

# Zoom Man

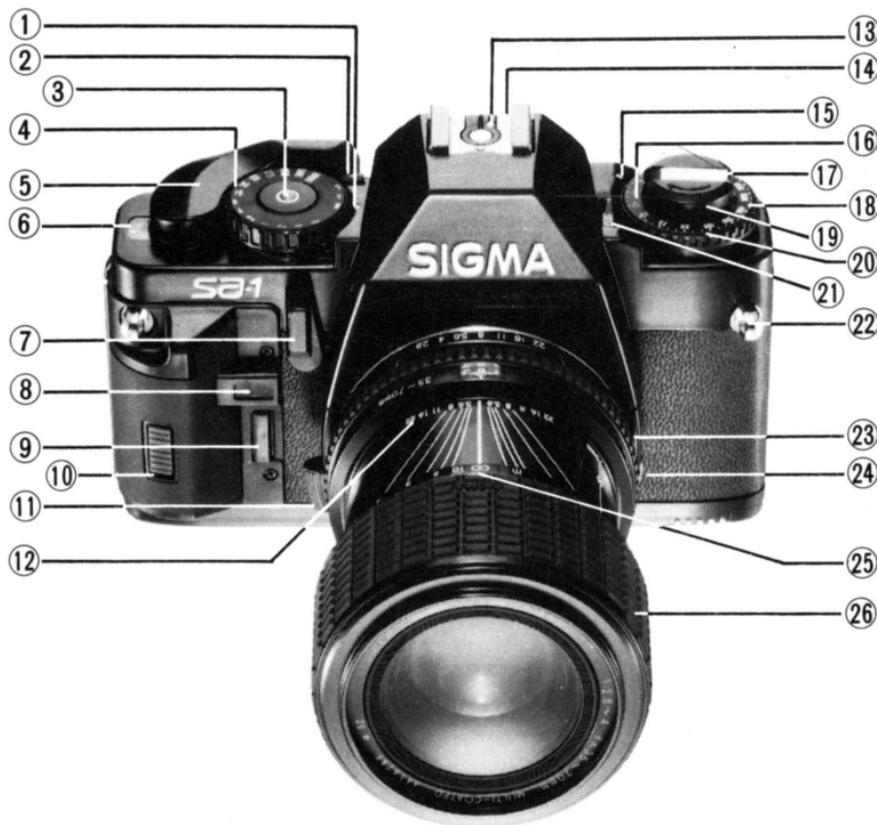
## SIGMA S2-1

INSTRUCTIONS

# CONTENTS

1. Loading Batteries	4
2. Checking Betteies	5
3. Mounting and Removing Lens	6
4. Setting Film Speed (ASA/DIN)	7
5. Loading Film	8
6. Viewfinder Display	10
7. Auto Exposure Operation	11
8. Exposure Compensation (Using Exposure Memory Lock)	12
9. Exposure Compensation (Using Exposure Compensation Dial)	13
10. Manual Operation	14
11. Focusing	15
12. Holding the Camera	16
13. Automatic Flash Photography	17
14. Manual Flash Photography	18
15. Setting Bulb Shutter Speed	19
16. Using the Self-Timer	20
17. Depth-of-Field	21
18. Infra-Red Photography	22
19. Rewinding the Film	23
20. Basic Care of Camera and Lens	24
21. Sigma SA-1 System Accessory Group	25

