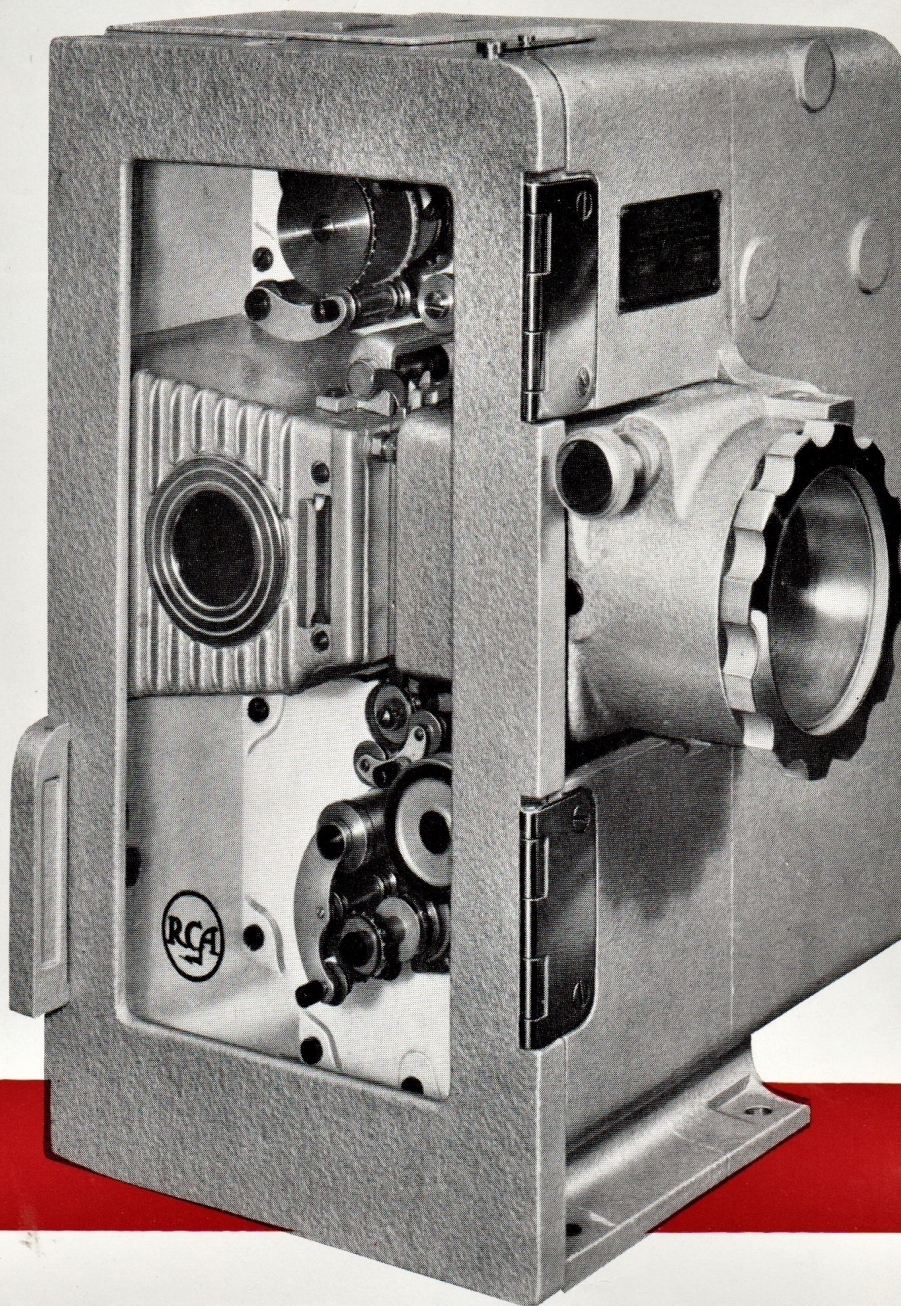


1000

35 MM

PROJECTOR

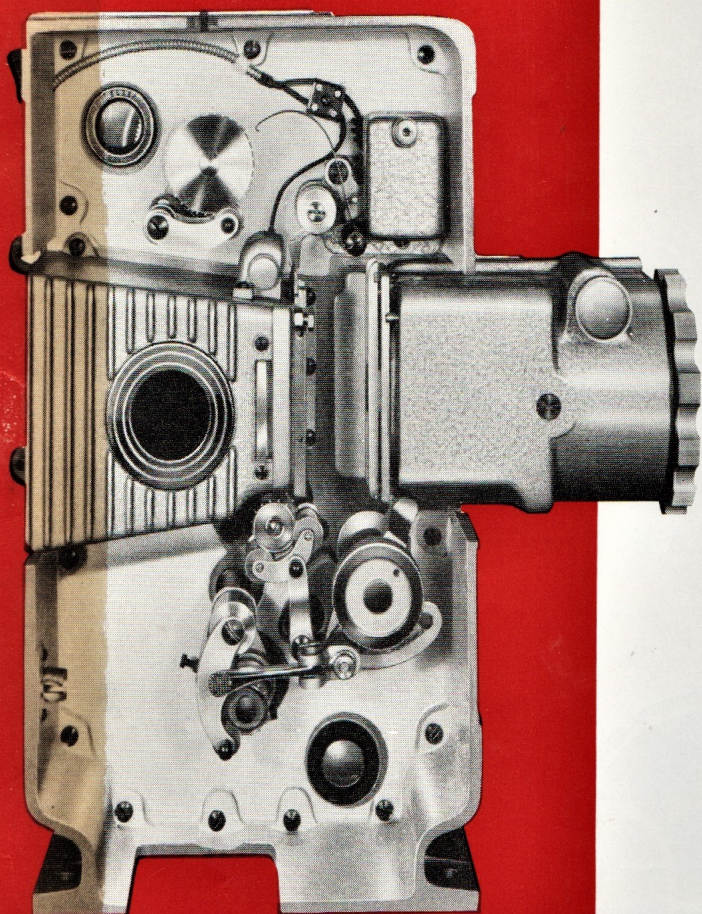


## practical design

Simple in layout and operation, and incorporating the latest techniques in motion picture engineering, the RCA 1000 is robustly constructed for long life and trouble-free operation. Meeting every requirement of the modern cinema this machine is the result of many years' research and development combined with practical experience.

A full width door permits easy access to all the operating controls and film path.

The long, wide opening picture gate ensures rigid support to the film whilst being projected, and a spring-loaded lateral film guide prevents film weave. The slide-in aperture plate may be rapidly changed when screening films of different aspect ratios. The hook-on picture gate is provided with adjustable hardened steel pressure pads and is instantly removable for cleaning. A low voltage framing lamp is built in. Framing control is conveniently located alongside the gate.



# perfect presentation

## GIANT LENS MOUNT

The massive lens mount takes all lenses up to 82.5 mm. in diameter and is supplied complete with a 70-mm. sleeve for normal applications. Focusing is by means of a micrometer action knurled ring on the outer end of the mounting. Plug-in type anamorphic lenses are rigidly held without the necessity of an additional attachment, but a swing-away bracket is available for other types of anamorph.

## WATER COOLING

The RCA 1000 projector features a built-in water-cooled gate which is easily connected if required.

## SPECIAL SAFETY DEVICE

A loop forming guard fitted adjacent to the take off sprocket automatically operates a fire shutter in the event of a film break above the picture gate. The device is also fitted with a mercury switch which may be used in conjunction with a relay to simultaneously disconnect the arc and projector motor.

## HIGH EFFICIENCY DRUM SHUTTER

A drum shutter affords superb picture definition. It is instantly removable for cleaning. Centrifugally operated fire shutters are located inside the drum.

## MULTI-PURPOSE SPROCKETS

CinemaScope type sprockets for standard and CinemaScope prints are fitted. All sprockets are hardened and ground to fine limits to ensure accuracy and long life.

## CONSTANT LUBRICATION

Lubrication, by geared oil pump, is continuous and automatic, providing a constant flow of filtered oil to ball bearings and gears. Moving continuously through the projector it is re-filtered before passing the intermittent movement.

