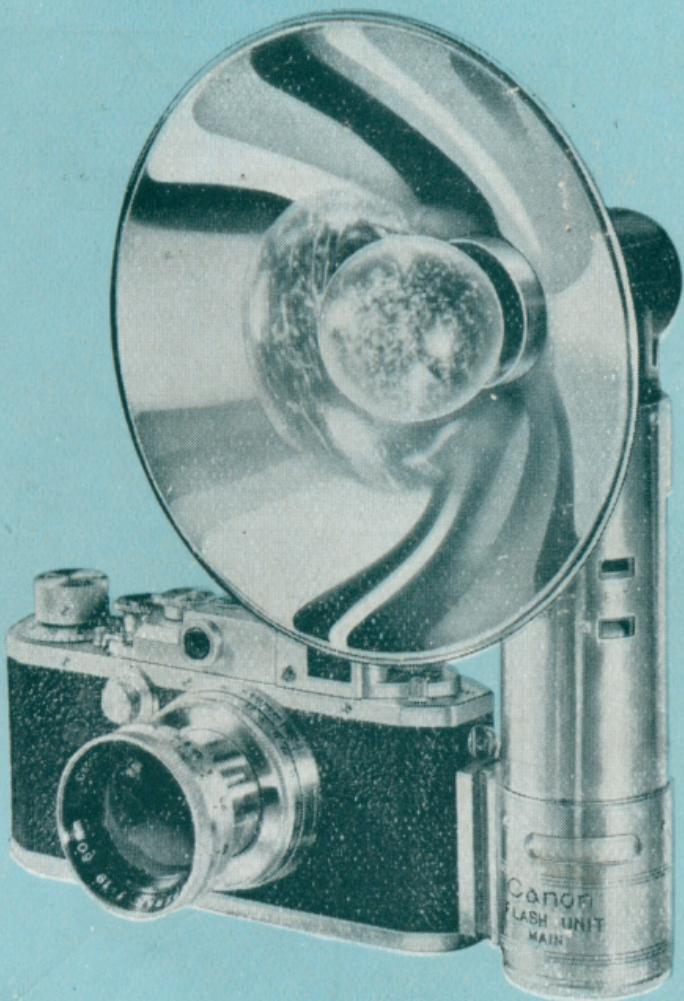


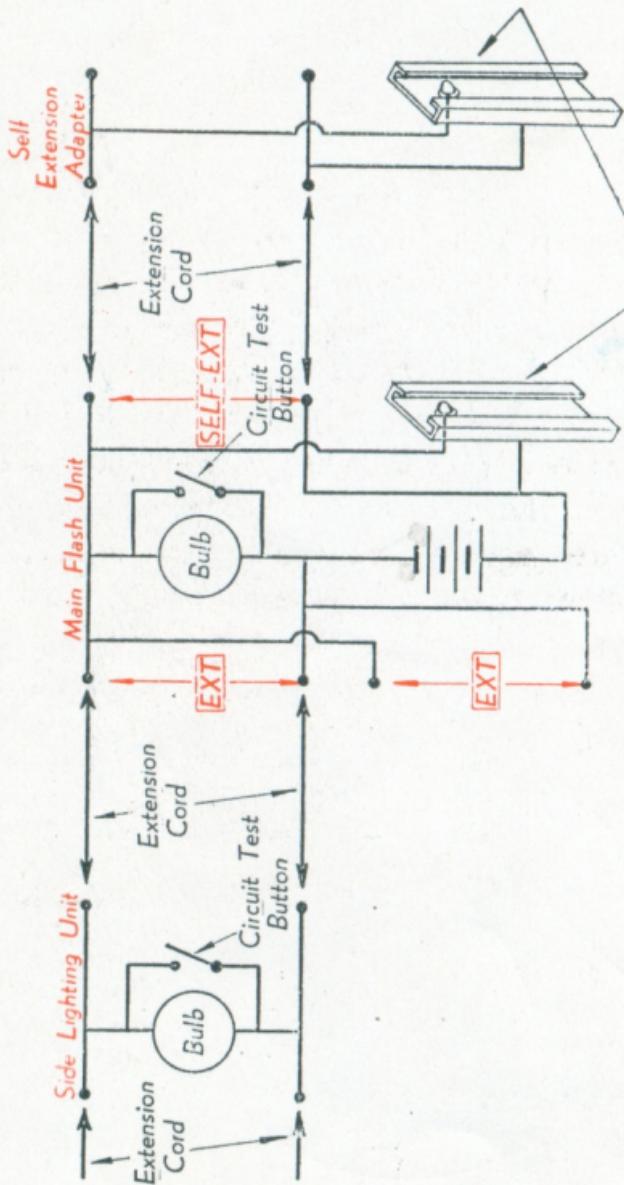
Directions for using



Canon

FLASH UNIT

Model X



Wiring Diagram
of
Canon Flash Unit Model X

The "CANON" Flash Unit Model X, built from the best materials by our skillfully experienced craftsmen with special attention given to all electrical contacts—nickel plated—to minimize the resistance for insuring positive operation, is designed primarily for use with the "CANON" Camera Model IV and this booklet is written accordingly. The instruction contained herein, however, are equally applicable for using the Unit with other types of cameras having built-in synchronizers.

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THINGS YOU SHOULD REMEMBER

1. Use fresh batteries at all times.
2. Check each bulb with Canon Flash Tester.
3. After two or more bulbs flashed simultaneously, make sure to check the remaining current of the batteries; especially when penlight batteries are used.
4. Use Canon Sunshade at all times to prevent light from striking the lens.
5. Keep Canon Reflectors clean and well polished.
6. Remove batteries from Canon Flash Unit when not intended to use for a week or more.

Number of flash bulbs that can be discharged simultaneously with perfect synchronization depends on the capacity of the total batteries for different shutter speeds. Following is a table giving maximum number of flash bulbs that can be used at any one time with Canon Camera Model IV.

Shutter Speeds in sec.	1 to $\frac{1}{8}$	$\frac{1}{25}$ to $\frac{1}{100}$	$\frac{1}{200}$ to $\frac{1}{1000}$
Short Current in amps.			
2 to 3	1	1	1
3 to 4	1	2	1
4 to 6	2	3	2
6 to 8	4	4	3
over 8	5	5	4

A few suggestions

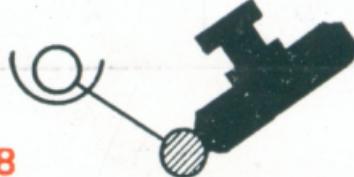
①



②

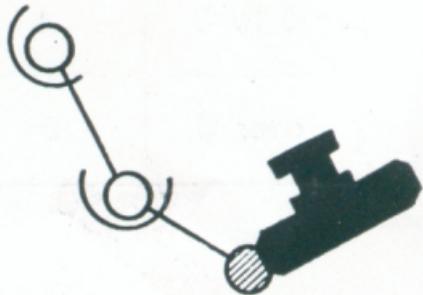


⑤

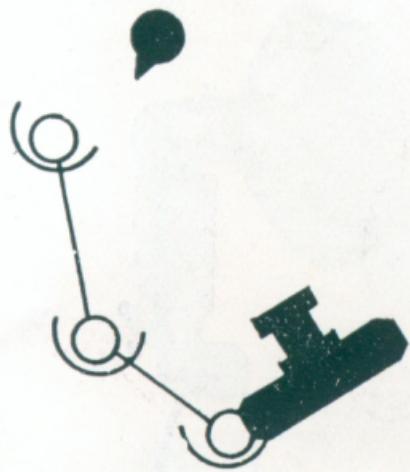


8

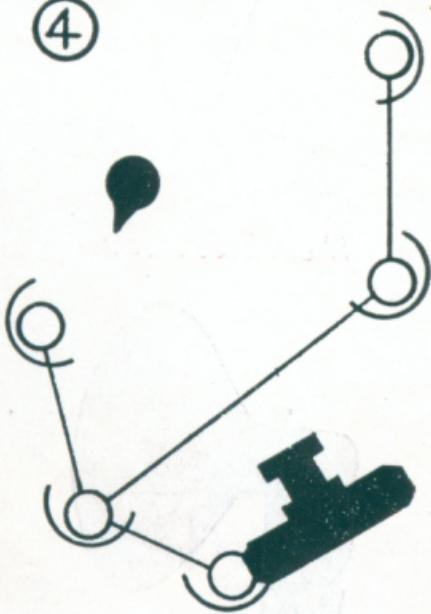
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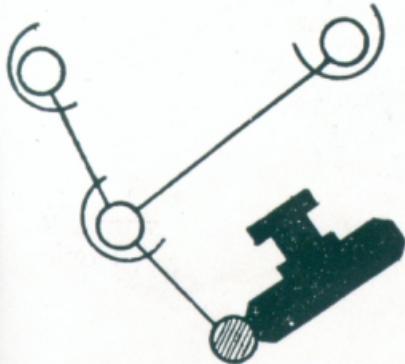
③