# PARTS DESCRIPTION (1)

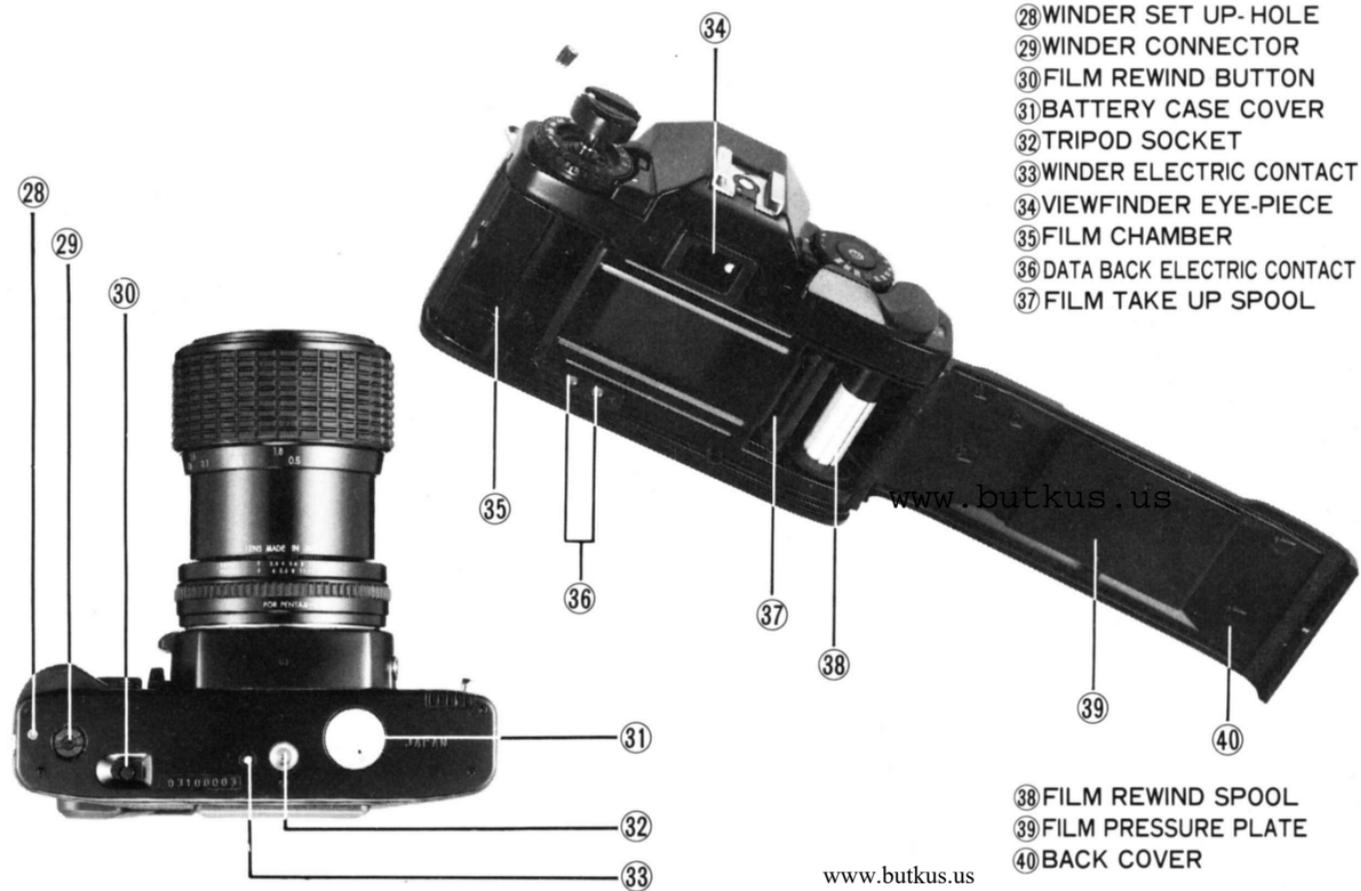


- ① SHUTTER SPEED AND MODE SET MARK
- ② SHUTTER SPEED DIAL FREE BUTTON
- ③ SHUTTER RELEASE BUTTON
- ④ SHUTTER SPEED AND MODE SELECTOR DIAL
- ⑤ FILM ADVANCE LEVER
- ⑥ FILM COUNTER
- ⑦ DEPTH-OF-FIELD PREVIEW LEVER
- ⑧ SELF-TIMER WARNING LAMP
- ⑨ EXPOSURE INDICATOR SWITCH
- ⑩ EXPOSURE MEMORY SWITCH