This scientific lubrication ensures the minimum of wear to all moving parts of the assembly and acts as an overall cooling system by distributing local heat in the gear train throughout the whole mechanism. Illuminated oil sights give a continuous visual indication of oil circulation and level.

## LONG LIFE GEARS

Gear layout is simple and all parts are easily accessible and quickly removed. Each gear is manufactured to close tolerances, of great strength and designed for smooth quiet operation.

## THE MOVEMENT

Heart of the RCA projector is the superb intermittent movement, manufactured to limits of 1/10,000th of an inch from super hard, heat-treated steel, it maintains accuracy throughout its long life and ensures rock steady picture. The intermittent sprocket is reversible and is held in position by a quick-release single screw.

## STURDY CONSTRUCTION

The heavy cast frame assures accurate alignment of the operating mechanism and vibrationless performance.

## FINISH

The RCA 1000 projector presents precision engineered reliability, completely enclosed for smooth quiet operation and minimum cleaning and maintenance. Finished in attractive silver grey hammer externally, the film path enclosure is white stove enamel.

# The perfect combination

The combination of RCA sound and projection equipment proves perfection in motion picture presentation. Readily adaptable for use with any modern sound system the RCA equipment requires no adaptation for use with RCA LM1 9031 and 9010 sound heads. Backing these fine equipments is the RCA Service Organisation with branches throughout Great Britain and Ireland and a chain of RCA Distributors extending throughout the world.



**RCA GREAT BRITAIN LTD.**

*(An Associate Company of Radio Corporation of America)*

**Lincoln Way, Sunbury-on-Thames, Middlesex**

*Tel.: Sunbury-on-Thames 3101*

*Obtainable from*



# LG.230 & LG.234 THEATRE SOUND SYSTEMS

FOR THEATRES SEATING OVER 1000

The installation of RCA Sound and Projection equipment assures you the finest. Unparalleled research facilities, years of experience in the development and manufacture of Sound Reproducing and Recording equipment give RCA unique advantages in meeting the exacting specifications of superior Cinema Sound Presentation.

The RCA LG.230 and 234 Sound Reproducer equipments are designed to meet the needs of larger Cinemas.

Smartly styled and sturdily constructed, to designs perfected in the United States, these RCA equipments afford unique high fidelity sound presentation.

