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Vivitar 2500



Owner's Manual • Mode d'emploi Manual del propietario _{Gebrauchsanleitung}



About Your Flash

Your new Vivitar 2500 Zoom Thyristor Electronic Flash offers you an outstanding combination of compact size and system-flash versatility. With this small, portable flash unit you can:

- change the angle of coverage to match the viewing. angles of 28mm, 35mm, 50mm, and 85mm lenses:
- · use automatic bounce flash for soft, even lighting;
- · pre-test auto flash exposures using the Sufficient Light Indicator:
- choose from four different power sources;

and with the special Autowinder Setting, you can even take flash pictures as fast as two framesper-second.

Before moving on to the instructions, we suggest you take a few minutes to review the following description of features. Once you're familiar with your flash you'll be better able to use it to its full potential. You'll also find it's not only simple to use, but fun.

Description of Features

- Zoom/Bounce Flash Head, Has three flash. coverage positions: Wide (35mm), Normal (50-55mm), and Telephoto (85-105mm); and three bounce positions: 45°, 65°, and 90°.
- Battery Compartment Cover.
- Auto Thyristor Sensor. Controls flash duration for proper exposure by automatically shutting off flash tube when enough light has been reflected back from the subject. Thyristor circuitry increases battery life and shortens recycle times by saving energy not needed for proper exposure.
- Open Flash Button. For triggering flash independent of camera shutter. Can also be used for pre-testing auto exposures via the Sufficient Light Indicator.
- AC Adapter Receptacle. For attaching optional Vivitar SB-4 AC Adapter.

- www.orphancame 5. Exposure Guide. Shows film speed, recommended f-stop settings, zoom head setting, and auto exposure ranges in one convenient location.
 - Bounce Position Indicator.
 - 8 Mode Selector Switch. Offers choice of two automatic exposure modes (RED and BLUE), full power manual (M), and an Autowinder Setting (Δ) .
 - 9 Sufficient Light Indicator. Glows green when flash. output in auto exposure modes is sufficient for proper exposure.
 - 10 Mounting Foot.
 - 11 PC Cord Socket.
 - 12 On-Off Switch.
 - 13 Ready Light. Glows red when flash is ready for firing.
 - 14 Locking Lever. For locking flash onto hot shoe of camera.
 - 15 ASA/DIN Film Speed Scale.
 - 16 Autowinder Exposure Index Mark.
 - 17 Film Speed Selector Switch.
 - 18 Aperture Scale.
 - 19 Auto f-stop Indicators (red and blue dots).
 - 20 Auto Range Indicators. Indicate minimum and maximum auto exposure ranges.
 - 21 28mm Auto Range Indicators (red and blue squares). Indicate maximum auto exposure range when using 28mm Wide Angle Panel.
 - 22 Distance Scale. Moves with change of Zoom Head setting to indicate exposure ranges in feet (FT) and meters (M).
 - 23 Eyelight/28mm Wide Angle Panel. When in front of flash lens, widens flash coverage for 28mm lenses. When angled above flash lens, fills in shadows caused by overhead bounce lighting and adds a catchlight to the eves.

- Retaining Clip. For attaching Eyelight/28mm can't her Wide Angle Panel to Zoom/Bounce Flash Head.
- 25 PC Cord. For using flash off-camera or for attaching flash to cameras not having a hot shoe.

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Basic Instructions

1

Insert the Batteries

Open the Battery Compartment by sliding the Battery Compartment Cover ② back toward the rear of the flash unit. Insert two 1.5 volt AA alkaline batteries, following the position markings on the inside of the Battery Compartment. Replace the Battery Compartment Cover.

To get the most out of your flash and batteries, always turn the unit off right after you've finished using it. When storing your flash, remove the batteries to prevent possible damage from battery corrosion.

You should replace the batteries when the Ready Light (3) fails to glow after 30 seconds or when you

can't hear the "whining" sound when the flash is switched on.

Optional Power Sources

Your Vivitar Model 2500 allows you the flexibility and convenience of using power sources other than the standard AA alkalines. These optional power sources are designed for applications where you need to have an extremely high number of flashes per set of batteries and/or short recycle times.

- Nickel-Cadmium batteries (NiCads) NiCads are rechargeable and provide a faster recycle time than alkalines. Several brands of NiCads are available along with supplementary charging units.
- Vivitar SB-4 AC Adapter This adapter allows you to use standard electrical outlets as an optional and economical power source.
- Vivitar HVP-1 High Voltage Battery Pack Worn over the shoulder or on the belt, this battery pack allows you to use a standard 510V battery for extremely fast recycling and over 1000 full power flashes
- Vivitar HVP-2 High Voltage Battery Pack Similar to the HVP-1 but allows use of 8 "C" size alkaline or NiCad batteries, or the Vivitar NC-4 NiCad Battery Pack.

