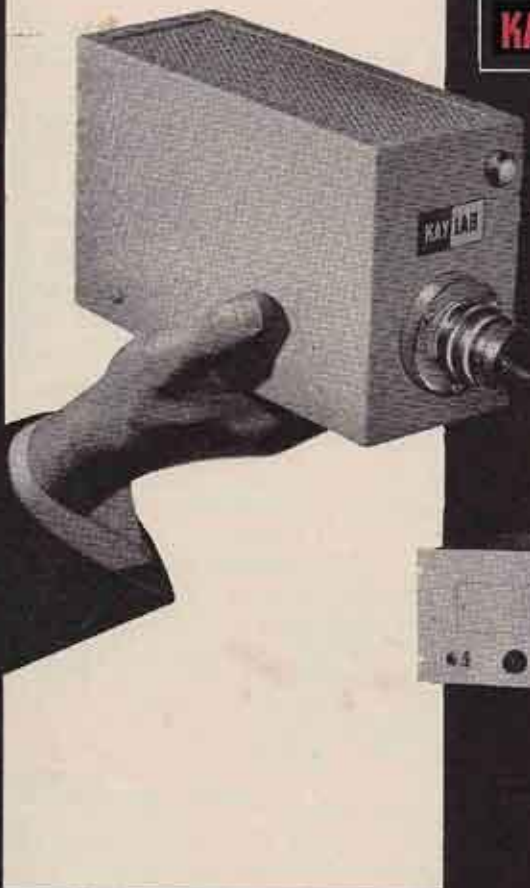


RELIABLE • ECONOMICAL • FLEXIBLE • MULTI-PURPOSE



TELEVISION CAMERA SYSTEM
NOW ADAPTABLE TO YOUR USE!



YOU ARE HERE, THERE AND ANYWHERE WITH YOUR KAY LAB TELEVISION CAMERA SYSTEM

Only the Kay Lab Television Camera System combines moderate cost with system dependability and simple installation. Employing only three basic units: the camera, camera control and synchronizer-monitor; the Kay Lab Television Camera System provides signals of commercial-quality with such sensitivity that no special lighting is required. The Kay Lab Television Camera System's unique serviceability, durability and applicability are of paramount importance in both industrial and commercial telecasting. In developing the entirely new Television Camera System, Kay Lab engineers held these items uppermost: flexibility, picture quality, continued reliability and over-all economy of the system. Tests have proven Kay Lab's complete success in creating and manufacturing the superior television camera system.



PRECISE ELECTRONIC INSTRUMENTS

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KAY LAB

ENGINEERING A NEW ERA THROUGH ELECTRONICS

• **BUILDING REPUTATION WITH ENGINEERING KNOW-HOW**

• Kay Lab's quick success in the electronics field is primarily due to its young, challenging nature, its vigorous and practical accent upon experience and "brains" — in the laboratory, in the office, and on the road. Top electronics engineers, top engineering management, top sales personnel — all have been assembled for one reason — to put Kay Lab first in your mind when it comes to electronics. Your ever-growing approval affords Kay Lab the welcomed opportunity to continue to build you better electronic instruments, offer you better electronic research service — and to do both easier, faster, more economically!

KAY LAB SETS NEW STANDARDS FOR ELECTRONIC ACCURACY AND PERFORMANCE

Join the thousands of engineers, scientists and manufacturers who every day discover newer, better and less expensive ways to solve their electronic research and production problems by using Kay Lab precise electronic instruments.

Kay Lab precise electronic instruments are used by leading research laboratories, manufacturers, government agencies and universities throughout the world. Kay Lab commercially proven electronic instruments are your best guide to satisfaction . . . your best guarantee of quality.

NOW! KAY LAB PRESENTS THE ADVANCED TELEVISION CAMERA SYSTEM

The Kay Lab Television Camera System produces the ultimate in flexibility and reliability — through unitized design.

The camera is light . . . and so compact! It actually fits on the palm of your hand. Together with its light weight and compact structure, the camera is fabricated so that all operating adjustments can be performed remotely . . . making it expressly suitable for installation in inaccessible locations. The camera becomes indispensable in commercial broadcasting for field and remote coverage. Unusual, too, is the extreme serviceability and dependability which Kay Lab has actually "built into" the small-size camera. Low-cost operation is assured through the efficient engineering design.

The plug-in construction of camera-control components provides the utmost in ease of maintenance. The camera and camera control can be used separately to produce a non-interlaced picture. Broadcasters may supply horizontal and vertical driving pulses and standard blanking pulses to these two units through back-chassis connectors.

Interlaced pictures are produced when the camera and camera control are used with the synchronizer-monitor. The monitor tube is large enough so that no additional receivers are required for practical operation. All controls are readily at hand for front-panel adjustment.

Once the three basic units have been purchased, additional cameras and camera controls can be incorporated into the system without duplication of equipment. The synchronizer-monitor unit will operate a large number of cameras.

Distribution of the composite television signal is possible at either video level or at the frequency of any of the standard commercial broadcast channels through the use of the accessory modulator unit.

KAY LAB TELEVISION CAMERA SYSTEM

EXTREMELY STABLE • RUGGED • SIMPLE IN DESIGN AND OPERATION

CAMERA:

A cascade pre-amplifier produces maximum sensitivity from the Vidicon pick-up tube. Eight megacycle video band width assures maximum resolution from present or future camera tubes. The Vidicon tube's very low noise level and the cascade input amplifier produce pictures with one to two-foot candles of incident light. Electromagnetic deflection and focusing are employed. Electrostatic focus is used in addition to the magnetic focus to produce optimum resolution. Up to 500 feet of cable can be operated between the camera and camera control. Provision is made for a communication line and a tally light. There are only three tubes plus the Vidicon in the camera unit. All necessary voltages and driving pulses are fed through the interconnecting cable. Camera electrical adjustments can be performed remotely.