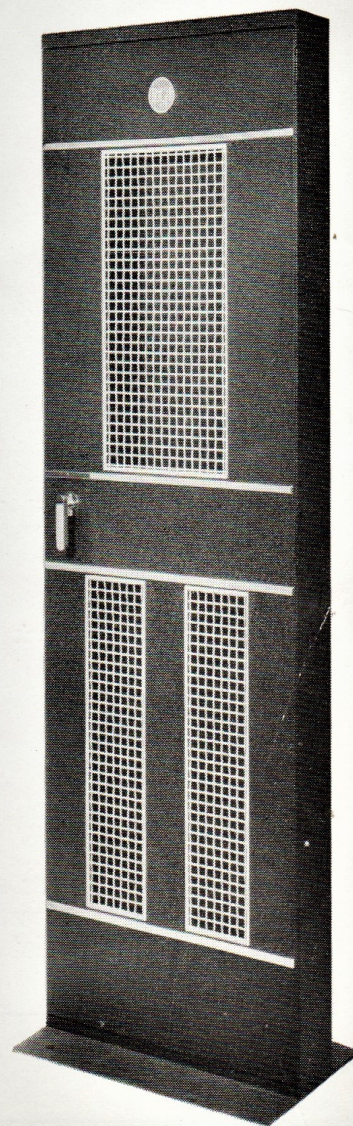
The Master Items and all components are built to rigid specification to ensure continual and dependable performance. The exterior finish of all component parts is black crackle and chrome.

These robust equipments are, at the same time, easy to install and service, and are built up from interchangeable standard units. The Amplifiers may be disconnected and replaced entirely from the front of the racks, permitting them to be fitted close to the wall of the projection suite. The hinged construction of all the Amplifier units enables wiring and components to be instantly exposed for inspection and servicing.

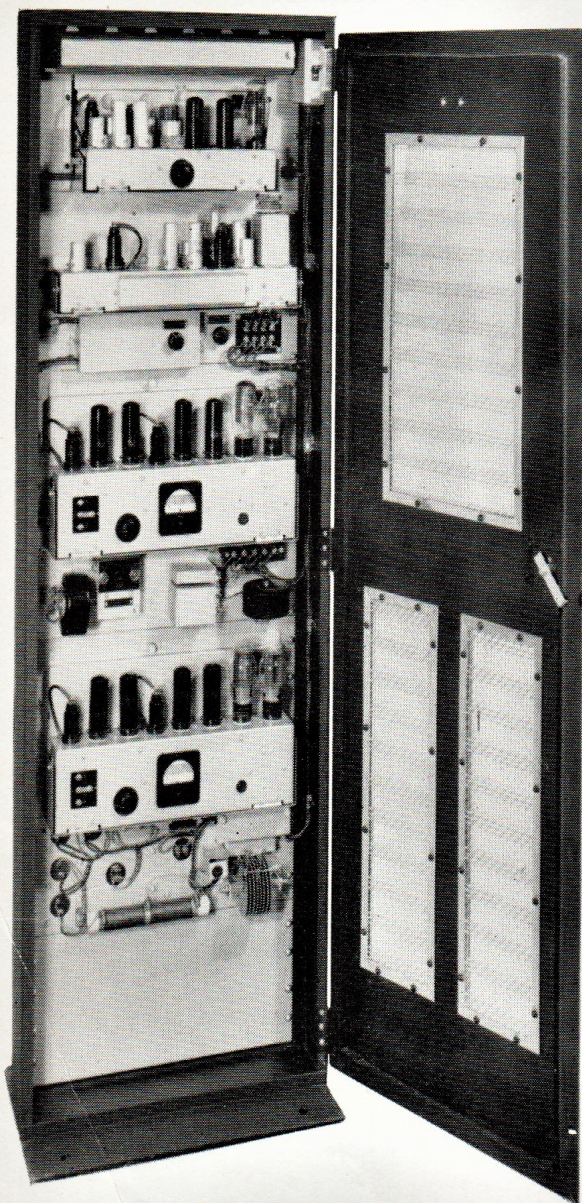
Both the LG.230 and 234 Sound Systems operate from 110-120 or 200-240 volts, 50 or 60 cycles AC mains. Owing to the extreme flexibility of the electrical and mechanical arrangements these equipments are readily adaptable for the reproduction of CinemaScope Magnetic and Perspecta Sound. They afford outstanding quality of sound reproduction for the large cinema.

## LG.230/234 SOUND SYSTEMS—MAIN ITEMS.

- |   |                                    |
|---|------------------------------------|
| ROTARY STABILIZER SOUNDHEADS (2)          | LMI-9031<br>(See separate leaflet) |
| FADER SWITCHES (2)                        | LMI-1708D                          |
| VOLUME CONTROL UNIT                       | LMI-9725B                          |
| MONITOR LOUDSPEAKER                       | LMI-9405C                          |
| SPARE PARTS CABINET                       | LMI-9760A                          |
| RADIAL LOUDSPEAKER SYSTEM                 | (See separate leaflet)             |
| LG.230: Amplifier Rack Assembly including |                                    |
| LMI-9358 Power Amplifier,                 |                                    |
| LMI-9333 Pre-Amplifier,                   |                                    |
| LMI-9507C Exciter Lamp power supply unit, |                                    |
| LMI-9257 Monitor/Emergency Amplifier      |                                    |
| LG.234: Amplifier Rack Assembly including |                                    |
| LMI-9358 Power Amplifiers (2),            |                                    |
| LMI-9333 Pre-Amplifier,                   |                                    |
| LMI-9507C Exciter Lamp power supply unit, |                                    |
| LMI-9257 Monitor/Emergency Amplifier      |                                    |



LG.230 Amplifier Rack



LG.234 Amplifier Rack

#### LG.230. SOUND SYSTEM

The robust Pre-Amplifier and Power Amplifiers have been designed to work together as an Amplifier channel with an overall frequency response characteristic of high quality. Amplifier characteristics are adjustable at the time of installation, to suit the individual acoustic conditions of any particular auditorium.