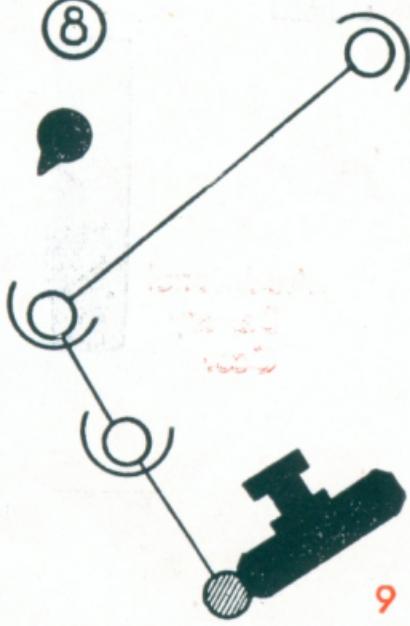
④



⑦

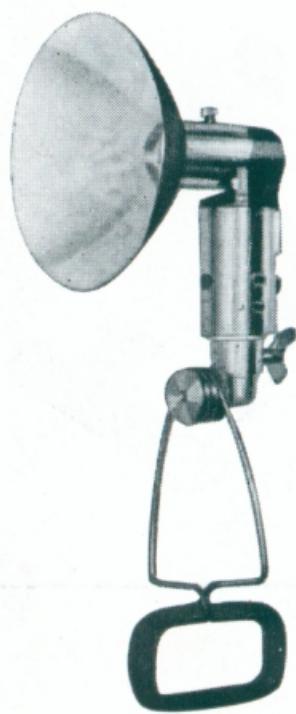


⑧



9

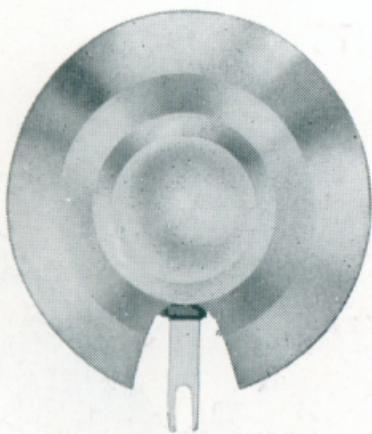
Main Flash Unit



Side Lighting Unit

Additional
Battery
Case





7" Reflector



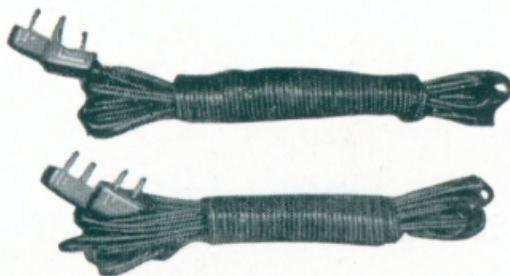
Midget
Bulb
Adapter



Flash Tester

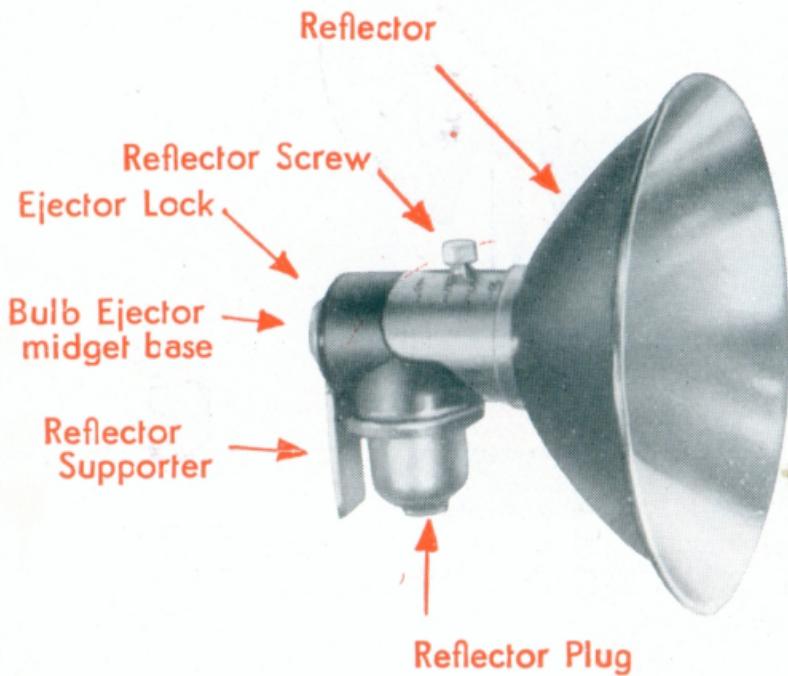


Self
Extension
Adapter

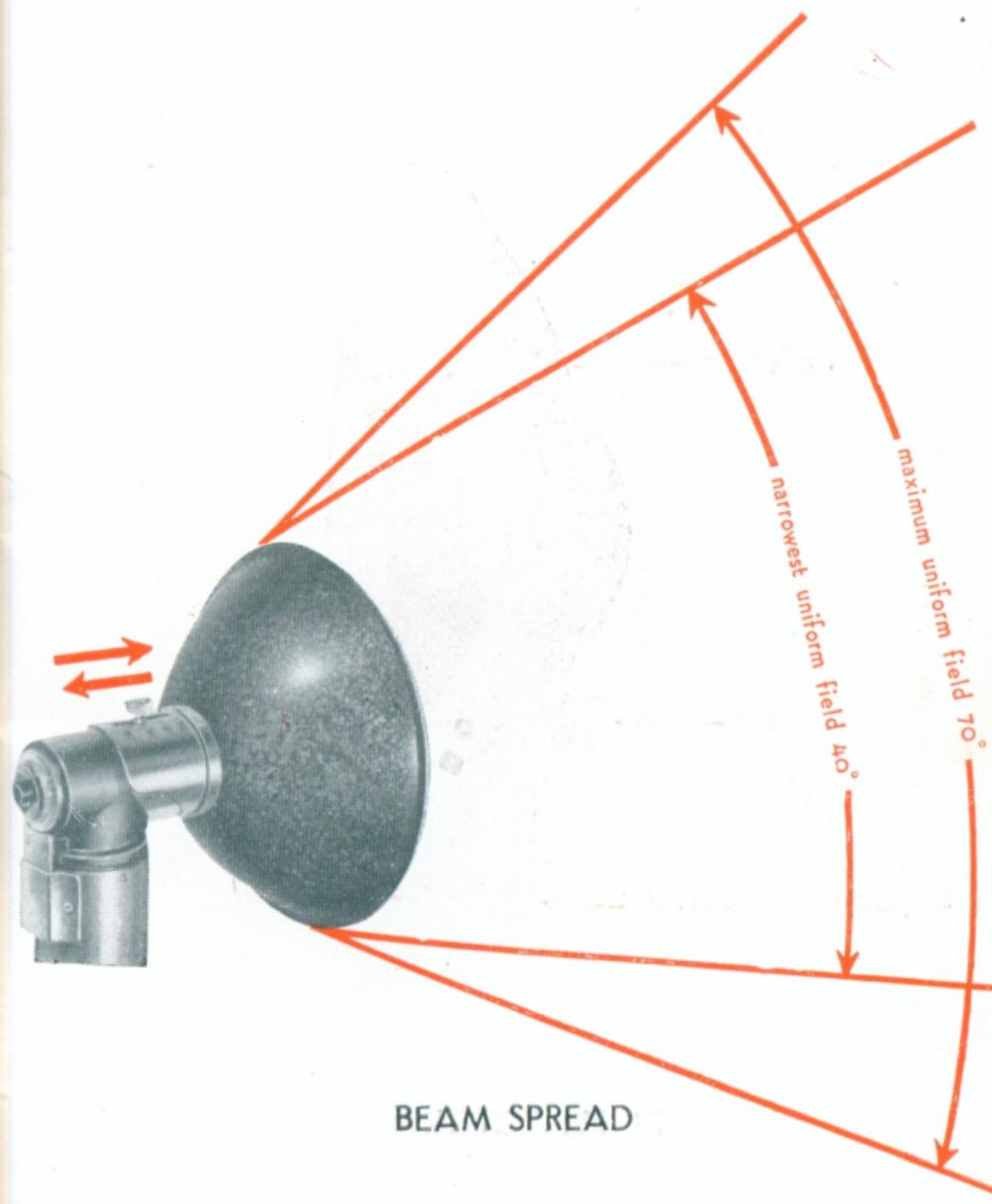


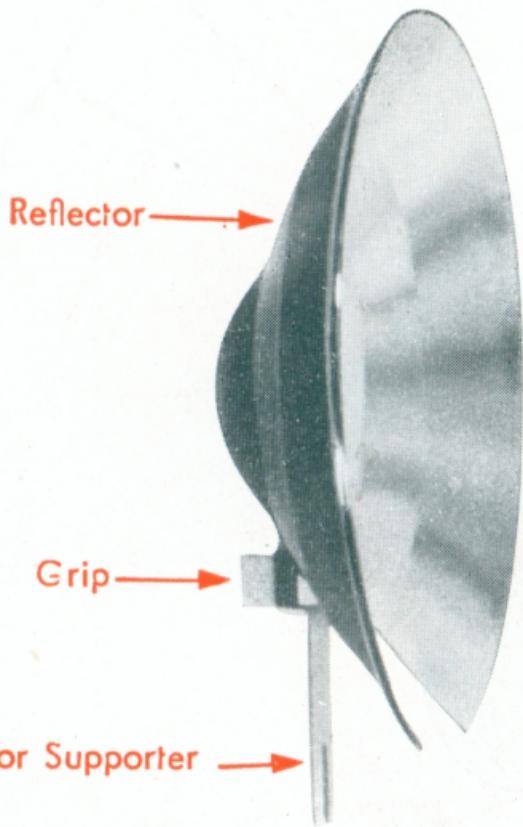
Extension Cords, 15 ft

1. COMPONENTS



VARIABLE FOCUSING 5" REFLECTOR



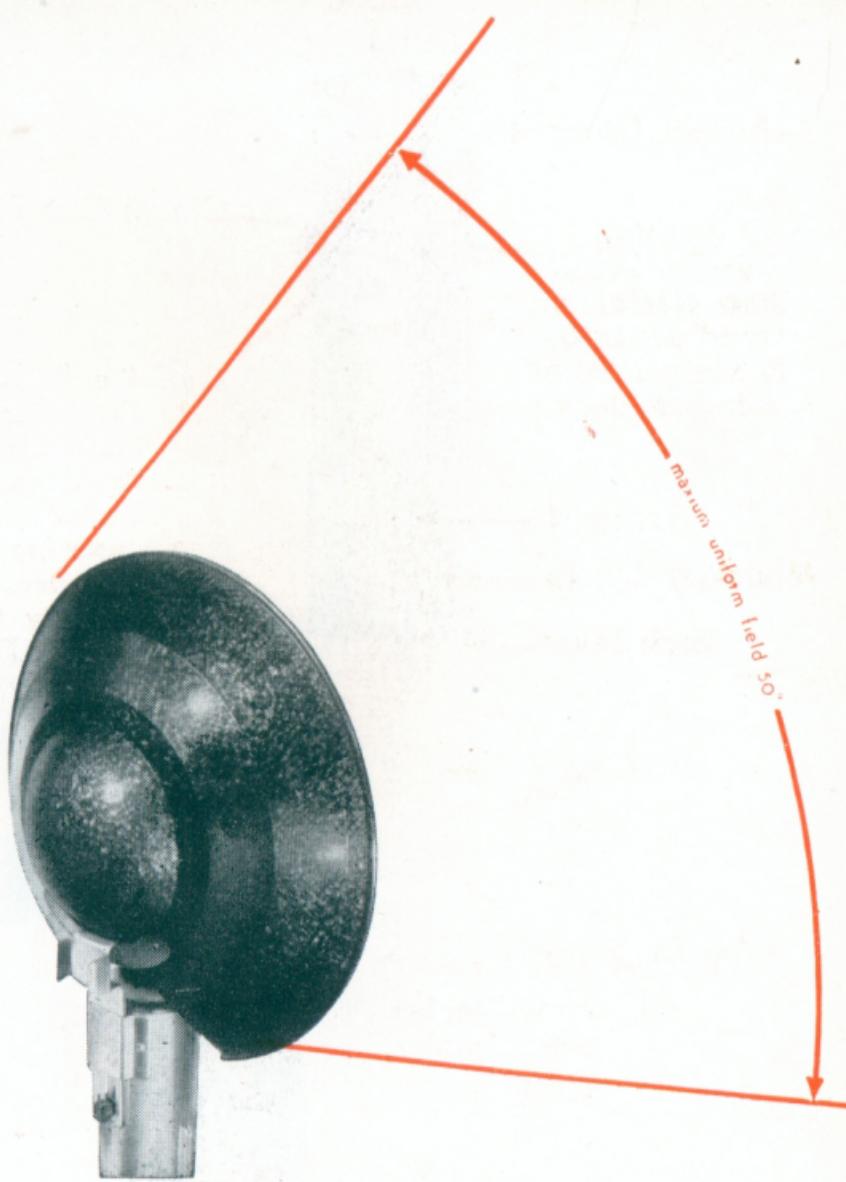


Reflector Supporter →

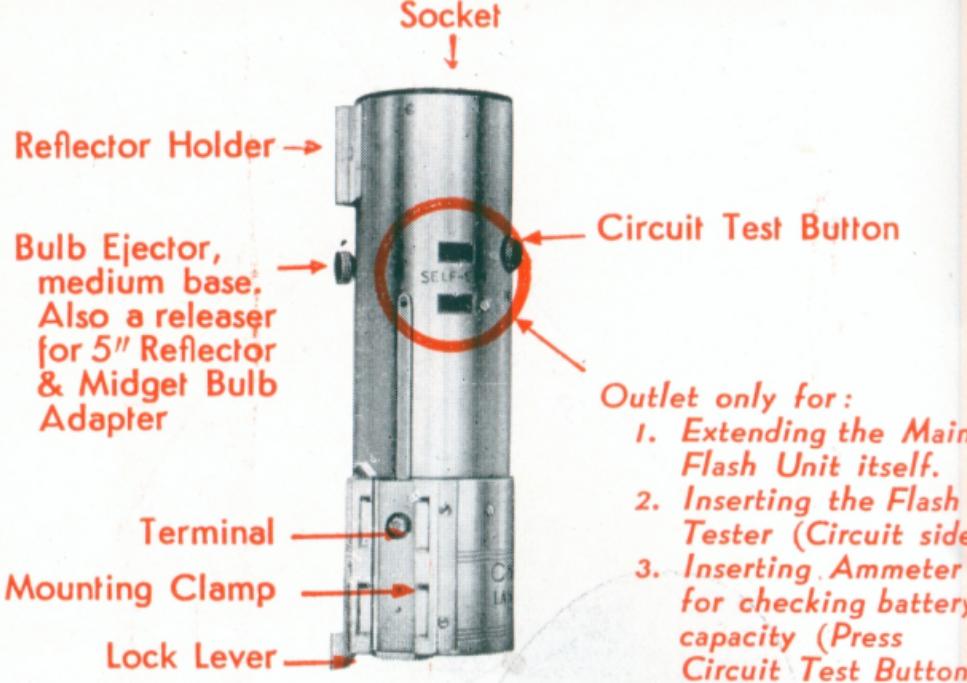
Grip →

Reflector →

7" REFLECTOR

