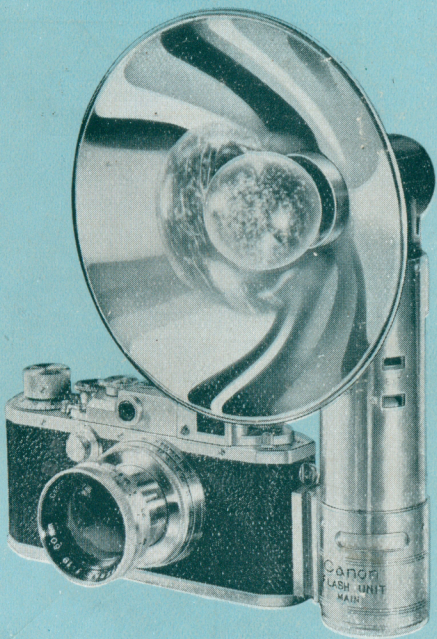
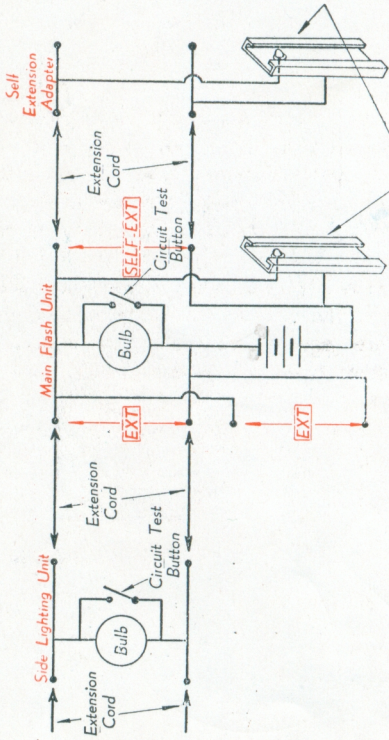


*Directions for using*



**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.

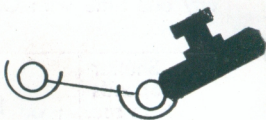
Shutter Speeds in sec. Short Current in amps.	1 to $\frac{1}{8}$	$\frac{1}{25}$ to $\frac{1}{100}$	$\frac{1}{200}$ to $\frac{1}{1000}$
2 to 3	1	1	1
3 to 4	1	2	1
4 to 6	2	3	2
6 to 8	4	4	3
over 8	5	5	4