The LMI-9333 Pre-Amplifier consists of a 6J7 input valve RC coupled to 6J7G which is in turn coupled to the Power Amplifier feeding two 6J7 valves connected as triodes, which act, one as a voltage amplifier, and the other as a conventional phase inverter providing push-pull input to the power stage. The power stage consists of four 6L6 tetrodes in a class 'A' parallel push-pull circuit.

Negative feedback from a tapping on the output transformer ensures the absence of harmonic distortion. A common power supply unit employing a pair of 5U4 rectifiers, supplies all the necessary valve voltages to both Amplifiers.

A unique feature of the Power Amplifier is its valve testing facility, this device enables the operator to see at a glance whether the conditions in each valve circuit are normal.

The high gain Monitor Amplifier is housed in the rack and gives a continuous indication of sound level.

The rack mounted D.C. Exciter Lamp supply unit employs a reliable selenium-stack rectifier, and there are emergency arrangements whereby the Exciter Lamps can operate off a tapping on the mains transformer if needed. Facilities for input from a record player are also provided.

A six inch permanent magnet Monitor loudspeaker mechanism is housed in a separate metal cabinet, and is fitted with an independent volume control.

#### LG.234. SOUND SYSTEM

The LG.234 equipments are similar in structure to the LG.230 systems. All the facilities of the LG.230 are incorporated together with an extra LMI-9358 Amplifier mounted in the main rack. A larger Radial Stage Loudspeaker system is employed.