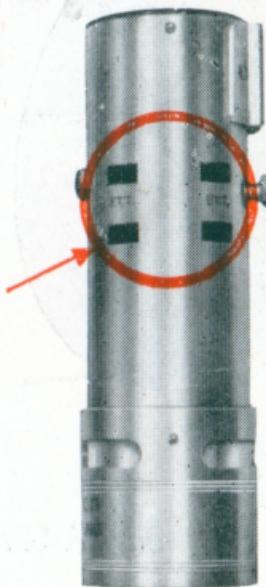


BEAM SPREAD



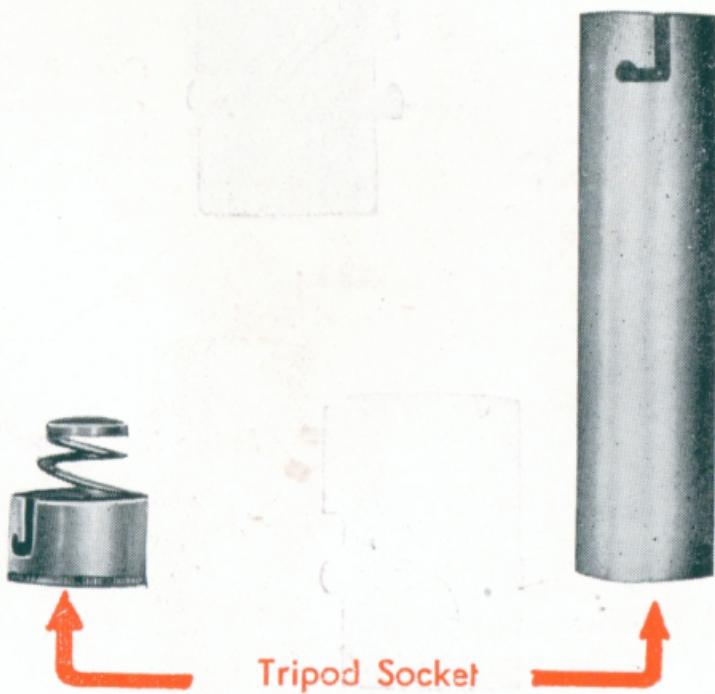
Outlets only for:

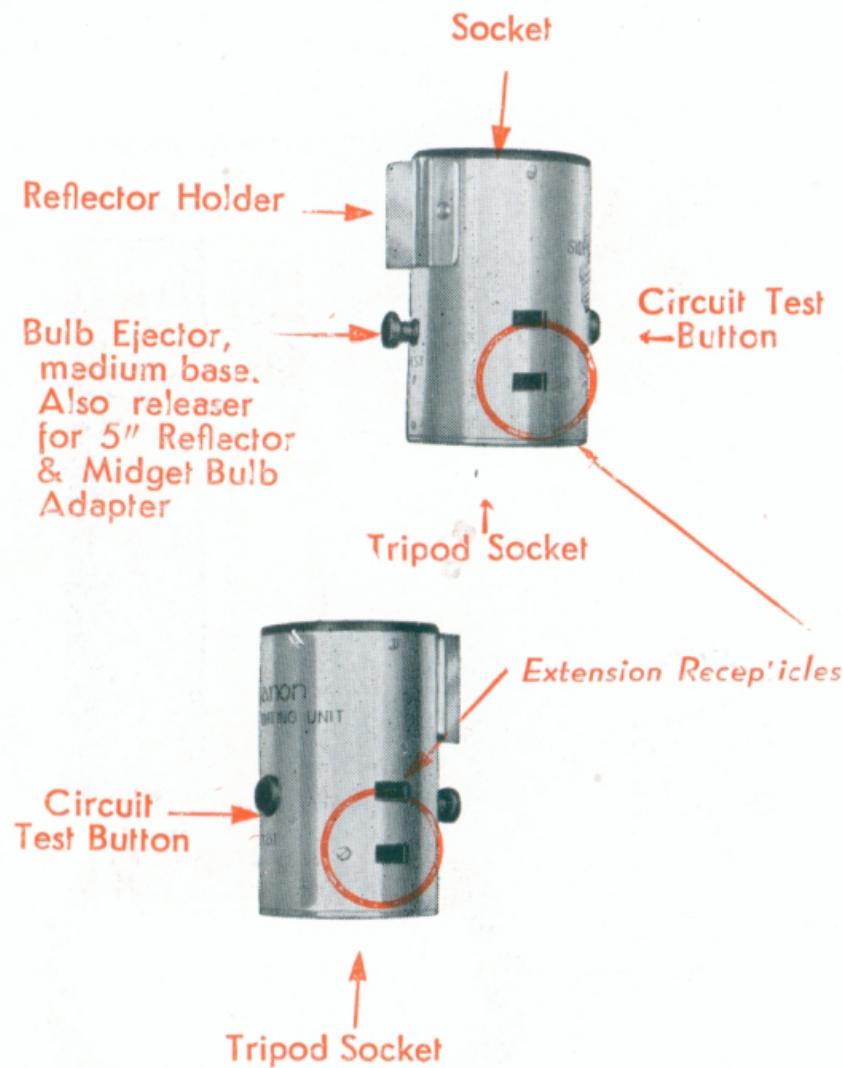
1. Extending the Side Lighting Units.



MAIN FLASH UNIT HOUSING

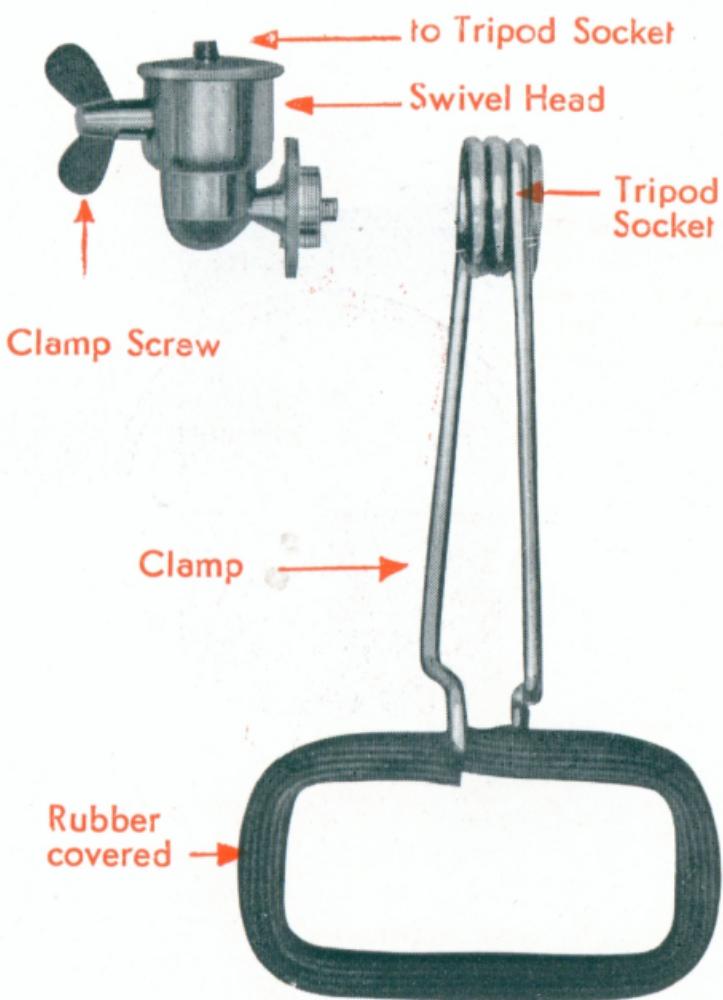
BATTERY CAP and ADDITIONAL BATTERY CASE





SIDE LIGHTING UNIT HOUSING

CLAMP with SWIVEL HEAD



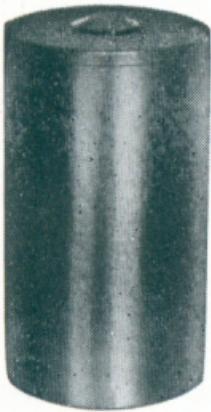
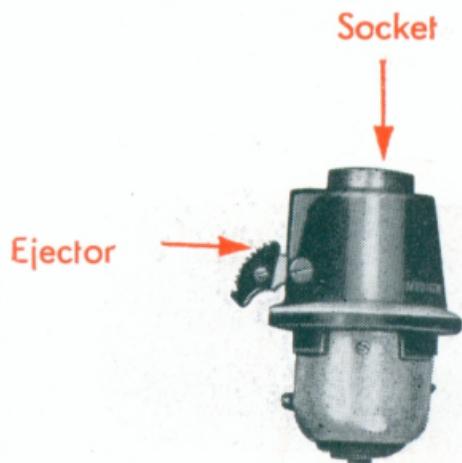
SELF EXTENSION ADAPTER



Outlets only for:

1. *Extending the Main Flash Unit.*
2. *Inserting the Flash Tester (both sides)*
3. *Inserting Ammeter for checking battery capacity (Press Circuit Test Button).*
4. *Connecting Speedlight Unit.*

