LIST PRICE
AD-1	5/8"-27 female to 1/2" pipe thread male (RCA Adaptor)	\$0.75	AD-8	6" long tube 5/8"-27 male each end	.60
AD-2	1/8" pipe female to 5/8"-27 male	.50	AD-9	7/8"-27 female to 3/8"-27 female	.50
AD-3	1/8" pipe female to 5/8"-27 female	.50	AD-10	5/8"-24 female to 5/8"-27 female (W. E. Adaptor)	1.00
AD-4	3/4" long, 5/8"-27 male running thread	.25	AD-11	Flange, 5/8"-27 female. Base Diameter 1 1/4"	.50
AD-5	5/8"-27 female to 5/8"-27 female, coupling	.50	AD-12	Flange, 5/8"-27 male. Base holes on 7/8" mounting centers	.50
AD-6	7/8"-27 female to 7/8"-27 female, coupling	.50		All adaptors chrome plated.	
AD-7	3" long tube 5/8"-27 male each end	.50		We are prepared to supply any special types of adaptors or fittings, and bent tube sections, to your specifications in reasonable quantities.	

ADJUSTABLE BANQUET STAND

This stand incorporates the "Full Grip - Velvet Action" principle of adjustment. The tube and base are completely finished in "super chrome" offering a fine appearing stand suitable for use on a banquet table. Adjustable from 18" to 32". Base diameter 8". Weight 5 lbs.

Model TS-6

List Price \$7.50



FLEXIBLE GOOSE NECK

Can be attached to any microphone stand so that some amount of overhang can be accomplished. Ends have 5/8"-27 male and female threads. Finished in bright chrome. Length 13".

Model GN-13

List Price \$2.50



BRACKET CLAMP

A multitude of useful applications. Can be used with Boom Arm, Goose Neck, etc. Chrome tube 6" long. Castings finished in gray shrivel. Can be clamped or permanently screwed or bolted in position. Thread size 5/8"-27.

Model BC-1

List Price \$3.00



SPEAKER'S or ORCHESTRA DESK ATTACHMENT

This desk attachment can be applied to any type of microphone stand. This is an item which has long been required in many permanent as well as rental installations. It offers the speaker facilities for holding notes or other reference material. A microphone can be directly attached to the desk by using the BC-1 Bracket Clamp. The DA-1 is complete with 5/8"-27 thread attachment and tilt adjustment. Sturdy construction finished in bright aluminum.

Model DA-1 (less floorstand)

List Price \$10.00

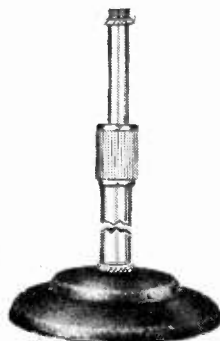


MODEL DA-1
(shown with MS-20 floor stand)

"VELVET ACTION" DESK STANDS

ATLAS Desk Stands employ the same fine finish and workmanship as embodied in the floor models. The adjustable Model DS-7 uses heavy duty 5/8" and 7/8" tubing. Felt base pads included. Base diameter 6", finish gray shrivel; tube chromium plated.

Model	Height Adj.	List Price
DS-5	Fixed 6"	\$2.75
DS-7	8" to 13"	4.50



MODEL DS-7



"SNAP-ON" MICROPHONE ATTACHMENT

A quick, simple, and safe means of attaching any microphone to any floor stand. Eliminates the need of threading the microphone on and off the stand. A two-section "Snap-On" ball bearing spring sleeve attachment permits the microphone to be attached or removed instantaneously. One section is attached to the microphone and one section permanently fastened to the stand.

Model SO-1

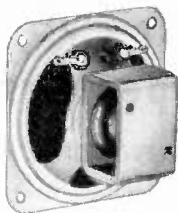
List Price \$2.50

"BABY BOOM" ATTACHMENT

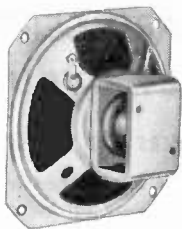
Easily attached to any type of microphone stand. Can be locked in any position. Length of tube 32", chrome plated; castings in gray shrivel. 5/8"-27 thread size.

Model BB-1

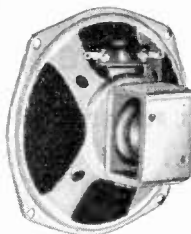
List Price \$7.00



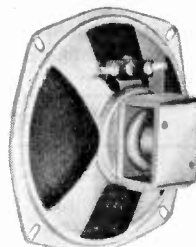
3" MODELS



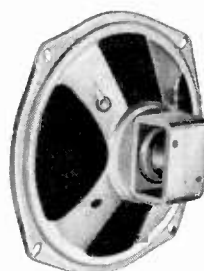
4" MODELS



5" MODELS



5 1/4" MODELS

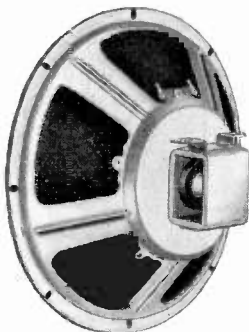


6" MODELS

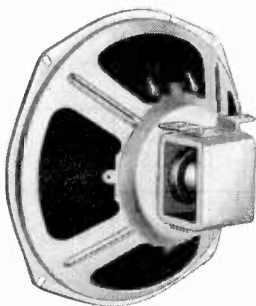
PRESENTING . . .

