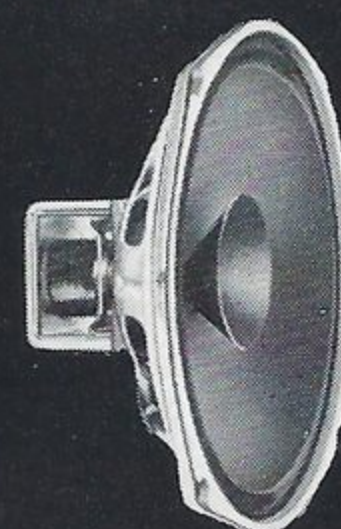
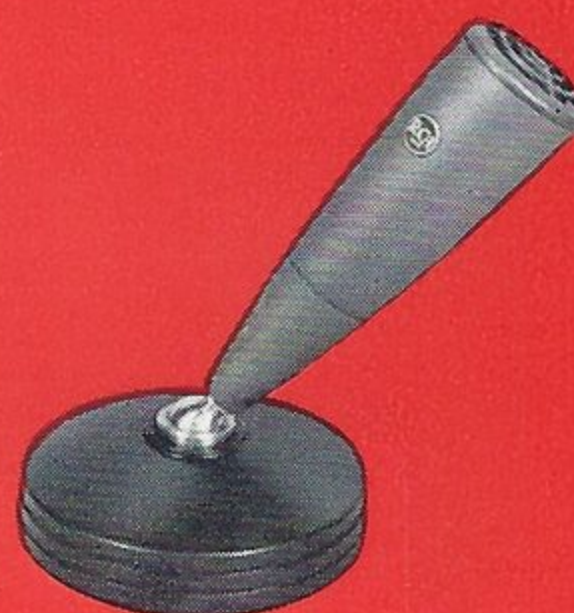
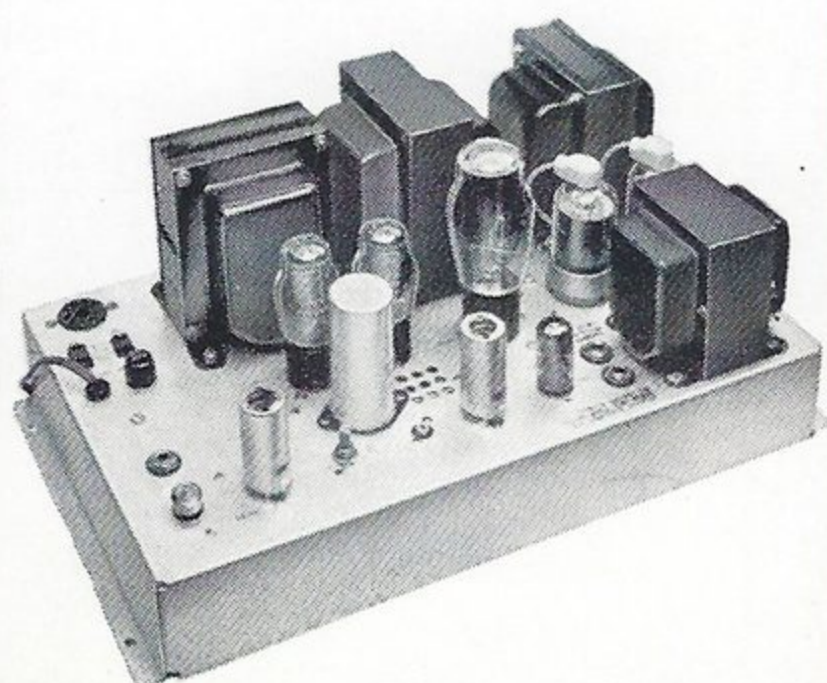
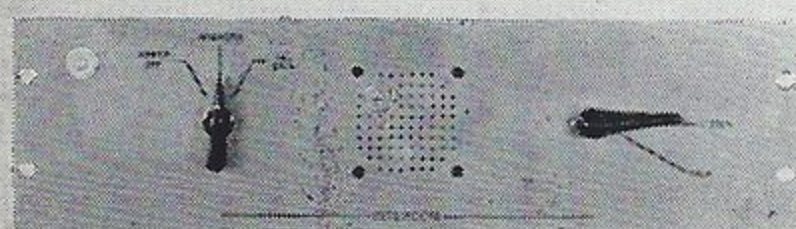
