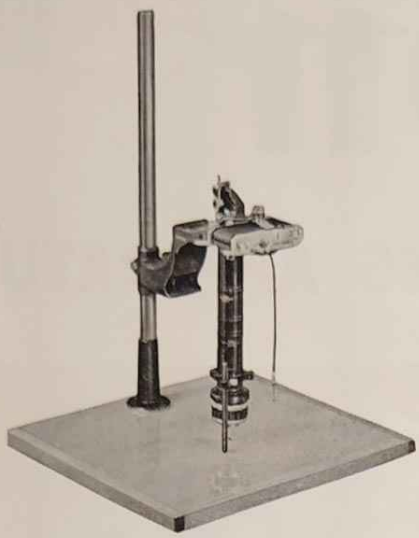
Canon

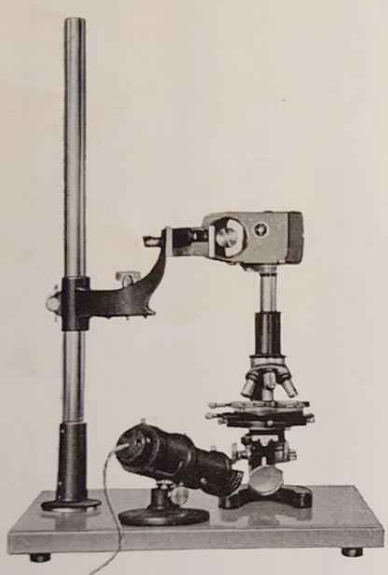
REPRODUCING APPARATUS

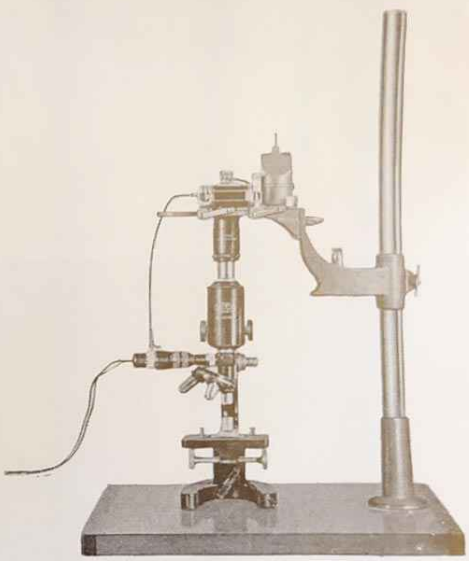
CANON SYSTEM OF PHOTOGRAPHY

Effective : September 1, 1957

CONTENTS



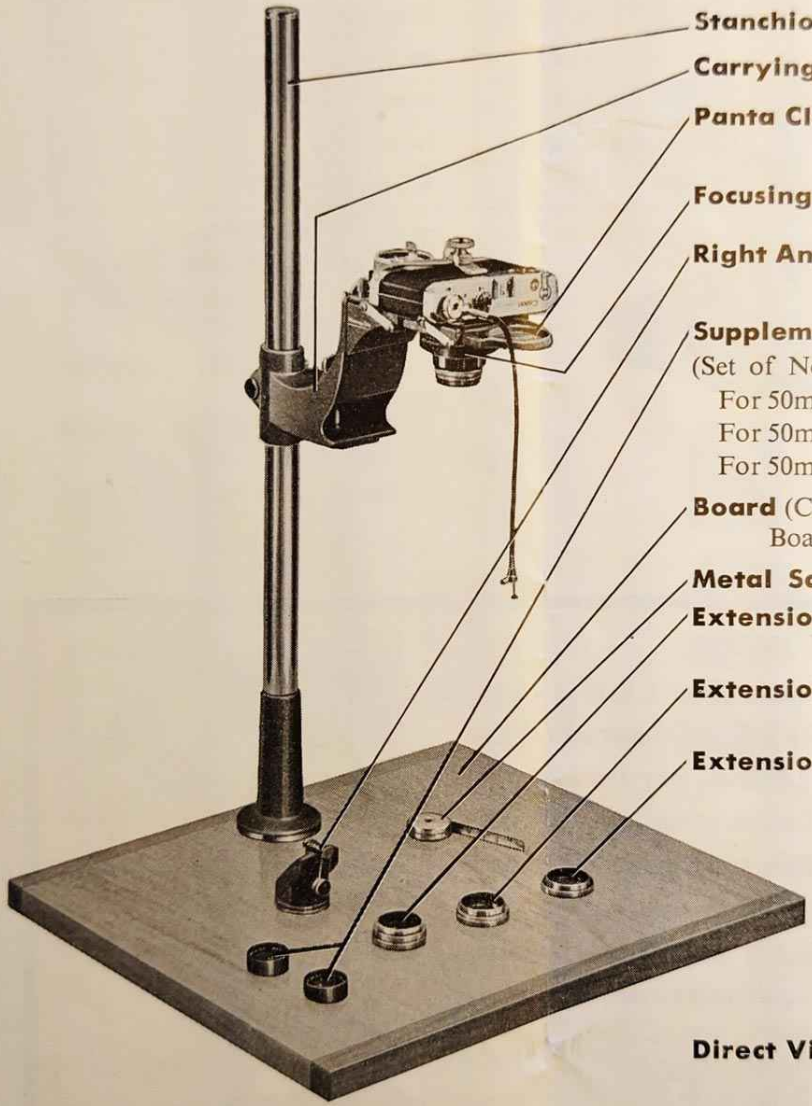




CANON COPYING EQUIPMENTS

Most versatile precisely-built equipment which can be effectively used for a wide range of close-up work.

COPYING : When copying newspaper clippings, engineering drawings or similar subjects, use Copying Stand CK-IIA or CK-II C with a Canon Camera and Canon 50mm lens. Then, you will find the copywork surprisingly easier to do.



Stanchion

Carrying Arm

Panta Close Focusing Slide CAPNY

Focusing Mount CAPEC

Right Angle Focusing Glass CAPHM