rescent

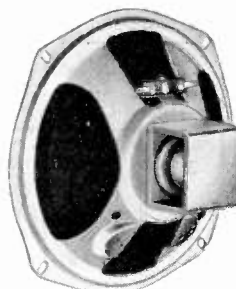
ALNICO V PM
DYNAMIC
SPEAKERS
STANDARD MODELS



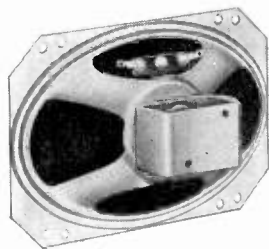
12" MODELS



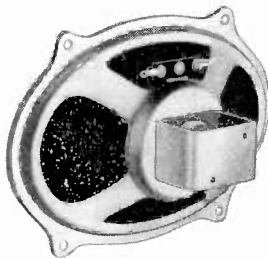
10" MODELS



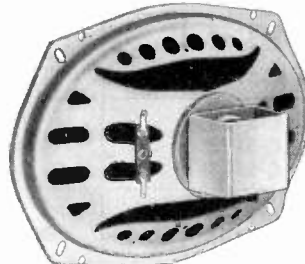
8" MODELS



4" x 6" MODELS



5" x 7" MODELS



6" x 9" MODELS

CRESCENT INDUSTRIES, INC.

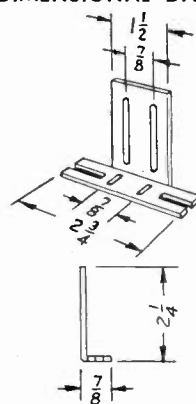
4140 WEST BELMONT AVENUE, CHICAGO 41, ILLINOIS, U. S. A.

EXPORT: SCHEEL INTERNATIONAL, INC., CHICAGO 18, ILLINOIS, U. S. A.

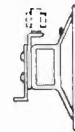
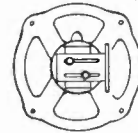
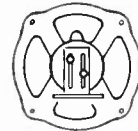
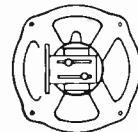
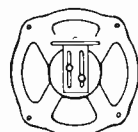


Crescent Standard Series PM Speakers are scientifically designed and engineered for maximum sensitivity, sturdy construction, low resonance and smooth frequency response. Individual testing for noise, poor response and resonant frequency assures a quality product that is always uniform. The "Easy Mount" feature eliminates "blacksmithing" and simplifies difficult mounting problems.

**"EASY MOUNT"
MOUNTING BRACKET
DIMENSIONAL DATA**



A FEW OF THE MANY APPLICATIONS



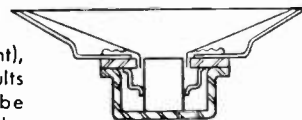
See Mounting Brackets,
Bottom of Next Page.

SPECIFICATIONS—Oval Groups									
4"x6"	C-S128	3.2	2-4	9/16	.68	160 C.P.S.	4 3/32"	3 3/4"	1 27/32"
	C-S129				1.00		x	x	2"
	C-S130				1.47		6 3/16"	4 5/8"	2 3/16"
5"x7"	C-S131	3.2	2-4	9/16	.68	130 C.P.S.	5"	4 11/32"	2 29/64"
	C-S132				1.00		x	x	2 39/64"
	C-S133				1.47		7 1/4"	4 11/32"	2 49/64"
6"x9"	*C-S134	3.2	4-9	3/4	1.43	100 C.P.S.	6 3/8"	4 5/8"	3"
	C-S135				2.15		x	x	3 9/16"
	C-S136				3.16		9 1/4"	6 9/16"	3 9/16"

FOR PRICES SEE YOUR CURRENT CRESCENT SPEAKER PRICE LIST

***These Models Use Centerless Ground Magnets**

The centerless ground magnet, a relatively new type of construction (illustrated at right), eliminates the conventional pole piece, reduces the overall depth of the speaker and results in higher magnetic efficiency per magnet weight. However, its greatest advantages can be obtained only when the diameter of the voice coil bears a suitable relationship to the length of the magnet.



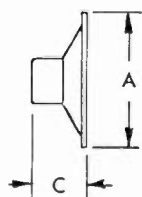
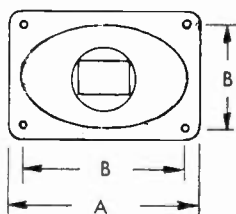
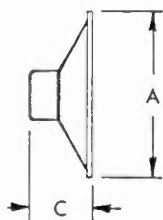
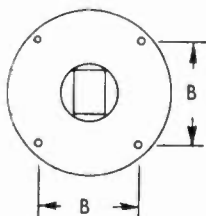


STANDARD SERIES Electro Magnet Dynamic Speakers

EQUIPPED WITH HUMBUCKING COILS OR SHADING RINGS AND RUGGED CONES WITH DUSTCOVERS...