With any power source, please do not fire your flash more than 25 times in rapid succession or you may damage it.

2

Form the Capacitor

The capacitor stores energy from the battery and discharges it to the flash tube when the flash unit is triggered. When a flash unit is new or hasn't been used for more than 30 days, the capacitor is less able to store enough energy for a proper exposure. "Form" the capacitor once a month for maximum operating efficiency.

To form the capacitor:

- A Set the Mode Selector Switch (3) to the Manual (M) position.
- B Slide the On-Off Switch @ to the red "On" position. C Fire the unit 5 times by pressing the Open Flash Button ④, allowing the Ready Light ® to glow for

about 10 seconds after each flash.

D Turn the unit off.

3

Mount the Flash

Insert the Mounting Foot ① into the hot shoe on your camera, making sure the Locking Lever ② is to the left. Lock the Mounting Foot onto your hot shoe by pushing the Locking Lever to the right. If your camera doesn't have a hot shoe, connect the PC Cord ③ between the PC Cord Socket ① on your flash and the "X" synchronization terminal on your camera.

4

Set the Shutter Speed

Set your camera to the correct shutter speed for synchronization with electronic flash; generally 1/60 second. (Refer to camera instructions.)

5 Set the Zoom/Bounce Head

Zoom Position

Extend or retract the Zoom/Bounce Flash Head ① to the position closest to the focal length of the camera lens you're using. For 35mm lenses, set the Flash Head to the "W" (wide) position. For 50–55mm lenses, set the Flash Head to the "N" (normal) position. For 85–105mm lenses, set the Flash Head to the "T" (telephoto) position.

A 28mm Wide Angle Panel (3) is included with your Model 2500 Flash for use with 28mm lenses. Place the Eyelight/28mm Wide Angle Panel over the front of the Flash Head with the Retaining Clip (3) pointed downwards. Set the Flash Head in the "W" (wide) position.

Bounce Angle

For normal direct flash, place the Zoom/Bounce Head in the 0° position. The Flash Head can also be adjusted to 45°, 65°, or 90° for bouncing light off a reflective surface (such as a white ceiling) to create softer lighting on your subject. Specific instructions on bounce flash lighting are covered on page 10 of this manual.

6

Determine the Exposure Setting

Automatic Operation

A Set the thin white index line on the Film Speed Selector Switch to the ASA/DIN speed of the film you're using. Intermediate settings are shown on the chart below.

FILM SPEED CHART

ASA	800															
DIN		29	28	27	26	25	24	23	22	21	20	19	18	17	16	15
SCALE	800	ı	1	400	1	ı	200	ı	1	100	ı	64	ı	ı	1	25

B There are two automatic operating modes: BLUE and RED. The BLUE mode gives you the most depth-of-field (foreground/background sharpness) and an automatic operating range of 4 to 20 feet (1.2 to 6.0 meters) with the Flash Head in the "N" (normal) position. The RED mode gives you less depth-of-field and the maximum operating range of 8.3 to 40 feet (2.5 to 12 meters) with the Flash Head in the "N" position. Set the Mode Selector Switch ® to the color of the mode you wish to use.

C If you'll be using the BLUE mode, set your camera lens to the f-stop located above the *blue* Auto f-stop Index Mark ^(a). If you'll be using the RED mode, set your camera lens to the f-stop located above the *red* Auto f-stop Index Mark.

Example: You're using ASA 100 (DIN 21) film. If you choose the BLUE mode you would set your lens to f4.0. If you choose the RED mode you would set your lens to f2.0. Note that your maximum distance for automatic operation is located on the Distance Scale , directly below the recommended f-stop. Your minimum operating distance is located above the right end of the Auto Range Indicators ⊘ (See Photo A.) The 28mm Auto Range Indicators ⊘ apply only to the distances shown when the Flash Head is in the "W" (wide) position.

Manual Operation

You may wish to use your flash in the "M" (manual) mode for maximum light output and special applications such as flash fill and multiple flash lighting.

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A Set the thin white index line on the Film Speed Selector Switch (a) to the ASA/DIN speed of the film you're using. For intermediate settings refer to the Film Speed Chart on page 7 of this manual.

B Set the Mode Selector Switch ® to the "M" (manual) position.

C Focus on your subject and note the flash-to-subject distance. Locate this approximate distance on the Distance Scale (2). If you're using the flash off-camera with a long PC Cord, the focus distance may not be the flash-to-subject distance. In any case, be sure to use the flash-to-subject distance for calculating exposure.

D Set your lens to the f-stop located on the Aperture Scale (®), directly above your approximate flash-to-subject distance.

Example: You're using ASA 100 (DIN 21) film and the Flash Head is in the "N" (normal) position. If the flash-to-subject distance is 10 feet (3 meters) you would set your lens to f8. (See Photo A.)