Supplementary Lenses
(Set of No. 1 & No. 2)
For 50mm f : 1.5 CAPVL
For 50mm f : 1.8 II CAPDA
For 50mm f : 2.8 CAPCZ

Board (Carrying Case serves as Board for CK-IIA)

Metal Scale

Extension Ring C (12mm) CAPLE

Extension Ring B (9mm) CAPKD

Extension Ring A (6mm) CAPJR

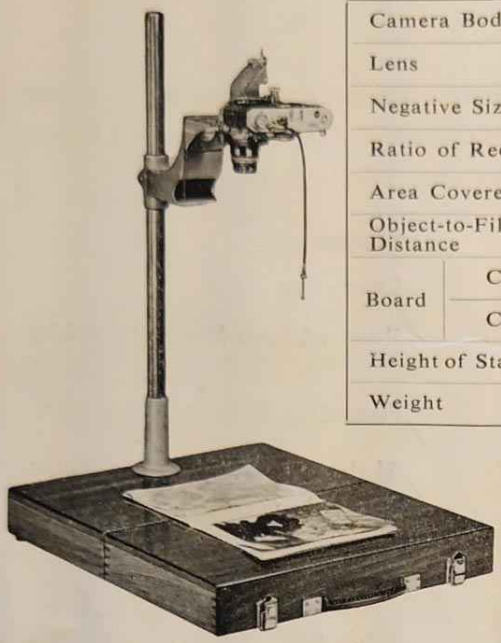
Direct View Focusing Glass CAPGK

Copying Stand CK-IIC (Table Model)

For use with Canon 50mm f : 1.5 lens CAPUW
For use with Canon 50mm f : 1.8 II lens CAPTP
For use with Canon 50mm f : 2.8 lens CAPSM

Note : All components with code reference are also available as separate. Direct View Focusing Glass (CAPGK) is not included in CK-IIC or CK-IIA. Canon lens 50mm f : 1.2 is not recommended for use with the copying stand.