\* \* \* see special note on drawing

- ⑪ LENS MOUNT LOCK RELEASE BUTTON
- ⑫ DEPTH-OF-FIELD READ OUT SCALE
- ⑬ FLASH READY SIGNAL CONTACT
- ⑭ ACCESSORY LIGHT SHOE
- ⑮ EXPOSURE COMPENSATION SET MARK
- ⑯ EXPOSURE COMPENSATION DIAL
- ⑰ FILM REWIND CRANK
- ⑱ FILM REWIND KNOB(BACK COVER OPEN KNOB)
- ⑲ FILM SENSITIVITY SET DIAL
- ⑳ FILM SENSITIVITY SET MARK
- ㉑ SELF-TIMER SWITCH
- ㉒ CAMERA STRAP ATTACH RING
- ㉓ LENS APERTURE SCALE RING
- ㉔ X-SYCH TERMINAL
- ㉕ FOCUSING DISTANCE SCALE
- ㉖ LENS FOCUSING RING

# PARTS DESCRIPTION (2)



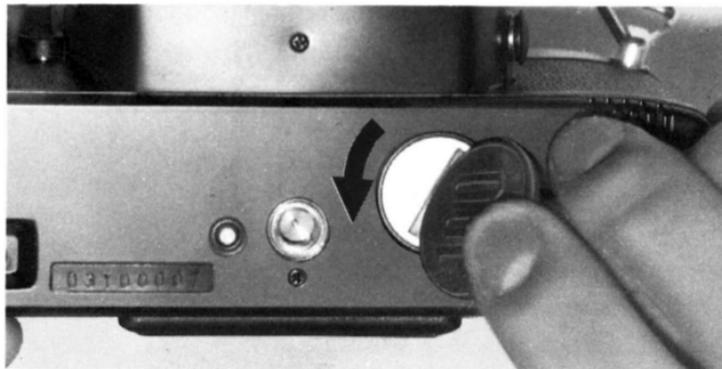
# INTRODUCTION

Thank you for purchasing your Sigma SA-1... and welcome to the world of creative photography.

The Sigma SA-1 incorporates highly advanced optical and electronic technology in an automatic aperture priority exposure system single lens reflex camera. Sophisticated engineering and design techniques have been used to build superb quality, highly functional features, such as the energy-saving liquid crystal viewfinder display system, into a compact, lightweight camera.

The Sigma SA-1 is designed to provide you with exceptional ease of operation and to allow you to move into an exciting new world of creative photography. Please read these instructions carefully before using your new Sigma SA-1.

# LOADING BATTERIES



## Your Sigma SA-1 uses the following types of batteries:

- ① Two SR-44 Silver Oxide Batteries (last approximately 12 months with normal use)
- ② Two LR-44 Alkaline Batteries (last approximately 6 months with normal use)
- ③ One 3-volt Lithium Battery - type CR-1/3N or GL2-76

To load batteries-- using a coin unscrew battery case cover by turning it counterclockwise. Insert the batteries into the battery chamber with the positive (+) side up (facing cover). Close the battery case cover by turning it clockwise.



This manual is for reference and historical purposes, all rights reserved.

**This page is copyright© by M. Butkus, NJ.**

This page may not be sold or distributed without the expressed permission of the producer

I have no connection with any camera company

On-line camera manual library

This is the full text and images from the manual. This may take 3 full minutes for the PDF file to download.