# A few suggestions

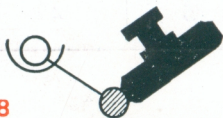
①



②

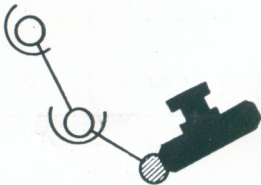


⑤

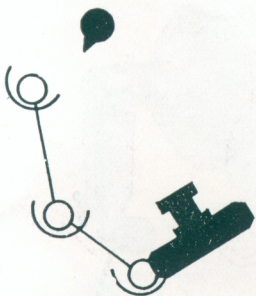


8

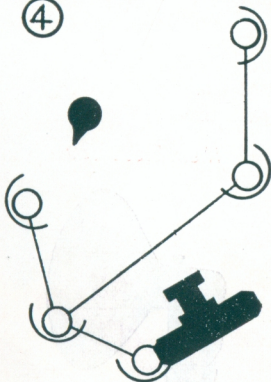
⑥



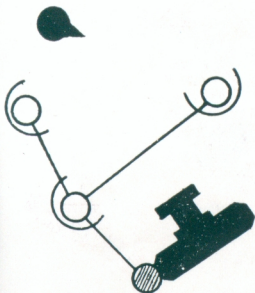
③



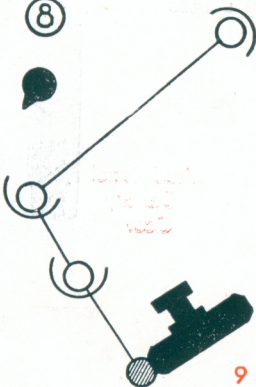
④



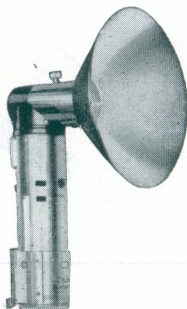
⑦



⑧



Main Flash Unit

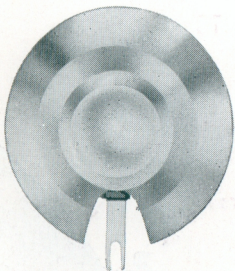


Side Lighting Unit

Additional  
Battery  
Case







7" Reflector



Midget  
Bulb  
Adapter



Flash Tester

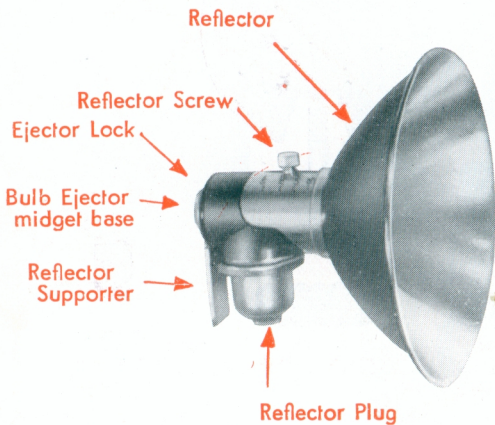


Self  
Extension  
Adapter

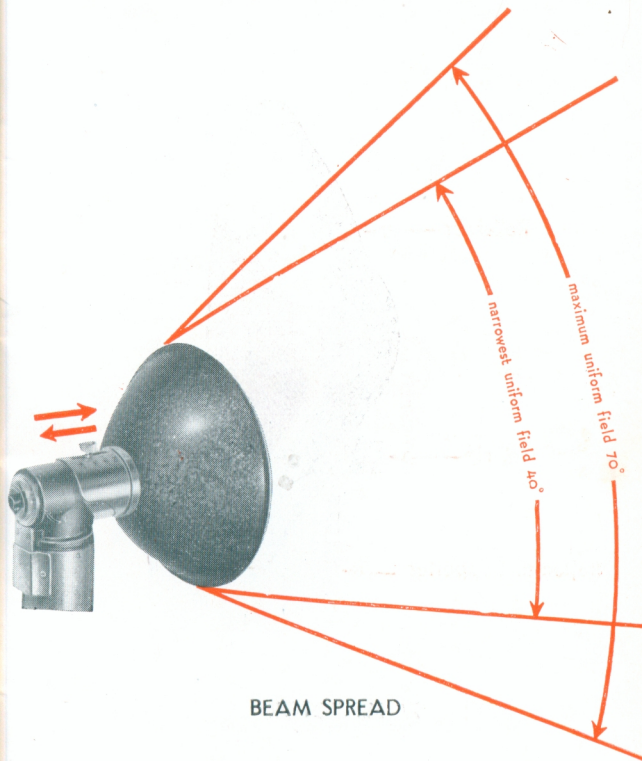


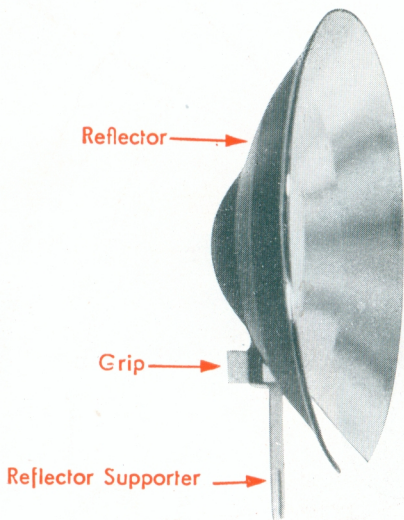
Extension Cords, 15 ft

## 1. COMPONENTS



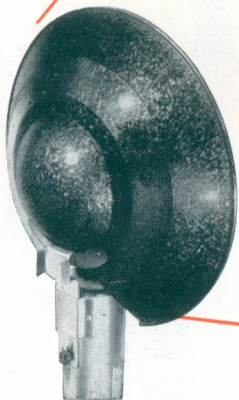
VARIABLE FOCUSING 5" REFLECTOR





7" REFLECTOR





BEAM SPREAD

Socket  
↓

Reflector Holder →

Bulb Ejector,  
medium base.  
Also a releaser  
for 5" Reflector  
& Midget Bulb  
Adapter

Circuit Test Button

Outlet only for:

1. Extending the Main Flash Unit itself.
2. Inserting the Flash Tester (Circuit side)
3. Inserting Ammeter for checking battery capacity (Press Circuit Test Button)

Terminal

Mounting Clamp

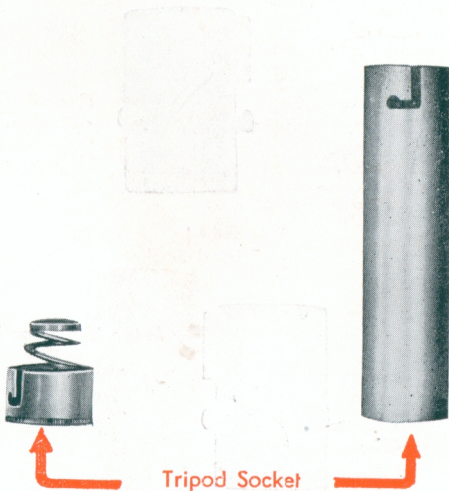
Lock Lever

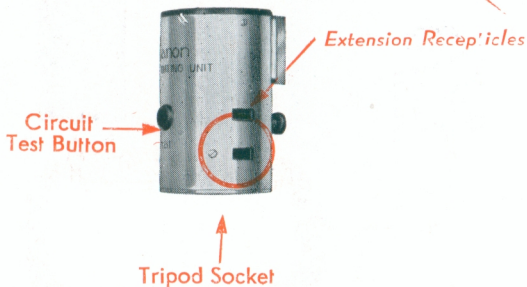
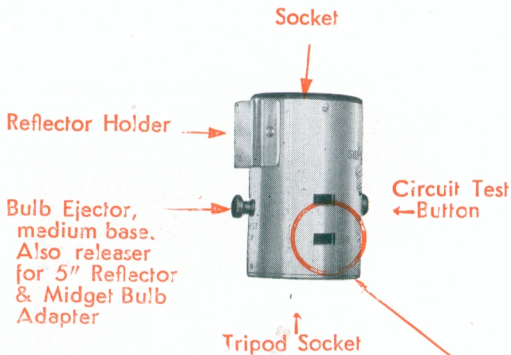
Outlets only for:

1. Extending the Side Lighting Units.

MAIN FLASH UNIT HOUSING

# BATTERY CAP and ADDITIONAL BATTERY CASE

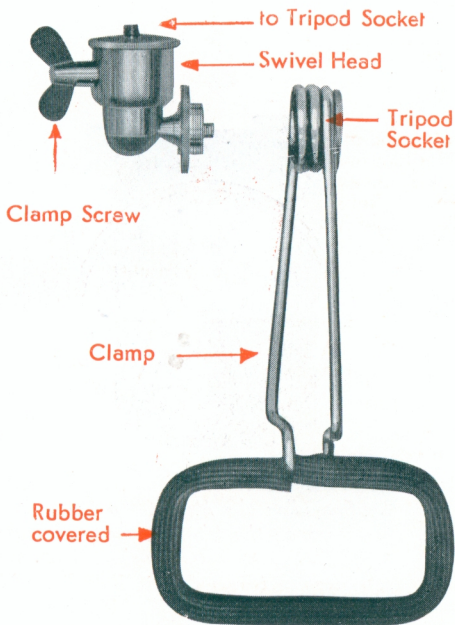




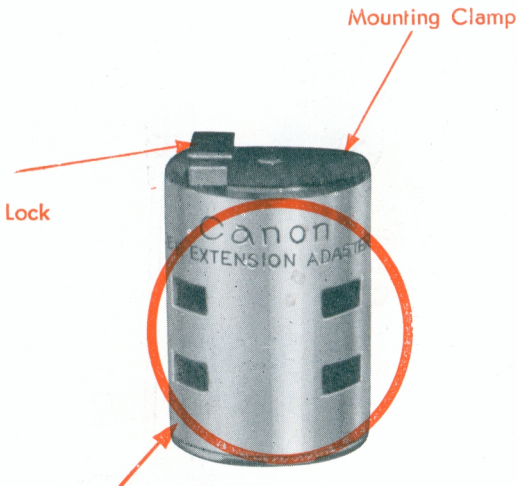
## SIDE LIGHTING UNIT HOUSING



## CLAMP with SWIVEL HEAD



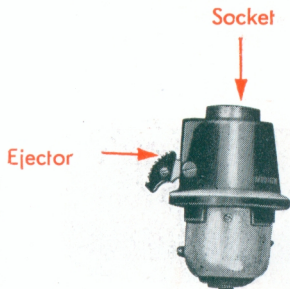
## SELF EXTENSION ADAPTER



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

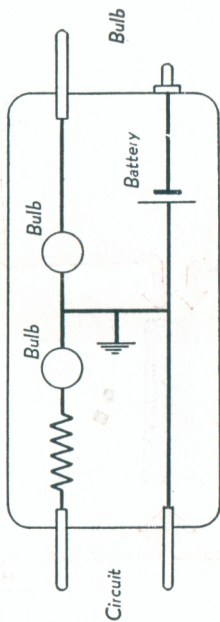


## FLASH TESTER



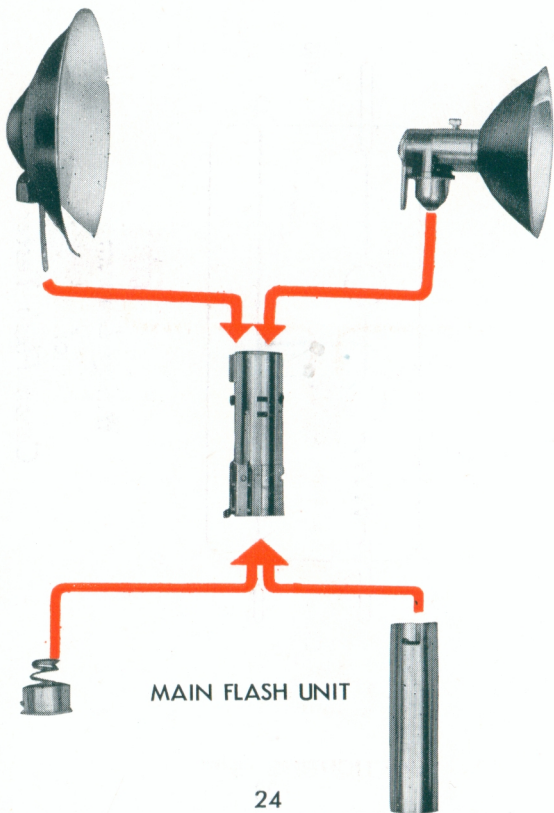