SPECIFICATIONS OF CK-IIC & CK-IIA



Camera Body		Canon Camera of any type
Lens		Canon Lens 50mm f : 2.8, 50mm f : 1.8 II and 50mm f : 1.5
Negative Size		24mm × 36mm
Ratio of Reduction		Approximately 1/22 ~ 1/1
Area Covered		528mm × 792mm ~ 24mm × 36mm
Object-to-Film-Plane Distance		1330mm ~ 206mm
Board	CK-IIA	500mm × 560mm
	CK-IIC	470mm × 530mm
Height of Stanchion		710mm
Weight		Approximately 7 Kgs.

Copying Stand CK-IIA

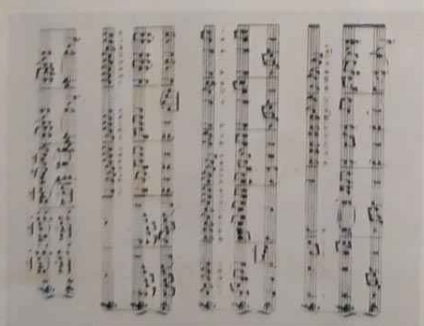
(Portable Model)

For use with Canon
50mm f : 1.5 lens *CAPRD*
For use with Canon
50mm f : 1.8 II lens *CAPQO*
For use with Canon
50mm f : 2.8 lens *CAPPJ*

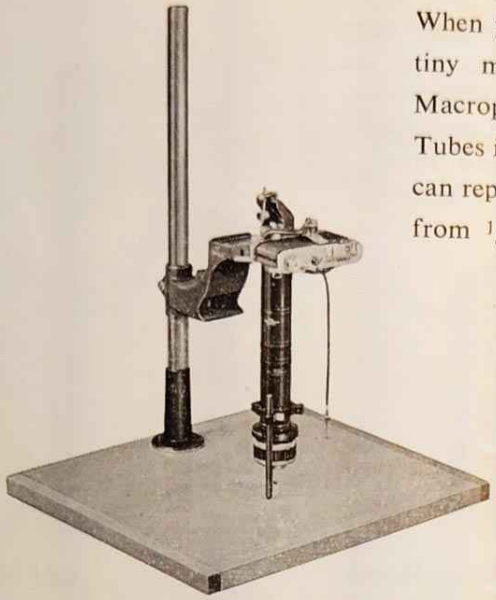
CANON HANDY STAND

CAPLU

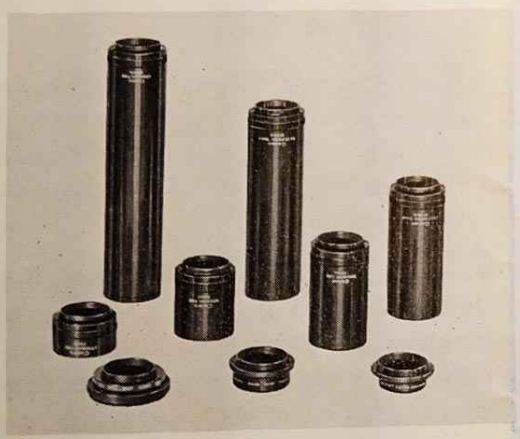
A junior version of CK-IIC or CK-IIA, Canon Handy Stand is simpler in construction and somewhat less versatile but may be used with good result for a limited range of purposes. Designed to use a Canon 50mm lens, the unit consists of a column, camera arm, ground glass, three lens mounts and a wooden carrying case which houses all the equipments and which serves as the base board.



MACROPHOTOGRAPHY :



When photographing extremely small subjects like tiny machine parts, plants or insects, use the Macrophoto Coupler and Macrophoto Extension Tubes in addition to CK-IIA or CK-IIC. Then, you can reproduce them on your film at a size magnified from $1/2$ up to $6\,1/2$ times the original size.



