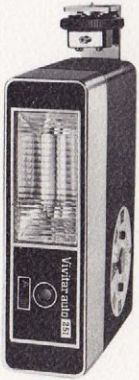
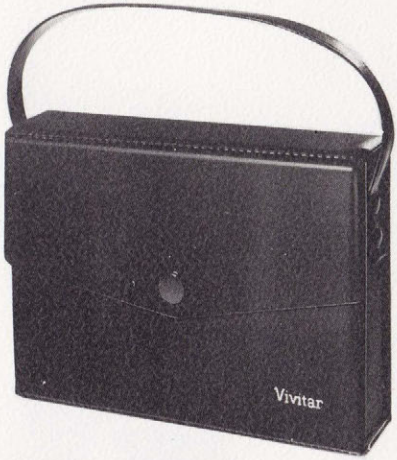
Vivitar

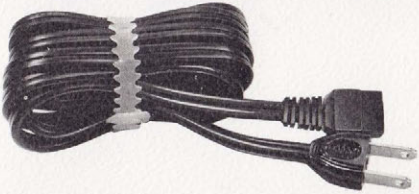
AUTOMATIC

electronic flash

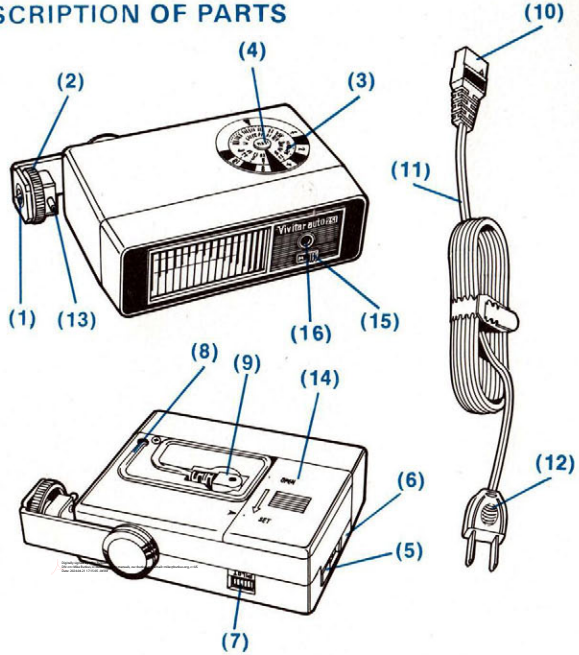
OWNER'S MANUAL







DESCRIPTION OF PARTS



Mike Butkus

(1) Mounting Shoe
(2) Shoe Lock Nut
(3) Exposure Dial
(4) Open Flash Button
(5) On/Off Switch
(6) AC Cord Receptacle
(7) Ready Light
(8) Synchronization Cord
(9) PC Tip Storage Area
(10) AC Plug to Flash Unit
(11) AC Cord
(12) AC Plug to Wall Outlet
(13) Hot Shoe PC Terminal
(14) Battery Case Cover
(15) Auto/Manual Control Switch
(16) Sensor

On-line camera manual library

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Vivitar Model 251 Electronic Flash Unit

Specifications

Manual Operation

Guide Numbers:	
Kodachrome II (ASA 25)	33
Kodacolor X (ASA 80)	55
High Speed Ektachrome (ASA 160)	75
BCPS:	700
Recycle Time:	8 to 13 sec.
Flash Duration:	1/1000 sec.
Angle of Illumination:	60° horizontal, 50° vertical
Color Temperature:	6000° Kelvin
Power Sources:	2 Alkaline Energizer Batteries or 117 Volts AC
Flashes Per Set of Batteries:	125+ Alkaline AA (approx.)
Size:	3⅜" x 2⅝" x 1⅛"
Weight:	8 ounces with batteries
Camera/Electronic Flash Synchronization Connection(s):	Cordless Hot Shoe PC Synch. Cord
Mounting:	Horizontal & vertical with built-in Hot Shoe

Automatic Operation

Flash Duration:	1/1000 to 1/30,000 sec.
F/stop Setting:	
Kodachrome II (ASA 25)	f2.8
Kodacolor X (ASA 80)	f4.5
High Speed Ektachrome (ASA 160)	f8
Operating Distance:	2 ft. to 13 ft.
Sensor Measuring Angle:	15°

Sold Complete with Compartment Case and AC Cord.

TABLE OF CONTENTS

BEFORE YOU START...

This is a Capacitor

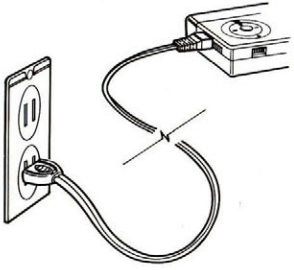
THIS IS WHAT IT DOES The vital function of the capacitor in your new Vivitar Electronic flash unit is to draw a small amount of electrical power from the batteries, store it, and discharge this energy to the flash tube in 1/1000th of a second. Then, in a matter of a few seconds, store up enough energy to fire again. The reliability and consistent performance of your flash unit is based upon the "capacity" of this marvelous electrical device.

