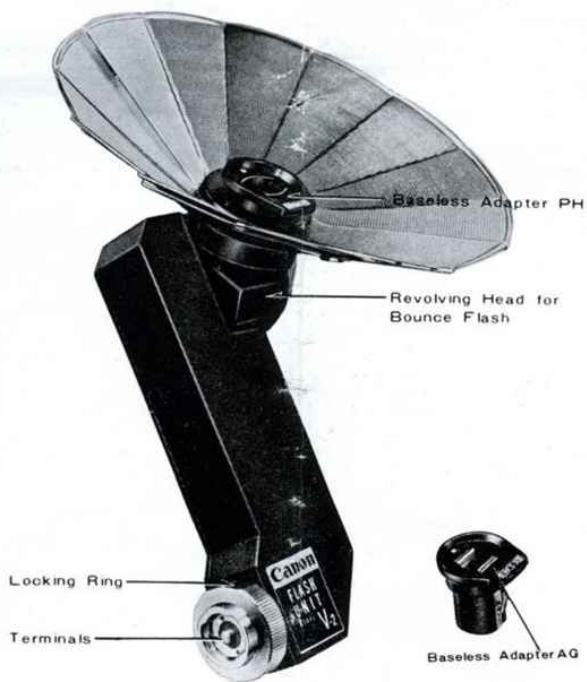


**CANON CAMERA CO., INC.**

312 Shimo-maruko-cho, Ohta-ku, Tokyo, Japan

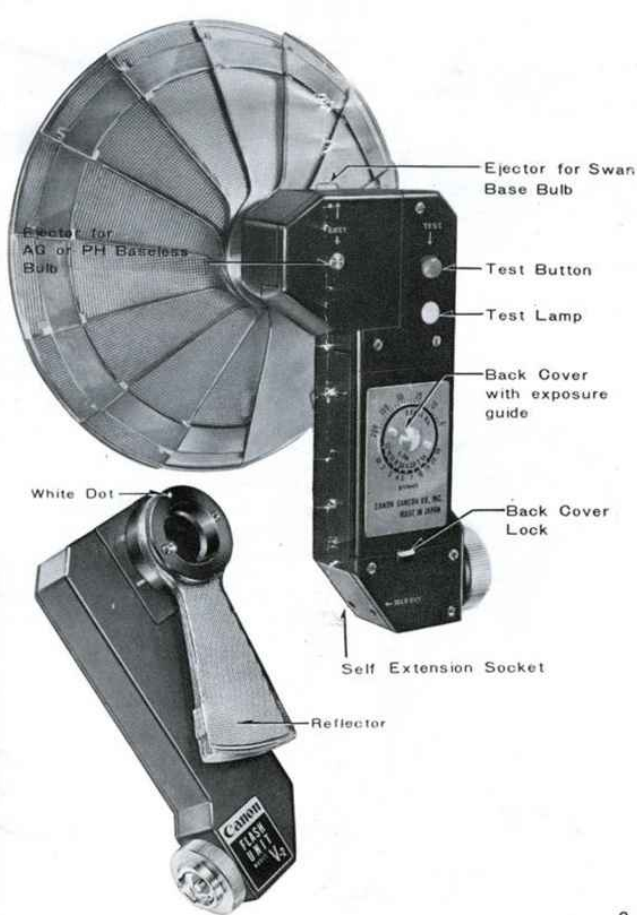


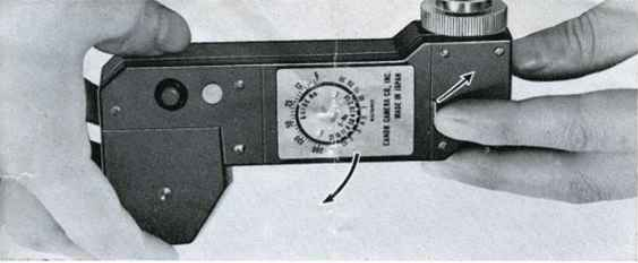
**FLASH  
UNIT V-2**



### CANON FLASH UNIT V-2 :

The Canon Model V-2 Flash is a battery capacitor unit with revolving flash head designed especially for use with Canon Camera Model 7, Canonflex and previous Models VI-T, VI-L and P. The capacitor cell is supplied in the unit. It is actuated by a 22½ volt battery BL-MV-15 (e.g. Eveready No. 505, Bright Star Vo. 22 P. etc.), which should be put into the flash housing.