**AN RCA SOUND SYSTEM MEANS PERFECT PRESENTATION . . . ALWAYS**

# RCA GREAT BRITAIN LIMITED

*An Associate Company of Radio Corporation of America*

**LINCOLN WAY, WINDMILL ROAD, SUNBURY-ON-THAMES, MIDDLESEX**

Telephone : Sunbury-on-Thames 3101

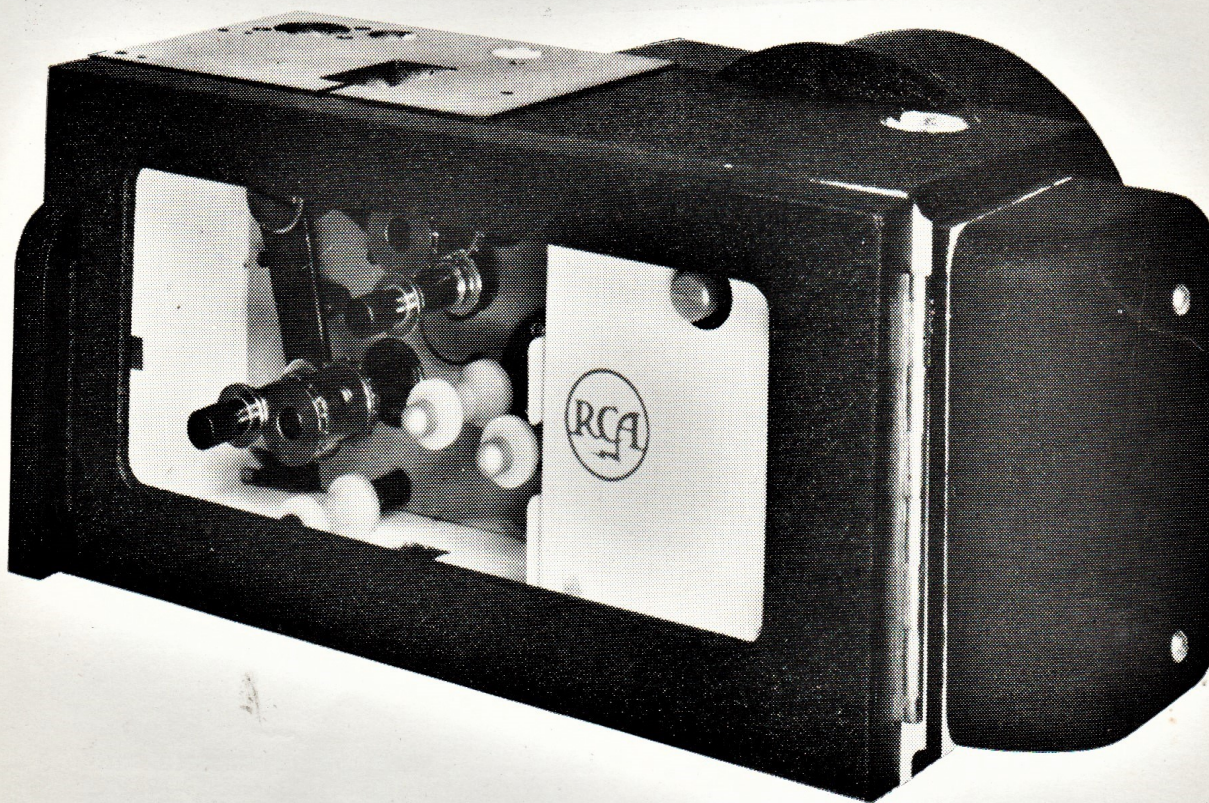
Telegrams : R C A, London, Telex



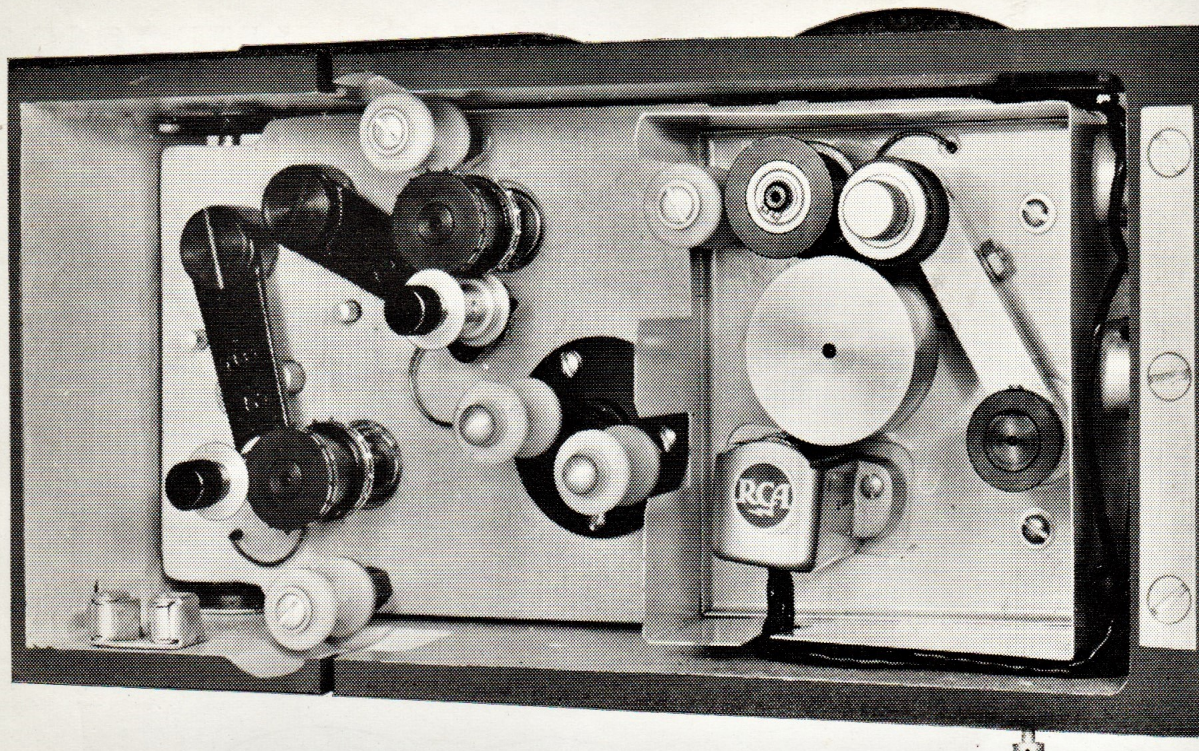
# MAGNETIC SOUNDHEAD LMI.9010A

FOR THE REPRODUCTION OF CINEMASCOPE MAGNETIC SOUND

The LMI.9010A Soundhead has been produced to meet all exhibitors' requirements for single, three track or four track CinemaScope Magnetic Stereophonic sound reproduction. Designed and perfected in the United States this equipment is manufactured by RCA in Great Britain, thus making available to the exhibitor an entirely new conception in High Fidelity sound for the Cinema. Robustly constructed and built to rigid specification, this new "button on" penthouse Soundhead parallels the famous RCA Rotary Stabilizer Soundhead in its flutter-free sound reproduction.



The LMI.9010A Soundhead together with associated Magnetic Pre-Amplifiers is engineered to suit all current series of RCA Optical Sound Systems. The four track Magnetic cluster is built for long life and hard wear and the special magnetic tips are long lasting and easily replaceable and a special mu-metal shield protects the cluster assembly from interference by stray magnetic fields, cutting replacement and maintenance costs to a minimum. The LMI.9019 magnetic clusters are fitted as standard to give a choice of single, three or four track CinemaScope Magnetic Stereophonic sound reproduction. For assurance of Dependable Performance—for Sound Reproduction that brings the screen to life, the trend today is more than ever . . . RCA.



The LMI.9010A Soundhead has been specially designed to reproduce the magnetic tracks of CinemaScope film. It consists of the main case, two sprockets together with their associated pad rollers, a non-magnetic drum stabilizer, the magnetic cluster, and a double roller tensioning device. This new type "button on" penthouse magnetic soundhead is fitted between the upper spool box and the top of the projector mechanism. Various forms of adaptor plates can be supplied to suit individual types of projector.

#### TECHNICAL ADVANTAGES INCLUDE

1. Magnetic Head cluster is easily replaceable and self-aligning — a special mu-metal shield protects the cluster assembly from stray magnetic fields.
2. Ready Adaptation to existing Projector assemblies.
3. Special Damping Device maintains a free loop between Stabilizing Drum and Upper Feed.
4. Free Running Nylon Rollers at all points of contact with the Magnetic Track.
5. Flutter Free reproduction is ensured by a flywheel directly connected to the stabilizer drum.
6. All main parts run on enclosed ball-bearings—ensuring minimum tension upon the film.

#### PHYSICAL SPECIFICATIONS

Length	...	13½ inches	Height	...	6 inches
Depth	...	9⅝ inches	Nett Weight	...	30 lbs.