Macrophoto-Extension Tube

25mm	CAPMH
50mm	CAPNI
75mm	CAPOL
100mm	CAPPQ
150mm	CAPQS
200mm	CAPRW

Macrophoto-Coupler

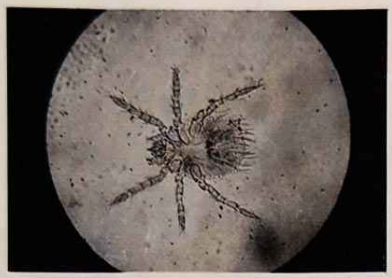
for Canon 50mm f : 1.2 lens	CAPYU
for Canon 50mm f : 1.5 50mm f : 1.8 II and Serener 50mm f : 1.9 lenses	CAPSY
for Canon 50mm f : 2.8 and 50mm f : 3.5 lenses	CAPZV
Macrophoto Strut	CAPEW

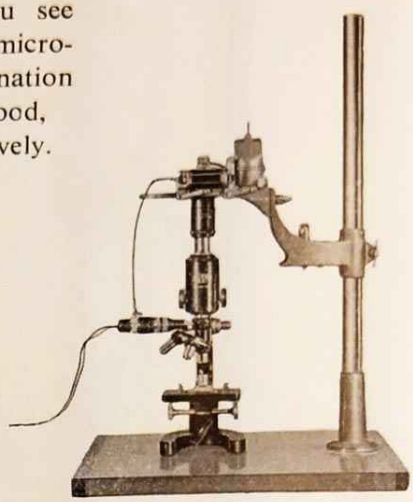
RELATION OF TUBE LENGTH AND MAGNIFICATION

TUBE LENGTH in mm	25	50	75	100	125	150	175	200	225	250	275	300
Magnification (approx.)	1	1.5	2.0	2.5	3.0	3.5	4.0	4.5	5.0	5.5	6.0	6.5

MICROPHOTOGRAPHY :

On occassions when using a microscope, you may want a photographic record to be made of what you see through it. On such occassions the Canon Photomicrographic Unit is of course most effective. Combination of CK-IIC or CK-IIA with the Microphoto Hood, however, enables you to do the job just as effectively.





Microphoto-Hood *CAPWB*

OTHER USES :

While the Canon Copying Stands are originally designed for use with the Canon 35mm Still Camera, they can also be used with the Canon 8mm movie camera Model 8-T for a variety of phases of cinematography.

On occasions when editing your film, shot, for example, during your last trip, you may want to spice it with close-ups of some beautiful picture-cards or adds you collected or some scenes your still camera recorded. On such occasions use the Canon Copying Stand with the Canon Titling Head. Then, your Canon 8-T's Focusing Finder will enable you to take completely parallax-free shots.

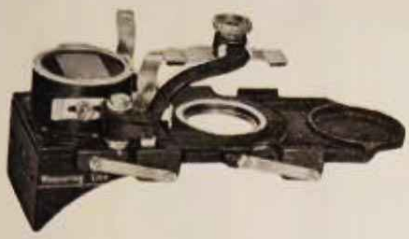
Or if you are interested in filming the wonders of nature as seen through your microscope, then place it on the board of the copying stand immediately under your Canon 8-T, mounted on the Titling Head with its lens removed, as illustrated.

Focus the microscope images on the ground glass of your camera and then you will be able to record what your microscope shows you just as you shoot a title or copy a post-card.

Canon Titling Head *CEAGJ*

Panta Close Focusing Slide

CAPNY



Key part of the whole apparatus. Available as separate for use on a tripod.

Its Ground Glass is exactly on the same plane as the film in the Canon Camera. Focus a subject sharply on the ground glass and then shift the camera to the ground glass position. Then, the film is ready to record what you have seen on the ground glass. Its unique design enables the camera and ground glass positions to be interchanged smoothly with no resistance and, hence, no wear and tear on the flange at all.

When used on a tripod, it enables a Canon Lens with a focal length from 25mm to 135mm to be used for a wide range of close-up work as shown in table given below.

For instance, objects as close as 65cm or 26″ away from camera come within the focusing range of the 85mm lens when the lens is mounted directly on the Focusing Head. When the Focusing Mount is adapted then objects as close as 49cm or 19″ away from camera can be focused upon.