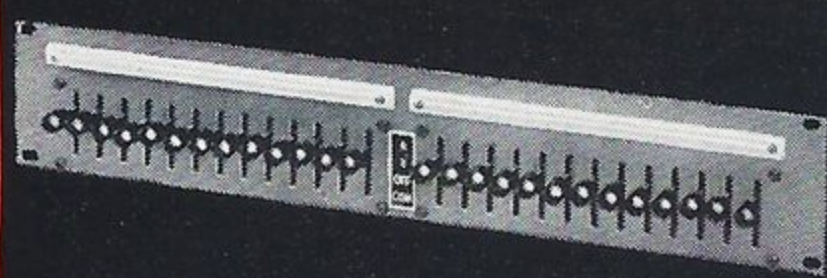
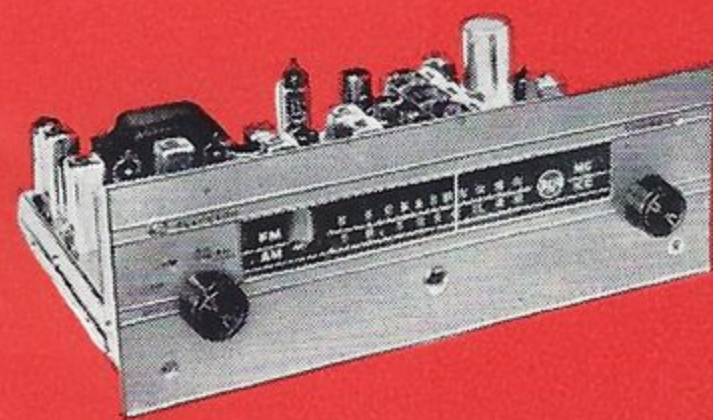
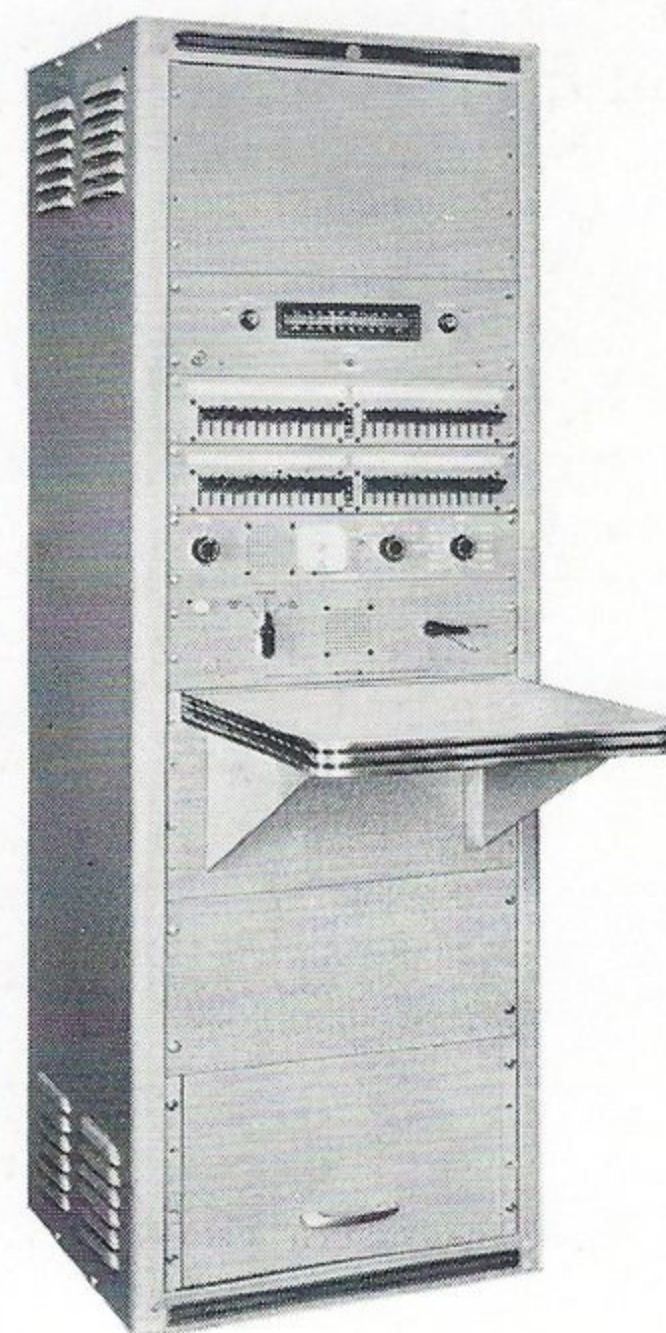