**If you find this manual useful, how about a donation of \$3 to: M. Butkus, 29 Lake Ave., High Bridge, NJ 08829-1701 and send your e-mail address so I can thank you. Most other places would charge you \$7.50 for a electronic copy or \$18.00 for a hard to read Xerox copy.**

**This will allow me to continue to buy new manuals and pay their shipping costs.**

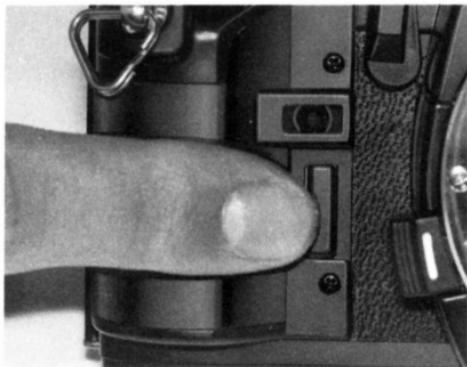
**It'll make you feel better, won't it?**

**If you use Pay Pal or wish to use your credit card,  
click on the secure site on my main page.**

Donate: [www.PayPal.me/butkus](http://www.PayPal.me/butkus)

venmo: @mike-butkus-camera Ph. 2083

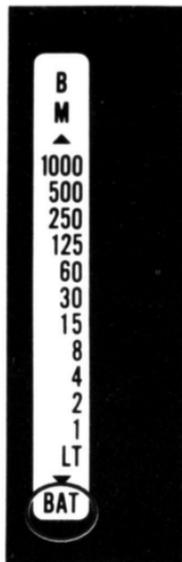
# CHECKING BATTERIES



①

① While looking through the viewfinder, press the exposure meter switch. If the LCD shutter speed indicator needle appears in the display area, on the right hand side of the viewfinder, the batteries are in good condition.

② If the batteries are weak, the "BAT" indicator, at the bottom of the viewfinder display area, will start to blink. When this occurs it is important that you replace all of the batteries as soon as possible.



②

③ When checking batteries, be sure that the shutter speed dial is not set in the "L" (Lock/Power-Off) position.

# MOUNTING AND REMOVING LENS

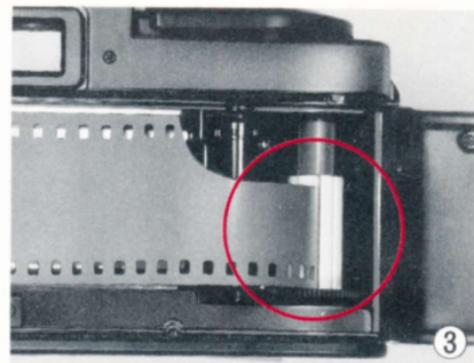
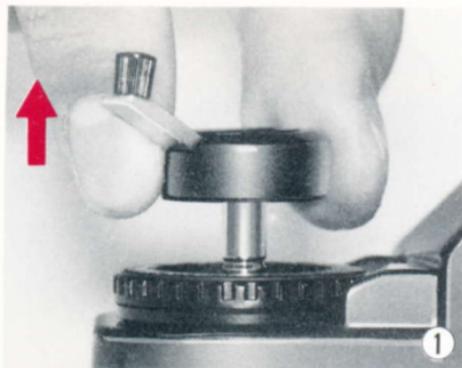


① To mount lens, simply align the red mark on the lens mount with the red mark on the camera body lens mount flange. Engage the lens in the mount by turning the lens clockwise until it clicks into the locked position.

② To remove lens, press the lens mount release button and turn the lens counterclockwise until it stops. Gently remove the lens from the mount.



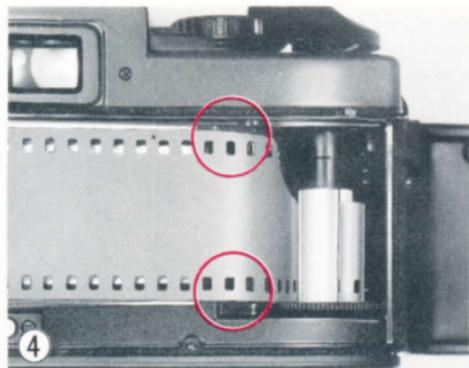
# LOADING FILM (Film loading should always be done in subdued light not in direct sunlight.)