Reference Data for Reduction photographs

Lens being Used		Reduction Ratio		Field Coverage (Approx.)				Film plane to object Distance (Approx.)			
		Max.	Min.	Max.		Min.		Max.		Min.	
				cm	inch	cm	inch	cm	inch	cm	inch
135 mm	1	1 : 19.2	1 : 6.2	69×46	27×18	24×15	9×6	287	113	112	44
	2	1 : 7.9	1 : 5.8	28×19	11× 7	21×14	8×6	137	54	110	43
100 mm	1	1 : 14.3	1 : 5.3	51×34	20×14	19×13	8×5	164	65	75	30
	2	1 : 5.9	1 : 4.3	21×14	8×6	16×10	6×4	81	32	66	26
85 mm	1	1 : 12.0	1 : 5.7	43×29	17×11	20×14	8×6	117	46	65	26
	2	1 : 4.9	1 : 3.7	18×12	7×5	13×9	5×4	59	23	49	19
*50 mm	1	1 : 7.4	1 : 5.3	37×25	15×10	19×13	8×5	49	19	38	15
	2	1 : 3.0	1 : 2.2	11× 7	4×3	8×5	3×2	28	11	24	19
35 mm	1	1 : 5.1	1 : 4.3	18×12	7×5	16×10	6×4	25	10	23	9
	2	1 : 2.1	1 : 1.5	8×5	3×2	6×4	2×1	16	6	15	6
28 mm	1	1 : 4.1	1 : 3.7	15×10	6×4	13×9	5×4	18	7	17	7
	2	1 : 1.7	1 : 1.2	6×4	2×2	5×3	2×1	12	5	12	5
25 mm	1	1 : 3.6	1 : 3.3	13×9	5×3	12×8	5×3	15	6	14	6
	2	1 : 1.5	1 : 1.1	5×4	2×1	4×3	2×1	10	4	10	4

Note: 1-----when the lens is mounted directly on the Panta Close Focusing Slide
2-----when the Focusing Mount (CAPEC) is adapted between the lens and Panta Close Focusing Slide

* In case of a 50mm lens the reduction ratio can be extended to approximately 1 : 22 by use of a supplementary lens. (See page 3.)

CANON PHOTO-MICROGRAPHIC UNITS

PHOTOMICROGRAPHIC UNIT, Model CM-II

CAMFH

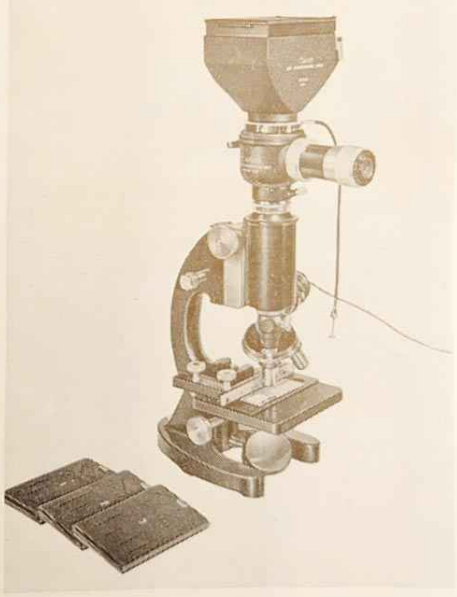
For recording what you see through the microscope. Couples to tube of any standard microscope. 5X Focusing Eyepiece allows full viewing of subject during exposure. Hood has a between-the-lens shutter of ten speeds from 1 sec. to 1/200 th, and T. & B. For all Canon models.

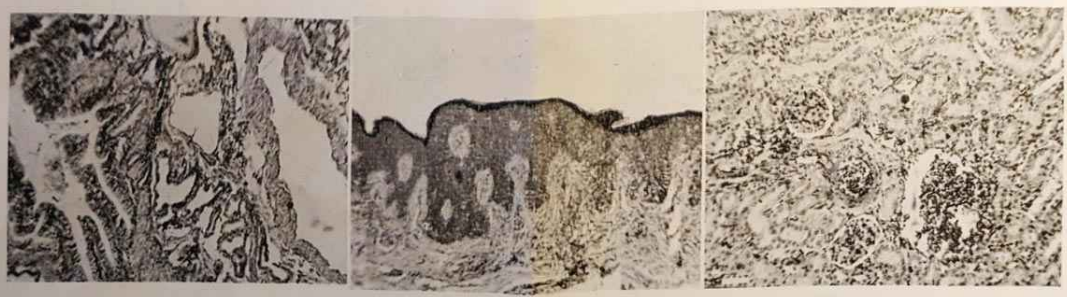
Unit consists of Hood, Reflex Housing, Focusing Eyepiece, Coupler for Microscope's ocular tube. Plastic Dust Cap and Cable Release V.