MIDGET BULB ADAPTER and
PENLIGHT BATTERY CARTRIDGE



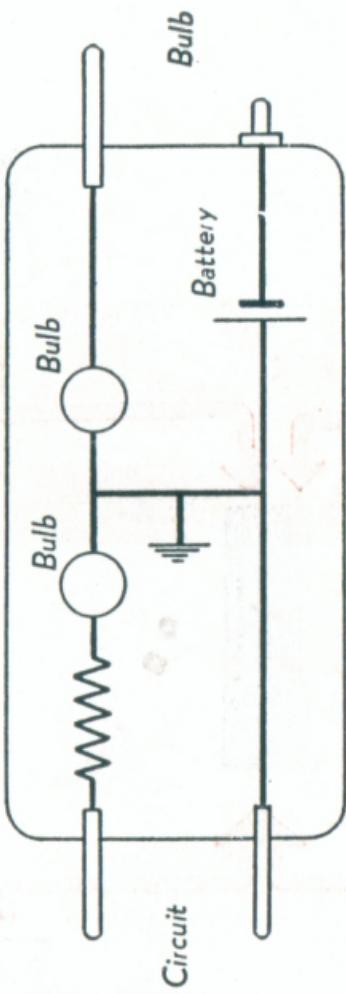
FLASH TESTER



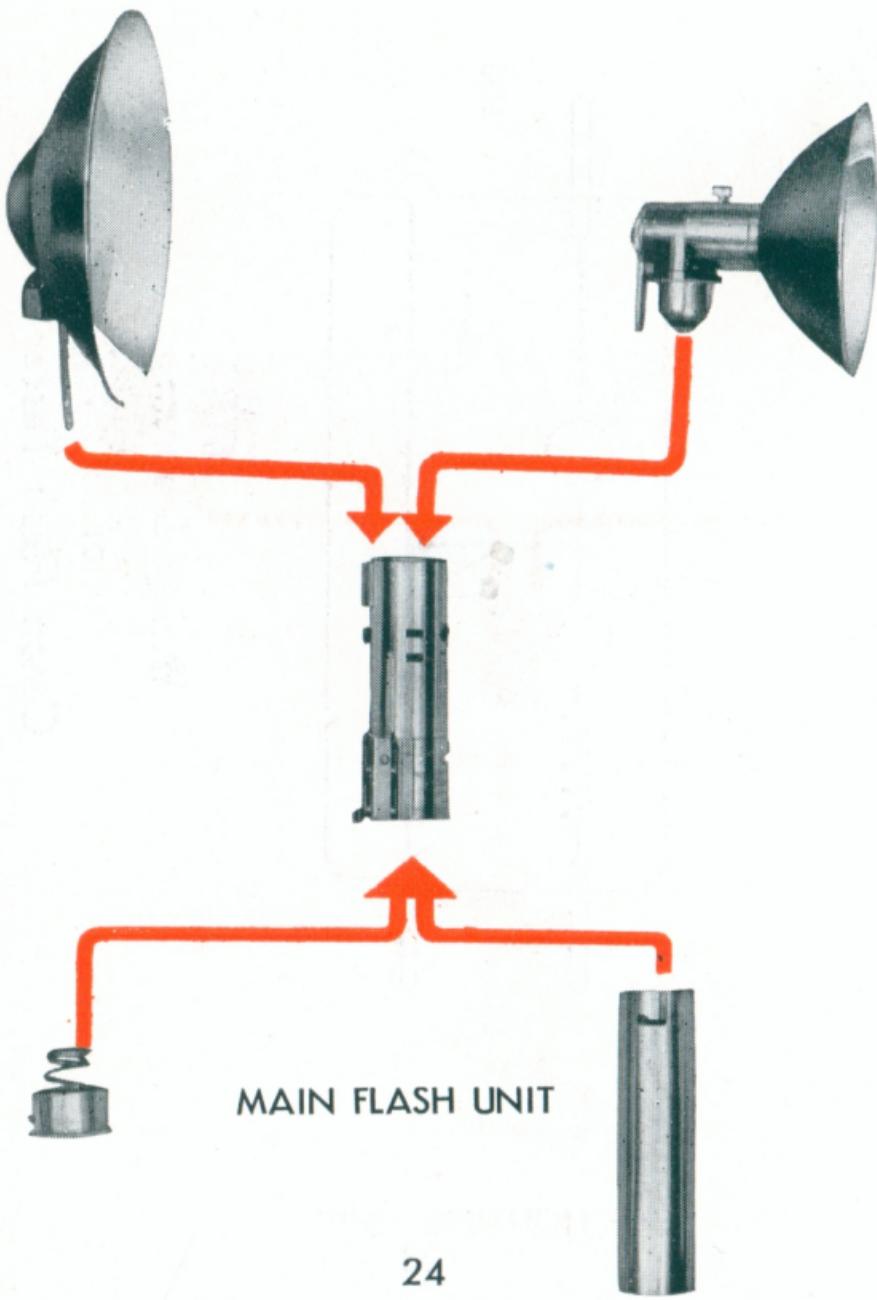
For testing :

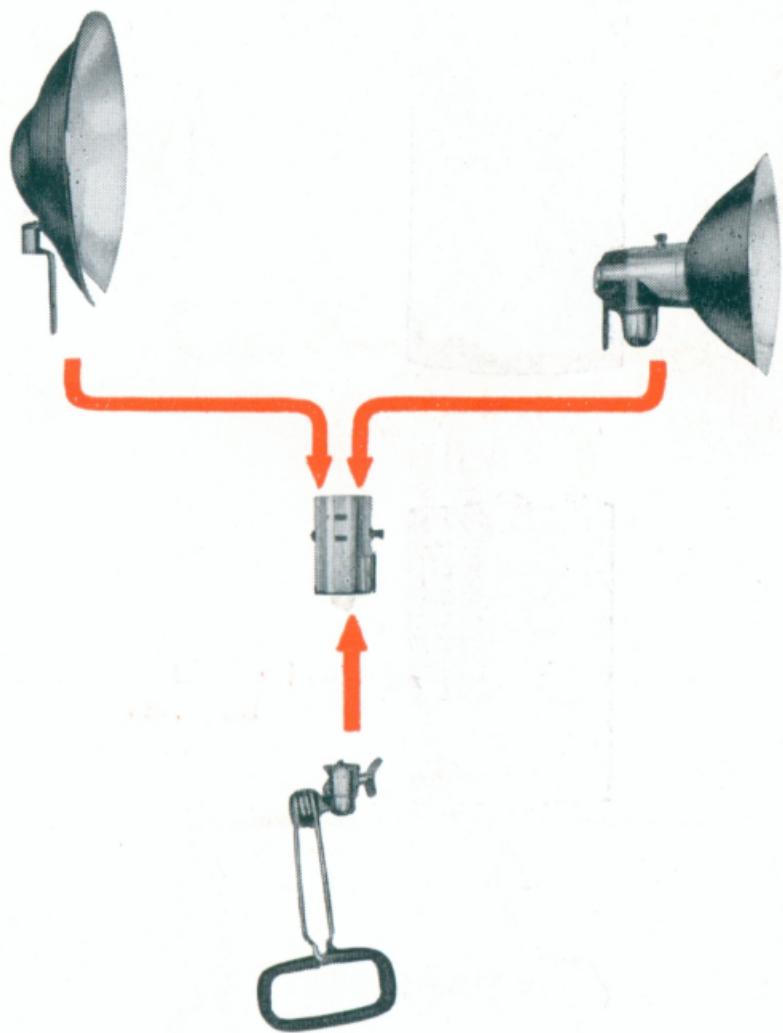
1. *Built-in synchronizer.*
2. *Flash bulbs.*
3. *Extension circuits.*

