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Vivitar

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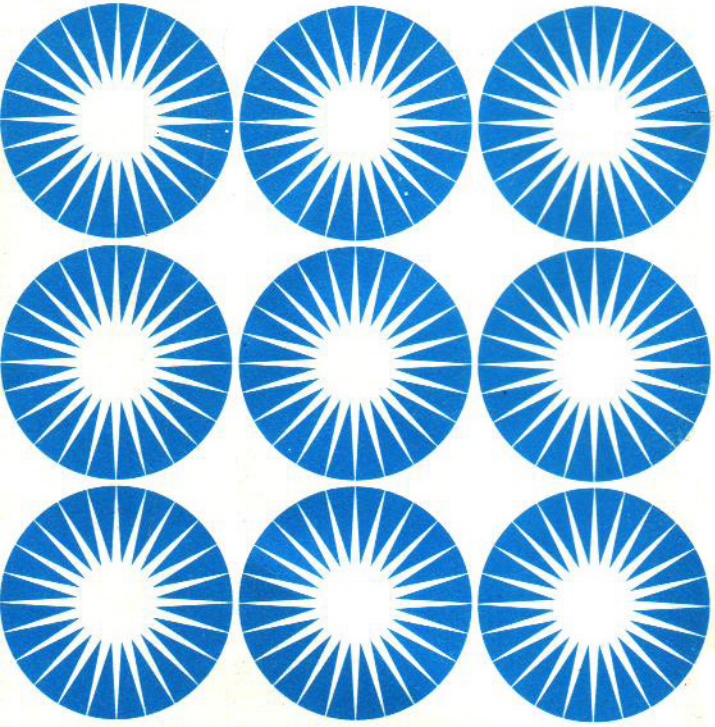
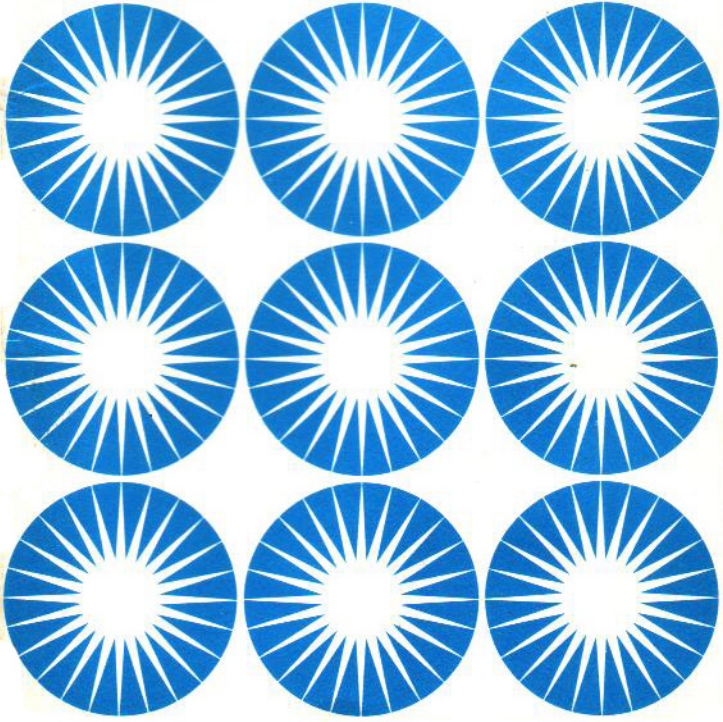