6×6 PHOTOMICROGRAPHIC CAMERA Model II

CAMJS

For photographing the microscope image in size of 60×60mm ($2\frac{1}{4}'' \times 2\frac{1}{4}''$) on 60×90mm ($2\frac{1}{4}'' \times 3\frac{1}{4}''$) cut film. Camera has a between-the-lens shutter of 10 speeds from 1 sec. to 1/200 th and T. & B. and is used with Model CM-II in place of the latter's Hood. Supplied with Film Pack Holder, six Cut Film Holders and Cable Release V.





FOCUSING SCREEN

CAMKT

For focusing and observation with either the Photomicrographic Unit Model CM-II or Photomicrographic Camera Model II. Screen Diameter is 50mm (2″).

PHOTOMICRO-PROJECTOR

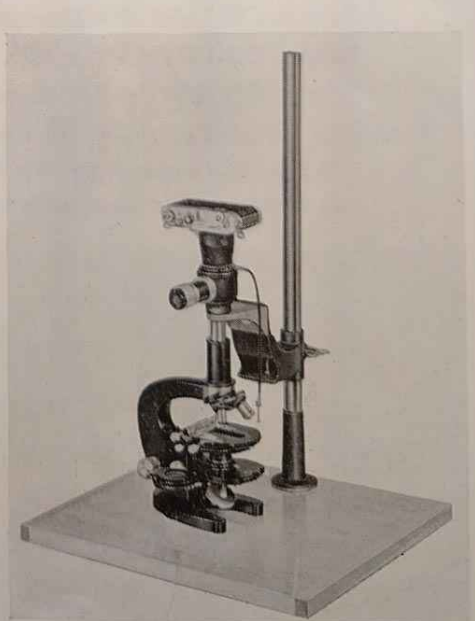
CAMEM

A conical tube with (95mm) $3^{3}/_{4}$″ ground glass screen on which the microscope image is projected for group observation of specimens. Consists of Screen Tube and Mirror Housing. By removing the conical tube, the microscope image may be projected on a movie screen.

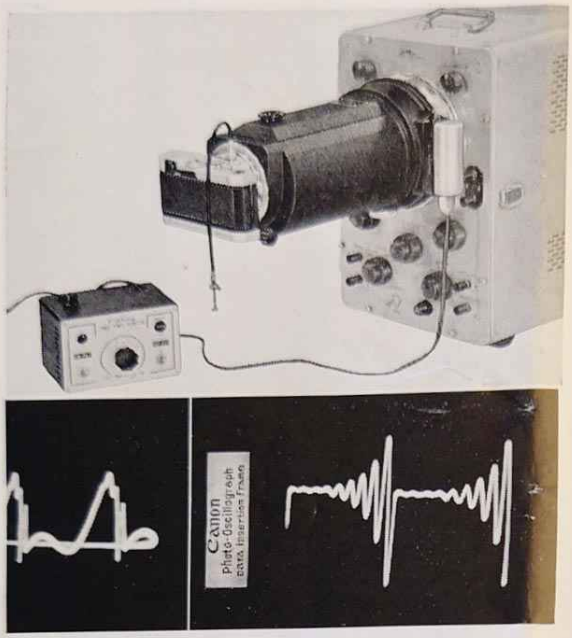
PHOTOMICROGRAPHIC UNIT HOLDER

CAMLA

For stabilizing the position of the photomicrographic attachment when it is used on the Copying Stand.