CAMERA CONTROL:

The camera control unit includes the vertical and horizontal deflection amplifiers, the video-line amplifier, the power supply and the camera controls. Front-panel controls are provided for target voltage, beam current, electromagnetic focus and video gain. Modular plug-in subassemblies are used throughout this unit, providing the ultimate in serviceability. All non-operating controls are accessible from the front through a cover plate.

SYNCHRONIZER-MONITOR:

A synchronizing generator, capable of producing a commercial-quality interlaced picture, and a 10" monitor tube are housed in this assembly. This unit, combined with the camera and camera control, produces a high-resolution picture. The synchronizing generator is a blocking oscillator counter-type and is constructed on a plug-in subassembly.

THE KAY LAB TELEVISION CAMERA SYSTEM...YOUR PROFIT MULTIPLEVER

FOR INDUSTRY AND COMMERCE

THE NUCLEUS OF PLANT OPERATION!

Your Kay Lab Television Camera System becomes your co-ordinator of plant activities, your CENTRALIZED check-point of plant operation and procedure . . . It is your one most efficient employee . . . constantly observing, controlling.



Other Industrial Uses:

Hazardous operations and experiments can be checked at a safe distance.

Entire plant-protection systems can be established and regulated from a control point.

Television microscopy is an invaluable industrial-laboratory and quality control tool.

Stockroom supervision, parts handling and traffic problems can be more efficiently handled through television.

Time and cost studies are general production-line observance for the analysis of job complexity and efficiency are accelerated with television.

In steel mills and rolling mills all production processes, even over large areas, can be observed through every stage of manufacture.

FOR BROADCASTING

YOUR MOST PORTABLE REPORTER!

Because of its light weight—its easy speedy set-up—the Kay Lab Television Camera System is ideal for remote and field pick-up of on-the-spot news and sports events.



Other Commercial Uses:

In studios, it is exceptionally suitable for both live shows and spot or card displays.

A complete low-cost broadcast camera chain can be formed around the Kay Lab equipment.

The camera is readily adaptable to film pick-up and does not require the use of a special or synchronous film projector.

In educational television, because of its economical operation and minimum maintenance requirements, it is the preferred system.

For TV program rehearsals, the system's over-all low cost of operation and high degree of flexibility make the equipment indispensable.

FOR RESEARCH, EDUCATION, SCIENCE . . . FOR FACTORY, STUDIO, SCHOOL, STORE . . . UNLIMITED USAGE!

Requisite as an audio-visual tool in schools for displaying physical and chemical experiments from a central laboratory to a number of rooms.

Advantageous to municipal police and fire departments for observation, control and quick action.

Infallible in banks to check signatures. Safety-deposit-box subscribers can be photographed and identified from a central file through television.

Handy and saves effort in department stores by checking signatures on charge accounts . . . inspecting crowd levels . . . policing stockrooms. Best deterrent to shop-lifters.

Reduces costs and saves time for public utilities by checking and monitoring dials, meters and all sub-station equipment.

Reliable in public places to observe and regulate the flow of traffic.

A money-maker for community antenna systems, where complete local programming to all subscribers adds local advertising and increases revenues.

Important in hospitals to observe operations and as an aid in the instruction of trainees.

**KAY LAB TELEVISION CAMERA SYSTEM SPECIFICATIONS . . .
CAMERA, CAMERA CONTROL AND SYNCHRONIZER-MONITOR**

Scanning lines: 525

Interlace: 2 to 1

Field Repetition Rate: 60 per second

Frame Repetition Rate: 30 per second

Line Repetition Rate: 15,750 per second

Synchronization: AFC to power line frequency

Camera Band Width: 8 megacycle

Video Line Amplifier Band Width: 8 megacycle

Horizontal Resolution: 350 to 400 lines — with 6198 Vidicon tube
600 lines — with 6326 Vidicon tube

Sensitivity: With f1.9 lens, 1 to 2 ft. candle incident light required

Spectral Response: Similar to that of the human eye

Output: 2 volts negative video

Power Input: 115 volts \pm 10%, 60 cycle, 150 watts

Video Output Impedance: 73 ohms

Monitor Tube: 10" aluminized black daylight

Lens Mount: 16mm Type C

Camera Dimensions: 9½" long x 3½" wide x 5¼" high

Camera Control Dimensions: 19" x 8¾" x 13¼"

Synchronizer-Monitor Dimensions: 19" x 19" x 12¼"

AVAILABLE ALSO:

Remote Monitors: With 10", 12" and 17" tubes

Modulator Units: Modulate video output at frequency of any one of the 12 commercial TV channels

SIGNIFICANT FEATURES OF THE KAY LAB TELEVISION CAMERA SYSTEM

Interlaced scanning.

8 megacycle band width camera.

8 megacycle band width line amplifiers.

Electromagnetic and electrical focus.

Horizontal and vertical centering controls.

Over-all operating controls adjustable remotely.

High-sensitivity cascode video pre-amplifier.

Can be operated from standard broadcast synchronizing source.

Basic package provides economical system expansion.

100% safety factor in all parts and circuits.

All major components are fabricated from plug-in subassemblies providing rapid and easy plant personnel maintenance.

Electronically regulated power supplies used throughout.

KAY LAB

PRECISE ELECTRONIC INSTRUMENTS
REPRESENTATIVES IN ALL MAJOR CITIES