Wiring Diagram
of
Canon Flash Tester



2. ASSEMBLE





SIDE LIGHTING UNIT

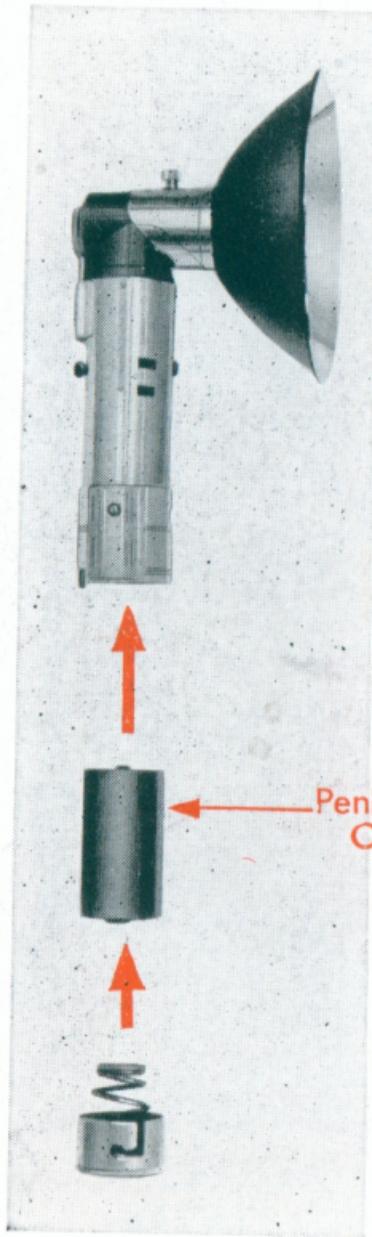


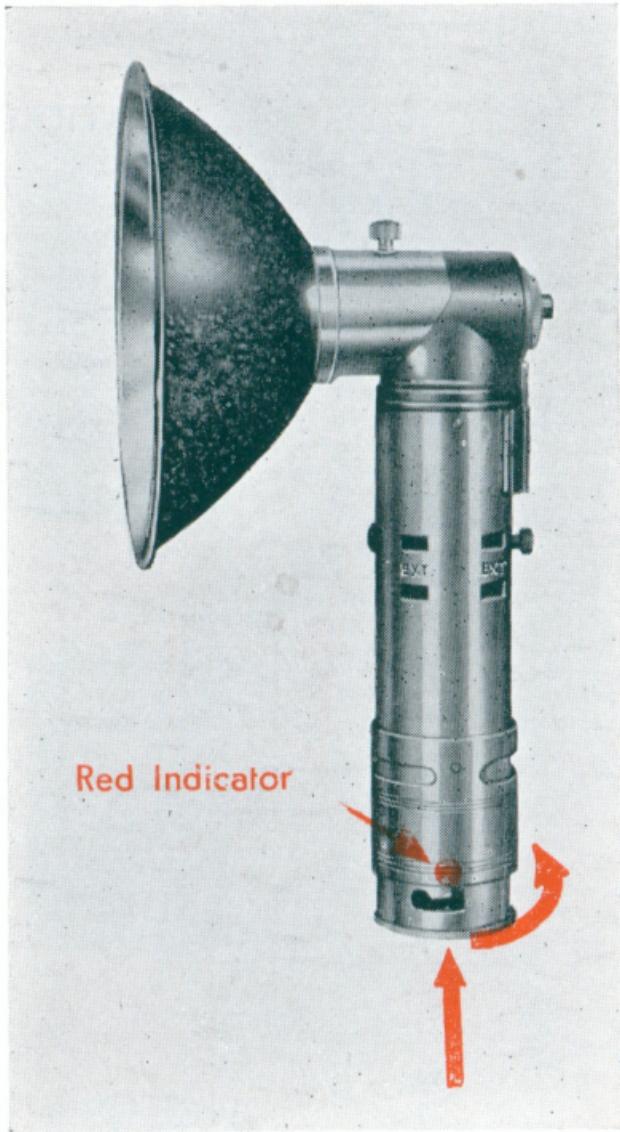
← **Penlight
Batteries**



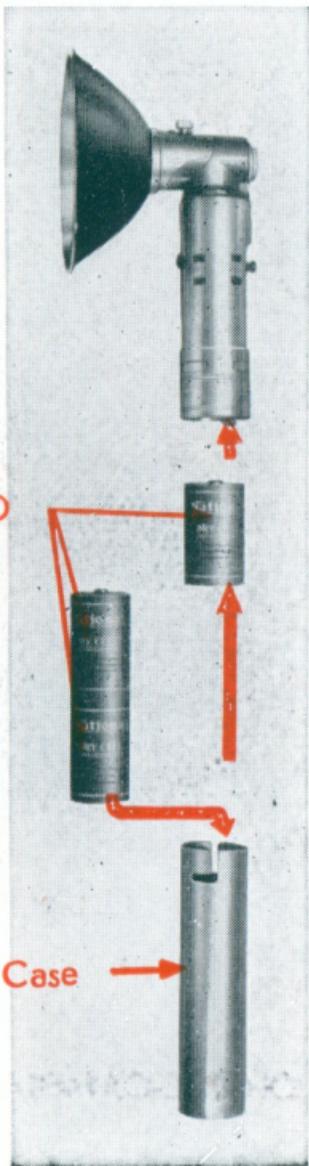
PENLIGHT BATTERY LOADING

BATTERY LOADING

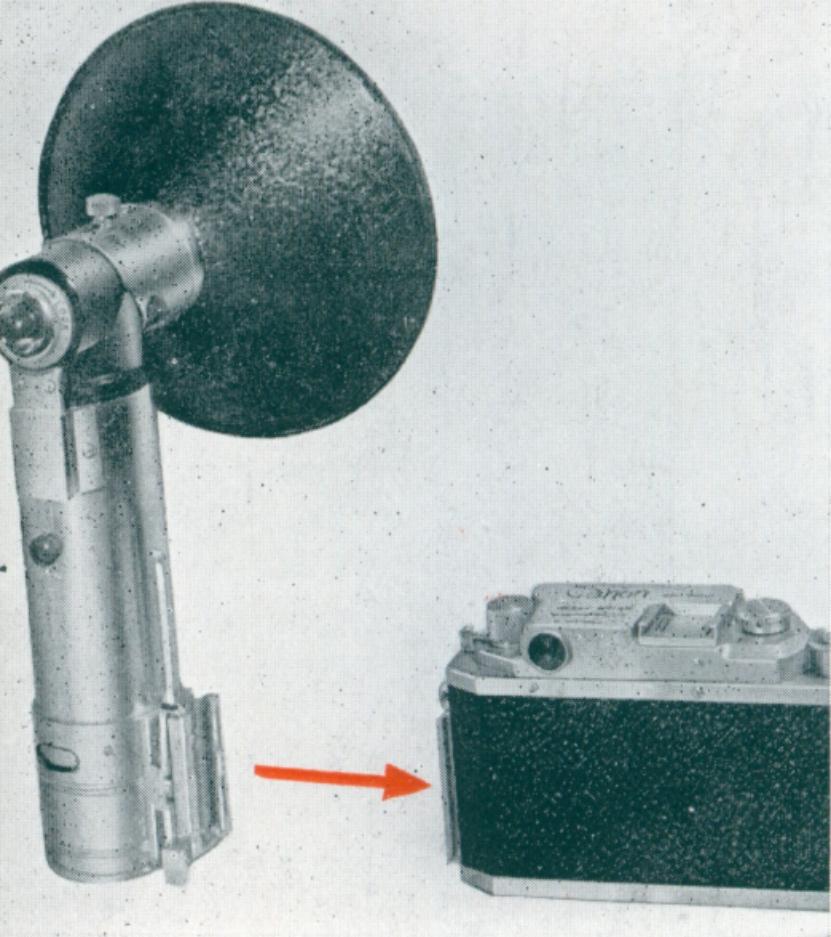




CAPPING



BATTERY LOADING



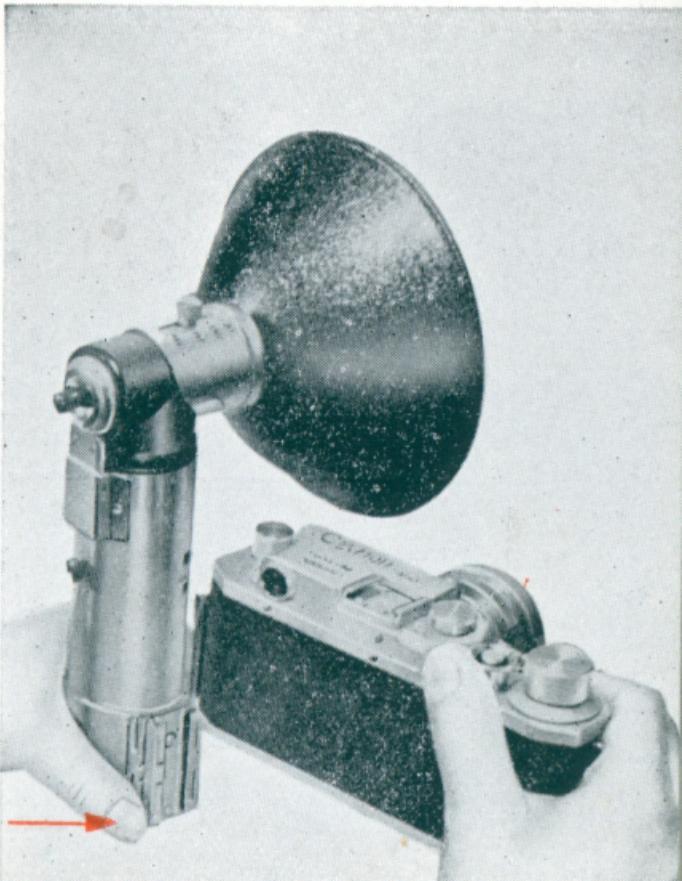
Main Flash Unit

Camera

FLASH-ON-THE-CAMERA

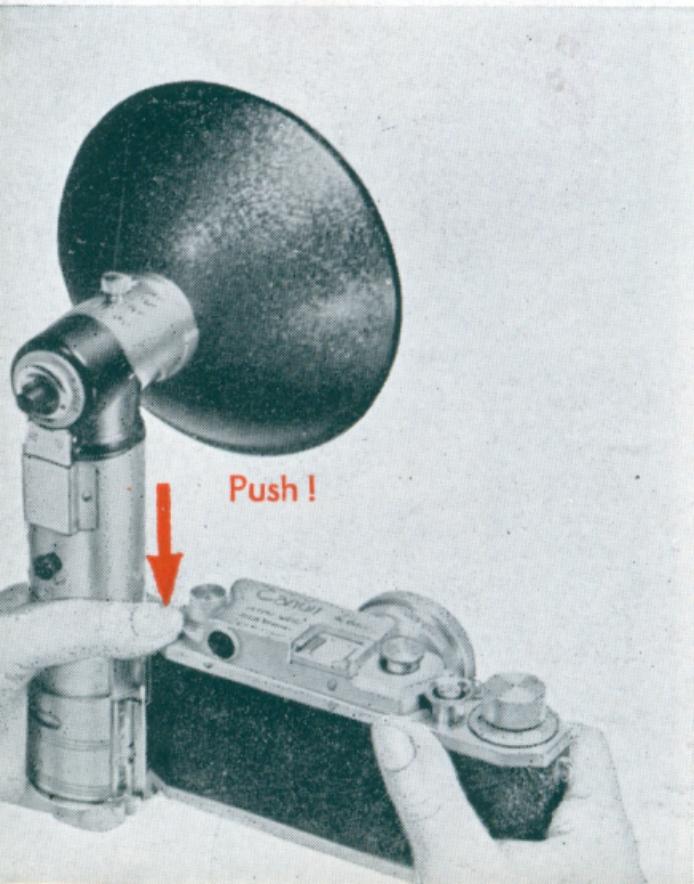
MOUNTING

Mounting the Main Flash Unit to the camera

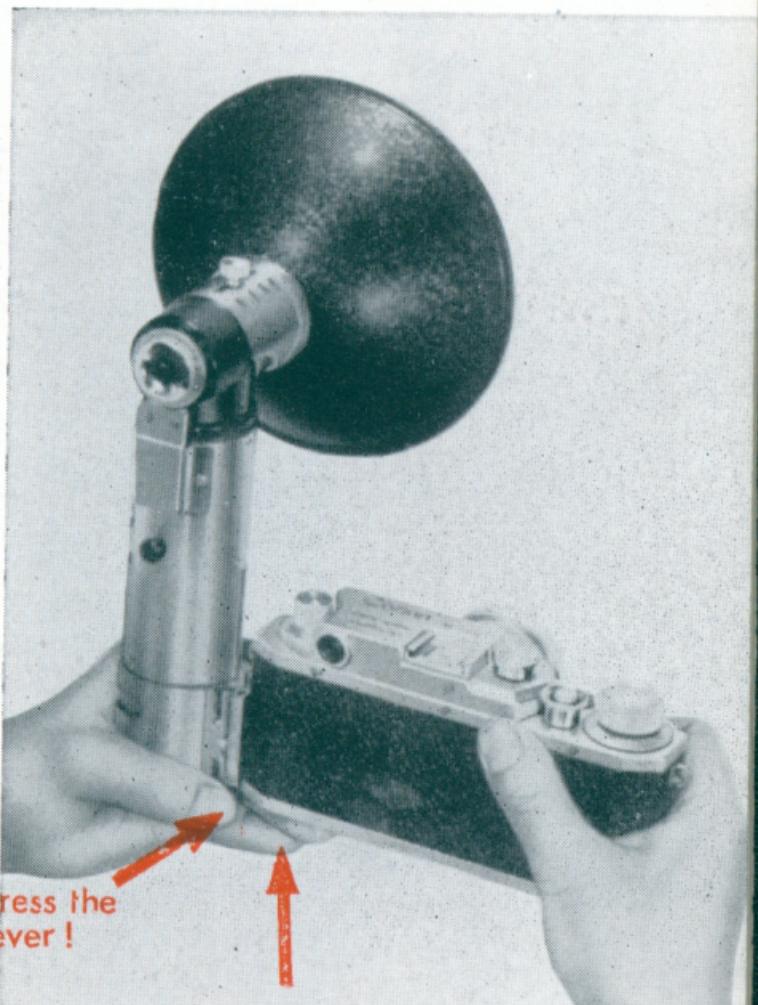


Press! →

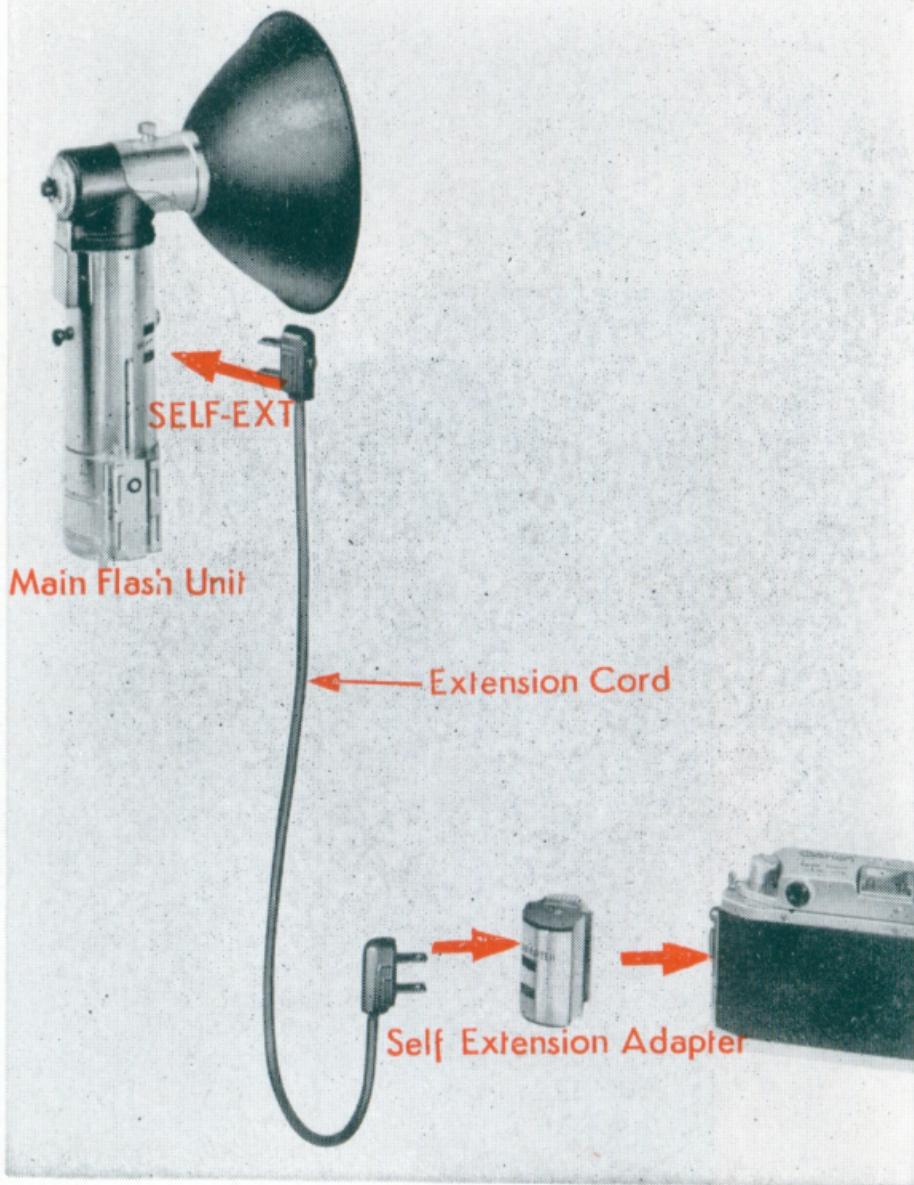
MOUNTING



DISMOUNTING



FLASH-OFF-THE-CAMERA

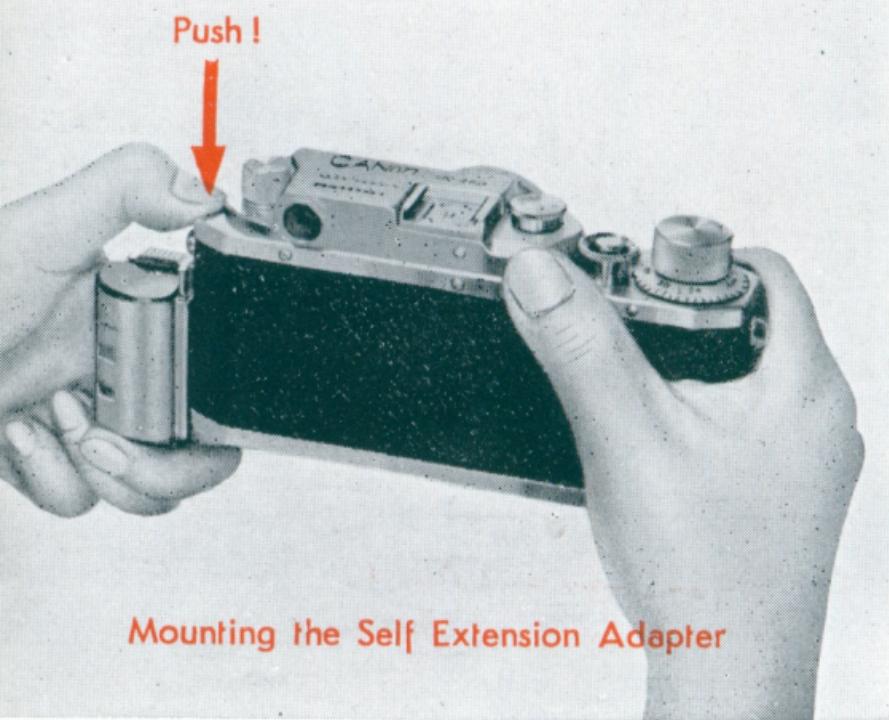


MOUNTING

Mounting the Self Extension Adapter

Pull the