**For testing :**

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

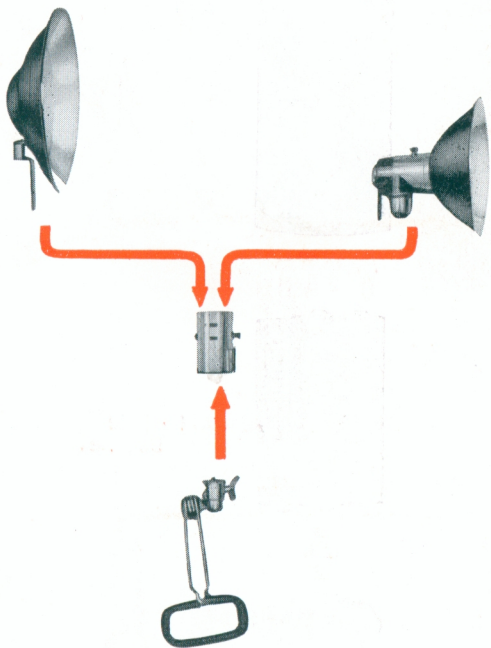


*Wiring Diagram  
of  
Canon Flash Tester*

## 2. ASSEMBLE







SIDE LIGHTING UNIT

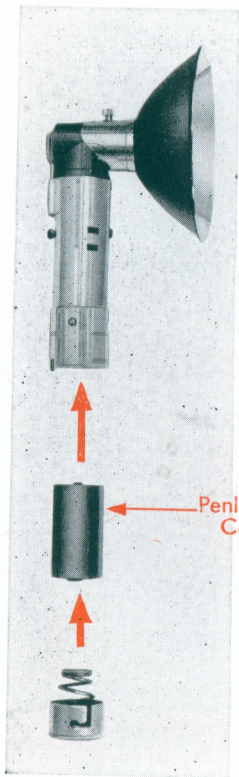


Penlight  
Batteries



## PENLIGHT BATTERY LOADING

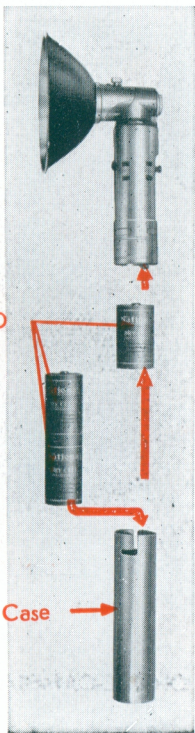
## BATTERY LOADING



Penlight Battery  
Cartridge



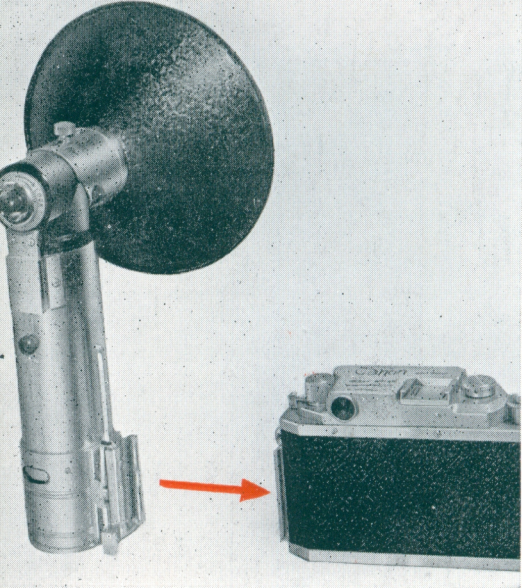
CAPPING



Batteries, size D

Additional Battery Case

BATTERY LOADING



Main Flash Unit