The Flash Head must be in the "W" (wide) position when you're using the 28mm Wide Angle Panel. You must also open your lens one full stop wider than the f-stop recommended on the flash Aperture Scale to compensate for the fact that the 28mm Wide Angle Panel spreads the light over a wider area. For example, if the recommended f-stop is f5.6, set your lens to f4.

You can also calculate the correct f-stop by using the guide number formula:

Guide Number ÷ Flash-to-Subject Distance = f-stop.

A Guide Number Table is printed on page 13 of this manual.

Example: You're using an ASA 100 (DIN 21) film. The Flash Head is in the Wide position and you're using the 28mm Wide Angle Panel. The Guide Number Chart shows the guide number to be 46 (14). If the flash-to-subject distance is 10 feet (3 meters) you would calculate: $46 \div 10 = 4.6$ (or $14 \div 3 = 4.6$). You would then set your lens to the nearest f-stop; i.e., 14.5.

You're Ready to Shoot

Turn the flash on by switching the On-Off Switch @ to the red "On" position. When the red Ready Light ® reaches full brilliance, you're ready to start taking electronic flash pictures.

Additional Information

Using the Sufficient Light Indicator

When you're using your flash in either of the two automatic exposure modes, the green Sufficient Light Indicator (a) will light to indicate whether or not there was enough light for a proper exposure. If the Sufficient Light Indicator doesn't light, you should either change auto modes or move closer to your subject.

You also have the option of pre-testing the flash exposure by using the Open Flash Button (a). Simply point the flash unit toward your subject as if you were taking a photograph and press the Open Flash Button. If the Sufficient Light Indicator lights, you have enough power for a proper exposure.

Using the Autowinder Setting

The Autowinder Setting reduces the manual output of your flash to 1/8 power (-3 stops). Depending on battery condition, the unit will deliver up to 5 flashes in sequence at 2 frames-per-second. Allow your flash 30 seconds to recycle before every sequence. (Note: The Sufficient Light Indicator will light when you're using the Autowinder Setting. Disregard it.) To use the Autowinder Settino:

A Set the Mode Selector Switch 8 to the " Δ " Autowinder Setting.

B Set the "Δ" on the Film Speed Selector Switch ® to the ASA/DIN speed of the film you're using. The Film Speed Selector Switch can be set no lower than ASA 100 (DIN 21) when using the Autowinder Setting.

C Focus on your subject and note the flash-to-subject distance. Locate this approximate distance on the Distance Scale ②.

D Set your lens to the f-stop located on the Aperture Scale ®, directly above your approximate flash-

to-subject distance. If you're using the 28mm Wide Angle Panel the Flash Head must be in the "W" (wide) position and your lens must be set one stop wider than the recommended f-stop.

Example: You're using ASA 100 (DIN 21) film and the Flash Head is in the "N" (normal) position. If the flash-to-subject distance is 5 feet (1.5 meters) you would set your camera lens to f5.6. (See Photo B.) If the Flash Head is in the "W" (wide) position and you're using the 28mm Wide Angle Panel, you would set your lens to f3.5 (one stop wider than the recommended f-stop).

Bounce Flash

Instead of illuminating your subject directly, you can direct the Flash Head up toward the ceiling. The light will then bounce down and softly illuminate your subject.

- A Set the Zoom/Bounce Flash Head to the "N" (normal) position and tilt it upwards so that it points midway between yourself and your subject. A white ceiling is best. Avoid colored ceilings when using color film.
- **B** Follow the normal procedure for setting your flash to an auto exposure mode and your camera to the proper f-stop. (See page 7.) It's a good idea to pre-test the flash exposure by using the Open Flash Button and Sufficient Light Indicator.

Using the Eyelight Panel

The Eyelight Panel (3) is designed to add a pleasing catchlight to your subject's eyes and fill in shadows caused by overhead bounce lighting. Place the Retaining Clip (3) on the Panel over the top of the Flash Head and raise the Panel so that it faces your subject. (See Photo C.)

As you photograph by bounce light, a portion of the light will be directed forward. No exposure compensation is necessary.

Flash Fill

Your Vivitar Model 2500 Flash can also be used to lighten harsh shadows caused by direct sunlight. By reducing the contrast between the shadows and

- to-subject distance. If you're using the sum to sum the lead must be in the "W" (wide) and Page 1 to Floor Head must be in the "W" (wide) are not not pleasing photograph. To use your flash for shadow fill:
 - A Set the Film Speed Selector Switch on the flash to the ASA/DIN Speed of the film you're using.
 - **B** Set the Mode Selector Switch to the "M" (manual) position.
 - **C** Set your camera's shutter to the correct speed for synchronization with electronic flash; generally 1/60 second. (Refer to camera instructions.)
 - **D** Using your camera's exposure meter, determine the correct f-stop setting for daylight exposure. If there's too much light *do not* increase the shutter speed. You may have to use a slower film.
 - **E** Adjust the flash-to-subject distance so that your flash will deliver two stops less light than the daylight exposure. This will be just enough light to lighten the shadows without making the photograph appear unnatural.