ACOUSTICALLY- ENGINEERED SOUND SYSTEMS

HACKMANN MUSIC & SOUND SERVICE
1208 LEE ST.
JEFFERSON CITY, MO. — PH 6-8831



Why RCA is first choice for engineered sound systems

For 30 years, RCA has specialized in designing sound systems for theatres, broadcasting stations and all types of commercial installations where reliable professional quality sound is required.

This background in designing acoustically correct sound systems has resulted in a full range of performance-proved equipment which is carefully intermatched to provide highest quality sound pick-up and reproduction. The equipment included in this booklet is only a limited sampling of the extensive selection available from RCA to handle every sound application.

Time-saving help for engineers and architects

RCA Engineered Sound Distributors are prepared to work with engineers and architects in planning sound and intercommunications systems. These carefully selected, conveniently located distributors are qualified to give competent advice on audio equipment for every type of structure. Among the services available from RCA Sound Distributors are:

- Review of plans to determine functional requirements and equipment needs.
- Writing of specifications for all audio equipment.
- Sound system layouts, showing location of loudspeakers, control console and other sound equipment.

Acoustic engineers from the RCA staff are available on a consultant basis to assist distributors in making acoustical analyses and sound system surveys.

new modular sound control systems

Flexible new RCA Sound Systems are made to order from standard plug-in assemblies.

RCA's new modular sound systems are ideally suited for applications requiring central control of sound functions because they *permit selection of assemblies to meet exact requirements, are unusually easy to operate, and provide greater reliability at lower cost.*

These new "building block" systems from RCA are based on a wide selection of standard assemblies which can be installed in any of four basic cabinets in many combinations. The result is a high degree of flexibility in choosing a system which will be most suitable for present and future needs.

flexibility of design

RCA's Modular Sound Control System assemblies are mounted on 19 inch panels and stocked as standard units.

Planning and specifying an RCA system is now greatly simplified—merely requires determining the functions to be accomplished by the sound system and selecting the standard assemblies and cabinet which best meet the requirements. The specified elements are prewired with plug-in connections; are custom assembled by factory experts, and shipped ready for installation.

simple to operate

Ease of operation combined with flexibility are characteristic of RCA's modular design. The number of operating controls, switches and knobs have been reduced to essentials without detracting in any way from the functions of the system. The program panel, for example, has only three controls. The intercom panel is equally simple and incorporates a combination monitor-loudspeaker and microphone.

easy to install and maintain

Reliable performance at lower cost is an inherent advantage of these new systems. Installation is readily accomplished, since the systems are shipped with all units interconnected and mounted in place. Components are readily accessible for ease of service and parts replacement.

central control units

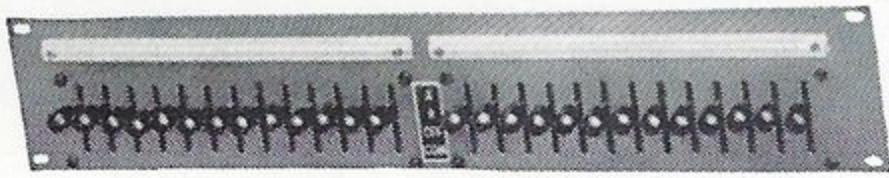


Four Basic Systems—Scores of Variations.

New Modular RCA Sound Control Systems are made up of standard assemblies which can be mounted in any of the four basic cabinets shown here in numerous combinations.



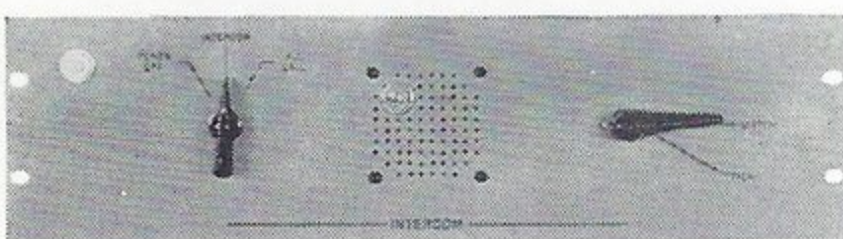
control panels

room selector switchbanks (MI-38600 (26 key)
(MI-38602 (16 key)

Switchbank panels for controlling program and communication are available with 16 or 26 room selector switches. As many additional panels of switches as needed may be specified. Light annunciators are available also, if desired. The switchbank panel is a standard rack type, $3\frac{1}{2}$ " x 19" x $\frac{1}{8}$ ". Switches are four-position, two-pole lever type, marked "A", "B", "OFF", "COM".

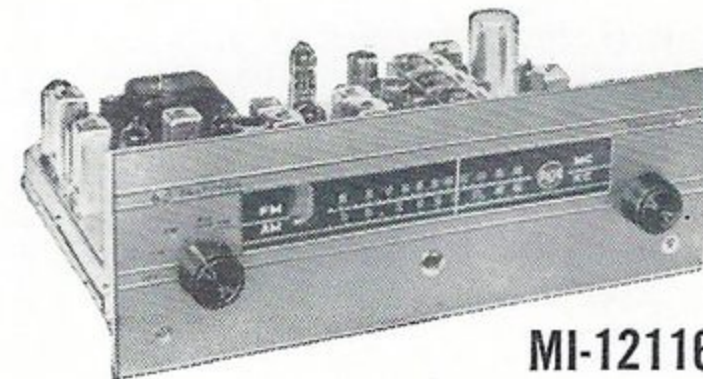
program control panel (MI-38631)

The program control panel is $3\frac{1}{2}$ " x 19" x $\frac{1}{8}$ ", finished in light umber gray. The panel includes program volume control with a volume indicator meter. A combined monitor selector and distribution switch is provided for utmost simplicity in operation, allowing presetting the program before distribution, distribution without monitor, distribution with monitor, and allowing use of the monitor speaker as a microphone. An input selector switch permits selection of any one of four (4) remote microphones; console microphone, radio, phono or one of three (3) auxiliary high level inputs. All cabling from the panel terminates in plugs for ease of connection to the remainder of the system.

intercom panel (MI-38630)

