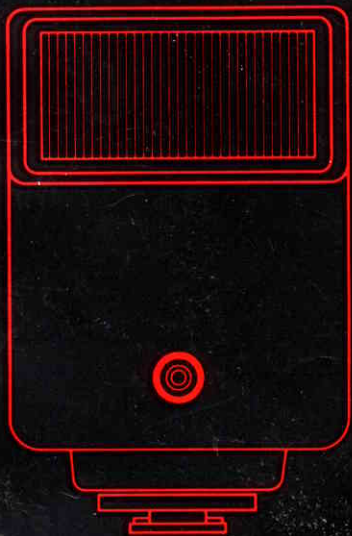
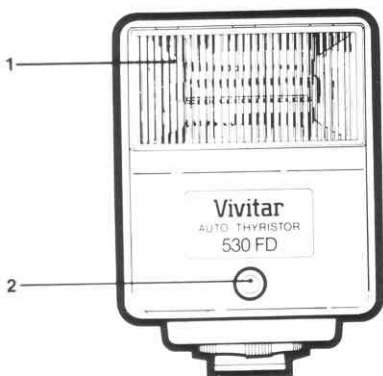


Vivitar



530 FD N



3 _____

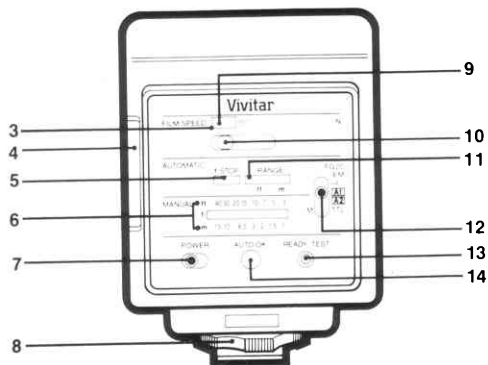
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Ph. 2083

DESCRIPTION OF CONTROLS

- 1 Flash Head/Reflector
- 2 Light Sensor
- 3 Film Speed Window
- 4 Battery Compartment Cover
- 5 Auto f/Stop Window
- 6 Manual f/Stop and Distance Scales
- 7 Power ON/OFF Switch
- 8 Mounting Foot with Locking Wheel
- 9 ISO Film Speed Scale
- 10 Film Speed Selector
- 11 Auto Exposure Range Window
- 12 Mode Selector
- 13 Flash Ready Light/Flash Test Button
- 14 Auto OK Indicator

NOTE:

This Vivitar flash is available in 3 separate models by camera brand and is fully dedicated to most popular SLR cameras. The three models are C/R for Canon and Ricoh, N for all Nikon models, and M/P/O for Minolta, Pentax and Olympus. "C/R," "M/P/O" or "N" is imprinted on the back of your flash. **Make sure the flash model you have matches the camera brand you are using.**

HERE IT IS

This Vivitar flash has been designed to offer the easiest possible use in obtaining quality flash

pictures. This section of the instruction manual is designed to show you the basic operation of this unit. Detailed instructions for use with your camera model follow this basic section.

HOW TO USE IT

To prepare the unit for operation, take a moment to familiarize yourself with its controls and indicators. Please turn to the Description of Controls page and fold out the illustration section (inside front cover). Locate all the controls, indicators and other features that are called out, so you will be able to find them easily when they are referred to in the instructions.

Please note that the rear of the flash is divided into 4 separate areas to make your flash easy to use.

Area 1 is for **Film Speed** setting and has the Film Speed Window (3) and the Film Speed Selector (10).

Area 2 is for **Automatic** operation and has the A1 or A2 f/stop Window (5), the Auto Exposure Range Window (11), and the Mode Selector (12).

Area 3 is basically for **Manual** operation and has the Manual f/stop and Distance Scales (6). This area is also used for TTL operation to indicate maximum TTL auto exposure distance.