Crescent Standard Series EM Speakers are designed and engineered to fit the wide range of types and sizes needed in the radio service field. Rigid inspection and individual testing in our quality control section eliminate "comebacks" that are often costly to the radio servicer in time and customer good will. The "Easy Mount" feature saves time and tempers and offers a simple solution for even the toughest jobs.

DIMENSIONAL DATA



SPECIFICATIONS—Standard Groups

Size	Catalog No.	VOICE COIL			Field Coil Ohms	Cone Resonance	DIMENSIONS		
		Imp. Ohms	Power Watts	Dia. In.			A Outside Diameter	B Mounting Centers	C Depth
3½"	C-S201	3.2	2-4	9/16	450	200 C.P.S.	3 7/16"	2 13/16"	2 5/64"
	C-S202				2750				
4"	C-S203	3.2	2-4	9/16	450	180 C.P.S.	4 3/32"	3 5/16"	2 5/32"
	C-S204				1000				
	C-S205				1800T300				
	C-S206				2750				
5"	C-S207	3.2	2-4	9/16	4	160 C.P.S.	4 37/64"	3 5/16"	2 23/64"
	C-S208				450				
	C-S209				1000				
	C-S210				1800T300				
	C-S211				2750				
5½"	C-S212	3.2	2-4	9/16	4	150 C.P.S.	5 9/32"	3 29/32"	2 33/64"
	C-S213				450				
	C-S214				1000				
6"	C-S215	3.2	4-9	3/4	4	130 C.P.S.	6 3/32"	4 21/64"	3 15/64"
	C-S216				450				
	C-S217				1000				
	C-S218				1800T300				
	C-S219				2500				
8"	C-S220	3.2	4-9	3/4	1000	100 C.P.S.	7 33/64"	5 25/64"	3 23/32"
	C-S221				1800T300				
	C-S222				2500				
10"	C-S223	3.2	6-12	1	1000	90 C.P.S.	9 19/32"	6 13/16"	4 29/32"
	C-S224				1500				
	C-S225				2500				
12"	C-S226	3.2	6-12	1	1000	80 C.P.S.	12 5/32"	8 11/64"	5 37/64"
	C-S227				1500				
	C-S228				2500				

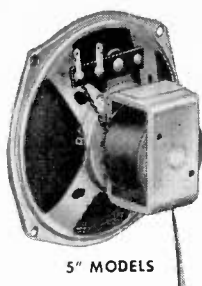
SPECIFICATIONS—Oval Groups

4"x6"	C-S229	3.2	2-4	9/16	4	160 C.P.S.	4 3/32" x 6 3/16"	3 3/4" x 4 5/8"	2 7/32"
	C-S230				450				
	C-S231				1000				
	C-S232				1500				
	C-S233				2750				
5"x7"	C-S234	3.2	4-9	3/4	4	130 C.P.S.	5" x 7 1/4"	4 11/32" x 4 11/32"	3 7/32"
	C-S235				450				
	C-S236				1000				
	C-S237				1500				
6"x9"	C-S238	3.2	4-9	3/4	4	100 C.P.S.	6 3/8" x 9 1/4"	4 5/8" x 6 9/16"	3 13/16"
	C-S239				450				
	C-S240				1000				
	C-S241				1500				

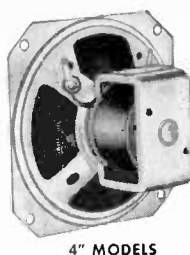
FOR PRICES SEE YOUR CURRENT CRESCENT SPEAKER PRICE LIST

Mounting Bracket Information

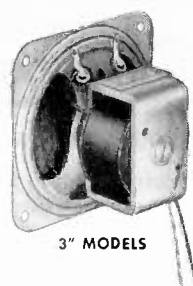
Crescent "Easy Mount" brackets (Part No. S-588) are supplied with speakers up to and including 5" x 7". Speakers ... 8" and larger ... have standard provisions for transformer mounting and do not come with "Easy Mount" brackets. "Easy Mount" brackets may be purchased separately where it is desirable to use 2 brackets on 1 speaker for chassis and transformer mounting.