Dimensions of this panel are $5\frac{1}{4}$ " x 19" x $\frac{1}{8}$ ". A Talk-Listen switch is provided for intercom use. A single switch turns power off and controls the Intercom and "All-Call" functions. The panel also contains a loudspeaker microphone for intercom use. A system pilot light is mounted on the panel. All cabling terminates in plugs for ease of connection.

tuners



MI-12116

Two types of AM-FM receivers are available. For normal reception areas, the MI-38700 will give excellent performance. It is provided with Automatic Frequency Control for drift-free operation. The function switch has 4 positions: Off, FM, FM-AFC, AM. For weak signal areas, the high fidelity MI-12116 tuner is recommended. This highly sensitive, low distortion unit is equipped with a tuning eye. Its frequency response is 20-20,000 cycles for FM: 50-15000 cycles within ± 2 db. Both tuners meet FCC minimum radiation requirements, are listed by Underwriters' Laboratories Re-examination service and are certificated for compliance with FCDA specifications.

record players



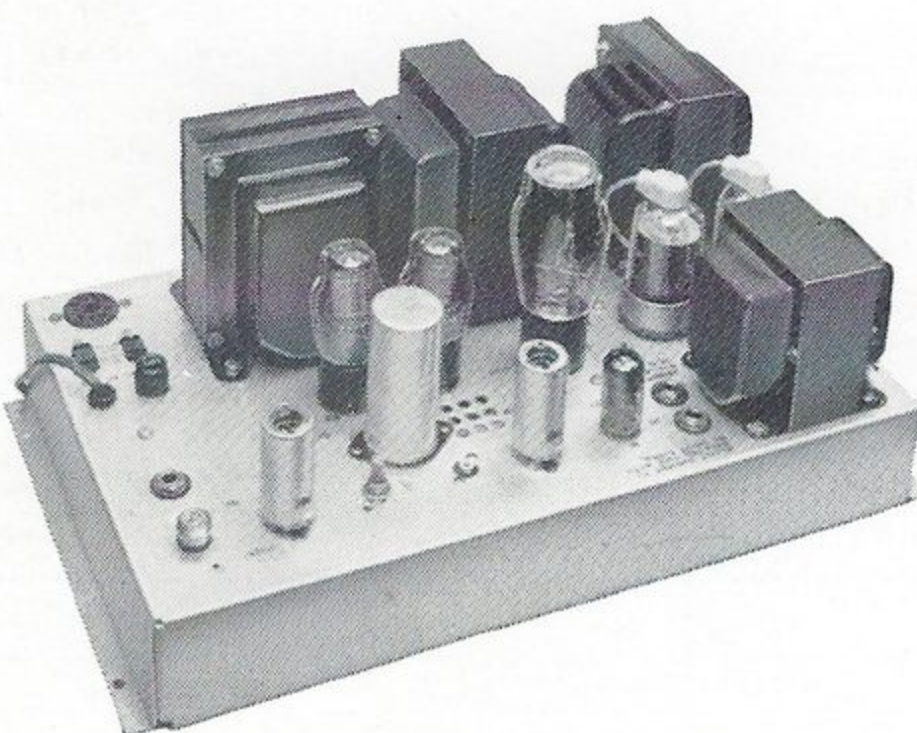
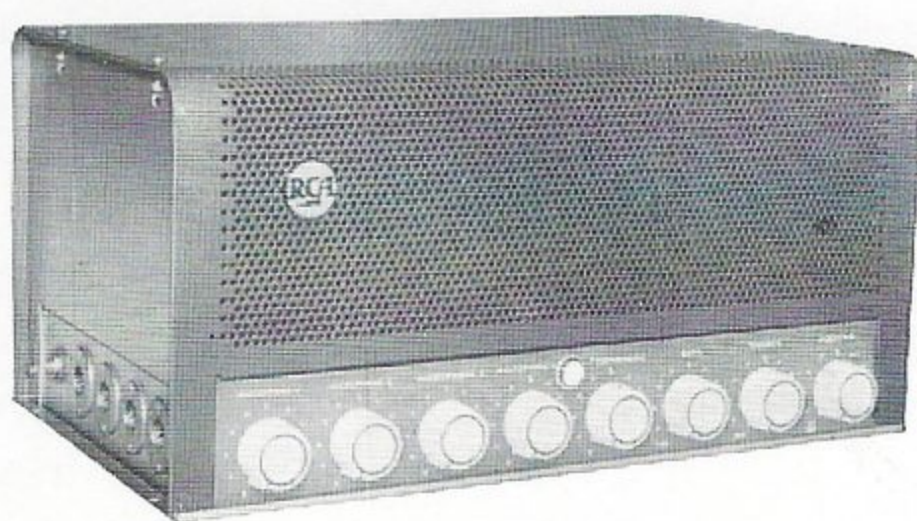
MI-12820-C

An automatic and a manual record player are available for use with RCA Modular Sound Control Systems. The MI-12820-C automatically plays records up to 12" in diameter at 16 $\frac{2}{3}$, 33 $\frac{1}{3}$, 45 and 78 rpm. The turntable is smooth ground and weighted, to insure quiet wow-free performance. It is mounted on a three-ball thrust bearing. Shuts off automatically after the last record. Can be operated manually. Accommodates 7, 10 and 12 inch records. Plays up to fourteen 7 inch, twelve 10 inch records. Records of 10 and 12 inch size of the same speed may be mixed. Equipped with a ceramic pick-up with a flip-over type cartridge.