Area 4 has the Power ON/OFF Switch (7), the Auto OK Indicator (14), and the Flash Ready Light/Flash Test Button (13).

Now proceed as follows:

1. INSTALL THE BATTERIES

Open the Battery Compartment Door (4) by sliding it in the direction of the arrow. Install four fresh, size AA alkaline or fully-charged NiCad batteries, being sure that the + and - polarity markings correspond to the markings inside the battery compartment. Push down on the batteries with your thumb and slide the Battery Compartment door closed.

2. MOUNT THE FLASH ON THE CAMERA **IMPORTANT:**

When attaching or removing the flash from the camera, ***always*** have the Power ON/OFF Switch (7) in the lefthand, 'OFF' position (no red showing) to prevent the possibility of damage to your camera.

Slide the unit onto the camera's hot shoe. Turn the knurled lock wheel in the direction of the arrow to insure secure mounting to the camera.

3. ENERGIZE UNIT

Slide the Power ON/OFF Switch (7) to the righthand, 'ON' position (red showing) to energize the unit. The Ready Light (13) will glow when the unit is ready to be used.

4. SELECT FILM SPEED

Slide the Film Speed Selector (10) to the right or left until the film speed displayed in the Film Speed Indicator Window (9) matches the film speed you are using in your camera. FAILURE TO SET THE CORRECT FILM SPEED MAY

RESULT IN IMPROPER EXPOSURES WHEN THE UNIT IS USED ON SOME DEDICATED CAMERAS.

5. SELECT DESIRED FLASH MODE

Try the four settings of the Mode Selector (12). In the A1 and A2 settings, automatic exposure will be determined by the flash unit sensor and an f/stop number will appear in the Auto f/Stop Window (5). Set this f/stop on your camera lens. (Note: certain cameras may do this automatically.) The corresponding Auto Range will appear in the Auto Exposure Range Window (11) and indicates the distance range (in feet and meters) over which this setting will give good exposures.

Setting A1 will provide the greatest auto range, from 6.5-30 ft. (2-9 m.), with a relatively shallow zone of sharp focus (depth of field). Setting A2 provides an auto exposure range from 3.3-15 ft. (1-4.5 m), with an increased zone of sharp focus. For fastest recycle time and more flashes per set of batteries, we recommend using position A1 wherever possible. Of course, your lens must be able to be set at the corresponding auto f/stop.

The M/TTL setting is used for manual flash exposures and, on appropriately equipped Nikon models, also for TTL flash operation. (See the Specific Dedicated Function section which follows for your camera model.) With the M/TTL setting, the Auto f/Stop Window (5) and Auto Exposure Range Window (11) will be blank. However, the Manual Distance Scale (6) will

indicate a range of f/stops between the feet and meter scales. To use this scale for manual flash exposures, determine your flash-to-subject distance and note the f/stop opposite this distance on the scale. Set your camera lens to this f/stop to make your exposure. For proper exposure in the manual mode, you must select a different f/stop setting as you change flash-to-subject distances.

When the Mode Selector is set to the M/TTL position, appropriately equipped Nikon camera models will automatically determine correct flash exposure through the lens, when the camera mode selector is set for this function. The Auto Exposure Range Window (11) and the Auto f/Stop Window (5) will be blank. To determine the maximum auto exposure distance for TTL, observe the distance on the Manual Distance Scale (6) opposite the f/stop you have chosen, or check the TTL f/Stop Distance Chart at the rear of this manual.

6. AUTO OK INDICATOR (Sufficient Light Indicator)

The Auto OK Indicator (14) operates only in the A1, A2 and TTL auto settings. The Auto OK Indicator confirms that your subject will be correctly exposed. For proper use of the Auto OK Indicator at the A1 or A2 settings, aim the flash at your key subject and press the Flash Test Button (13) while watching the Auto OK Indicator. The Auto OK will light up and glow green if the subject is within the auto range. If no green light is seen, reduce your flash-to-subject distance, or

if you are using A2 switch to A1

When using the TTL setting, the Auto OK will only work if an actual exposure is made with the flash attached to the camera. In that case film must be loaded in the camera. Or, for test purposes, a light-toned piece of paper should be positioned at the film plane as a film substitute and the camera back must be closed. Please note that light-toned paper may give incorrect responses due to its difference in reflective quality versus actual film. In either case, an actual flash "exposure" must be made by depressing the camera shutter release button.