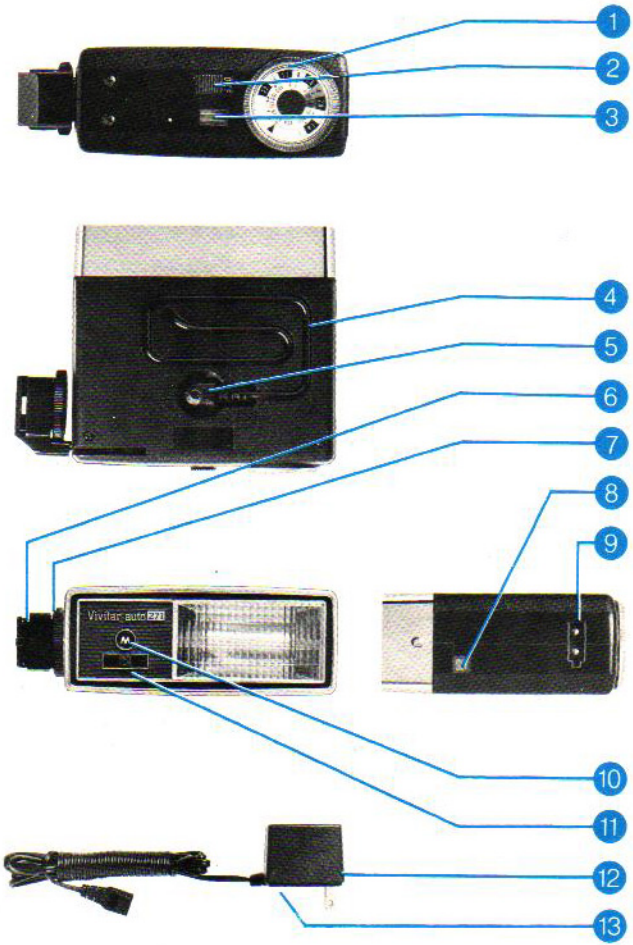
Vivitar

automatic electronic flash

Model 271

Owner's Manual





1. Illuminated Calculator Dial
2. On-Off Switch
3. Ready Light/Open Flash Button

Description of parts

4. PC Synchronization Cord
5. Hot Shoe PC Terminal and Storage Area
6. Mounting Shoe
7. Shoe Lock Nut
8. Charge Termination Indicator
9. AC/Charge Receptacle
10. Sensor
11. Auto/Manual Control Switch
12. AC/Charge Unit
13. Charger Voltage Selector

CONGRATULATIONS . . . AND WELCOME to the ever-increasing number of photographers now enjoying Vivitar Electronic Flash.

Your Vivitar Model 271 is an exciting new way to take flash pictures and because we know you'll want to get started immediately, here is a SHORT COURSE OF INSTRUCTIONS to show you how to take perfectly exposed photographs every time. The detailed instructions which follow offer a more complete explanation of how to use your new Vivitar 271 and also provide handy hints on flash photography.

Your Owner's Manual is a handy reference guide and should be referred to whenever questions arise. We know that you will enjoy your new electronic flash and we wish you many years of picture taking fun.

Table of contents

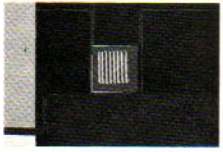
Short course of instructions

1

Set charger voltage selector to proper line voltage. (See page 4.)

2

Charge unit for 1 hour or until charge termination indicator glows. (See page 4.)

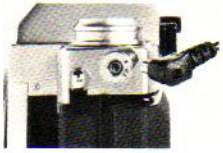


3

Flash unit 5 times to form capacitor. (See page 5.)

4

Detach AC/Charge Unit and mount flash on camera. Attach PC cord to "X" terminal.

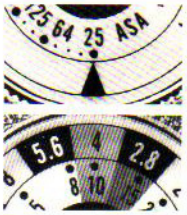


5

Set camera to correct shutter speed for electronic flash.

6

Set ASA film speed on calculator dial. Read f/stop within color-keyed triangle for auto f/stop you prefer.



7

Set Auto/Manual Control Switch to the same color. (See page 9.)

8

Set f/stop on camera lens. No further adjustments are required within auto range.

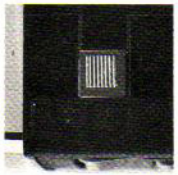
9

Slide On-Off Switch to "ON" position. Take the picture when ready light glows.