① Pull out the film rewind knob and raise it until the back cover lock spring is released. The back cover will then open automatically.

② Place the film cartridge into the film chamber. Return the film rewind knob to its normal position.

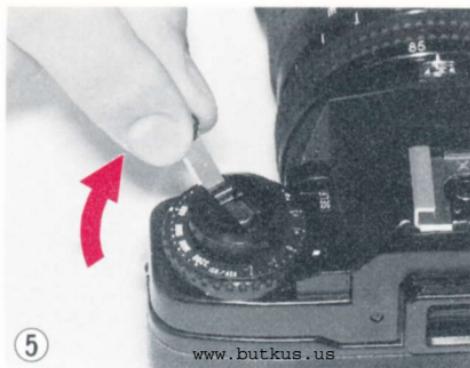
③ Feed the film leader into any one of the slots on the film take-up spool. The edge of the film should be at least 1/2 inch beyond the film transport sprocket wheel of the take-up spool.



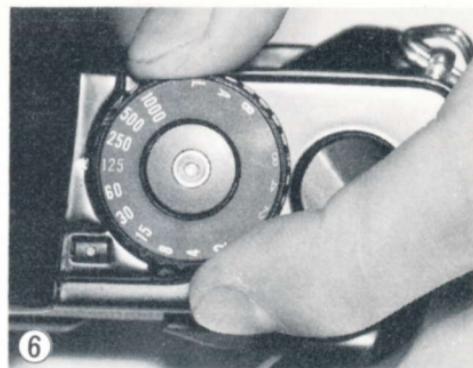
④ Advance the film advance lever once and check to be sure that the film sprocket holes are properly engaged with the teeth of the film transport sprocket wheel.

Close the back cover, pressing firmly so it is securely locked.

(NOTE: It is recommended that the shutter speed dial be set in any position other than "A" (Automatic) position when you are loading film.)

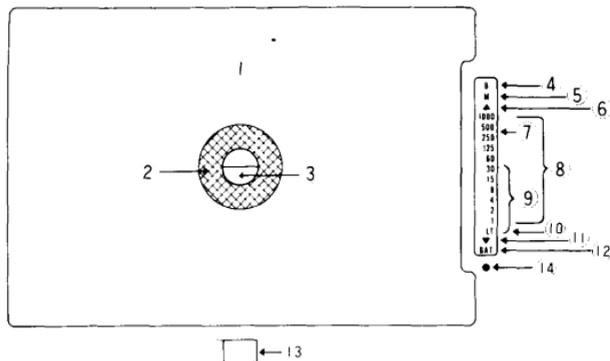


⑤ Raise the film rewind crank and gently turn it clockwise until any slack in the film has been taken out.



⑥ Operate the shutter release and advance the film until the film counter window shows "1" (this is your first frame) and you are ready to take your first picture.