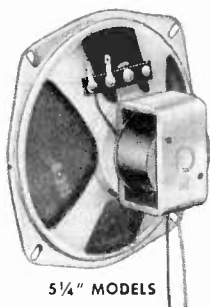
5" MODELS



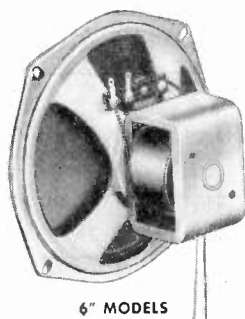
4" MODELS



3" MODELS

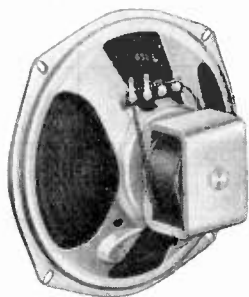
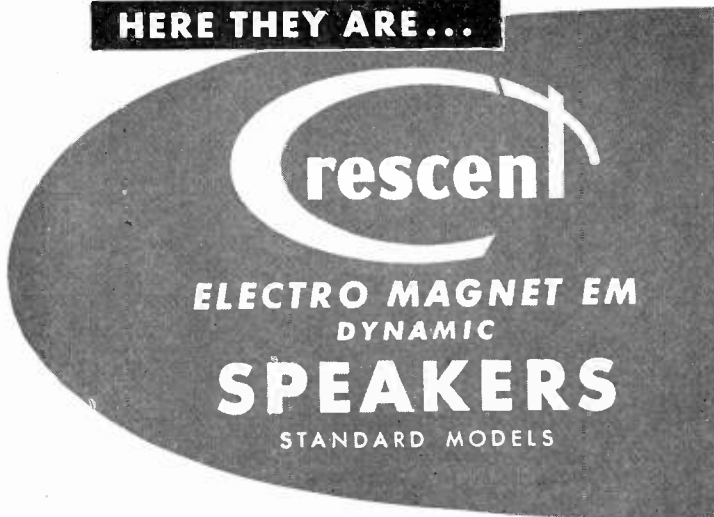


5 1/4" MODELS

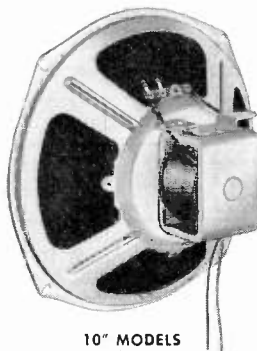


6" MODELS

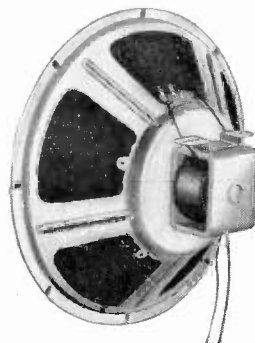
HERE THEY ARE...



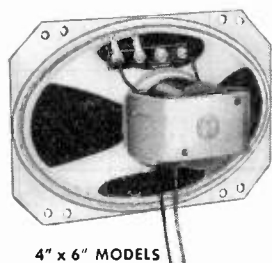
8" MODELS



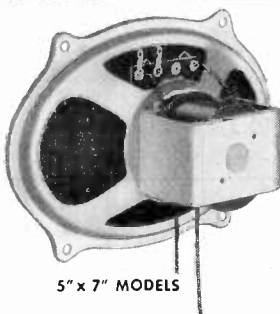
10" MODELS



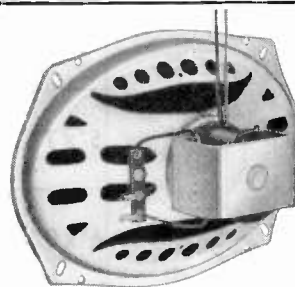
12" MODELS



4" x 6" MODELS



5" x 7" MODELS



6" x 9" MODELS

CRESCENT INDUSTRIES, INC.

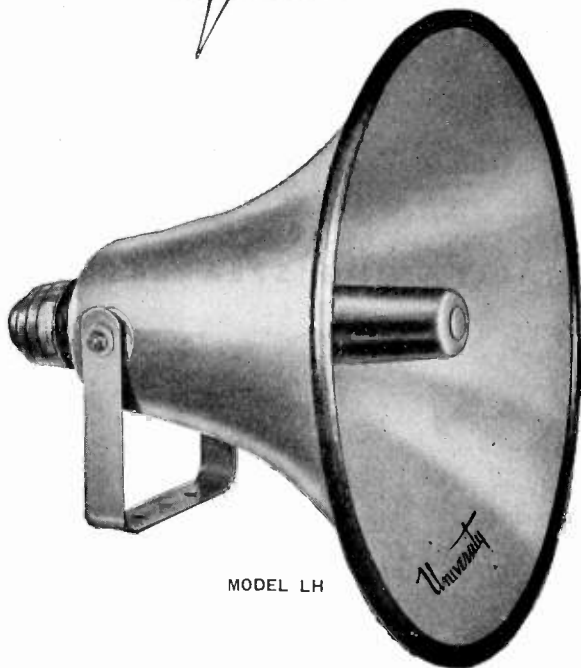
4140 WEST BELMONT AVENUE, CHICAGO 41, ILLINOIS, U. S. A.

MANUFACTURERS OF

RECORD CHANGERS • WIRE RECORDERS • LOUD SPEAKERS • TOYS • METAL STAMPINGS • TOOLS AND DIES



SPEAKERS



MODEL LH

REFLEX LOUDSPEAKERS

The reflex horns pioneered by University represent the most efficient method of converting electrical power into acoustic energy. When used with University driver units, they are capable of conversion efficiencies up to 50% and in addition, provide compactness and weather protection without any sacrifice in performance.

Heavy gauge metal and corrosion resistant finishes on horn and hardware are assurance of trouble-free performance regardless of changes in temperature and humidity. Each speaker is equipped with a rubber damping rim which prevents vibration and mechanical resonance. Adjustable UNIVERSITY "U" bracket mounting simplifies installation and holds the speaker firmly locked in any position.

Four models cover every public address requirement. Model GII has the longest air column and is ideal for the reproduction of symphonic music. The model LII with a higher cutoff is designed as a general purpose speaker and is recommended for music transmission where economy without sacrifice of quality is essential. In installations where a smaller horn is required, the Model PII will render excellent service for both speech and music. The Model SMII will find its widest application in the reproduction of speech where clarity and a high degree of intelligibility are necessary. Accessories include Model PMA adapter and 2YC connector.