Lock !





Mounting the Self Extension Adapter

MOUNTING

Pull the
Lock!

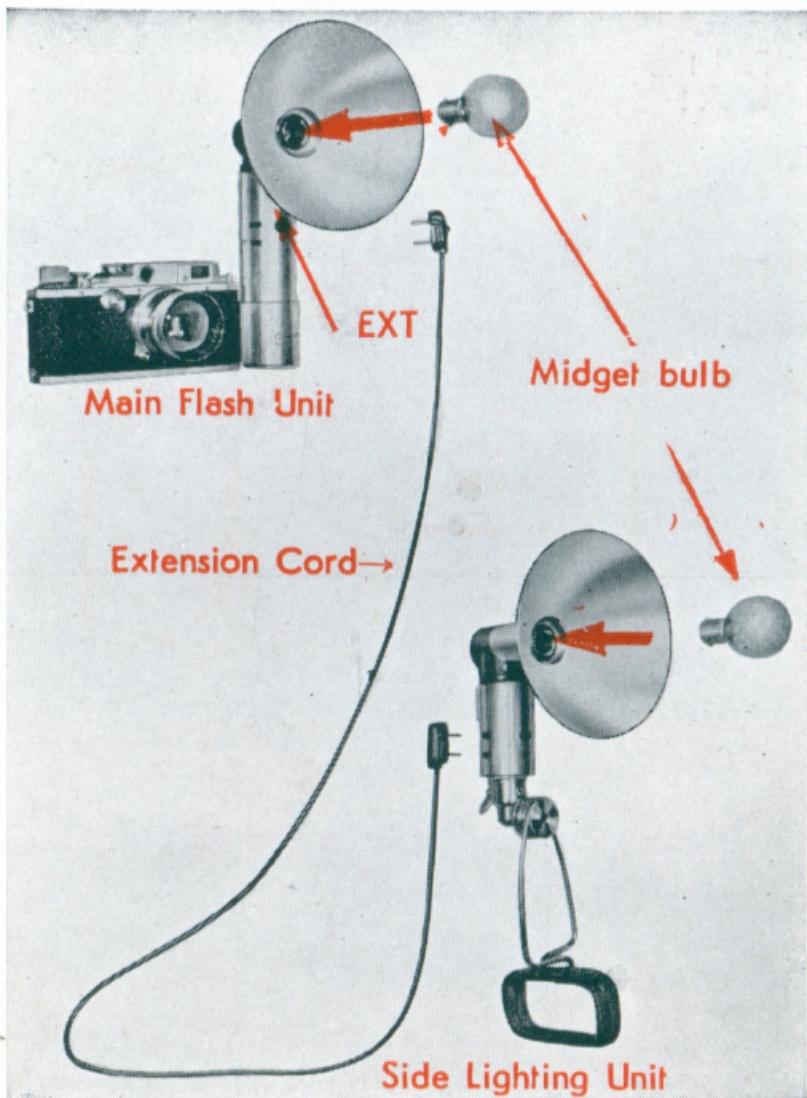


Push!

Dismounting the Self Extension Adapter

DISMOUNTING

EXTENDING THE SIDE LIGHTING UNIT



EXTENDING THE SIDE LIGHTING UNIT

Medium base bulb



Midget bulb



Midget
Bulb
Adapter

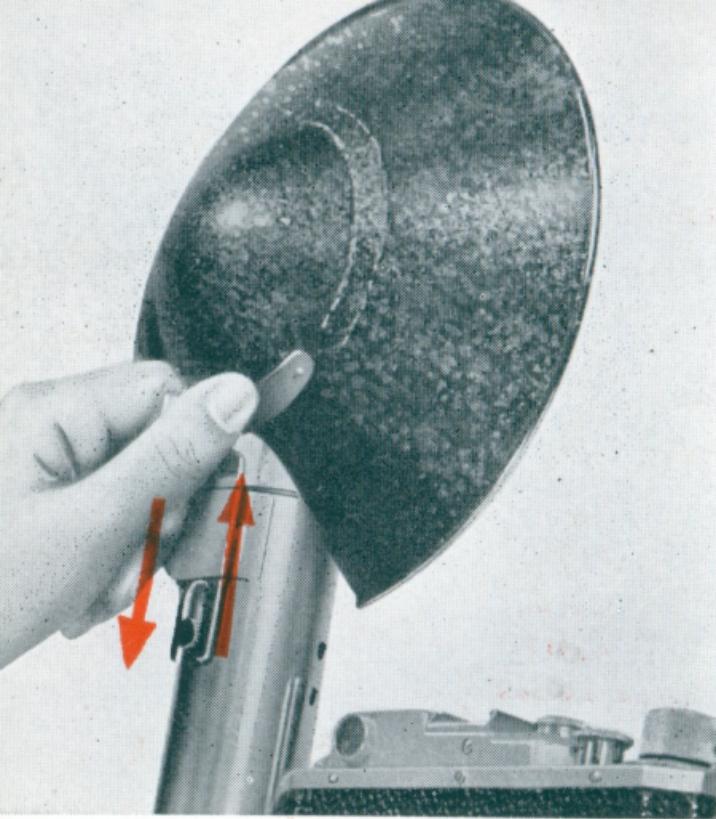


EXT

Main Flash Unit

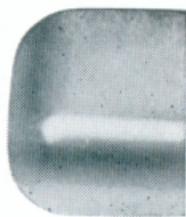
Extension Cord →

Side Lighting Unit



CENTERING WITH BULB

FLASH TESTER



*For checking flash
bulbs and built-in
synchronizer*

*For checking circuits
when extension cord
is used.*

DISASSEMBLE

How to Disassemble the Flash Tester for inserting bulbs and battery

Press
with
thumb-nail!

Press
with
thumb-nail!

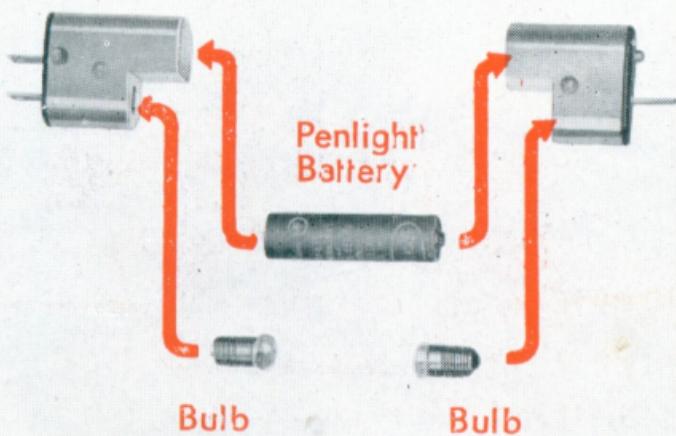
Pull !

Pull !