7. DEDICATED FUNCTIONS

Please refer to the Specific Dedicated Function Instructions section for your particular camera model.

8. TO TAKE A PICTURE

Once you have gone through the familiarization procedure described above, you will understand the workings of the flash unit well enough to begin to utilize its great potential. However, the following checklist is provided as a convenient reference for the picture-taking procedure.

- a) Load camera with film and set the film speed.
- b) *With flash power OFF*, mount flash on camera and turn lock ring down against shoe. Flash shoe must be securely locked on camera to prevent intermittent contact and malfunction.
- c) Set camera to automatic mode or X-sync.

speed (On most modern 35mm SLR cameras with dedicated function, your flash unit will make the setting for you, automatically.)

- d) Set film speed on flash unit.
- e) Set flash Power Switch to ON.
- f) Set flash Mode Selector to mode desired.
- g) If necessary set required f/stop on your camera lens.
- h) Focus, compose the picture, and shoot.

9. USE OF OPTIONAL COLOR FILTERS

The optional color filters should be used only with the flash set to the Manual mode. The following chart is provided as a guide *only*. Specific data may vary as you adapt filtered-flash to your creative style. Experimentation is highly recommended.

Filter	General Effect	Exposure Compensation Guide
Red	Produces red-colored flash illumination	Open lens 2 f-stops
Blue	Produces blue-colored flash illumination	Open lens 2 f-stops
Yellow	Produces yellow-colored flash illumination	Open lens 1 f-stop
85-B	A warming filter which converts flash illumination for use with Type B (tungsten) color films — no change in ISO film speed	Open lens 1 f-stop

GENERAL SPECIFICATIONS

Guide Number (ISO 100):

Basic flash, 50mm lens on camera: 60 for feet, 18 for meters

Camera Lens Coverage: 50mm

Power Source: 4 AA alkaline or NiCad batteries

Recycle Time, Average

(with 4 AA alkaline):

Auto: 0.5—4.0 sec.

Manual: 4.0 sec.

(with fully charged NiCads):

Auto: 0.5—2.5 sec.

Manual: 2.5 sec.

Number of Flashes, Average

(with 4 AA alkaline):

Auto: 650—1800

Manual: 650

(with fully charged NiCads):

Auto: 150—750

Manual: 150

Auto Circuit: Thyristor

Automatic f/Stops and Corresponding Auto Exposure Flash Ranges with ISO 100 Film:

A1 (f/2): 6—30 ft (2.0—9 m)

A2 (f/4): 3—15 ft (1.0—4.5 m)

(For TTL operation, see the TTL f/Stop and Distance Chart at the rear of this manual.)

Sensor Measuring Angle: Approx. 18°

Flash Duration:

Manual: 1/1,000 sec.

Auto: 1/1,000—1/30,000 sec.

Auto OK Circuit: Green lamp, extended on-time

Flash Ready Light: Orange neon tube

Flash Test Button: Combined with Flash Ready Light

Color Temperature: 6000° Kelvin

Calculator Scale: ISO 64, 100, 200, 400, 1000, 1600

Hot Shoe: Locking, with dedicated contacts

Dedicated Functions: Shutter control; TTL (on Nikons with TTL capability)

Optional Accessories: Wide Angle Panel, Color Filter Kit

Specifications subject to change without notice.

SPECIFIC DEDICATED FUNCTION INSTRUCTIONS

NIKON EM/FG-20

(FLASH POWER SWITCH MUST BE IN THE OFF POSITION BEFORE MOUNTING FLASH ON OR REMOVING FROM CAMERA.)