"FORM" THE CAPACITOR

The capacitor in a new flash unit or one that has not been used for a long period of time becomes "depolarized" and must be "reformed." This simply means that it has temporarily lost some of its ability to store electricity. This is characteristic of all capacitors and the reforming process takes just a few seconds. Here's how to do it:

(1) Push the on-off switch to the off position and insert the smaller end of the AC cord in the receptacle.

(2) Plug the other end into a 117-Volt AC wall outlet.



(3) When the ready light glows, fire the flash gun by pressing the blue open flash button. Repeat this about 10 times each time the ready light glows. This procedure helps "reform" the capacitor and bring it up to maximum power. You should periodically flash your unit on AC (this saves draining the batteries) or simply leave it plugged-in for one or two hours each month.

After you're finished shooting you should turn the unit off and store it with the ready light glowing. Storing the unit with the capacitor fully charged prolongs the "form" and helps you get more flashes from your batteries. If you don't use your unit regularly, the procedures we have described above will help make certain that your new unit will be ready to use when you need it.

REMOVE THE BATTERIES IF UNIT WILL BE STORED FOR LONG PERIOD OF TIME

YOUR FLASH UNIT WILL OPERATE TWO WAYS

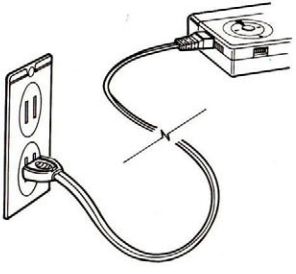
2 AA Alkaline Batteries

CAUTION!

Beware of bargains! Use of inferior batteries can damage your unit by leakage and void your guarantee. Best results and performance to specifications are based on the use of AA Alkaline cells.

117 Volts AC, Household Current

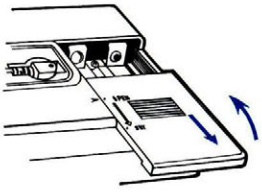
AC operation is handy if your batteries are low on power. Place the *On-Off* Switch in the "Off" position and plug the AC cord into the unit and 117 wall outlet. When the ready light glows, the unit is ready to use.



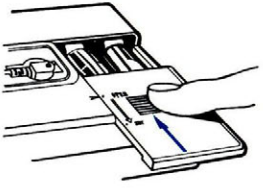
IMPORTANT: The use of other sources of power in the AC mode other than 117 Volts AC will void the Guarantee and cause damage to the unit.

BATTERY LOADING

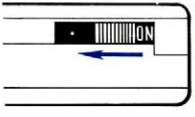
1. Slide the battery case cover (14) until the "open" position is directly opposite the arrow on the main body. Then remove the cover by lifting directly upward.



2. Insert two 1.5V Penlight Batteries in the compartment, noting correct polarity.



3. To replace cover, set the "open" position directly opposite the arrow on the main body, and slide the cover forward until the arrow on the body is directly opposite the "set" position. The unit is now ready for use.

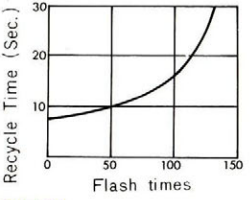


4. Place switch (5) to the "On" position.
As soon as the ready light glows, the unit is ready to be flashed.

Be sure to switch the unit to the "Off" position immediately after shooting, in order to preserve battery life.

Whenever fresh batteries are placed in the unit, the flash recycling time should be approximately eight seconds, however the recycle time becomes longer as the batteries are being used.

The graph below shows the relationship between the number of flashes and recycle time.



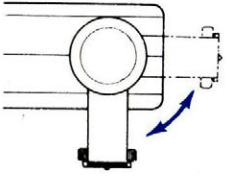
CHANGING BATTERIES

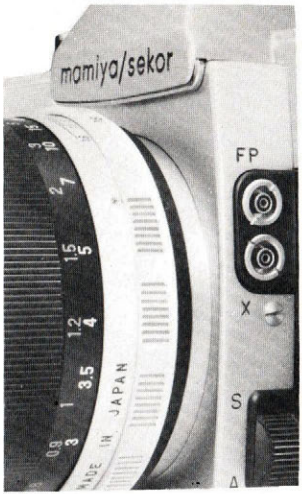
The batteries should be replaced when the recycling time exceeds thirty seconds, or when no sound can be heard in the unit during battery operation.

ATTACHING TO CAMERA

1. Selecting vertical or horizontal operation.

- If the camera being used is a half frame 35mm camera, use the vertical position.
- For full frame 35mm cameras and Instamatic 126 type cameras, use the horizontal position.