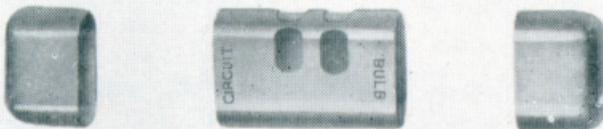
Cap

Cap

FLASH TESTER



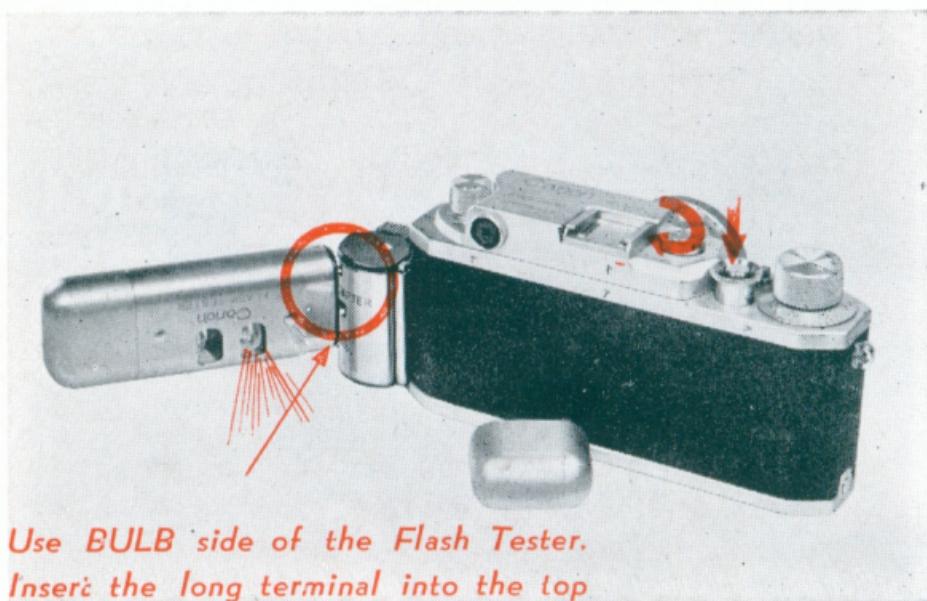
SPECIFICATION : 1.5v, 120ma



How to insert bulbs and battery

3. CIRCUIT CHECKING

BUILT-IN SYNCHRONIZER CHECKING



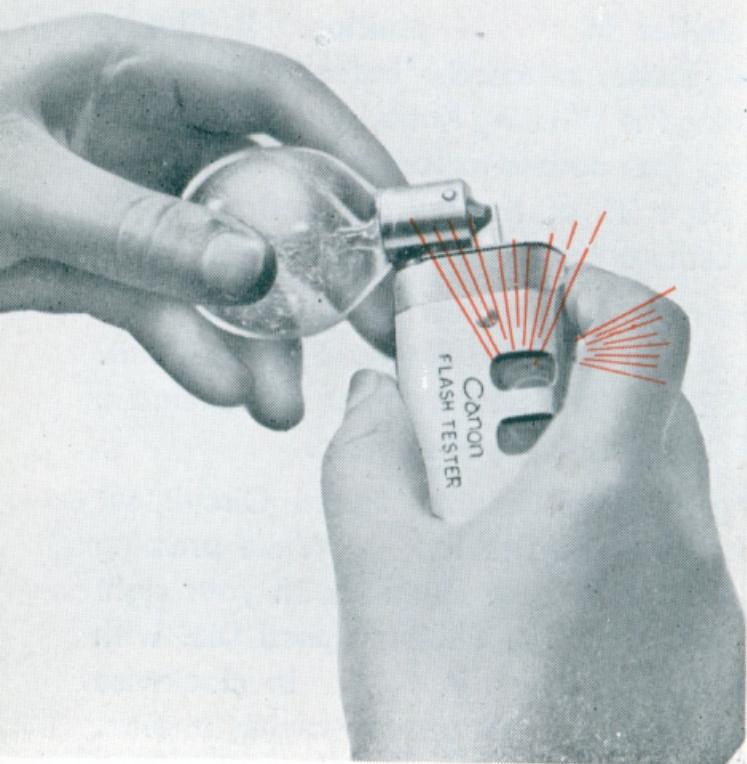
*Use BULB side of the Flash Tester.
Insert the long terminal into the top
hole and contact the short terminal
to the wall of the Midget Bulb
Adapter.*

Built-in Synchronizer Checking Checking can be done whether film is loaded in the camera or not. Have the shutter in **wound** position. If film is loaded and shutter released; instead of wasting film by turning the Winding Knob, wind the shutter by following the double-exposure procedure explained in page 29 of the Instruction Booklet for the Canon camera Model IV.

Two circuits must be checked: the High Shutter Speed Circuit and the Slow Shutter Speed Circuit. See page 52 in the same booklet for schematic diagram of the Built-in Synchronizer.

For checking the High Shutter Speed Circuit set the Slow Shutter Speed Dial to **25**. While pressing down the Shutter Release Button with your right forefinger, hold the High Shutter Speed Dial with your left fingers and turn it **slowly** in clockwise direction by retarding its own revolving motion. When the circuit is in perfect condition the Flash Tester lamp should light with a very slight (about 2°) turn.

Next, for the Slow Shutter Speed Circuit, set the Slow Shutter Speed Dial to **8** and repeat the same procedure. In this case the lamp should light when the Dial is turned about $2/3$ of its total rotation.

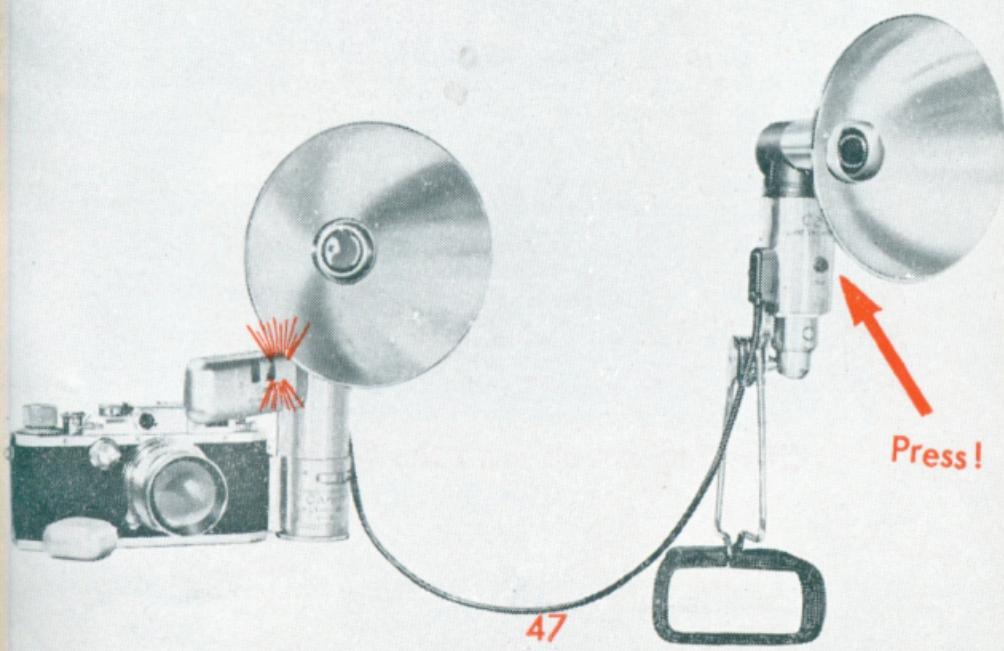


Checking a bulb with the Flash Tester

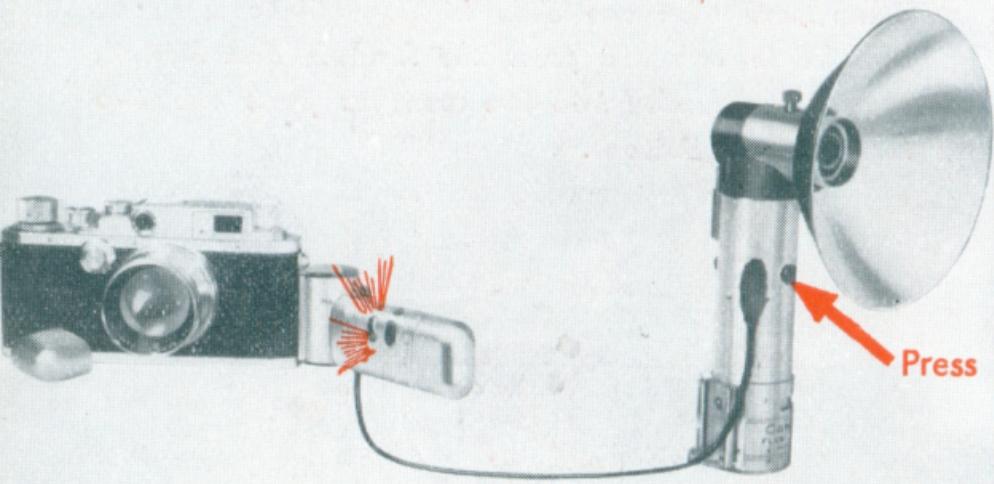
BULB CHECKING

CIRCUIT CHECKING WITH THE FLASH TESTER

When more than one Side Lighting Units are used straight in one row press the farthest Test Button, and when extended into two branches press the two farthest Test Buttons.



CHECKING



When the Main Flash Unit is extended and the Side Lighting Units Extended in addition to the Main in one straight row press the farthest Test Button, and when extended into two rows press the two farthest Test Buttons.

Checking circuit with the Flash Tester

4. PHOTOGRAPHING



How to Hold the camera for Focusing

FOCUSING



How to hold the camera

FOCUSING

SELF EXTENSION ADAPTER

How to hold the camera when the Self
Extension Adapter is used





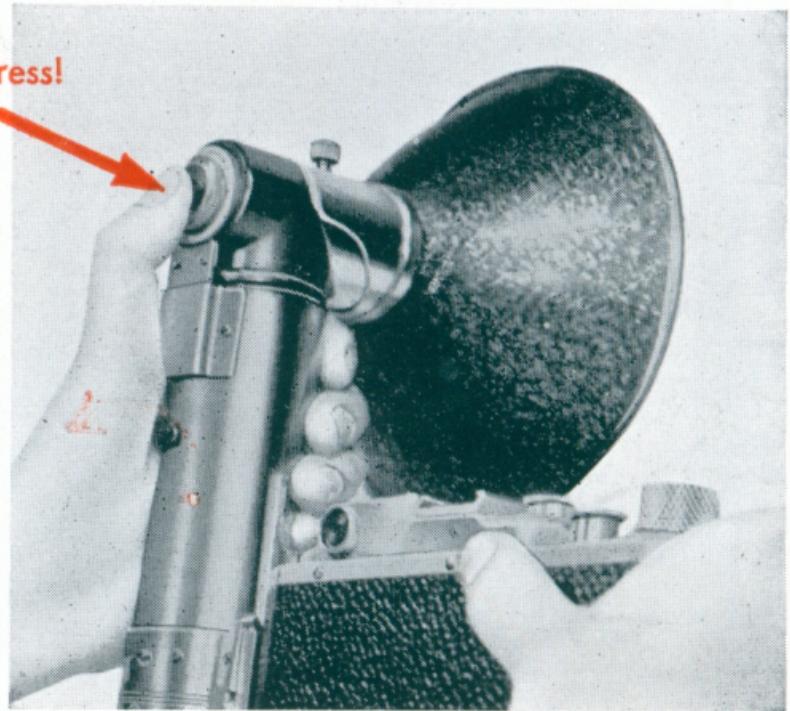
MULTIPLE FLASH using Canon CAMERA HOLDER

EJECTOR LOCK

Lock the Ejector Lock to prevent
accidental ejecting

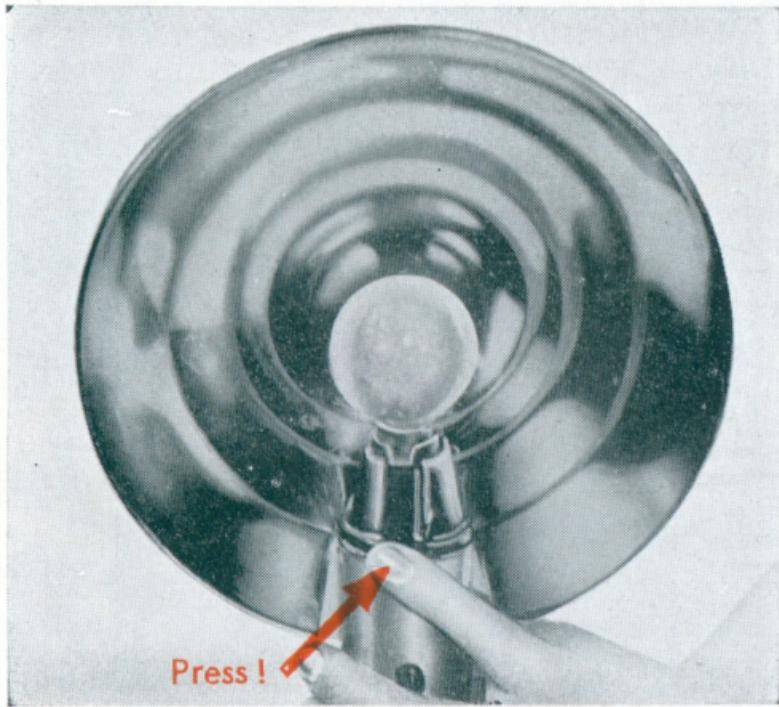


Press!