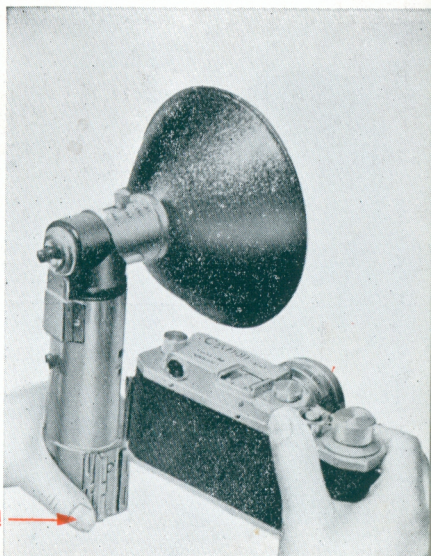
Camera

FLASH-ON-THE-CAMERA



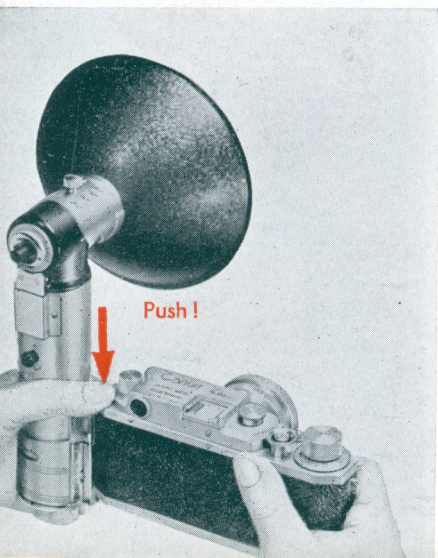
## MOUNTING

Mounting the Main Flash Unit to the camera

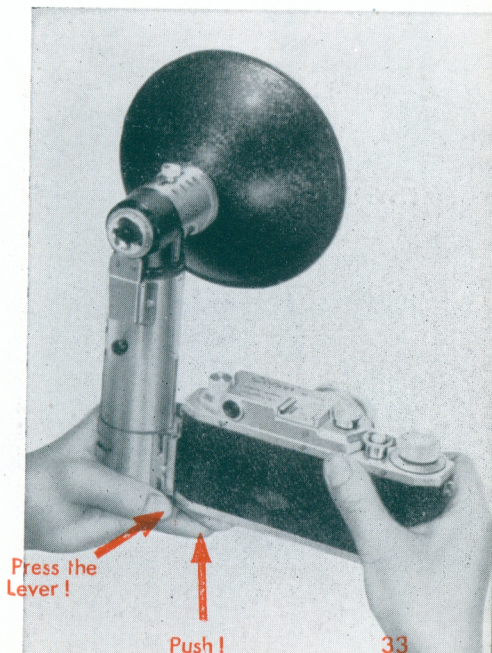


Press !

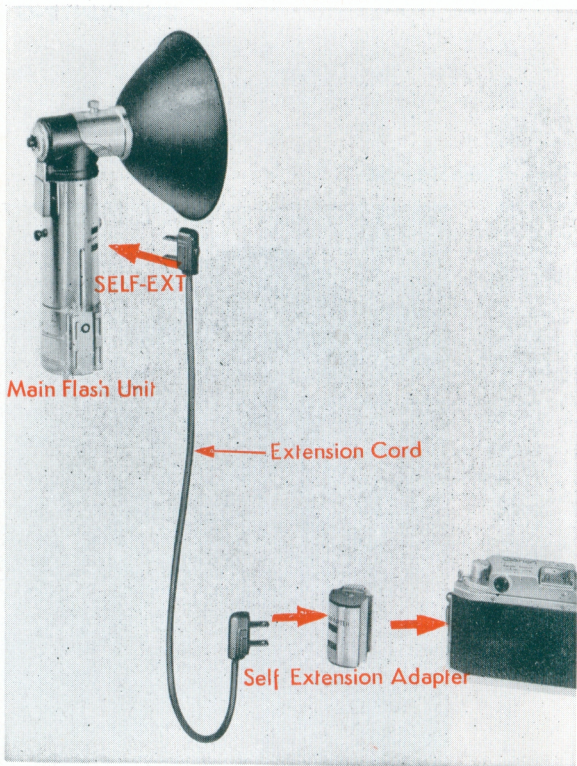
## MOUNTING



## DISMOUNTING



## FLASH-OFF-THE-CAMERA



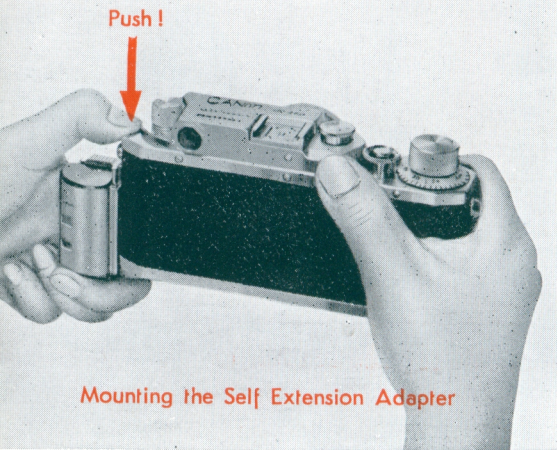
## MOUNTING

### Mounting the Self Extension Adapter

Pull the  
Lock!



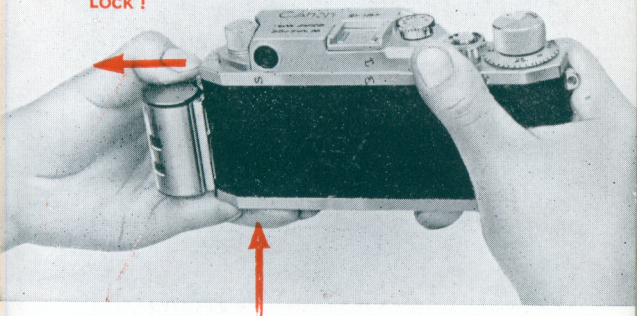




## MOUNTING



Pull the  
Lock !