The manual turntable, MI-38610, is balanced and equipped with a permanently fastened 45 rpm spindle. It is mounted on a motor board. This equipment also plays records up to 12" at all four speeds.

amplifiers

Power amplifiers for RCA Sound Systems are designed for high quality, dependable reproduction, from microphones, radio, record players, or tape pick-ups. They are available in a full range of power ratings, ranging from 10 watt intercommunication models to rugged, heavy duty 75 watt units. All RCA amplifiers are conservatively rated; meet Electronic Industry Association standards, and carry Underwriters' Laboratories approval. In all cases, peak power capabilities of the amplifiers exceed specified figures. They are manufactured to meet the most rigid electrical and mechanical specifications in the industry.



Most frequently used amplifiers are: 10, 15, 35, 70 and 75 watt units. Basic performance characteristics of these amplifiers are:

- Constant voltage output, balanced or unbalanced, 70 volts and 25 volts.
- Frequency response: 20-20,000 cps.
- Magnetic pickup equalization to compensate for recording characteristics.
- Provision for remote control of microphone volume.
- Facilities for combining amplifiers at the power stage.
- Exceptional serviceability—wiring unusually accessible.
- Built to accommodate plug-in type input transformers—permitting easy change of input impedance.

microphones

The consistently high quality of RCA microphones is the result of continued effort on the part of Engineering and Production personnel to produce a superior product. Out of this work various types of microphones have come, each possessing certain attributes which make it particularly well suited to some specific applications.

Basic characteristics, application and specification information on several of the more than 20 types of microphones available from RCA are shown in the table at the right. Complete details on all types are available.

Type
Directional Characteristics
Element Type
Frequency Range
Output Impedance (Ohms)
Eff. Output Level at 1000 CPS

Applications

Special Features

MI Number

speakers

RCA Speakers are the result of research in developing sound reproduction equipment for broadcast studios, theatres, high fidelity systems, and exacting military requirements. A complete line of speakers and horns are stocked to meet nearly every sound application.

Each RCA Speaker is carefully engineered, made of the best quality materials and produced by the most advanced mass production methods.

Power handling capability, response, and other pertinent performance data on several RCA Loudspeakers are shown on the opposite page. A brochure giving complete information on all RCA Loudspeakers is available on request.

Power (Watts)
Frequency Response (CPS)
Sensitivity at 1 Watt, 4 Feet
Impedance
Magnet Material & Weight
Gap Flux Density
Diameter (Nominal)
Weight
Transformer Pri. Imp. (Ohms)

Applications and Remarks

MI Number



SOUND SYSTEMS

Polydirectional



Varacoustic



Bantam Velocity



Commentator



Aeropressure



Personal Miniature



77-DX	SK-50	SK-46	BK-1A	SK-45-B	BK-6B	TYPE SK-39, SK-40
Adjustable	Adjustable	Bidirectional	Nondirectional (when mounted vertically)	Semidirectional (above 3,000 cps)	Semidirectional (along main axis)	Nondirectional
Ribbon	Ribbon	Ribbon	Dynamic	Dynamic	Dynamic	Dynamic
50-15,000	50-15,000	60-10,000	60-10,000 cps	75-10,000	80-12,000	70-9,000
30/150/250	200/15,000	200/15,000	30/150/250	150-250 or 15,000	30/150/250	250 25,000
-53 dbm (unidirectional)	-57 dbm (unidirectional)	-58 dbm 60 dbm below 1 v.	-52 dbm	-56 dbm -58 dbm	-67 dbm	-55 dbm

AM, FM, and TV broadcast studio use where an adjustable directional characteristic is desirable to cover varying pickup conditions indoors, or outdoors if protected from rain.	AM, FM, and TV broadcast studio or high quality P.A. use where an adjustable directional characteristic is desirable to cover varying pickup conditions.	AM, FM, and TV studio or control room announcing. General indoor use. Not for outdoor use due to sensitivity to wind.	Any broadcast or P.A. work, speech or music, indoor or outdoor, panel discussions, sports-casts, audience participation shows, etc. Particularly well suited for TV use.	Paging and P.A. work, indoors or outdoors, voice or music. Suitable for "close-talking" work.	General FM, AM, and TV broadcast use or high quality P.A. use when a light weight or concealed mike is useful. Excellent for audience participation shows, "on-the-spot" interviews, etc.	Close-talking announce, remote pickup and mobile use, indoor or outdoor P.A. work, home recording, amateur radio, individual soloist use. May be used with floor stand, desk stand or handle.
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Exceptionally well-shielded against hum. Shock-mounted. Satin chrome finish. Directional characteristics: Unidirectional, bidirectional, and intermediate positions. Adjustable mounting, 5/8"-27 fixture thread. 1/2" pipe thread mounting.	Directional characteristics: Unidirectional, bidirectional, and intermediate positions. Adjustable mounting, 5/8"-27 fixture thread.	Swivel mount permits tilting head back 85°. TV gray and satin chrome finish. 5/8"-27 fixture thread.	Ball and socket mounting for desk or may be held in hand for "carry around" use. Non-reflective gray finish. MI-11008 Stand extra.	5/8"-27 fixture thread. TV gray enamel finish.	Lanyard included to suspend from neck. Rugged construction. Easily concealed in hand, clothing, or props.	5/8"-27 fixture thread. Umber gray finish.
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MI-4045-F	MI-12034	MI-12046	MI-11007	MI-12045-B	MI-11017	MI-12039 (Low Impedance) MI-12040 (High Impedance)
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Duplex Accordion Cone Speaker