AUTOMATIC OPERATION

1. *Film Speed Setting* — Set the ASA/ISO for the film in use on both camera and flash.
2. *On-Camera Mode and Shutter Speed Setting* — **EM**: Set mode to "AUTO". **FG-20**: Set shutter to "A".
3. *On-Flash Mode Selector* — Set to "FG20/EM", "A1" or "A2" position.
4. *Viewfinder Information* — Turn flash on and in a few seconds: **EM** — a red LED appears indicating flash ready and shutter automatically set for flash; **FG-20** — a red lightning bolt appears indicating flash ready and shutter automatically set for flash.
5. *Lens f/stop Setting* — *If using FG20/EM position*, 3 f/stops are available for auto exposure, depending on film speed. Best flash performance is obtained by using the wider f/stop (smaller number) of the 3. Simply adjust the f/stop ring on the lens until the fastest shutter speed (highest number) is indicated without a blinking indicator in the viewfinder.

Use of other f/stops results in blinking LED warning in viewfinder and flash ready light. The 3 correct f/stops for ISO 100 film are: f/2.0, 2.8 and 4.0. Blinking warning indicators also function if camera meter is off. To turn meter on, depress shutter release halfway. Maximum flash distance can be found on the Manual f/stop Distance Scale on the back of the flash. Simply note the distance opposite the f/stop you have chosen and make sure subject is *within* that distance.

- 6 ***Auto Exposure Verification (AUTO OK)*** — Auto exposure is verified by glowing green "AUTO OK" on rear of flash immediately after the flash is fired. Push "READY/TEST" BUTTON to fire flash and activate "AUTO OK" or take a flash picture. If no "AUTO OK", change f/stop to lower number or move closer to subject. If using A2, switch to A1 and change f/stop on lens accordingly. If no "AUTO OK", move closer.

MANUAL OPERATION

- 1 ***On-Camera Mode and Shutter Speed***
Setting — EM: Set mode to M90. FG-20: Set shutter to any setting.
- 2 ***On-Flash Mode Selector*** — Set to "M/TTL".
- 3 ***Film Speed Setting*** — Set ASA/ISO for the film in use on both camera and flash.
- 4 ***Lens f/stop Setting*** — Focus lens and note subject distance on lens barrel. Find subject distance on Manual f/stop Distance Scale on back of flash and set lens to f/stop opposite

that distance.

- 5 **Viewfinder Information** — Turn flash on and in a few seconds the ready light will glow in the viewfinder and on the flash. Take the picture.
- 6 **Auto Exposure Verification (AUTO OK)** — Does not function in the manual mode.

NIKON FE

(FLASH POWER SWITCH MUST BE IN THE OFF POSITION BEFORE MOUNTING FLASH ON OR REMOVING FROM CAMERA.)

AUTOMATIC OPERATION

1. **Film Speed Setting** — Set the ASA/ISO for the film in use on both camera and flash.
2. **On-Camera Mode and Shutter Speed Setting** — Set shutter dial to M90.
3. **On-Flash Mode Selector** — Set to A1 or A2. Generally, A1 will provide best flash performance.
4. **Lens f/stop Setting** — Set lens to f/stop shown in Automatic f/stop Window on back of flash.
5. **Viewfinder Information** — Turn flash on and in a few seconds the ready light will glow in the viewfinder and on the flash. Take the picture.
6. **Auto Exposure Verification (AUTO OK)** — Auto exposure is verified by glowing green "AUTO OK" on rear of flash immediately after

the flash is fired. Push the "READY/TEST" BUTTON to fire flash and activate "AUTO OK" or take a picture. If there is no "AUTO OK", move closer to the subject or, if using A2, switch to A1 and change f/stop on lens accordingly. If there is no "AUTO OK" with A1, move closer.