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# RADIAL LOUDSPEAKER SYSTEMS

## LG. 230/234 TYPE EQUIPMENTS

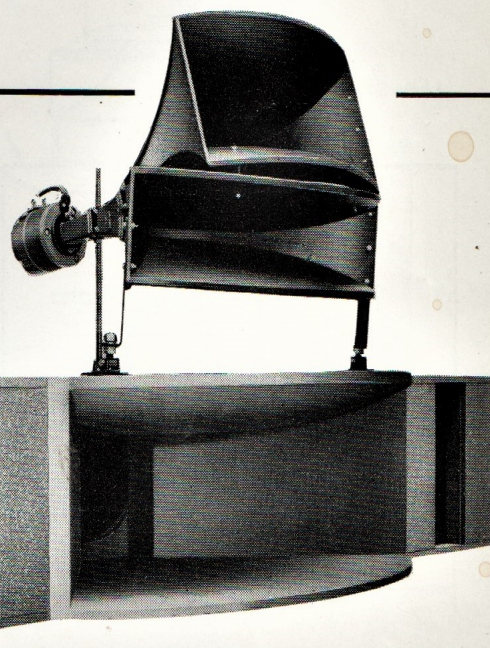
The loudspeaker systems now being supplied with RCA LG. 230 and 234 sound reproducing equipments are completely new in conception and design.

The advent of improved methods of sound recording, with increased frequency range, has created the need for even finer reproduction than that previously obtainable from the well-tried theatre loudspeaker assemblies comprising a folded bass baffle with multi-cellular H.F. horn. The new RCA Radial type loudspeaker assembly incorporates mathematically correct high frequency horns of the flare type, which ensures perfect distribution of the upper frequencies throughout the auditorium.

For the larger theatres two horns, with a 60° and 90° horizontal distribution respectively, are normally used, driven by one pressure-type mechanism in the case of the LG. 230 equipment, and two of these units with the LG. 234. These combinations can be interchanged and the types of horns supplied can, if required, be varied to suit the particular needs of the auditorium. RCA Photophone Limited will be glad to recommend the most suitable system for any specific cinema.

On all systems the low frequency enclosure is a reflex cabinet intended for mounting with the long axis horizontal, and incorporates high quality 15" P.M. mechanisms. This new horn is a break-away from the folded baffles which have been in use in cinemas for so many years. Perfect rich and full bass throughout the auditorium is assured.

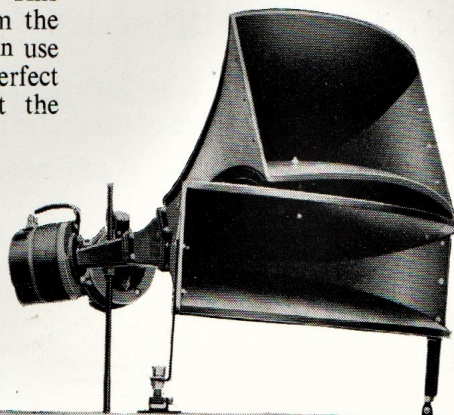
The new RCA Radial loudspeaker assemblies offer brilliant and realistic reproduction to every seat in the auditorium. They are essential for perfect reproduction of high fidelity magnetic recordings.



### LG. 230 SYSTEM

- 1—LMI-9595 90° H.F. Horn.
- 1—LMI-9594 60° H.F. Horn.
- 1—LMI-9596 H.F. Horn Support.
- 1—CAT. 85291 Base Board.
- 1—LMI-9591 Single Throat.
- 1—LMI-9593 Twin Coupler.
- 1—LMI-9458 H.F. Loudspeakers.
- 1—LMI-9588 L.F. Horn.
- 1—LMI-9449A L.F. Loudspeakers.

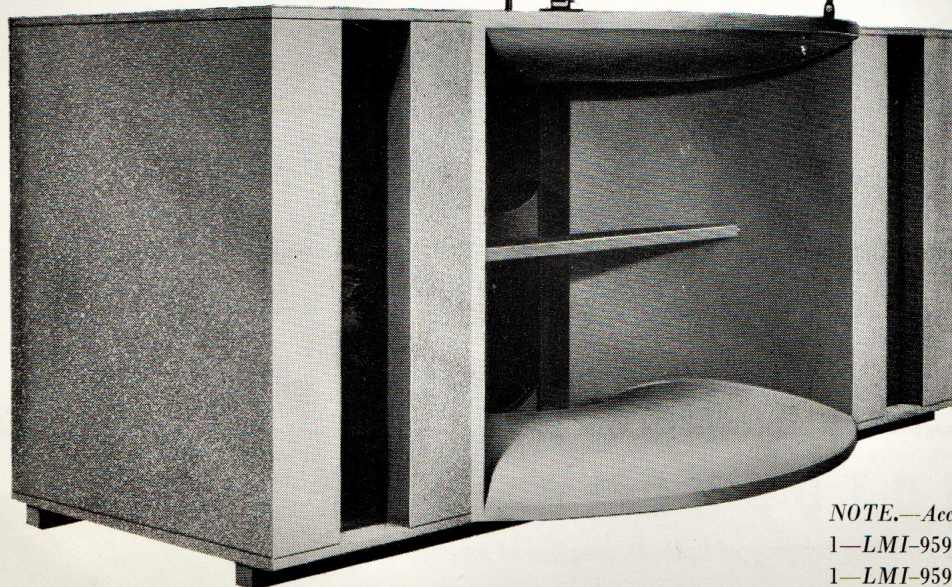
*NOTE.—According to the requirements of the theatre 1—LMI-9594 60° H.F. Horn, and 1—LMI-9593 Twin Coupler may not be used.*