MODEL	SMH	PH	LH	GH
LOW FREQUENCY CUTOFF	200 CPS	150 CPS	120 CPS	85 CPS
DIAMETER	15½ INCHES	20 INCHES	25½ INCHES	30 INCHES
LENGTH	12 INCHES	15 INCHES	18½ INCHES	25 INCHES
WEIGHT	6 LBS.	10 LBS.	15 LBS.	22 LBS.
PRICE (Horn only)	\$24.50	\$29.00	\$44.50	\$60.00

BREAKDOWN PROOF DRIVER UNITS

University driver units are breakdown proof and guaranteed for one year. Ratings are conservative and operation over long periods is assured. They are of the PM dynamic type, incorporate highest quality Alnico magnets and one-piece molded phenolic diaphragms. Unique "rim centering" construction eliminates aligning pins and permanently centers the voice coil and head assembly in a much closer magnetic gap. This results in a higher conversion efficiency and misalignment due to shock or vibration is virtually eliminated. Hermetically sealed housings provide complete protection from out-

door exposure and corrosive fumes.

The PA-30 has a 30-watt built-in line matching transformer. Transformer terminals provide 16, 165, 250, 500, 1000, 2000-ohm taps for constant impedance systems and 2½, 5, 10, 20 and 30-watt taps for 70-volt constant voltage systems. Use the PA-30 or SA-HF for high power installations or where occasional overload is a problem. Model MA-25 represents the best "watts per dollar" value of any driver unit made. It combines efficiency, waterproof construction and economy.



MODEL PA-30



MODEL SA-HF



MODEL MA-25

MODEL	PA-30	SA-HF	MA-25
POWER	30 WATTS	25 WATTS	25 WATTS
IMPEDANCE	ADJUSTABLE*	16 OHMS	16 OHMS
FREQUENCY	80 to 10,000 CPS	90 to 10,000 CPS	90 to 6000 CPS
DIAMETER	6¾ INCHES	4½ INCHES	4¾ INCHES
HEIGHT	6¾ INCHES	5 INCHES	3¾ INCHES
WEIGHT	6 LBS.	5 LBS.	3 LBS.
THREAD SIZE	1½"–18	1½"–18	1½"–18
FLUX DENSITY IN GAUSS	15,000	14,000	11,000
PER SQ. CM.			
PRICE	\$50.00	\$37.00	\$25.00

*16-Ohm Voice Coil—165, 250, 500, 1000, 2000-Ohm Transformer Taps.

ACCESSORIES



Model PMA Adapter

For mounting any UNIVERSITY "U" bracket speaker on standard ½" pipe.

PRICE \$1.50



Model 2YC Connector

Use with two driver units to provide up to 60 watts for any UNIVERSITY trumpet or projector.

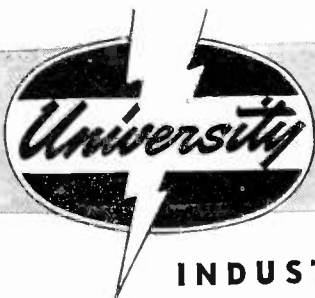
PRICE \$10.00



Unit Adapter

For adapting Western Electric horns for use with any UNIVERSITY driver unit.

PRICE \$2.50



SPEAKERS

INDUSTRIAL PAGING SPEAKERS

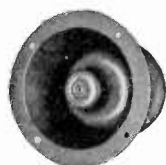
These speakers are reflex air column horns with built-in hermetically sealed driver units. Models CR, 1B8, and MIL are directional and model IBR has a radial deflector for uniform 360° dispersion. They are capable of continuous use for intercommunication and paging on shipboard, docks, loading platforms, terminals and industrial plants.

Models CR can handle 18 watts of input power continuously, so that it is useful for high power alarm or announcing systems. Models 1B8 and IBR have a continuous power handling capacity of 12 watts, which recommends them for paging or announcing in noisy industrial

areas. The models MIL and MIS with a 3 watt continuous power capacity are efficient intercommunication speakers. The model MIS is designed for flush panel mounting.

While capable of producing adequate volume with low power, these speakers can handle more power than any other speaker of comparable size and weight. Modernization of old sound systems is easily accomplished by replacement of obsolete speakers with these models. Standard voice coil impedances permit installation without changes in the existing line or amplifier.