2. Insert the shoe of the flash unit into the accessory clip of the camera.

3. Plug synchronization cord into the flash terminal on the camera.

- Terminal used should be marked "X".
- If your camera is provided with an "M-X" switch, set it to the "X" position.

4. If your camera is supplied with a hot shoe terminal, plug the PC tip (9) into the hot shoe PC connector (13). The unit will then be fully synchronized to the camera through the contacts in the shoe.

SET CORRECT SHUTTER SPEED

Your electronic flash unit fires in 1/1000th of a second or less. The duration of this flash is so brief that manufacturers of standard focal plane shutters specify the ONE AND ONLY speed at which the shutter will be fully open when the flash fires. (A focal plane shutter consists of two blinds which move together from one set of rollers to another, forming a slit between them. The width of this slit and the amount of light permitted to strike the film is determined by the interval, or delay, between the travel time of each blind.) At any other shutter speed other than that specified by the camera manufacturer for electronic flash you would catch one of the blinds traveling across the film plane. That's why you should remember to use the correct flash synch cord outlet and shutter speed designated by the manufacturer of your camera.

Cameras having leaf or rotary type shutters (either electronic or mechanical) may use any shutter speed that is required by the picture taking situation.

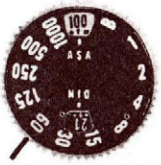
GET READY TO SHOOT...

AUTOMATICALLY . . .

1

Set shutter speed to 1/60, 1/30, or "X"—

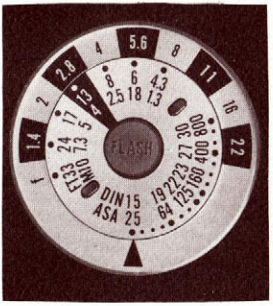
IMPORTANT Refer to your camera's instruction book for specified speed setting for electronic flash.



2

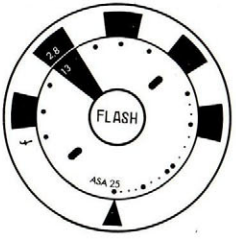
Set ASA speed of film on Calculator dial. (The ASA of the film can be found in the data sheet that comes packed with the film.)

EXAMPLE: If Kodachrome II is used set ASA mark to 25



3

Read the f/stop indicated opposite the red triangle. Set your camera lens to this f/stop.

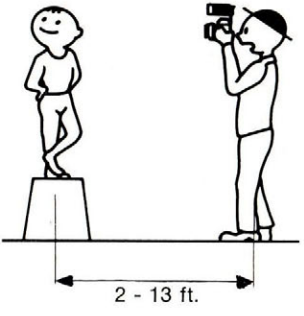


4

Set Auto/Manual switch to auto position.

5

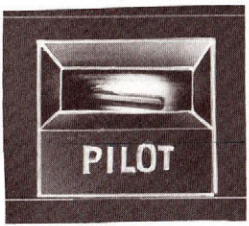
Focus your camera and shoot. The Vivitar 251 will automatically produce a perfect exposure of the subject between 2 to 13 feet from flash.



YOU'RE READY

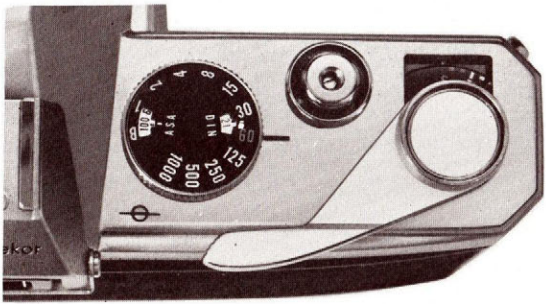
1

YOUR READY LIGHT IS ON



2

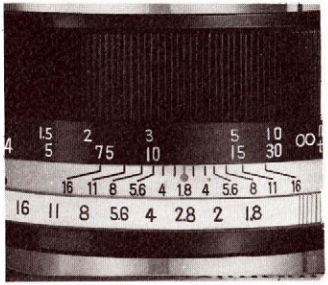
YOUR SHUTTER IS COCKED



TO SHOOT...IF:

3

THE CORRECT APERTURE HAS BEEN SET ON YOUR LENS



4

YOUR PC CORD IS PLUGGED IN

MANUAL OPERATION

When you wish to use your flash unit in the manual mode (for example, if you wish to take pictures beyond the auto flash range) —

1. Set the Auto/Manual switch to manual mode.
2. Set ASA speed of film on calculator dial.
3. Focus your camera and estimate the distance from flash to subject.
4. Set your camera lens aperture to the f/stop indicated on the calculator dial opposite the flash to subject distance.

   Example: If you are 12 feet from the subject, set the lens aperture on your camera to f2.8.