First, charge the unit

Your Vivitar Model 271 can be charged on either 120 volt AC (U.S.A. voltage) or 220 volt AC (many European countries) currents. Set the Charger Voltage Selector (13) on the AC/Charge Unit (12) to match the line voltage you will use.

CAUTION: The charger voltage selector must be set correctly to prevent damage to your charger.



Slide the On-Off Switch (2) to the "OFF" position to prevent battery drain and insert the Charge Cord into the AC/Charge Receptacle (9). Plug the AC/Charge Unit into any standard AC wall outlet and charge the 271 for 1 hour or until the Charge Termination Indicator (8) glows.

The Charger of your Vivitar 271 will automatically switch down to a "trickle charge" and a built-in safety circuit will protect your flash from overcharging.

Under normal circumstances your Vivitar 271 will fully recharge in 1 hour but the charge time may vary somewhat depending on variations in both line voltage and ambient room temperature and the condition of the built-in Nickel Cadmium batteries. The Charge Termination Indicator may take up to 1½ hours to light and this should be considered normal where variations in charging conditions exist.

An important feature

Your Vivitar Model 271 has the ability to deliver enough flashes to shoot an entire roll of film after only a few minutes of charging. The chart below shows the number of flashes obtainable as the charging time increases.

Charging Time	Number of Flashes (avg.)*
5 minutes	10
10 minutes	20
15 minutes	25
30 minutes	40
45 minutes	70
60 minutes	85+

*Based on batteries being *completely drained*. Where some power remains from previous charges, number of flashes will be substantially increased.

Form the capacitor

The capacitor of the flash draws electrical energy from the batteries, stores it and discharges this energy to the flash tube when the circuit is triggered. When the flash is new or when it has not been used for a long period of time, the capacitor may lose some of its ability to store electricity. When this occurs, the following steps will re-build or "reform" the capacitor.

After your Model 271 is charged, slide the On-Off Switch (2) to the "ON" position and fire the flash by pressing the Ready Light/Open Flash Button (3). Repeat this about 5 times allowing the Ready Light (3) to glow after each flash. Your capacitor will then be formed and you can disconnect the AC/Charge Unit (12)

It's a good idea to flash your unit periodically to keep the capacitor formed.

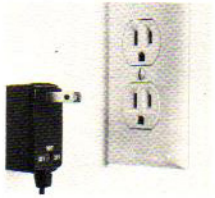
Your flash will operate from several power sources

Multiple Voltage AC Operation

AC operation is handy if your batteries are low on power. Your Vivitar 271 will operate on two different AC voltages:

A. 120 volt AC (U.S.A.-Canada)

To use your flash on 120 volt AC current, set the Charger Voltage Selector (13) on the AC/Charge Unit on the "120v" position. Slide the On-Off Switch (2) to the "ON" position and attacn the AC/Charge Unit to both the flash (9) and wall outlet. When the Ready Light (3) glows, your flash is ready for use.



B. 220 volt AC (Most Other Countries)

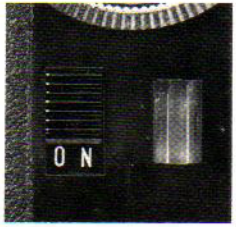
To use your flash where 220 volt AC current is standard, set the Charger Voltage Selector (13) on the AC/Charge Unit to the "220v" position. Slide the On-Off Switch (2) to the "ON" position and attach the AC/Charge Unit to both the flash (9) and wall outlet. The Ready Light (3) will glow when the flash is ready to be fired.

In countries where the standard voltage is between 120 volts and 240 volts, set your Charger Voltage Selector to the "220v" position. Voltages less than 220 volts will extend the recharge time while those exceeding 220 volts will lessen the recharge time somewhat.

A wall outlet AC adapter may be necessary in some countries and the adapter design may vary from country to country.

Battery Operation

To operate your Vivitar 271 on its built-in Nickel Cadmium batteries, slide the On-Off Switch (2) to the "ON" position. When the Ready Light (3) glows, your flash is ready to fire.