DIRECTIONAL AND RADIAL PAGING SPEAKERS



MODEL MIS



MODEL MIL



MODEL 1B8



MODEL CR



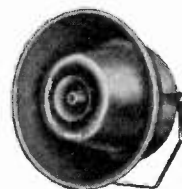
MODEL IBR

MODEL	MIS	MIL	1B8	CR	IBR
POWER.	3 WATTS	3 WATTS	12 WATTS	18 WATTS	12 WATTS
IMPEDANCE.	8 OHMS	8 OHMS	8 OHMS	16 OHMS	8 OHMS
	45 OHMS	45 OHMS			
DISPERSION.	150°	120°	90°	90°	360°
FREQUENCY.	500-9000	400-9000	300-6000	250-6000	300-6000
DIMENSIONS.	3 7/8" Deep, 5 1/2" O.D.	6 INCHES DIA.	9 INCHES DIA.	11 INCHES DIA.	9 INCHES DIA.
	4 1/2" Mounting Dia.	7 INCHES HIGH	9 INCHES HIGH	9 INCHES HIGH	11 INCHES HIGH
WEIGHT.	2 1/8 LBS.	3 1/2 LBS.	5 LBS.	9 LBS.	5 LBS.
PRICE.	8 OHM, \$20.00 45 OHM, \$21.25	8 OHM, \$25.00 45 OHM, \$26.25	\$32.50	\$42.00	\$39.00

WIDE RANGE WEATHERPROOF COAXIAL SPEAKERS

The Model WLC is a high fidelity co-axial speaker with a response range essentially flat from 50-10,000 cycles. It includes a 12" Cone speaker, a unit-driven tweeter and a built-in crossover network. Corrosion-resistant, all metal construction permits constant exposure regardless of temperature and humidity. Ideally suited for concert band-shells, drive-in theatres and all indoor or outdoor installations where high quality reproduction of music and voice are essential. A sturdy mounting bracket facilitates installation and permits tilting and locking the speaker in any desired vertical plane.

POWER	25 WATTS
IMPEDANCE	8 OHMS
RESPONSE	50-10,000 CPS
DISPERSION	90°
DIAMETER	33"
DEPTH	18"
CROSSOVER	
FREQ.	1000 CYCLES
WEIGHT	40 LBS.
PRICE	\$200.00



MODEL WLC

RADIAL REFLEX PROJECTORS

Air column horns with radial deflectors for uniform 360° sound distribution cover large areas and override high noise-levels, without blasting. Both rims rubber loaded to minimize mechanical resonance. The long air column of the RLH and its low frequency cutoff make it well suited for music and general applications. The smaller model RPH, with a somewhat higher cutoff, will serve for both music and speech. The RSH finds wide application for high clarity reproduction of speech. Shipped complete with hardware but less driver unit.



MODEL	RLH	RPH	RSH
LOW CUTOFF	120 CPS	150 CPS	180 CPS
AIR COLUMN	5 FT.	4 FT.	3 FT.
DIAMETER	28 1/2"	25"	18 1/2"
HEIGHT	18 1/2"	14"	11"
WEIGHT	21 1/2 LBS.	18 LBS.	12 LBS.
PRICE (Horn only)	\$59.00	\$45.00	\$38.50

RADIAL CONE-SPEAKER PROJECTORS

MODEL	RBP-12	RBP-8
FREQUENCY	UNIFORM DOWN TO 50 CYCLES	UNIFORM DOWN TO 80 CYCLES
DIAMETER	27 INCHES	18 INCHES
HEIGHT	11 INCHES	9 INCHES
WEIGHT	19 LBS.	9 LBS.
PRICE	\$35.00	\$19.60



These compact projectors consist of an acoustic chamber for housing a cone speaker and a radial deflector for uniform 360° dispersion. Of all metal, rubber cushioned construction, the model RBP-12, designed for a 12" cone speaker, provides uniform response down to 50 cycles and model RBP-8, designed for an 8" speaker, has a low frequency limit of 80 cycles. Any standard make of 8" or 12" cone speaker can be installed in these baffles. Both models are watershedding and may be used indoors or out. They are shipped complete with hardware but less cone speaker.



SPEAKERS

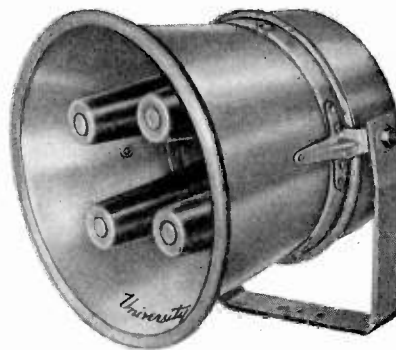
SUPER POWER SPEAKERS

UNIVERSITY super power speakers are the answer to every public address installation where tremendous amounts of concentrated power must be transmitted over long distances.

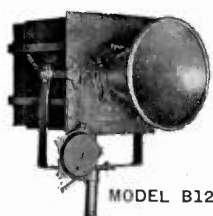
The Model 4A4 incorporates 4 PM driver units mounted on the back of a heavy cast mounting plate. Each driver opens into a reflexed air column on the front of the mounting plate. The four air columns feed into a common bell. Compactness makes them ideally suited for aeroplane broadcasting and use in Church towers.

In the Models B-6 and B-12, the PM driver units are mounted circumferentially on a rugged "tone chamber" casting which provides individual acoustic paths from each driver unit to a mixing chamber at the center of the casting. The patented design of the mixing chamber and the acoustic paths minimizes high frequency cancellation.

All speakers are completely waterproof and characterized by their ruggedness. Power ratings are conservative and projection ranges are often exceeded in actual operation. Speakers of this type were recently heard 15 miles in a carillon installation at the Empire State Building in New York City. "U" brackets permit a vertical swing of approximately 120° and locking in any position. Longer horns are available with B6 or B12 for music. For B6, diameter 30 inches, length 48 inches. For B12, diameter 30 inches, length 32 inches. Response 85 - 6000 cps. Prices on request. NOTE: Model 4A4 is sold and shipped less driver units. Standard driver units Model SA-IIIF may be used.