# VIEWFINDER DISPLAY



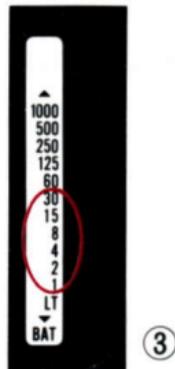
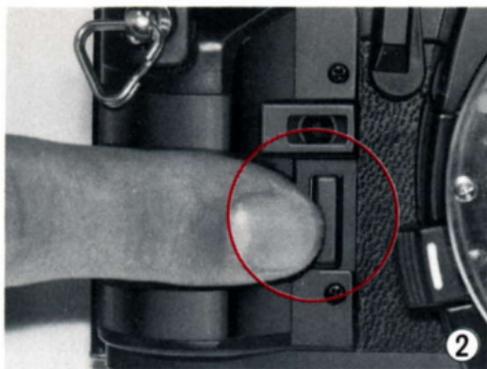
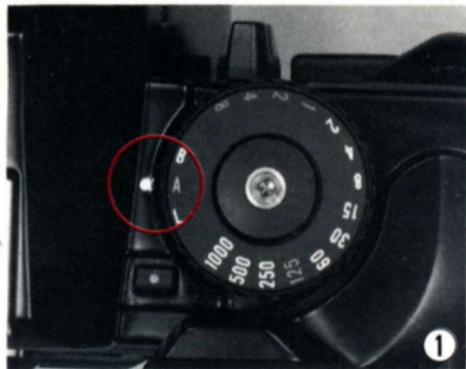
- ① PICTURE FRAME INDICATOR
- ② MICRO PRISM FOCUSING AREA
- ③ SPLIT IMAGE FOCUSING AREA
- ④ BULB SET INDICATOR
- ⑤ MANUAL MODE INDICATOR
- ⑥ OVER EXPOSURE INDICATOR
- ⑦ SHUTTER SPEED INDICATOR NEEDLE
- ⑧ SHUTTER SPEED DISPLAY
- ⑨ SLOW SHUTTER WARNING AREA
- ⑩ LONG TIME EXPOSURE INDICATOR
- ⑪ UNDER EXPOSURE INDICATOR
- ⑫ LOW BATTERY WARNING
- ⑬ LENS APERTURE SET READ OUT WINDOW
- ⑭ FLASH READY LED LIGHT

The shutter speeds from 1 second to 1/1000 second are always visible in the display area of the viewfinder. A "slow speed zone", 1 second to 1/30 second is indicated by a bar on the bottom right of the display area. The slower shutter speeds from 2 seconds to 8 seconds are indicated by the sign "LT".

The proper shutter speed, at the time you are taking your picture, is indicated by the LCD (Liquid Crystal Display) shutter speed indicator needle.

(NOTE: When using a polarizing filter on the camera lens, the angle of which the filter is rotated may cause the LCD needle to become temporarily invisible. Also at very low temperatures you may find that due to the nature of the liquid crystal display it may take slightly longer to respond-- this is not a functional problem.)

# AUTO EXPOSURE OPERATION for automatic exposure control



① Set the shutter speed dial in the "A" position. When the shutter speed dial is set in this position it is automatically locked.

Set your desired f/stop (aperture setting) by turning the aperture ring on the lens to align the f/stop number on the lens to align the f/stop set mark.

② Press the exposure meter switch and the LCD shutter speed indicator needle will appear in the viewfinder display area and will indicate the correct shutter speed.

③ If the needle is in the slow speed zone, special attention should be given to camera vibration because of the slow shutter speed being used. You may, however, wish to select a smaller f/stop setting and move into a faster shutter speed.

If the "▲" (over exposure) signal in the viewfinder display starts to blink, you must switch to a larger f/stop setting (less light); and if the "▼" (under exposure) signal appears, you must switch to a smaller f/stop setting (more light). When the proper exposure setting has been made the over or under exposure signal will go off.

## EXPOSURE COMPENSATION Using "EM" (Exposure Memory) Lock with Backlighting



① If the light is behind your subject when you are shooting in the automatic exposure mode, the uneven brightness between your subject and the background may cause improper exposure of the main subject. Under these backlit conditions, use of the exposure memory lock is suggested.

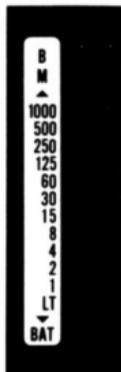
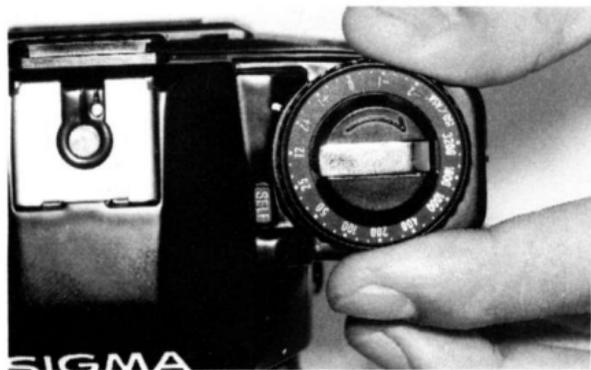
② Move your camera so that the lens is close enough to your subject to eliminate any background brightness.