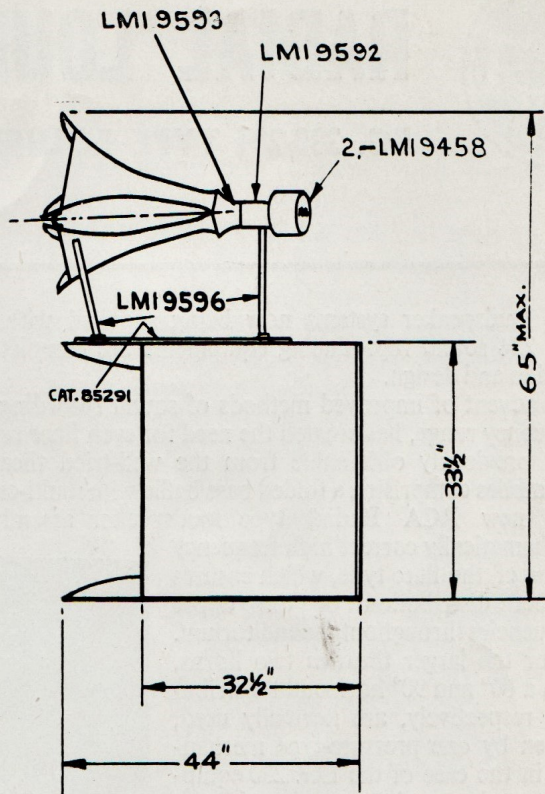
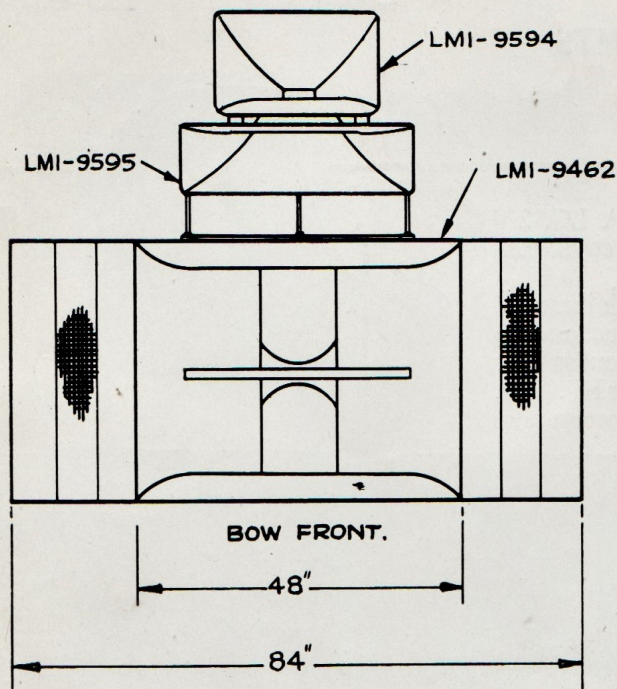
### LG. 234 SYSTEM

- 1—LMI-9595 90° H.F. Horn.
- 1—LMI-9594 60° H.F. Horn.
- 1—LMI-9596 H.F. Horn Support.
- 1—CAT. 85291 Base Board.
- 1—LMI-9592 Twin Throat.
- 1—LMI-9593 Twin Coupler.
- 2—LMI-9458 H.F. Loudspeakers.
- 1—LMI-9462 L.F. Horn.
- 2—LMI-9449A L.F. Loudspeakers.

*NOTE.—According to the requirements of the theatre 1—LMI-9595 90° H.F. Horn may be substituted for 1—LMI-9594 60° H.F. Horn.*



234  
LG. 230 LOUDSPEAKER SYSTEM



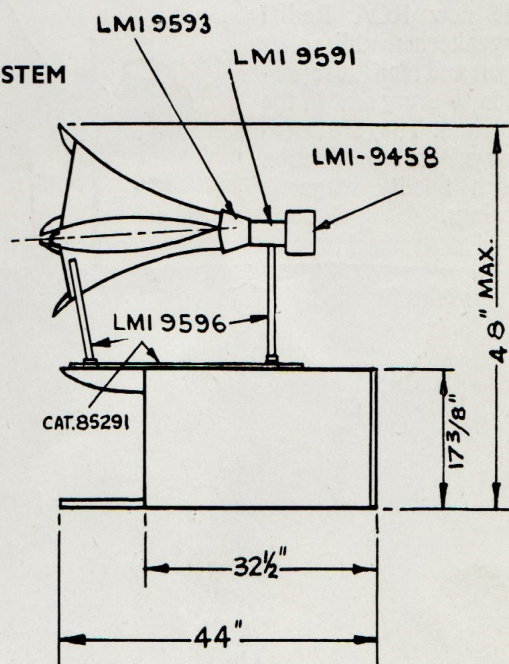
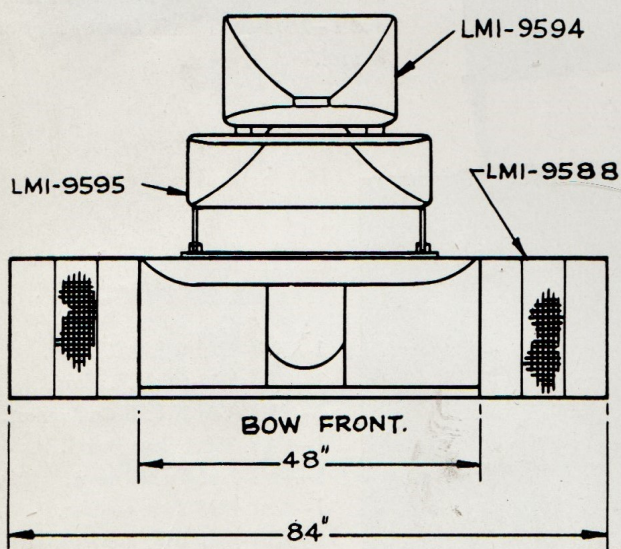
TECHNICAL INFORMATION

In a double H.F. Horn system assembly, the 60° Horn is normally in the upper position. It is fixed to the lower H.F. Horn by means of a bracket supplied with the twin coupler. The front of lower H.F. Horn is supported at each side by a strip screwed to the lower two holes at the side of the H.F. Horn mouth. The whole assembly is then fixed to the CAT. 85291 Base Board to facilitate phasing adjustment.