### LOADING OF BATTERY :

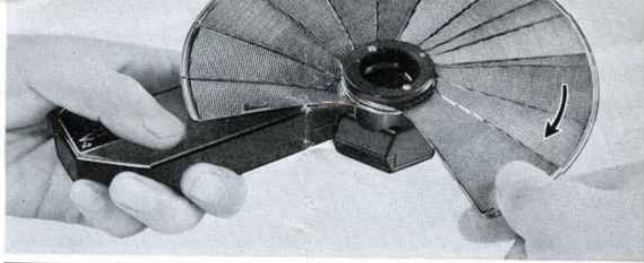
To insert the battery, remove the back cover of the flash housing. Make sure that the plus (+) terminal of the battery and the minus (-) terminal face in the proper position correctly.

If the battery is improperly inserted, the capacitor and battery will burn out. To remove the exhausted battery, first take out the capacitor, otherwise you might damage flash case.

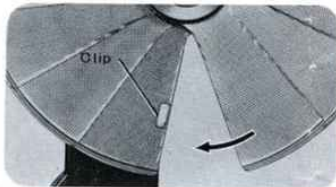


Capacitor

Battery BL-MV15 (22.5V)



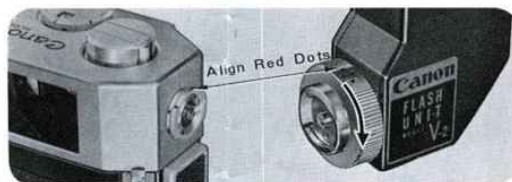
### REFLECTOR :



Fan the reflector clockwise and engage the clip to lock into the correct position.



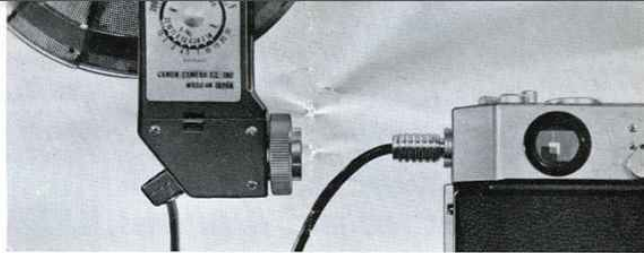
### MOUNTING ON CAMERA :



Align two red dots one on the metal locking ring with the other on the black flash housing. Fit the flash unit onto the flash terminal of the camera body and turn the locking ring clockwise to secure, be sure to align with a red dot on camera socket.

### LENS HOOD :

It is better to use a Lens Hood to obtain clear, sharp picture except in the case of a built-in lens hood type. (25 mm F 3.5, 28 mm F 2.8, F 3.5, 35 mm F 2.8, F 1.8, F 1.5 lenses and Super Canomatic Lens R 50 mm F 1.8)



### EXTENDING THE FLASH UNIT :

To extend the flash unit from the camera for indirect lighting, use Canon Extension Cord Va (15 ft) or Vb (3 ft): one end of which plugs into the camera body and the other at the base of the flash unit.





## HOW TO INSERT AND EJECT FLASH BULBS

### INSERTING AND REMOVING BASELESS ADAPTERS :

1. Baseless adapters are sockets to be used exclusively for baseless flash bulbs. There are two types of baseless adapters, the AG and PH types. Use the type that corresponds with the flash bulb to be used, align white dots and press-in to fix.
2. The baseless adapter can be removed by pulling at it while pressing the ejector for swanbase flash bulb.
3. When the baseless adapter is removed the socket becomes a socket for swan-base flash bulb use.

### INSERTION OF FLASH BULBS:

1. In the case of AG Type



2. In the case of PH Type



3. In the case of Swan-Base



## FLASH SYNCHRONIZATION :

Refer to the table below for the flash synchronization. Set the shutter speed of your camera according to the table for the correct flash synchronization.

MODEL 7	
Type of Flash Bulb	Shutter Speed
"FP" Type	"B" 1/1000—1sec. (except 1/30 th)
"M" Type	"B" 1/15—1sec.
"F" Type	"B" 1/30—1sec.
Speedlight (Electronic Flash)	"X," "B," 1/30—1sec.