MANUAL OPERATION

1. ***On-Camera Mode and Shutter Speed Setting*** — Set shutter dial to M90.
2. ***On-Flash Mode Selector*** — Set to "M/TTL".
3. ***Film Speed Setting*** — Set the ASA/ISO for the film in use on both camera and flash.
4. ***Lens f/stop Setting*** — Focus lens and note subject distance on lens barrel. Find subject distance on Manual f/stop Distance Scale on back of flash and set lens to f/stop opposite that distance.
5. ***Viewfinder Information*** — Turn flash on and in a few seconds the ready light will glow in the viewfinder and on the flash. Take the picture.
6. ***Auto Exposure Verification (AUTO OK)*** — Does not function in the manual mode.

NIKON FE-2

(FLASH POWER SWITCH MUST BE IN THE OFF POSITION BEFORE MOUNTING FLASH ON OR REMOVING FROM CAMERA.)

AUTOMATIC OPERATION

1. **Film Speed Setting** — Set the ASA/ISO for the film in use on both camera and flash.
2. **On-Camera Mode and Shutter Speed Setting** — Set "A" or any speed except "M250" or "B". If set over 250, shutter will still fire at 250. If set at 250 or slower, shutter will fire at set speed.
3. **On-Flash Mode Selector** — Set to A1, A2 or M/TTL.
4. **Lens f/stop Setting** — *If using A1 or A2*, set lens to f/stop shown in Automatic f/stop Window on back of flash. *If using TTL*, set any f/stop on lens. With either method, the wider the f/stop used (smaller number) the greater the flash range, and the better the overall flash performance. Check the TTL f/stop Distance Chart in the back of the manual or the Manual f/stop Distance Scales on the back of the flash to help choose an appropriate f/stop. Make sure subject is **well within** the f/stop/range you have chosen.
5. **Viewfinder Information** — Turn the flash on and when the ready light glows in the viewfinder (a red LED) and on the flash, the shutter will be automatically set for flash. Take the picture.

6. ***Auto Exposure Verification (AUTO OK)*** — Auto exposure is verified by glowing green "AUTO OK" on rear of flash immediately after the flash is fired. If using TTL, an actual camera exposure must be made with film in the camera to activate "AUTO OK". If there is no "AUTO OK" in TTL, use smaller f/stop number or move closer to the subject. If using A1 or A2, push "READY/TEST" BUTTON on back of flash to activate "AUTO OK". If there is no "AUTO OK" and using A2, move closer or switch to A1 and re-set lens accordingly. If no "AUTO OK" in A1, move closer.

MANUAL OPERATION

1. ***On-Camera Mode and Shutter Speed Setting*** — Set shutter dial to M250.
2. ***On-Flash Mode Selector*** — Set to "M/TTL".
3. ***Film Speed Setting*** — Set the ASA/ISO for the film in use on both camera and flash.
4. ***Lens f/stop Setting*** — Focus lens and note subject distance on lens barrel. Find subject distance on Manual f/stop Distance Scale on back of flash and set lens to f/stop opposite that distance.
5. ***Viewfinder Information*** — Turn flash on and in a few seconds the ready light will glow in the viewfinder and on the flash. Take the picture.
6. ***Auto Exposure Verification (AUTO OK)*** — Does not function in the manual mode.

NIKON F3

(FLASH POWER SWITCH MUST BE IN THE OFF POSITION BEFORE MOUNTING FLASH ON OR REMOVING FROM CAMERA.)