MODEL 4A4



MODEL B12



MODEL B6

POWER . . .
IMPEDANCE . . .
DRIVERS . . .
DISPERSION . . .
FREQUENCY . . .
PROJECTION . . .
DIAMETER . . .
LENGTH . . .
WEIGHT . . .

MODEL B-6

150 WATTS
90 OHMS
6 UNITS
90°
200-6000 CPS
1½ MILES
16½" DIAMETER
23" LENGTH
60 LBS.

MODEL B-12

300 WATTS
DOUBLE INPUT
90 OHMS EACH
12 UNITS
90°
250-6000 CPS
2 MILES
19" SQUARE
28" LONG
30 LBS.

MODEL 4A4

100 WATTS
4, 16, 60 OHMS
4 UNITS
80°
200-6000 CPS
1 MILE
16" DIAMETER
17" LONG
23 LBS.

PRICE

\$93.00 (less Units)

RAILROAD AND MARINE TYPES

UNIVERSITY marine and railroad speakers are submergence, explosion, shock and vibration proof and are unaffected by live steam. Their reflex air columns are built of rugged castings and are equipped with Alnico V PM dynamic units.

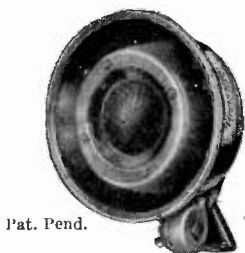
Models MSC, MM-2TC, MM-2 and MM-2F have hermetically sealed housings and built-in driver units. Models MSR and MM-2TC have space for volume control and line matching transformer. Tapped

holes provide access to volume control and for receiving a conduit. All are designed for bulkhead mounting — the Model MM-2F may be flush mounted.

These speakers will operate efficiently under the most arduous conditions — on ships, docks, in railroad yards or locomotive cabs, — in mines, laundries and mills — wherever dirt, salt spray, humidity, explosive dusts and vapors constitute a hazard.

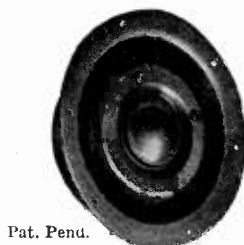


MODEL MM-2TC



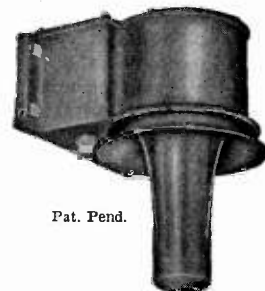
Pat. Pend.

MODEL MM-2



Pat. Pend.

MODEL MM-2F



Pat. Pend.

MODEL MSR

POWER . . .
TYPE MOUNTING . . .
IMPEDANCE . . .
DISPERSION . . .
FREQUENCY . . .
HEIGHT . . .
DEPTH . . .

MODEL MM-2TC

15 WATTS
WALL
16 OHMS
120°
300-6000 CYCLES
10¾" DIAMETER
4½" DEPTH

MODEL MM-2

15 WATTS
SWIVEL BRACKET
16 OHMS
150°
300-6000 CYCLES
4¾" DEEP, 6" O.D.

MODEL MM-2F

15 WATTS
FLUSH PANEL
16 OHMS
150°
300-6000 CYCLES
3½" DEEP, 7¾" O.D.
6" MOUNTING HOLE DIA.

MODEL MSR

15 WATTS
WALL
16 OHMS
360°
250-6000 CYCLES
10¾" DIAMETER
8¼" DEPTH

WIDTH . . .
WEIGHT . . .
PRICE . . .

6¾" WIDTH
10¼ LBS.
\$65.00

5½ LBS.
\$37.00

4 LBS.
\$37.00

7¾" WIDTH
8¾ LBS.
\$65.00

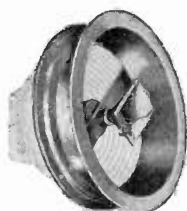


SPEAKERS

HIGH FREQUENCY TWEETER SPEAKERS*

The UNIVERSITY PM tweeter provides the only efficient and economical method of extending the upper register to 15,000 cycles to obtain high fidelity speaker response. It can be connected to the voice coil terminals of an existing PM or field excited cone speaker through a simple, economical high-pass filter without creating any electrical unbalance. Model 4407 is an adapter which quickly changes a 12" speaker to a co-axial reproducer with response to 15,000 cycles. Models 4401

and 4402 offer compactness, high power handling capacity and wide dispersion for the construction of wide range duplex systems. The model 4404 is a complete high frequency speaker and consists of the model 4402 dual tweeter and the 4405 high-pass filter in a walnut finished cabinet. The 4405 high-pass filter or its electrical equivalent must be used with the 4401, 4402 or 4407 for satisfactory performance.