The vertical coverage of both 90° and 60° horns is 22½° each side of the central axis of the horn.

The horizontal coverage of LMI-9595 90° H.F. Horn is 45° each side of the centre line of the horn, and of LMI-9594 60° H.F. Horn is 30° each side of the centre line.

230  
LG. 230 LOUDSPEAKER SYSTEM



**RCA PHOTOPHONE LIMITED**

*An Associate Company of Radio Corporation of America*

**LINCOLN WAY, WINDMILL ROAD, SUNBURY-ON-THAMES, MIDDLESEX**

Telephone: Sunbury-on-Thames 3101



# LG. 216 SOUND SYSTEM

SINGLE HEAD SOUND/PROJECTION ASSEMBLY FOR OPERATION  
WITH CLOSED CIRCUIT TELEVISION CHANNELS

Specifically designed to meet the needs of advertising agents and specialised producers of films for commercial television, the RCA LG 216 Sound System is smartly styled and sturdily constructed. Using standard RCA Master Items, this equipment is ideal for closed circuit Television installations in small viewing theatres where full studio facilities are not required. The component parts of this equipment are built to the usual exacting RCA specifications and are rigidly inspected to ensure continuous and dependable performance. Optimum performance is maintained by the famous RCA Service.



RCA LMI 9031N Rotary Stabilizer Soundhead (see separate leaflet) fitted with an LMI 10706A Preview attachment for double head running of unmarried prints.

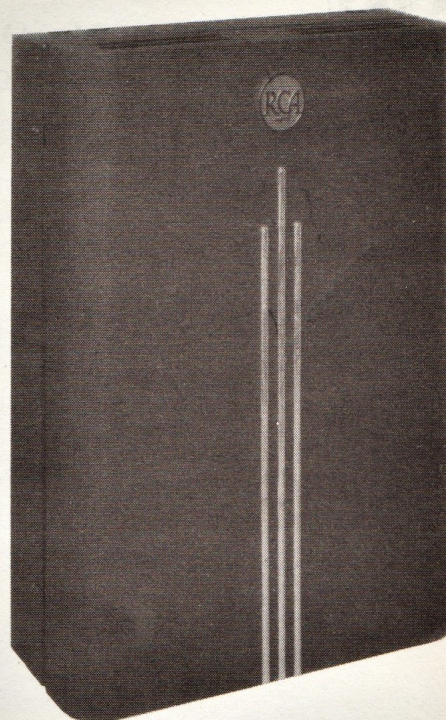
RCA LG 216 special CCTV Sound equipments are a single projector installation and utilize the famous LMI 9031 Rotary Stabilizer Soundhead fitted with synchronous motors and 25 frame gears (T.V. Speed). An LMI 10706A Preview Attachment for running unmarried prints is readily incorporated.

## LG 216 SOUND SYSTEM MAIN ITEMS

LMI 9031N	Rotary Stabilizer Soundhead with 3-phase synchronous motor and 25 frame speed
LMI 32297	Cabinet Assembly
LMI 32246C	Photo pre-amplifier
LMI 32186	Power Supply Unit
LMI 9507D	Exciter Lamp Supply Unit
LMI 9228C	Amplifier
LMI 9405C	Monitor Speaker Cabinet
LMI 32245	Loudspeaker System
LMI 9760A	Spare Parts Cabinet

A Smartly styled wall mounted cabinet houses a power supply unit and photo pre-amplifier from which the signal is fed to the modulator of the T.V. system or to a power amplifier for reproduction through the auditorium loudspeaker system when front projection is provided. Provision is made in the cabinet for accomodation of a magnetic pre-amplifier if reproduction of 200 mil studio magnetic prints is required and for pre-amplifiers for other external inputs. A DC Exciter Lamp supply unit, P.M. monitor loudspeaker and a spare parts cabinet are also provided.

Amplifier Cabinet Assembly



A high fidelity loudspeaker system, LMI 32245, comprises two 2½ inch high frequency P.M. speakers and a 15 inch Low Frequency unit enclosed in a Ported Bass Reflex Cabinet of the most advanced design. This speaker system is ideal for an installation requiring conventional front projection facilities in addition to CCTV and the cabinet is attractively finished in satin light oak, or walnut, presenting a pleasing appearance.

RCA LMI 32245 high fidelity speaker system, supplied when conventional sound and picture projection is required in addition to a closed circuit Television Channel.

A feature of RCA equipments is their extreme flexibility. Additional facilities, including Track No. 1 Studio magnetic reproduction, optical push-pull, Preview attachment for double headed running etc: are easily and economically provided at any time by adding standard RCA units. The LG 216 is easily converted for continuous viewing by provision of an additional soundhead and changeover switching.

**AN RCA SOUND SYSTEM MEANS PERFECT PRESENTATION . . . ALWAYS**

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