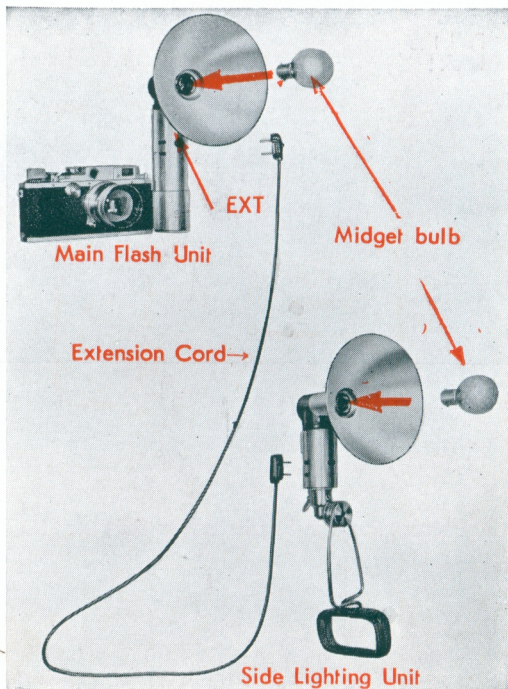


Push !

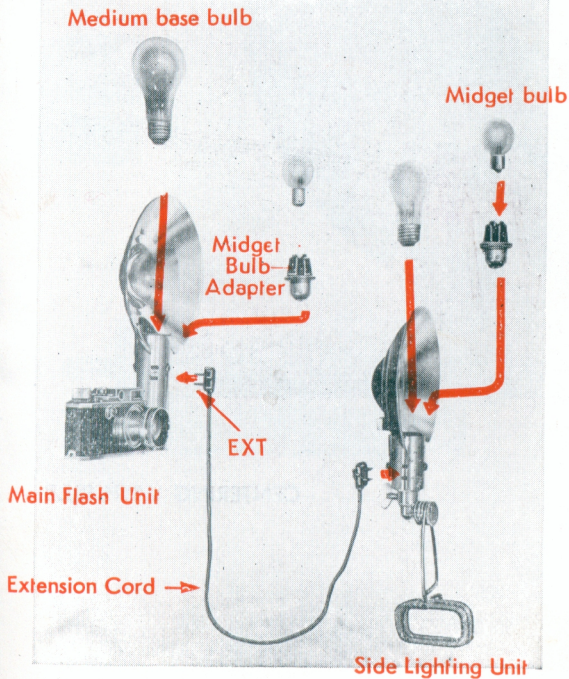
Dismounting the Self Extension Adapter

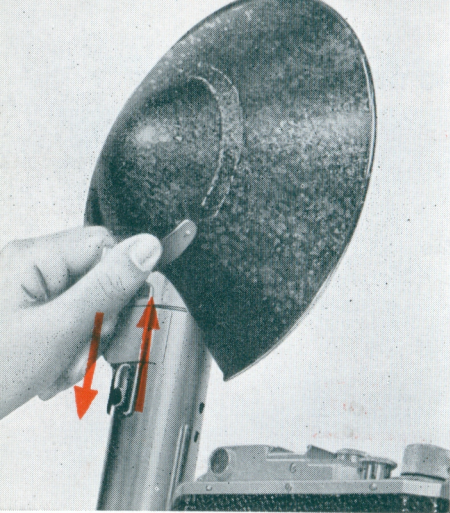
DISMOUNTING

## EXTENDING THE SIDE LIGHTING UNIT



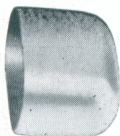
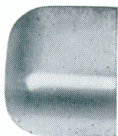
## EXTENDING THE SIDE LIGHTING UNIT





**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 !

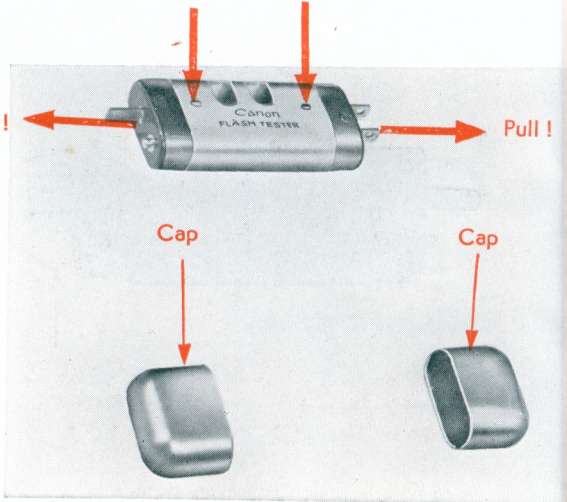
Press  
with  
thumb-nail!

Pull !

Pull !