Attaching your flash to the camera

1

Select vertical or horizontal operation by pulling out on the Mounting Shoe ⑥ and moving it to the proper position. 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 Mounting Shoe ⑥ into the accessory clip on the camera and tighten with the Shoe Lock Nut ⑦. Plug the PC Cord ④ into the flash terminal on the camera. Use the terminal marked "X". If an "X" terminal is not provided, set the camera synchronization switch to "X". (Refer to your camera instructions for specific information regarding your camera's flash synchronization).

3

If your camera is supplied with a Hot Shoe, you can leave the PC Cord ④ on the flash in its storage area with the PC tip connected to the built-in terminal.

Multiple f/stop control

The Vivitar Model 271 can be set to operate automatically at two f/stops. The larger f/stop position (BLUE) permits you to decrease the depth of field (area in sharp focus) and also enables you to take pictures at an extended automatic range. The smaller f/stop position (RED) should be used for taking close up pictures with fast films, and in situations when you want to increase your depth of field.

The Auto/Manual Control Switch ⑪ has three positions:

M — In this position, your flash will operate in the manual mode. See page 12.

BLUE — In this position, the automatic range of your unit is 2 to 15 feet from flash to subject. When in this mode, use the BLUE triangle on the Calculator Dial ① to read your auto f/stop setting.

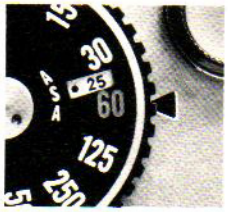
RED — In this mode, the automatic range of your 271 is 2 to 10 feet from flash to subject. When using this mode, read the RED triangle for your auto f/stop setting.

Get ready to shoot... automatically

1

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

Note: You should refer to your camera instructions for the proper speed setting for electronic flash.



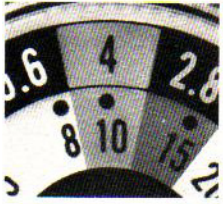
2

Set the correct ASA film speed on the calculator dial ①. The ASA speed can be found in the data sheet that comes packed with your film.

Example: For Kodachrome II, set the ASA mark to 25.

3

Read f/stop within color-keyed triangle for auto f/stop you prefer. Set the auto/manual control switch ⑪ to same color and set your lens to the correct f/stop.

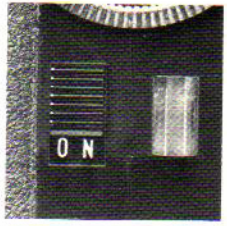


Note: The correct auto f/stop settings for most popular films are listed for both auto ranges in the specifications, page 22.

4

Slide the On-Off switch ② to the "ON" position.

Your flash unit will automatically give you a perfect exposure of any subject within the automatic range you have selected without further f/stop adjustments.

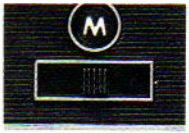


Manual operation

When you wish to use your Vivitar 271 in the manual mode (for example, pictures beyond the auto flash range) —

1

Set the Auto/Manual Control Switch (11) to the manual position ("M").



2

Set the correct ASA film speed on the Calculator Dial (1)

3

Focus your camera and estimate the distance from the flash to subject. You can usually do this "by eye" or you can refer to the distance indicated on the camera lens barrel after focusing.

4

Read the f/stop indicated opposite the distance scale on the Calculator Dial and set this f/stop on your camera lens.

Example: If you are 15 feet from your subject and you are using Kodachrome II (ASA 25), set the lens f/stop to f2.8.

5

Slide the On-Off Switch (2) to the "ON" position.