AUTOMATIC OPERATION

- 1 **Film Speed Setting** — Set the ASA/ISO for the film in use on both camera and flash.
- 2 **On-Camera Mode and Shutter Speed Setting** — Set shutter dial to "A" or any speed.
- 3 **On-Flash Mode Selector** — Set to A1, A2 or M/TTL.
- 4 **Lens f/stop Setting** — *If using A1 or A2*, set lens to f/stop shown in Automatic f/stop Window on back of flash. *If using TTL*, set any f/stop on lens. With either method, the wider the f/stop used (smaller number) the greater the flash range, and the better the overall flash performance. Check the TTL f/stop Distance Chart in the back of the manual or the Manual f/stop Distance Scales on the back of the flash to help choose an appropriate f/stop. Make sure subject is *well within* the f/stop/range you have chosen.
- 5 **Viewfinder Information** — Turn the flash on and when the ready light glows in the viewfinder (a red LED) and on the flash, the shutter will be automatically set for flash. Take the picture.
- 6 **Auto Exposure Verification (AUTO OK)** — Auto exposure is verified by glowing green

"AUTO OK" on rear of flash immediately after the flash is fired. If using TTL, an actual camera exposure must be made with film in the camera to activate "AUTO OK". If there is no "AUTO OK" in TTL, use smaller f/stop number or move closer to the subject. If using A1 or A2, push "READY/TEST" BUTTON on back of flash to activate "AUTO OK". If there is no "AUTO OK" and using A2, move closer or switch to A1 and re-set lens accordingly. If no "AUTO OK" in A1, move closer.

MANUAL OPERATION

1. ***On-Camera Mode and Shutter Speed Setting*** — Turn off main camera power and self timer. Wait 30 seconds for internal camera TTL timer circuit to turn off.
2. ***On-Flash Mode Selector*** — Set to "M/TTL".
3. Use the mechanical shutter release on the front of the camera to take the picture.
4. Once the internal timer circuit is off (usually takes about 20-30 seconds) pictures may be taken after the flash ready light glows without further waiting for camera timer circuit.

NIKON FG

(FLASH POWER SWITCH MUST BE IN THE OFF POSITION BEFORE MOUNTING FLASH ON OR REMOVING FROM CAMERA.)

AUTOMATIC OPERATION

Film Speed Setting — Set the ASA/ISO for

the film in use on both camera and flash.

2 **On-Camera Mode and Shutter Speed**

Setting — Set "A", "P" or any speed except "M90" or "B". If set over 60, shutter will still fire at 60. If set at 60 or slower, shutter will fire at set speed.

NOTE: The FG does not have a Program Exposure flash circuit. Therefore, setting lens to minimum f/stop will *not* produce program flash exposure. Set f/stop as described in Section 4.

3 **On-Flash Mode Selector** — Set to A1 A2 or M/TTL.

4 **Lens f/stop Setting** — *If using A1 or A2*, set lens to f/stop shown in Automatic f/stop Window on back of flash. *If using TTL*, set any f/stop on lens. With either method the wider the f/stop used (smaller number) the greater the flash range, and the better the overall flash performance. Check the TTL f/stop Distance Chart in the back of the manual or the Manual f/stop Distance Scales on the back of the flash to help choose an appropriate f/stop. Make sure subject is **well within** the f/stop/range you have chosen.

5 **Viewfinder Information** — Turn the flash on, and in a few seconds the ready LED's opposite the lightning bolt and 60 will appear and indicate flash ready and shutter automatically set for flash. Take the picture

6 **Auto Exposure Verification (AUTO OK)** — Auto exposure is verified by glowing green "AUTO OK" on rear of flash immediately after

the flash is fired. If using TTL, an actual camera exposure must be made with film in the camera to activate "AUTO OK". If there is no "AUTO OK" in TTL, use lower f/stop number or move closer to the subject. If using A1/A2, push "READY/TEST" BUTTON on back of flash to activate "AUTO OK". When using A2, and if no "AUTO OK", move closer or switch to A1 and change f/stop on lens accordingly. If no "AUTO OK" in A1, move closer.