Example: Using ASA 100 (DIN 21) film, with your shutter set to 1/60 second, your camera meter recommends setting the lens to f16. You would want the flash to put out two stops less light than the recommended daylight exposure, i.e., f8. Assuming the Zoom/Bounce Head is in the "N" (normal) position, you would look below f8 on the flash Aperture Scale and note that the proper flash-to-subject distance (located on the Distance Scale) is 10 feet (3 meters). Place the flash so that it will be 10 feet (3 meters) away from your subject and you'll be set for a proper flash fill exposure.

Now that you've familiarized yourself with the features and operation of your Vivitar 2500 Zoom Thyristor Electronic Flash, why not shoot a few test rolls? Experiment; the more you use your flash, the more you'll enjoy using it.

Once you've used your flash for a while, you may want more in-depth information on flash lighting techniques. There is a wealth of information currently available, and we suggest you check with your local photo dealer, bookstore, or library for books on electronic flash.

Specifications or phancameras.com

Power Source	Number of Flashes*	Auto Recycle Times**
2 AA alkaline	140	0.5-9 seconds
2 AA NiCad	55	0.5-7 seconds
SB-4 AC Adapter	unlimited	0.5-4 seconds
HVP-1	1800	0.5-1 second
HVP-2 (8 "C" alkaline)	1100	0.5-3 seconds
HVP-2 (8 "C" NiCad)	400	0.5-2 seconds
HVP-2 (Vivitar NC-4)	475	0.5-2 seconds

^{*}Number of flashes in auto modes will usually *greatly* exceed number in manual, depending on flash-to-subject distance, room reflectivity, and auto f-stop used.

Flash Duration —

Manual: 1/2,000 second

Automatic: 1/2,000-1/30,000 second

Angles of Illumination

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Focal Length	Horizontal	Vertical
Extra Wide (28mm)	70°	53°
Wide (35mm)	60°	45°
Normal (50mm)	46°	34°
Telephoto (85mm)	32°	23°

Color Balance: 6000°K (daylight)

Camera/Flash Sync Connections: Hot Shoe, PC Cord

Dimensions (head in 0° position): 114mm H × 76mm W × 75mm D

 $(4\frac{1}{2}" H \times 3.0" W \times 3.0" D)$

Weight (w/o batteries): 209 g (7.4 oz)

Accessories included: Eyelight/28mm Wide Angle

Panel, PC-1 Shutter Cord

Accessories available: SB-4 AC Adapter, HVP-1 Battery Pack, HVP-2 Battery Pack, SL-2 Remote

Flash Trigger, PC-31 Shutter Cord Specifications subject to change without notice.

^{**}Recycle times increase as batteries drain.

Manual Operation Guide Numbers

(ASA-Feet)

	ASA Film Speed	25	64	80	100	125	160	200	400
Zoom	Extra Wide (28mm)	23	36	41	46	52	58	64	92
Flash	Wide (35mm)	33	52	59	66	74	84	94	132
Head Position	Normal (50mm)	40	64	72	80	90	100	115	92
	Telephoto (105mm)	47	74	82	94	105	117	130	188

(DIN-Meters)

	DIN Film Speed	15	19	20	21	22	-23	24	27
Zoom	Extra Wide (28mm)	7	11	13	14	16	18	20	28
Flash	Wide (35mm)	10	16	18	20	24	26	28	40
Head Position	Normal (50mm)	12	19	22	24	28	31	34	48
	Telephoto (105mm)	14	23	26	29	32	26	40	57

Automatic f-stop Settings and Corresponding Ranges

Film Speed								Zoom Flash Head Position					
ASA DIN	25 15	64 19	80 20	100 21	125 22	160 23	200 24	400 27	Extra Wide 28mm	Wide 35mm	Normal 50mm	Tele 105mm	
RED Mode f-stop	1.0	1.4	2.0	2.0	2.0	2.8	2.8	4.0	5-23 ft. (1.5-7 m)	6.6-33 ft. (2.0-10 m)	8.3-40 ft. (2.5-12 m)	10-47 ft. (3-14 m)	
BLUE Mode f-stop	2.0	2.8	4.0	4.0	4.0	5.6	5.6	8.0	2.3-11.5 ft. (0.7-3.5 m)	3.3-16.5 ft. (1.0-5 m)	4-20 ft. (1.2-6 m)	5-23 ft. (1.5-7 m)	