CANON PHOTO-OSCILLOSCOPE UNITS



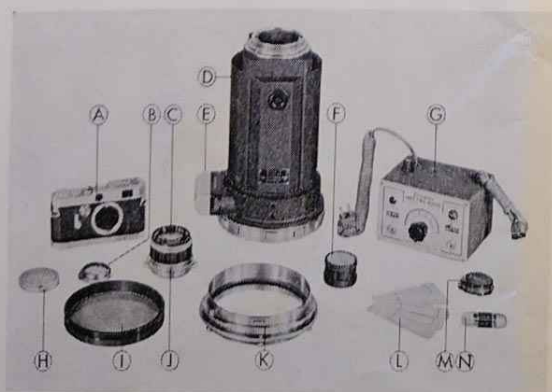
For photographing the images which appear on the screen of various Cathode Ray oscilloscopes in common use. The Canon Camera, using standard 35mm film, makes a record not only of the traces on the fluorescent screen, but also simultaneously records data concerning the trace on the same negative. The Canon Camera can be any model, but the lens has to be either Canon 50mm f : 1.8 II, 50mm f : 1.5 or 50 mm f : 1.2 lens.

SPECIFICATIONS OF CANON PHOTO-OSCILLOSCOPE UNITS

Model	CO-75-III	CO-120-III A	CO-133-III A
For Cathode Ray Screen Size (mm)	75 (3″)	120 & 125 (5″)	133 (5¼″)
Reduction Ratio	2.5	4	4
Field (mm)	60×90	96×144	96×144
Max. Hood Dia. (mm)	105	160	160
Hood Overall Length (mm)	250	325	325
Total Weight (kg)	2.6 (5¾ lbs)	3.4 (7½ lbs)	3.4 (7½ lbs)

Model CO-75-III for 75mm or 3″ Oscillo-Screen — CAOUP
Model CO-120-IIIA for 120mm or 5″ Oscillo-Screen — CAOVQ
Model CO-133-IIIA for 133mm or 5 1/4″ Oscillo-Screen — CAOWR

Note: In addition to those listed above, a unit for use with the 7″ Cathode Ray tube is availadle upon order. Delivery will be made within four months after order is received. For detailed information, write to the manufacturer.



Each Unit consists of :

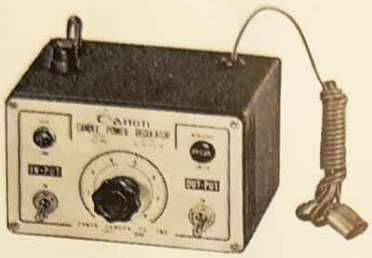
A. Camera Body—Canon VT
B. Adapter Ring
C. Canon Lens—50mm
D. Hood
E. Data Projector
F. Focusing Screen
G. Candle Power Regulator
H. Lens Cap
I. Scaled Screen
J. Lens Holder
K. Hood Mounting Flange
L. Plastic Data Cards
M. Lens Holder Cap
N. Extra Bulbs

A and C are not included in the unit set.

HOOD MOUNTING FLANGE

Included with the Photo-Oscilloscope set, but is also available as separate. Screws for installing on to the panel of oscilloscope are provided.

For Model CO-75 III	CAORC
For Model CO-120 IIIA	CAOPS
For Model CO-133 IIIA	CAONQ



CANDLE POWER REGULATOR CAMGR

A variable transformer for adjusting light intensity of Data Projector. Input is 100 Volts, 50 or 60 cycles; output is from 1.6 to 6.5 Volts, 2 Amperes.

ILLUMINATING SCALE

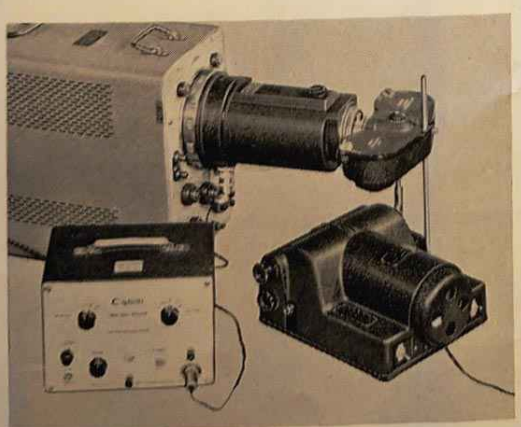
For use with the Canon Photo-Oscilloscope Units CO-120-III A, and CO-133-III A. Screws into the Hood Mounting Flange. Illuminated by four tiny lamps whose brilliance is adjusted by the Candle Power Regulator.