MODEL 4407



MODEL 4401



MODEL 4402



MODEL 4404



MODEL 4405

	MODEL 4407
RESPONSE	2,000-15,000 CPS
IMPEDANCE	12 OHMS
POWER	6 WATTS
HOR. DISTRIBTN.	60°
VERT. DISTRIBTN.	40°
DIMENSIONS	12" DIA., 3" D

PRICE . . . \$25.00

	MODEL 4401
RESPONSE	2,000-15,000 CPS
IMPEDANCE	12 OHMS
POWER	6 WATTS
HOR. DISTRIBTN.	60°
VERT. DISTRIBTN.	40°
DIMENSIONS	4 1/2" W x 2 5/8" H x 5" D

PRICE . . . \$20.00

	MODEL 4402
RESPONSE	2,000-15,000 CPS
IMPEDANCE	6-8 OHMS (Units in par.)
POWER	12 WATTS
HOR. DISTRIBTN.	100°
VERT. DISTRIBTN.	50°
DIMENSIONS	9 1/2" W x 2 5/8" H x 5" D

PRICE . . . \$40.00

	MODEL 4404
RESPONSE	2,000-15,000 CPS
IMPEDANCE	6-8 OHMS
POWER	12 WATTS
HOR. DISTRIBTN.	100°
VERT. DISTRIBTN.	50°
DIMENSIONS	11 1/2" W x 4 1/4" H x 6 1/2" D

PRICE . . . \$60.00

	MODEL 4405
DESCRIPTION	High-pass filter unit for use with models 4401, 4407 and 4402 — includes high frequency volume control. Cut-off frequency approximately 2000 cycles. Die cast container dimensions: 3 1/2" wide x 2 1/4" deep x 2 1/2" high.

PRICE . . . \$10.00

600-CYCLE TWEETERS*

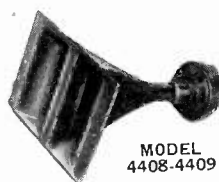
The models 4408 and 4409 tweeters permit easy assembly of 2 and 3-way speaker systems at crossovers as low as 600 cycles. Construction is of sturdy cast aluminum throughout. New horn design allows wider distribution pattern. Available in 6 and 25-watt capacities.

	MODEL 4408
RESPONSE	600-15,000 CPS
IMPEDANCE	12 OHMS
POWER	6 WATTS
HOR. DIST.	80°
VERT. DIST.	40°
DIMENSIONS	5 3/4" H x 7 3/8" W x 1 1/8" D

PRICE . . . \$27.50

	MODEL 4409
RESPONSE	600-15,000 CPS
IMPEDANCE	8 OHMS
POWER	25 WATTS
HOR. DIST.	80°
VERT. DIST.	40°
DIMENSIONS	5 3/4" H x 7 3/8" W x 1 1/8" D

PRICE . . . \$40.00



MODEL 4408-4409



MODEL 4410

MODEL 4410

600 cycles LC dividing network for use with models 4408 and 4409. Provision for external high frequency control. Dimensions, approx.: 8" W x 4" H x 3 1/4" D.

PRICE . . . \$35.00

*NOTE: Instructions packed with all tweeter models include specifications for the simple assembly of necessary filters and crossover networks.

WEATHERPROOF AND INDOOR LINE MATCHING TRANSFORMERS



MODELS 5401, 5409, 5410



MODEL 5402

The new UNIVERSITY line of matching transformers is designed for use with UNIVERSITY loudspeakers in indoor and outdoor installations. Excellent performance is assured throughout the useful audio frequency range at rated output. The models 5401, 5402, 5409 and 5410 are housed in watertight enclosures and incorporate die cast mounting brackets. They may be fastened to any surface with two screws or bolts or may be fastened to the brackets of the models MIL, IBS or CR. When used in the latter manner, the mounting bracket of the transformer acts as a combined mounting support for both the transformer and speaker. The model 5402 may be mounted on the U bracket of any loudspeaker by means of a simple clamp which is supplied or on any surface with two screws or bolts. The uncased transformers for indoor use may also be fastened to any surface with two screws or bolts.

Model No.	DESCRIPTION	IMPEDANCE - OHMS PRIMARY	SECONDARY	LIST PRICE
5401	12 Watt, waterproof case	500, 1000, 1500, 2000	4, 8	\$12.50
5402	25 Watt, waterproof case	250, 500, 1000, 1500, 2000	4, 8, 16	20.00
5409	12 Watt, waterproof case	45	8	12.00
5410	20 Watt, waterproof case	500, 1000, 1500, 2000	8, 16	13.50
5403	12 Watt, uncased, for indoor use	500, 1000, 1500, 2000	4, 8	3.50
5403-1	12 Watt, uncased, for indoor use	45	8	3.00
5408	20 Watt, uncased, for indoor use	500, 1000, 1500, 2000	8, 16	4.50
5414	30 Watt, uncased, for indoor use	165, 250, 500, 1000, 2000	16	6.00

Note: Connecting a speaker of twice the impedance across a given secondary will double all primary values. Conversely, a speaker whose impedance is half the secondary value, will halve all primary values. As an example, the following impedances are available with the model 5402:

PRIMARY IMPEDANCE	SECONDARY LOAD
125, 250, 500, 750, 1000, 1500, 2000	4 Ohms
125, 250, 500, 750, 1000, 1500, 2000, 3000, 4000	8 Ohms
250, 500, 1000, 1500, 2000, 3000, 4000, 6000, 8000	16 Ohms