### OTHER CANON MODELS

Camera Bulb	Canonflex RP, VI-T, VI-L, P	Canonflex R2000
FP Type	1/1000—1sec. (except 1/30sec.)	1/2000—1sec. (except 1/30, 1/60sec.)
M Type	1/250—1sec. (except 1/30sec.)	1/250—1sec. (except 1/30, 1/60sec.)
F Type	1/30—1sec.	1/30—1sec.

Note: For Electronic Flash Unit, be sure to set the shutter speed dial to X.

Keep the base of the flash bulb horizontal with socket and push in.

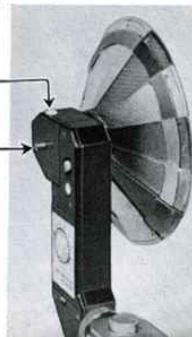
Keep the connecting wires at the base of the flash bulb vertical with the socket and push in.

Remove the adapter and then fit the bulb base keys to the socket grooves and push in.

### EJECTION OF FLASH BULBS :

Swan Base  
Press the ejector on the top side of the flash unit.

AG or PH Baseless  
Press the ejector on the backside of the flash unit.





## EXPOSURE SCALE DIAL

Exposures for flash photography are decided on the basis of the guide numbers designated on the bulb package. On the guide number chart there are guide number for the different film sensitivities and shutter speeds, so select the appropriate shutter speed and find the correct guide number. The lens aperture is then decided on the basis of the following formula:

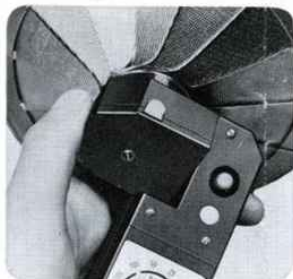
$$\text{Guide Number} \div \text{Distance} = \text{F Number}$$

For this calculation it is convenient to use the exposure scale dial on the back side of the flash unit. For instance, if the guide number 24 is indicated on the guide number chart, set the guide number indicator to number 24 on the dial. Next if the distance is 3 meters, check the F number on the inside ring which is opposite number 3 on the distance scale. This number is 8. Therefore, set the lens aperture at 8.

## DETERMINING "F" STOP



**F = ?**

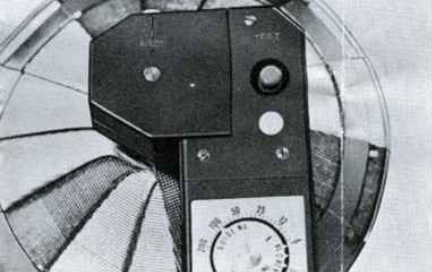


## BOUNCE FLASH

Flash head can be rotated for bounce flash effect to any angle, crick stop for horizontal and vertical positions provided for easy handling.

Flash guide number have to be reduced by half or more for correct exposures.





### FLASH TEST : CIRCUIT TEST :

The Synchronizing Circuit within the camera and the Flash Unit Circuit can be checked with the built-in Test Lamp in the following manner :

1. FLASH SYNCHRONIZER TEST—Mount the flash unit, without bulb, on your camera and release the shutter. If the Test Lamp blinks it proves that the Flash Synchronizing Circuit is in good condition. If a film is in the camera, use the "Controlled Double Exposure" method described in the camera instruction booklet.
2. FLASH UNIT TEST—Keep the flash unit mounted on the camera and insert a flash bulb into the flash unit. Press the Test Button. If the Test Lamp blinks, it means the flash unit is in good order.

You are now sure that the flash unit and the camera are in perfect condition.

In either test, should the Test Lamp not blink check the following points and repeat tests :

- a. See if the flash unit is mounted on the camera properly.
- b. See if the flash bulb is fully inserted into the socket and contact is made properly.

It could be an improper contact due to the shatter proof transparent coating covering the metal base of the bulb. If this is the case, scrape off the coating from the two pins on the metal base. Try another flash bulb.

- c. Open the battery housing and see whether the contact springs are holding the terminals of the battery and capacitor, and the (+) and (-) terminals in the correct position. Try a fresh battery.

If the Test Lamp still does not blink, have your flash unit or the camera checked, whichever may be out of order, by us or one authorized repair agents.

After developing, should you find that the flash lighting is not uniform throughout the entire area of the film frame, the cause might be due to the reason :

- A. A Shutter Speed other than given in the table might have been used for the flash bulb.
- B. Flash bulb not exclusively designed for the focal-plane-shutter might have been used. (Please use FP Type for the best results)