For CO-120-IIIA	CAOXM
For CO-133-IIIA	CAOVK

CONTINUOUS PHOTO-OSCILLOSCOPE RECORDER CAOXS

For the purpose of photographing oscilloscope traces for certain duration of time for detail study, Canon has the Continuous Photo-Oscilloscope Recorder which is somewhat similar to a movie camera. Instead of putting the time axis (sweep) of an oscilloscope in operation, it uniformly advances 35mm film or 35mm perforated oscillo-paper, on which, for time reference, the dots are marked in sequence of certain intervals simultaneously with the traces. Eight speeds are available for advancing the film or the oscillo-paper. This apparatus is used in conjunction with the entire components of the Canon Photo-Oscilloscope Units.

It consists of Camera, Driver, Timing Signal Oscillator, Flexible Shaft, Timing Lamp Housing, and Wooden Carrying Case which accomodates all components, except the Timing Signal Oscillator and its fittings.



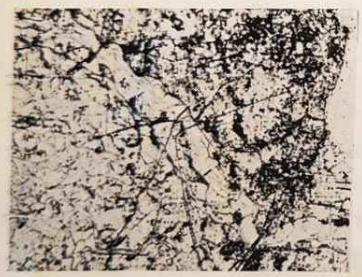
OVERALL DIMENSIONS OF MAJOR COMPONENTS

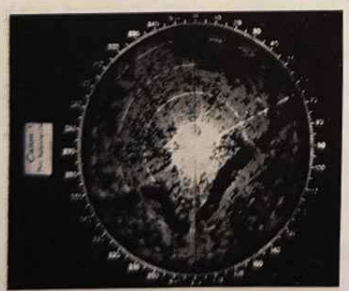
	LENGTH (mm)	WIDTH (mm)	HEIGHT (mm)
CAMERA	135 (5.3/8″)	270 (11.1/2″)	100 (4″)
DRIVER	310 (12″)	290 (11.1/2″)	155 (6″)
TIMING SIGNAL OSCILLATOR	180 (7″)	250 (10″)	180 (7″)

CANON PHOTO-RADARSCOPE UNITS

For photographing the images which appear on the radarscope screen. Used in conjunction with Canon Camera Body and Canon 28mm Ultra-Wide Angle Lens. Two types are available; for 12″ screen radarscopes of the Radio Corporation of America (RCA) and the Sperry Corporation.

The Hood is clamped on to the radarscope, and since the Observation Window has a septum of about 60×165mm for the 12″ screen, the image can be observed with both eyes at all times. Thus, whether or not the photographing is to be undertaken, it is not necessary to remove it from the radarscope once it is installed. Data relative to the image is photographed simultaneously with the image through the built-in Data Projector similarly as the Canon Photo-Oscilloscope Unit. The Projector is illuminated either by one $1\frac{1}{2}$ Volts size "D" dry battery housed in the battery compartment in the Hood or by the Candle Power Regulator.





		RCA Type	Sperry Type
The Radarscope Unit to be used		RCA 12″ Radarscope	Sperry 12″ Radarscope
Reduction Ratio		14	
Screen Size		336×504 mm	
Negative Size		24×36 mm	
Lens		Canon Lens 28mm f:2.8 or f:3.5	
Camera Body		Canon of any model	
Overall Size	Maximum Diameter	326 mm	
	Height	415 mm	
Weight (Approx.)		4.3 kg	

Photo-Radarscope Unit, RCA Type **CARAY**

Photo-Radarscope Unit, Sperry Type **CARBR**

CANON CAMERA CO., INC.
312 Shimo-Maruko-cho, Ohta-ku, Tokyo, Japan
U. S. FACTORY BRANCH
550 Fifth Avenue, New York 36, N. Y., U. S. A.
CANON-EUROPE DISTRIBUTION CENTER
40 Rue du Stand, Geneve, Switzerland

SALES IN YOUR PLACE ARE HANDLED BY:

PUB No. 380 50T-9-57 Printed in Japan by Nakamura Seiko