MANUAL OPERATION

1. ***On-Camera Mode and Shutter Speed Setting*** — Set shutter dial to M90.
2. ***On-Flash Mode Selector*** — Set to "M/TTL".
3. ***Film Speed Setting*** — Set the ASA/ISO for the film in use on both camera and flash.
4. ***Lens f/stop Setting*** — Focus lens and note subject distance on lens barrel. Find subject distance on Manual f/stop Distance Scale on back of flash and set lens to f/stop opposite that distance.
5. ***Viewfinder Information*** — Turn flash on and in a few seconds the ready light will glow in the viewfinder and on the flash. Take the picture.
6. ***Auto Exposure Verification (AUTO OK)*** — Does not function in the manual mode.

NIKON FA

(FLASH POWER SWITCH MUST BE IN THE OFF POSITION BEFORE MOUNTING FLASH ON OR REMOVING FROM CAMERA.)

AUTOMATIC OPERATION

1. **Film Speed Setting** — Set the ASA/ISO for the film in use on both camera and flash.
2. **On-Camera Mode and Shutter Speed Setting** — Set any mode except "M". Set shutter to any speed except "M250" or "B". Shutter will fire at 250. If mode set to "M" and shutter set at 250 or above, shutter will fire at 250. If set below 250, shutter will fire at set speed.

NOTE: The FA does not have a Program Exposure flash circuit. Therefore, setting lens to minimum f/stop will *not* produce program flash exposure. Set f/stop as described in Section 4.

3. **On-Flash Mode Selector** — Set to A1, A2 or M/TTL.
4. **Lens f/stop Setting** — *If using A1 or A2*, set lens to f/stop shown in Automatic f/stop Window on back of flash. *If using TTL*, set any f/stop on lens. With either method, the wider the f/stop used (smaller number) the greater the flash range and the better the overall flash performance. Check the TTL f/stop Distance Chart in the back of the manual or the Manual f/stop Distance Scales on the back of the flash to help choose an

appropriate f/stop. Make sure subject is **well within** the f/stop/range you have chosen.

5. ***Viewfinder Information*** — Turn the flash on and when the ready light glows in the viewfinder (a red LED) and on the flash, the shutter will be automatically set for flash. Take the picture.
6. ***Auto Exposure Verification (AUTO OK)*** — Auto exposure is verified by glowing green "AUTO OK" on rear of flash immediately after the flash is fired. If using TTL, an actual camera exposure must be made with film in the camera to activate "AUTO OK". If there is no "AUTO OK" in TTL, use smaller f/stop number or move closer to the subject. If using A1 or A2, push "READY/TEST" BUTTON on back of flash to activate "AUTO OK". If there is no "AUTO OK" and using A2, move closer or switch to A1 and re-set lens accordingly. If no "AUTO OK" in A1, move closer.

MANUAL OPERATION

1. ***On-Camera Mode and Shutter Speed Setting*** — Set shutter dial to M250.
2. ***On-Flash Mode Selector*** — Set to "M/TTL".
3. ***Film Speed Setting*** — Set the ASA/ISO for the film in use on both camera and flash.
4. ***Lens f/stop Setting*** — Focus lens and note subject distance on lens barrel. Find subject distance on Manual f/stop Distance Scale on back of flash and set lens to f/stop opposite that distance.

- 2. *Viewfinder Information* — Turn flash on and in a few seconds the ready light will glow in the viewfinder and on the flash. Take the picture.
- 3. *Auto Exposure Verification (AUTO OK)* — Does not function in the manual mode.

NIKON N2000/F301

(FLASH POWER SWITCH MUST BE IN THE OFF POSITION BEFORE MOUNTING FLASH ON OR REMOVING FROM CAMERA.)

In Programmed TTL Auto Flash:

1. Set the N2000/F301 to "P" or "P Hi".
2. Set the lens to minimum aperture (largest f/number).
3. Set the flash to M-TTL.
4. Turn the flash on.
5. Look inside the viewfinder and lightly press the shutter release button. When the flash unit's ready light turns on, you will see a red lightning bolt indicating viewfinder "flash ready" and a red "125" denoting correct shutter speed for flash is set.
6. If triangle-shaped LED's blink at the top and bottom of the viewfinder, check lens type. The lens must be an AI/S or Series E Nikkor; or reset lens to minimum aperture.
7. If no warning, take the picture.