8-inch Speaker



Re-entrant Paging Speaker



8-inch Speaker and Baffle



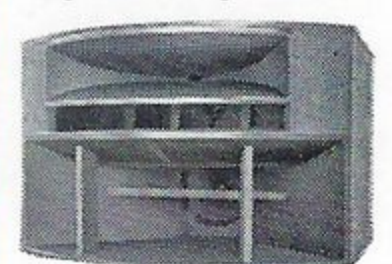
12-inch High Fidelity Dual Speaker



15-inch High Fidelity Duo-Cone Speaker



Auditorium Speaker System

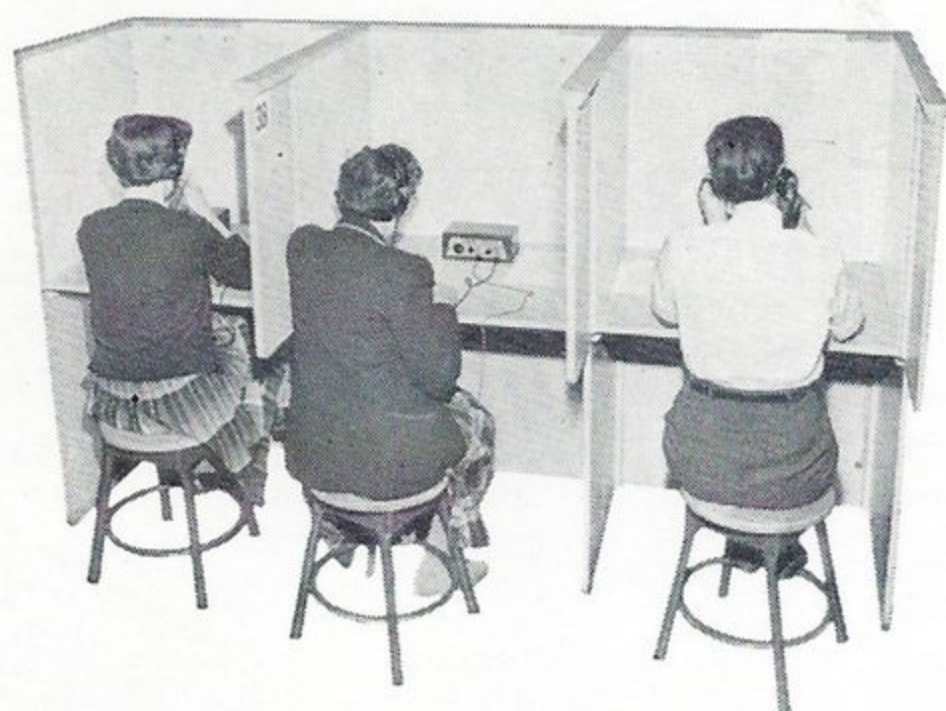


8 w.	10 w.	15 w.	10 w.	15 w.	20 w.	40 w.
30-14,000	70-15,000	300-13,000	70-13,000	40-18,000	40-16,000	40-8,000
94 db	96 db	102 db	94 db	97 db	92 1/2 db	108 db
3.2 ohms*	3.2 ohms*	8 ohms	3.2 ohms	8 ohms	16 ohms	H.F. 16 ohms/L.F. 30 ohms
Alnico V 3.16 ozs.	Alnico V 3.16 ozs.		Alnico V 2.15 ozs.	Alnico V 14.5 ozs.-1.47 ozs.	2 1/2 lbs.	
	9000 lines/sq. cm.		7600 lines/sq. cm.			
7"	8"	8 1/2"		12"	17"	31" x 45 1/2" x 48"
33 ozs.	31 ozs.		6 lbs.	4 lbs.	21 lbs.	275 lbs.
700/1400/4000/8000/16000*	700/1400/4000/8000/16000	45/325/500/1000/2000/4000 8000 to 8 ohms.	*700/1400/4000/8000/16000	Not supplied	Not supplied	