AFTER YOU'RE FINISHED SHOOTING

BATTERIES

If you're not going to use your flash unit for several weeks or more, *remove the batteries*. This is a "just-in-case" precaution in the event that the batteries leak.

LET IT GLOW!

Do not discharge (flash) the unit before putting it away. *It's better to leave the ready light glowing*. The next time you use it, your flash unit will "reform" faster and this procedure will insure long life of your equipment.

HELPFUL HINTS

SHADOWS To avoid harsh shadows in your pictures, position your subjects at least 3 to 4 feet from walls or use "bounce flash."

BOUNCE FLASH Soft, subtly lighted pictures which most closely resemble open shade lighting conditions can be achieved by "bouncing" the light from your flash unit off a ceiling that is not too high. Aim the flash gun at the ceiling (you'll have to remove the flash from your camera) and allow an increase of about two full "f" stops to compensate for the loss of light intensity under average conditions.

MIRRORS Never shoot flash pictures straight into mirrors, glass, or other highly reflective surfaces. Reflections will result and cause poor pictures. In situations like this stand at an angle so that any reflections will be directed away from the camera. *Hint:* If you can't see yourself in the mirror, you're safe.

FLASH FILL Outdoors, electronic flash is used extensively by professionals to "fill-in" shadow areas. It softens hard shadows resulting from bright sunlight and is particularly useful with color film which can only record a limited contrast range. There are times when the sun disappears, but the picture calls for sunlight. The electronic flash can then be used as the main light and very successfully simulate sunlight.

GROUP SHOTS Don't lose some of your friends in the shadows! Be sure that the whole group is about the same distance from the camera. If you're not careful people closest to the camera will be "washed-out", and those furthest away will be dark because not enough light reached their spot in the picture.

MULTIPLE FLASH When taking portraits or pictures of large groups, many photographers use more than one flash to distribute the light more evenly. The Vivitar SL-1 slave unit will enable any number of remotely positioned flash units to fire automatically in synchronization with the main flash on the camera. (See your dealer for a demonstration.)

STOP-ACTION The flash duration of the Vivitar 251 varies from 1/1000 sec. to about 1/30,000 sec. This extremely fast flash duration can be used advantageously to obtain very creative pictures when the flash is set to the Auto mode and is close to the subject being photographed (approx. 2 ft.).

Pictures of balloons bursting, glass breaking or shattering, water splashing and other motion stopping effects can easily be achieved.

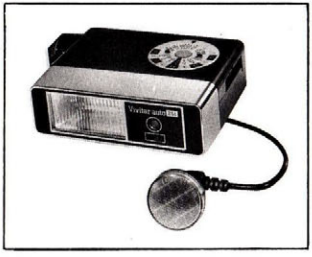
For proper synchronization, set camera to "B" operation, photograph your subject in a dark area, and short circuit the PC contacts by using switches made of aluminum

foil or other small pieces of wire in such a manner that contact will be made at the moment it is most desirable to obtain an exposure.

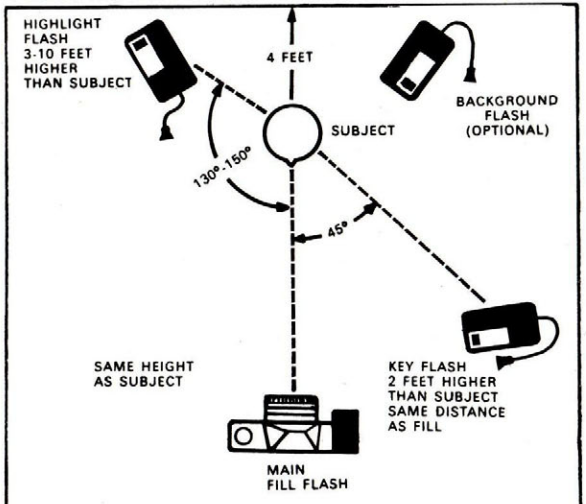
Vivitar SL-1 Wireless Slave Trigger for Electronic Flash

Attaches to Standard PC tip of any Electronic Flash Unit

The Vivitar Model SL-1 Slave Unit is a unique self-contained solid state light sensitive slave triggering device that will enable you to fire a number of remotely positioned electronic flash units in perfect synchronization to the prime electronic flash attached to the camera.



EXAMPLE OF MULTIPLE FLASH PHOTOGRAPHY USING VIVITAR SL-1



Use calculator dial of fill flash to determine exposure. All flash units must have equal output.

RELIABILITY

The most important feature of any electronic flash unit is its dependability. The modular construction and solid state circuit design of Vivitar electronic flash units, plus the strong emphasis on quality control, has earned Vivitar a reputation for reliability.

OTHER VIVITAR PRODUCTS

VIVITAR LENSES AND OPTICAL ACCESSORIES
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VIVITAR ENLARGERS
VIVITAR MOVIE CAMERAS
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