You're ready to shoot... IF:

1) YOUR READY LIGHT IS ON

2) YOUR PC CORD IS PROPERLY PLUGGED IN

3) YOUR AUTO/MANUAL CONTROL SWITCH IS SET IN THE PROPER POSITION

4) YOU HAVE SET THE CORRECT F/STOP ON YOUR CAMERA LENS

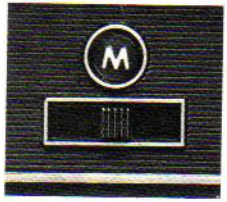
5) YOUR SHUTTER IS COCKED

Cameras with built-in automatic flash control

Many new cameras have a unique feature which automatically sets the correct exposure for flash as you focus. For the camera and Vivitar 271 to operate automatically together you *must* set the proper guide number on the Guide Number Scale of your camera (refer to your camera instructions for the location of the Guide Number Ring). The proper flash guide number corresponding to the ASA film speed you are using is indicated on the chart below:

ASA film speed	25	64	80	100	125	160	200	400	800
Flash Guide No.	40	65	75	85	95	110	120	170	240

Note: Make sure the Auto/Manual Control Switch (11) is in the manual position ("M").



After you're finished shooting

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 the long life of your equipment.

Use the case

Storing your unit in the convenient carrying case will protect it from accidental damage and keep it looking like new.

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 f/stops to compensate for the loss of light intensity.

Open camera lens
2 additional f/stops

Mirrors

Never shoot flash pictures straight into mirrors, glass, or other highly reflective surfaces. Reflections will result and cause poor pictures. 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.

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.

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.

Hard shadows result from direct sunlight.

Electronic flash fills in shadow areas.

Stop-action

The flash duration of the Vivitar 271 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.

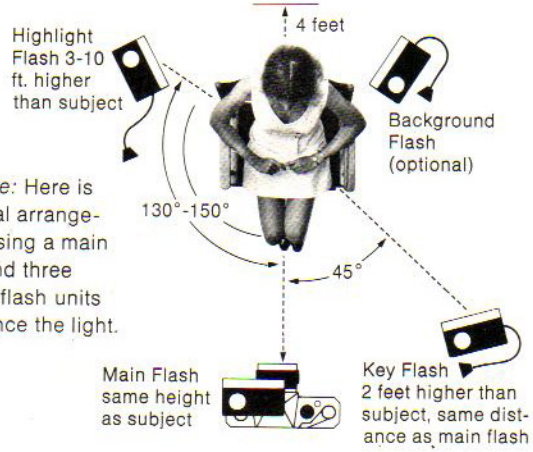
Synchronization speed

When taking flash pictures with your Vivitar 271 always try to use the fastest possible camera shutter speed that provides full electronic flash synchronization (refer to your camera instructions for this information). This will eliminate "ghosts" or blurry images of brightly lit objects in the background.

Multiple flash with Vivitar slave units

When taking portraits or pictures of large groups, many photographers prefer to use more than one flash unit to produce a better light balance. To do this, you must be able to fire both the main flash and each remote flash simultaneously.

Vivitar Slave Units are solid state light sensitive devices which when attached to the PC cord of a flash unit automatically trigger the flash in perfect synchronization with the main flash unit without external cables or wires.



Example: Here is a typical arrangement using a main flash and three remote flash units to balance the light.

Trouble shooting

Your new Vivitar Electronic Flash has been designed to provide many years of trouble free operation. Occasionally, as with any electronic device, a problem may develop which requires special attention. Here are a few points you can check yourself before sending your unit for service:

Flash Does Not Fire When Camera Shutter Release Is Triggered	A) Make sure the On-Off Switch is "ON" and Ready Light is glowing. B) Check to see that the PC Cord is connected to the "X" terminal on your camera. C) The synchronization contacts in your camera may be at fault. "Short out" the PC contact on the PC Cord of your flash. If the unit flashes, the problem is in the camera.
Unit Does Not Operate On DC Power	A) Your batteries may be discharged. Recharge your unit making sure that the On-Off Switch is in the "OFF" position while charging.
Unit Flashes Only A Few Times After Full Charge	A) You may have left the On-Off Switch in the "ON" position during charging. Recharge your flash with the On-Off Switch in the "OFF" position.
Ready Light Will Not Glow Within 1 Minute After Plugging Unit Into AC Outlet	A) Check to see that the AC outlet has power. B) Check to see that On-Off Switch is in "ON" position.