Designed for high quality reproduction of voice or music in offices, clubs, school rooms and other areas where low or modest noise levels exist. *Same speaker with 8 ohm voice coil and no transformer is MI-38302, Type SL-7.	Indoor paging and intercom use, such as in classrooms. Has wide frequency range and curvilinear cone. *Same speaker with 8 ohm voice coil and no transformer is MI-38304.	Medium power paging speaker for general outdoor paging and P.A. use. Distribution angle 90°. May be used as a talk-back microphone.	All indoor sound distribution and intercommunication application where a surface mounted wall type baffle is required. *Same unit with 25 v. line transformer is MI-38306-1 (Walnut), MI-38306-2 (Blonde).	General high fidelity use. Type SL-123.	General high fidelity use. Relatively uniform response over a wide dispersion angle with an extremely smooth frequency characteristic. Type LC-1A.	This is a professional high-quality combination designed for theatres, music halls, churches, dance halls, hotel ball-rooms, etc. Cross-over network 250 ohms supplied. PL-303/303-A are modifications of this unit.
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MI-12435-C	MI-12454-B	MI-14859-8A	MI-38301-1 (Walnut) MI-38301-2 (Blonde)	MI-12654	MI-11411-A	PL-303-R
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language laboratory



The language laboratory is a modern "learn-by-doing" teaching technique which permits students to become fluent with the spoken as well as the written language. Generally, Language Laboratories are large rooms which are divided into rows of individual semi-soundproof booths. Each booth is equipped with a microphone, a headset, and an amplifier which has a selector switch for choosing the desired language. In the basic "Listen-Respond" system the student enters the booth, selects the assigned lesson channel and listens to a tape recording of the current lesson. He uses the microphone to imitate aloud exactly what he hears. By listening to his own voice through the headset, the student is able to compare his pronunciation with that on the recording. Since as many as ten separate language programs can be distributed simultaneously, one language laboratory system will handle all foreign language requirements.

There are many variations in systems and equipment arrangement, depending on the instructor's preferences. For Language Laboratory use, RCA developed a compact transistorized amplifier which consumes little power and offers trouble-free service. A unique design feature permits the entire system to operate from one central power supply. This provides a safe, low voltage system which requires a minimum of wiring expense and which can be expanded quickly and economically. Equipment to meet every current and projected Language Laboratory need is available from RCA:

- Student Booths
- Transistorized Amplifiers
- Microphones
- Headsets
- Tape Decks
- Cartridge Tape Recorder
- Teacher Monitoring
- Communication facilities

Planbooks containing complete details on Language Laboratories are available on request.

'lectronic lectern



New for meetings, lectures and rallies is RCA's 'Lectronic Lectern, a portable all-transistor unit which has a built-in quality public address system. 'Lectronic Lectern sets up in less than 30 seconds—just long enough to open the case, remove the microphone and plug in the power cord. One side of the case is elevated to form the lectern desk top.

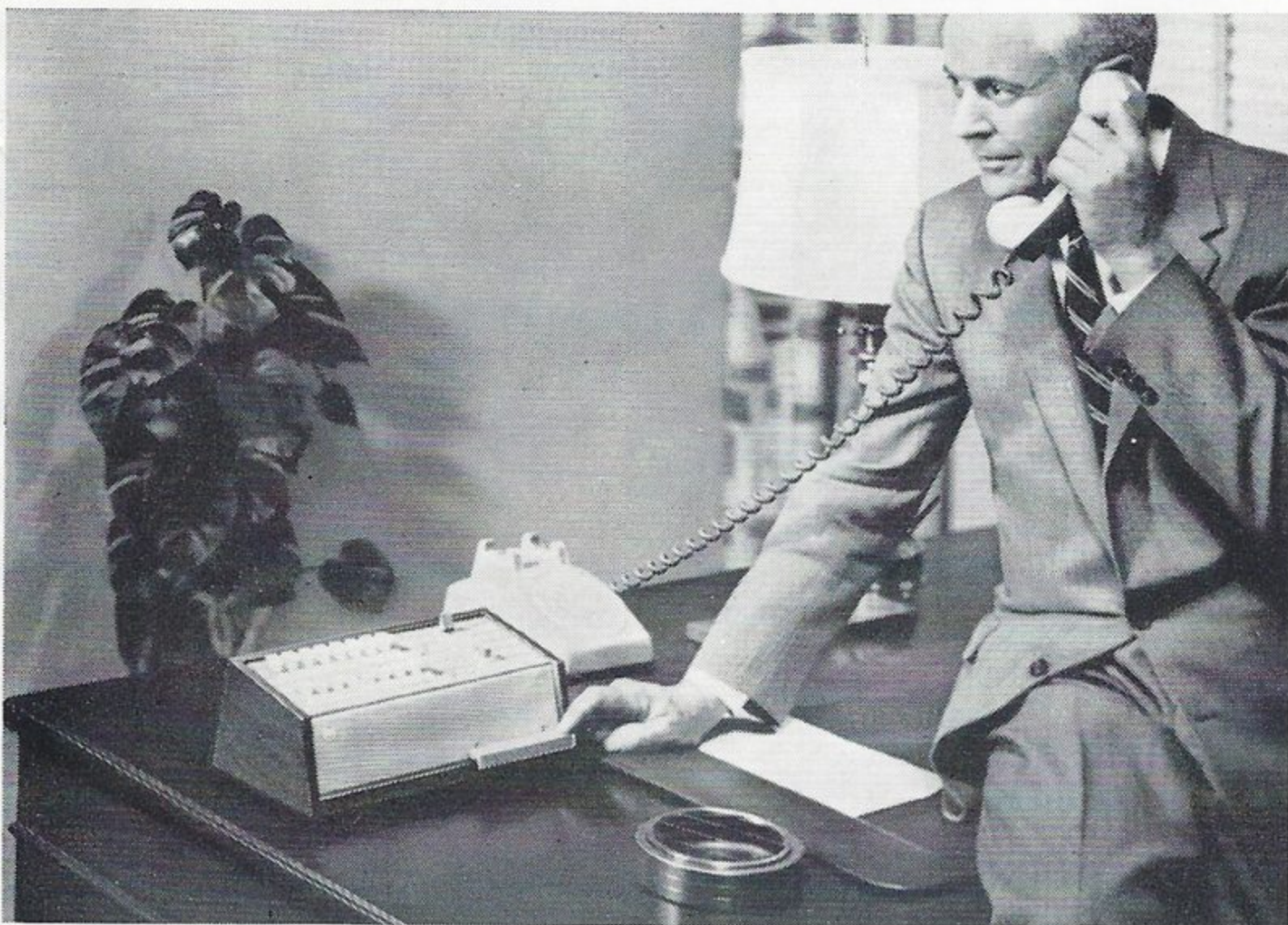
The Lectern uses a miniature TV-Type microphone (BK-6B), a high fidelity loudspeaker and a newly developed transistorized amplifier to project sound to audiences up to 600. It operates from a wall outlet or batteries. A record player, radio tuner or tape recorder may be connected to the 'Lectronic Lectern for playing background music or other program material or recording.