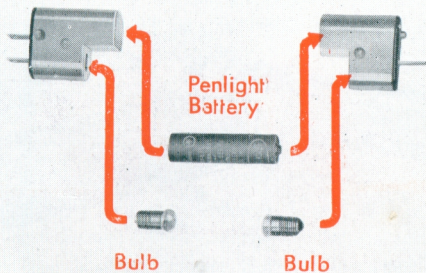
Cap

Cap

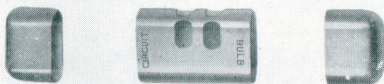




## FLASH TESTER



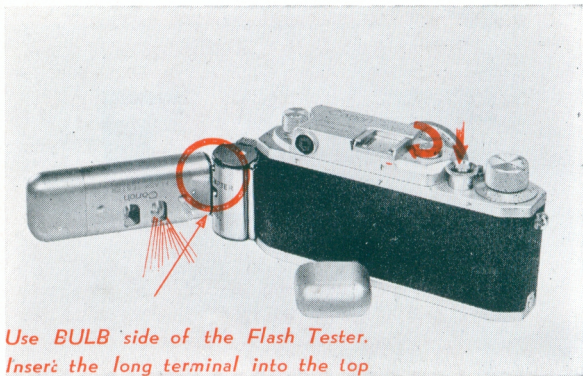
SPECIFICATION : 1.5v, 120ma



How to insert bulbs and battery

### 3. CIRCUIT CHECKING

## BUILT-IN SYNCHRONIZER CHECKING



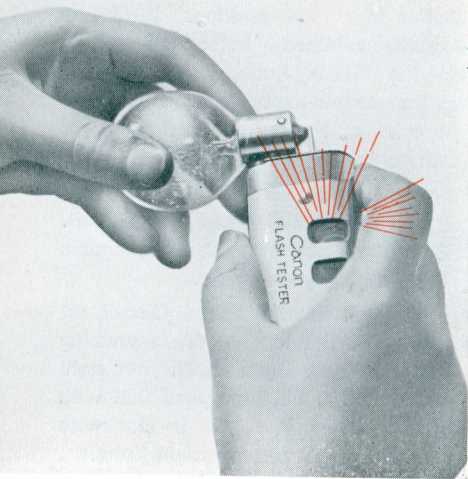
Use BULB side of the Flash Tester. Insert the long terminal into the top hole and contact the short terminal to the wall of the Midget Bulb Adapter.

**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.

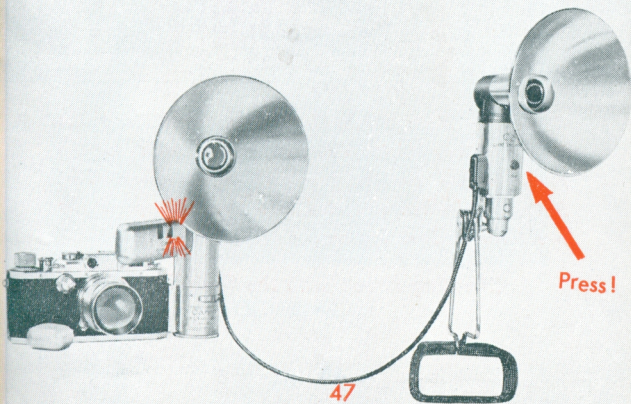


Checking a bulb with the Flash Tester

**BULB CHECKING**

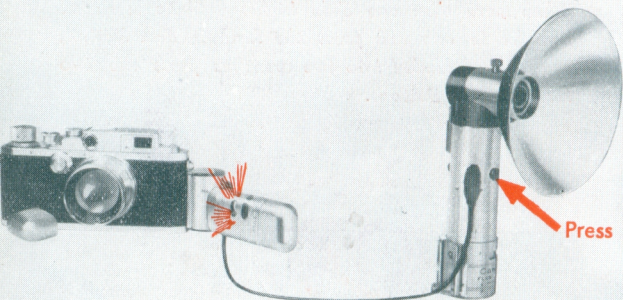
## CIRCUIT CHECKING WITH THE FLASH TESTER

*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

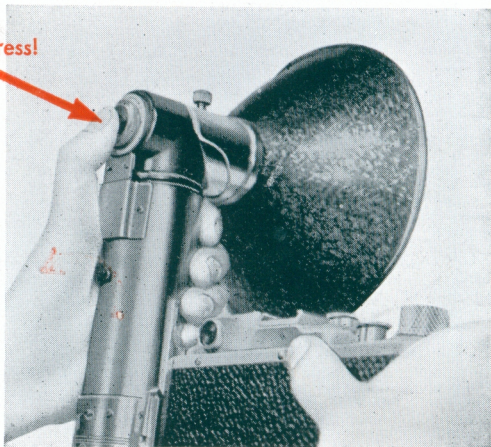
## EJECTOR LOCK

Lock the Ejector Lock to prevent  
accidental ejecting



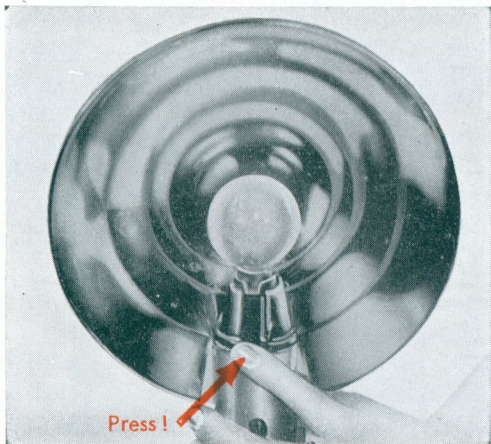


Press!