	C) Make sure that the AC/Charge Unit is properly connected to your flash.
Flash Pictures Are Consistently Over- or Under- Exposed	A) Make sure that you have set the correct ASA and f/stop setting on your flash unit and camera lens. B) Determine if the PC Cord is connected to the "X" terminal on your camera and that your camera shutter speed is set for electronic flash. Refer to your camera instruction manual for specific information on electronic flash connection and shutter speed synchronization.

Should your electronic flash require service, *always send your AC/Charge Unit along with your flash* and enclose a description of your difficulties. If any available slides or negatives illustrate the problem, include them in your package.

UL and CSA approved

These labels certify that your new Vivitar Electronic Flash has undergone rigorous testing and scientific evaluation by both Underwriters' Laboratories and the Canadian Standards Association who have approved it as meeting the highest standards for electrical safety.

Information and assistance

We maintain a fully-staffed Customer Relations Department who will be happy to answer any and all of your questions. If you require any additional information on the use and care of your electronic flash or should you wish information on other Vivitar quality products, please feel free to write.

In the U.S.A., write to:

Customer Relations Dept.
Re: Electronic Flash
Ponder & Best, Inc.
11201 West Pico Boulevard
Los Angeles, Calif. 90064

In Canada, write to:

Customer Relations Dept.
Re: Electronic Flash
Precision Cameras of Canada Ltd.
1180 St. Antoine Street
Montreal 102, Quebec

Warranty registration

Your Vivitar Electronic Flash is backed by an outstanding warranty which is detailed in the *Certificate of Warranty and Service* sheet enclosed with your unit. To assist us in serving your needs, please fill out the enclosed *Warranty Registration Card* and mail it to us as soon as possible. Please retain the *Owner's Purchase Record* portion of this card and the *International Service Center Listings Folder* for your records.

Vivitar Model 271 specifications

Manual operation

Guide numbers (feet):

ASA film speed	25	64	80	100	125	160	200	400	800
Flash Guide No.	40	65	75	85	95	110	120	170	240

Flash duration . . . . . 1/1000 second

Automatic operation

Auto f/stop setting:

ASA film speed	25	64	80	100	125	160	200	400	800
BLUE mode	f2.8	4	4.8	5.6	5.6	6.7	8	11	16
RED mode	f 4	5.6	6.7	8	8	9.5	11	16	22

Flash duration . . . . . 1/1000 to 1/30,000 second
Automatic operating ranges . . . . . 2 ft. to 15 ft. (BLUE mode)
2 ft. to 10 ft. (RED mode)
Automatic Sensor measuring angle . . 20°

General specifications

BCPS (Beam Candle Power Seconds) . 1400
Recycle time . . . . . AC — 5 seconds (average)
DC — 5 seconds (average)

Note: Recycle times may vary depending on charge remaining in batteries in DC mode and fluctuations in line voltage in AC mode.

Flash duration . . . . . 1/1000 second (Manual)
1/1000 to 1/30,000 second (Automatic)

Color temperature . . . . . 6000° Kelvin
Angle of Illumination(s) . . . . . 60° horizontal, 50° vertical
Operating positions . . . . . Vertical or horizontal
Power sources . . . . . DC — Built-in rechargeable Nickel Cadmium batteries
AC — Multiple voltage (120v/220v)

Flashes per quick charge:

Minutes of charge	5	10	15	30	45	60
Flashes (average)	10	20	25	40	70	85+

(Charge times may vary somewhat depending on charging conditions)

Camera/Electronic Flash synchronization connections . . . . . PC Synch. Cord, Hot Shoe
Weight with batteries . . . . . 10¾ oz.
Dimensions . . . . . 3¼" x 1⅜" x 3½"
Accessories included . . . . . Multiple Voltage AC/Charge Unit (120v/220v), Compartment Case, Carrying Strap

The Vivitar Model 271 calculator dial