For convenience, the microphone may be mounted on a flexible gooseneck on the lectern or suspended around the speaker's neck, giving him full freedom of movement. Transistorized design of the Lectern provides instant warm-up, with negligible power consumption. RCA 'Lectronic Lecterns are available in two styles. The "Modern" version comes in a handsomely styled case, covered with a combination of durable vinyl plastic and rugged lamination. The "Classic" model is also laminated and more conservatively styled. Both compact units measure only 18 x 20 x 8 inches.



SOUND SYSTEMS

RCA instant-call



RCA Instant-Call is a new printed circuit all-transistorized electronic intercom which offers every feature needed to expedite inter-office communication. It provides convenient station selection . . . push button conference calls . . . busy signals . . . chimes and lights to announce calls. Instant-Call is attractively styled and finished in striking walnut and limed oak cabinets. A single AC wall outlet provides power for the entire intercom system. Negligible power consumed. Sound level is adjustable to desired volume at listening station.

RCA Auto-Dial is an internal, private communication system which utilizes automatic switchboards and dial type telephones. Switchboards of 10, 16, 25, 30, 50, 100 line and larger capacities are available to handle up to 1,000 telephones.

nationwide service

Because regularly scheduled servicing is a key factor in obtaining optimum usage and benefit from sound systems, many RCA Engineered Sound Distributors offer, at a nominal cost, a program which includes scheduled maintenance visits, parts replacement, emergency service. This same program is available on a nationwide basis by RCA Service Company, Inc.—an organization specializing in servicing and installing electrical equipment. Trained RCA Service Company Field Engineers are equipped with the most modern test instruments and are backed by a network of shops and equipment warehouses to facilitate fast and efficient service.

one source for all sound needs

RCA Sound Systems will handle every type of public address, sound reenforcement or program distribution function. The RCA Sound line includes more than 500 separate audio equipment items engineered and manufactured to meet the most rigid electrical and mechanical specifications in the industry.

RCA regional offices

ATLANTA 3, Ga.
1121 Rhodes-Haverty
Bldg.
134 Peachtree St.,
N.W.

BOSTON 16, Mass.
John Hancock Bldg.
200 Berkeley St.

CHICAGO 11, Ill.
1186 Merchandise
Mart Plaza

CLEVELAND 15,
Ohio
1600 Keith Building

DALLAS 1, Texas
7901 Freeway A183
P.O.Box 35025
Airlawn Sta.

HOLLYWOOD 28,
Calif.
RCA Bldg., 1560 N.
Vine St.

SAN FRANCISCO 3,
Calif.
Furniture Mart,
1355 Market St.

KANSAS CITY 6, Mo.
340 Dierks Street

NEW YORK 20, N. Y.
36 West 49th Street

RADIO CORPORATION OF AMERICA



Yours for the asking ...

CONVENIENT SOUND PRODUCT SELECT-A-GUIDES

The four RCA "Select-a-Guides" shown here are fold-out brochures which permit quick comparison of specifications and other pertinent performance data for many microphones, loudspeakers and amplifiers available from RCA. Details on the new RCA modular central sound equipment are covered in a separate "Select-a-Guide".

We'll be glad to send you copies of any or all of these handy reference brochures.



RADIO CORPORATION OF AMERICA

Audio Products Department, Camden 2, N. J.