In Regular TTL Auto Flash:

1. Set the N2000/F301 to "A" or any shutter speed
2. Determine and set aperture on lens by using the flash unit's exposure calculator dial.
HINT— The wider the f/stop (smaller the number) the faster the recycle time and the greater the number of flashes.
3. Set the flash to M-TTL.
4. Turn the flash on.
5. Look inside the viewfinder and lightly press the shutter release button. When the flash unit's ready light turns on, you will see a red lightning bolt indicating "flash ready". For other indications in the viewfinder see the flash section of your camera's instruction manual.
6. Take the picture.

NIKON N2020/F501

(FLASH POWER SWITCH MUST BE IN THE OFF POSITION BEFORE MOUNTING FLASH ON OR REMOVING FROM CAMERA.)

AUTOMATIC OPERATION

1. *Film Speed Setting* — Set the ASA/ISO for the film in use on both camera and flash
2. *On-Camera Mode Selector* — Set to "P HI", "P", "P DUAL" or "A"
3. *On-Flash Mode Selector* — Set to A1, A2 or M/TTL.

4. **Lens f/stop Setting** — *If using A1 or A2*, set lens to f/stop shown in Automatic f/stop window on back of flash. *If using TTL*, and camera is set to any "P" mode, then lens must be set to minimum f/stop (highest number). The camera will automatically set the correct f/stop. If using camera "A" mode, select any f/stop on lens. With either method, the wider the f/stop used (smaller number) the greater the flash range, and the better the overall flash performance. Check the TTL f/stop Distance Chart in the back of the manual or the Manual f/stop Distance Scales on the back of the flash to help choose an appropriate f/stop. Make sure subject is **well within** the f/stop/range you have chosen.

5. **Viewfinder Information** — Turn the flash on. Press the shutter release down halfway. The viewfinder will display a red lightning bolt and red "125" shutter speed, indicating flash ready. If the camera mode selector is set on "A", an additional shutter speed value will appear blinking. That is the speed the camera will actually use for the flash picture if you fire the shutter at that moment. If the camera mode selector is set to any of the three "P" positions, the viewfinder will display the red lightning bolt, red 125 and flashing red over and under LED triangles, indicating you must set your lens to minimum f/stop (highest number) or that the lens is not an AI/S or Series E Nikkor.

Take the picture.

6. **Auto Exposure Verification (AUTO OK)** — Auto exposure is verified by glowing green "AUTO OK" on rear of flash immediately after the flash is fired. If using TTL, an actual camera exposure must be made with film in the camera to activate "AUTO OK". If there is no "AUTO OK" in TTL, use smaller f/stop number or move closer to the subject. If using A1 or A2, push "READY/TEST" BUTTON on back of flash to confirm "AUTO OK". If there is no "AUTO OK" and using A2, move closer or switch to A1 and re-set lens accordingly. If no "AUTO OK" in A1, move closer.

MANUAL OPERATION

1. **On-Camera Mode and Shutter Speed Setting** — Set shutter dial to 125.
2. **On-Flash Mode Selector** — Set to "M/TTL".
3. **Film Speed Setting** — Set the ASA/ISO for the film in use on both camera and flash.
4. **Lens f/stop Setting** — Focus lens and note subject distance on lens barrel. Find subject distance on Manual f/stop Distance Scale on back of flash and set lens to f/stop opposite that distance.
5. **Viewfinder Information** — Turn flash on and press the shutter release halfway down. A red lightning bolt and red 125 will be displayed. A second shutter speed will also be flashing, indicating the shutter speed at which the exposure will be made. Take the picture.
6. **Auto Exposure Verification (AUTO OK)** — Does not function in the manual mode.