How to eject a midjet bulb from 5" reflector

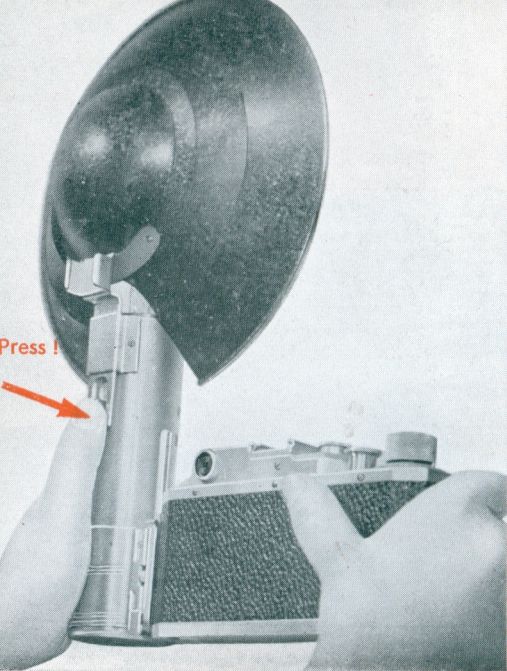
EJECT



How to eject midget bulb from 7" reflector

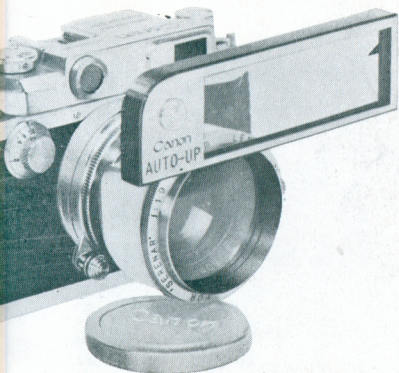
EJECT





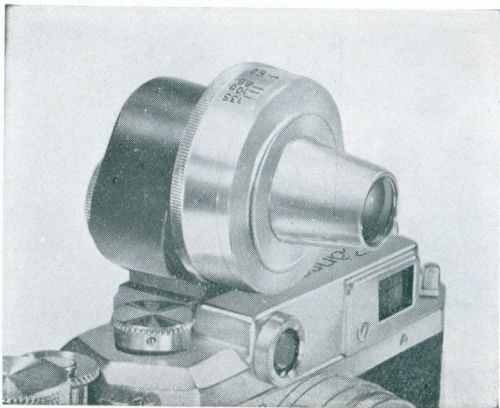
How to eject medium base bulb from  
7" reflector.

EJECT



## Canon AUTO-UP

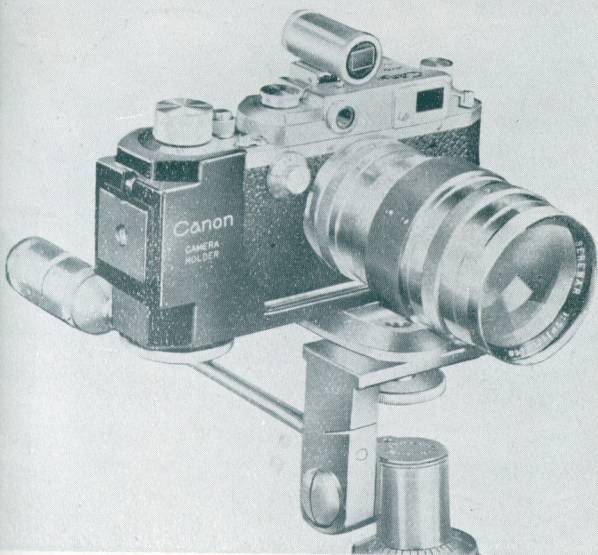
The Canon AUTO-UP is a closeup lens for use with the Serenar  $f : 1.9$ , 50 mm lens. Subject lying between 22 inches and 40 inches can be accurately focused with the rangefinder of the camera. Unscrewing the lens for inserting intermediate ring is not necessary; simply mount the AUTO-UP onto the lens.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



## 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.

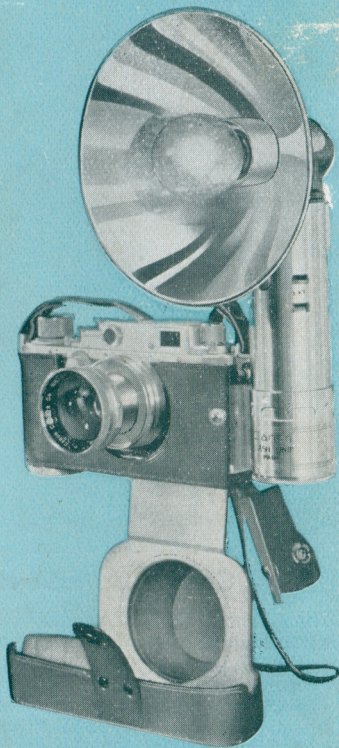
(will be available later)



## 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.