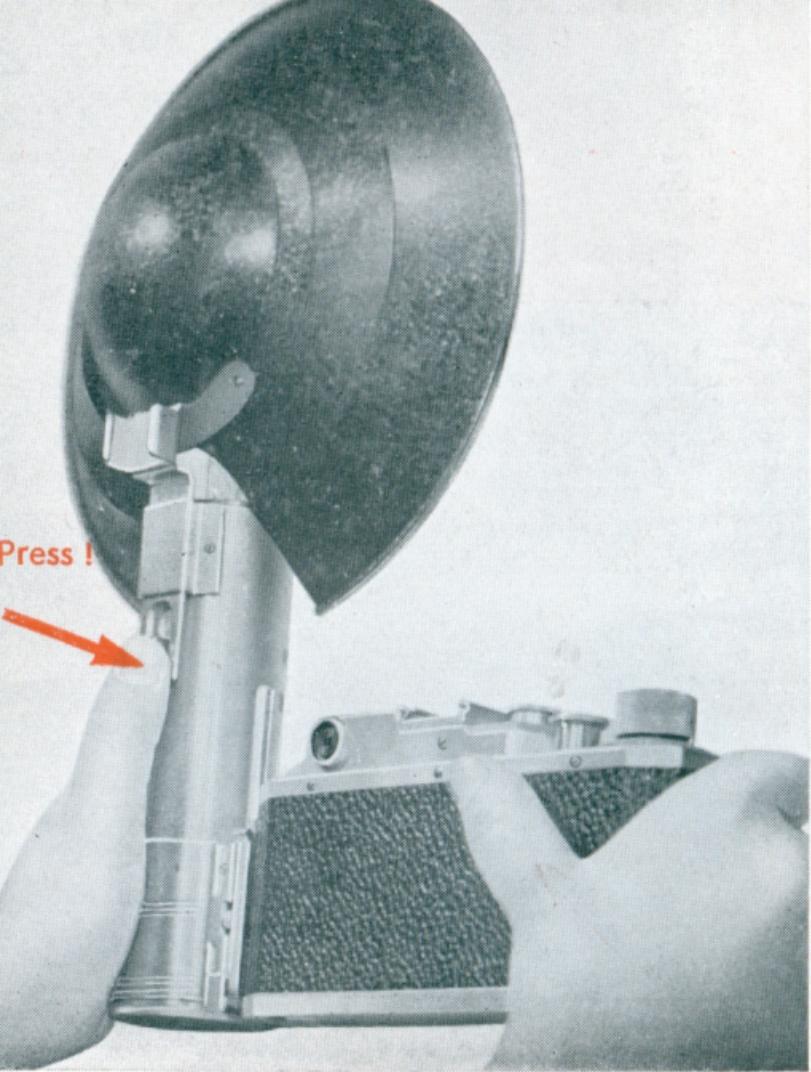
How to eject a midget bulb from 5" reflector

EJECT



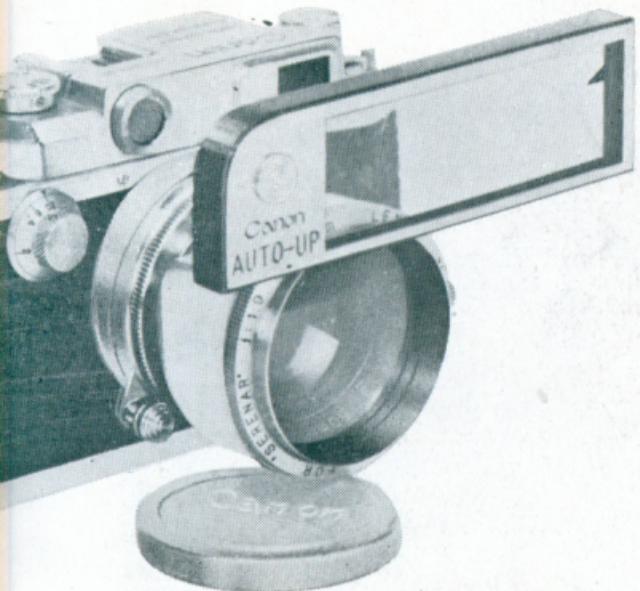
How to eject midget bulb from 7" reflector

EJECT



How to eject medium base bulb from
7" reflector.

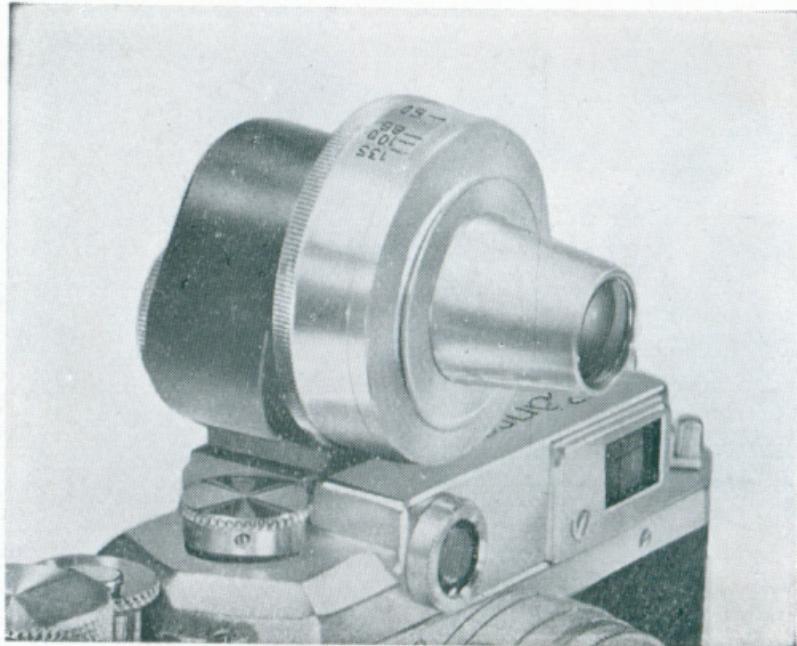
EJECT



Canon AUTO-UP

The Canon AUTO-UP is a closeup lens for use with the Serenar $f : 1.9$, 50 mm lens. Subject lying between 22 inches and 40 inches can be accurately focused with the rangefinder of the camera. Unscrewing the lens for inserting intermediate ring is not necessary; simply mount the AUTO-UP onto the lens. Ideal for photographing flowers, insects and other small objects.

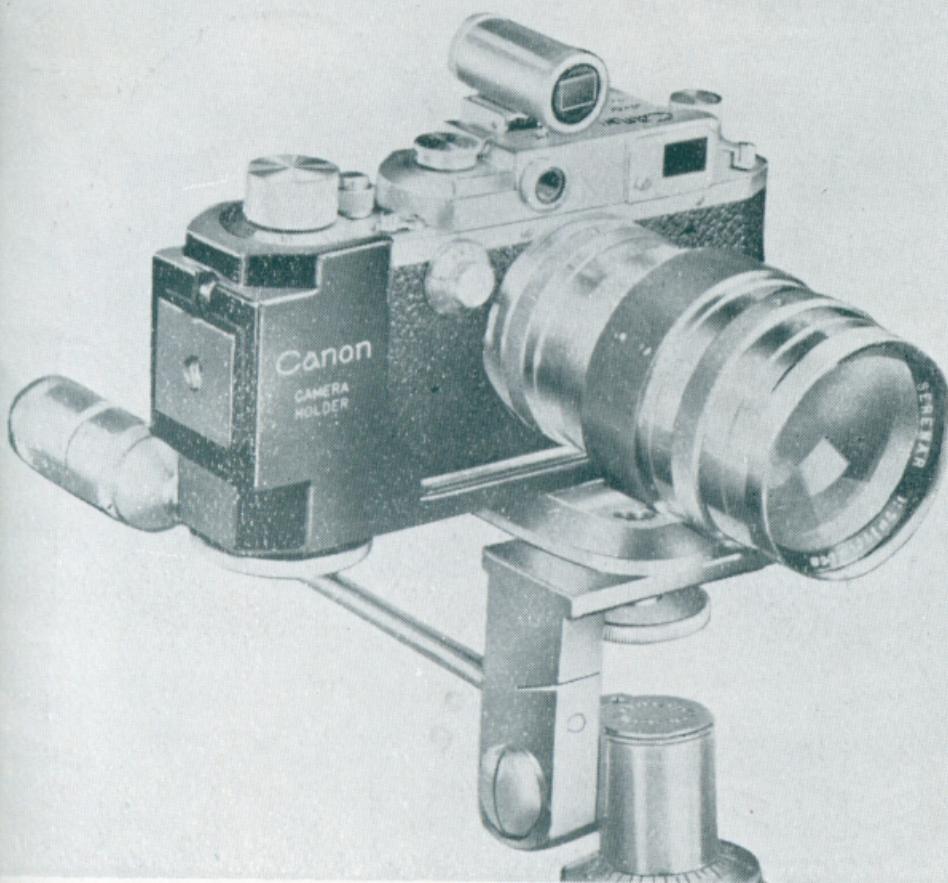
GECL



Canon UNIVERSAL VIEWFINDER

The Canon UNIVERSAL VIEWFINDER is a precision instrument through which an exceptionally sharp and erect image can be viewed with field of view variable for lenses with focal length of 35 mm to 135 mm. Click stops offer positive setting at any particular focal length marking and parallax compensating scale, calibrated in feet, enables accurate parallax correction. The Canon UNIVERSAL VIEWFINDER is an indispensable item for one having lenses of different focal length.

(will be available later)



Canon CAMERA HOLDER

The Canon CAMERA HOLDER is to hold the camera sturdy in a balanced position when using a tripod; as the tripod socket arranged on the baseplate of the camera is completely off-center. The camera can be easily seated either vertically or horizontally. Additional tripod sockets may be used for mounting the Canon Side Lighting Units. Ideal accessory for closeup and telephoto shots.



Canon Camera Co., Inc.
Ginza, Tokyo, Japan

No. 123

3T

ES-11-50
Daito Printing Co., Ltd.