Press the "EM" (Exposure Memory) lock button. The proper exposure for your subject is now stored in the camera's "memory" and the shutter speed indicator needle, in the viewfinder display area, will start to blink.

③ You may now move away from your subject and compose your subject and the background behind. The correct exposure setting for the main subject will remain in the camera's "memory" system until you have pressed the shutter to take your picture... or you press the "EM" lock button again.

[www.butkus.us](http://www.butkus.us)

# EXPOSURE COMPENSATION Using the Exposure Compensation Dial



① If you wish to intentionally overexpose the subject, move the exposure compensation dial in the "+" direction; for underexposing, move the dial in the "-" direction.

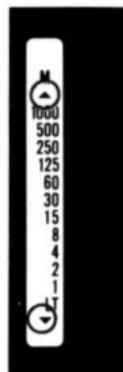
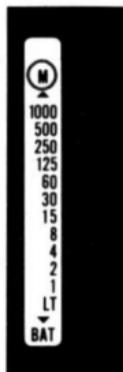
② See chart (chart 2) for approximate compensation values for various conditions.

chart 2

Subject	Exposure Adjustment
Scenery with a lot of sky Figure against the light	+1~+2
Figure with a snowscape or seascape background	+1
Spot-lighted figure	-1~-2

(NOTE: When exposure compensation is not needed, be sure that the exposure compensation dial is in the "O" position.)

# MANUAL OPERATION

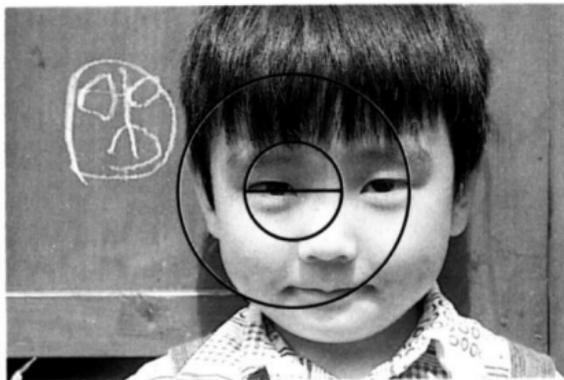
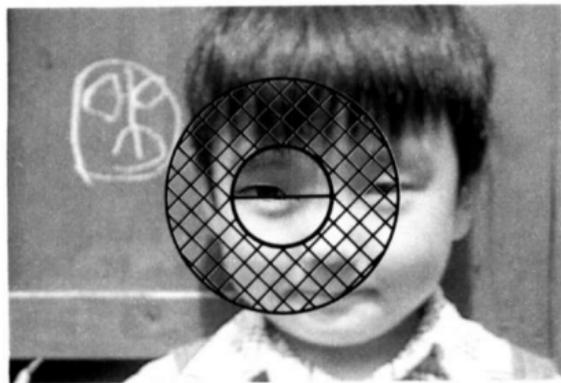


If you wish to use your own aperture/shutter settings when taking your photographs, you may select manual operation control.

- ① Press the shutter speed Free button and set your desired shutter speed manually.
- ② In the manual control mode, the "M" signal in the viewfinder display area will blink continuously.
- ③ If the "▲" (over exposure) or "▼" (under exposure) signal also starts to blink when you have set your desired shutter speed, your exposure setting is incorrect.

Turn the lens aperture ring to the next bright or lower f/stop until the "over" "under" signal goes off. If the signal continues to blink, you must then select another shutter speed and recheck the viewfinder display area to be sure your exposures are correct.

# FOCUSING



The Sigma SA-I is equipped with a split image finder circle that appears in the center of the viewfinder display area. While looking through the viewfinder, turn the focusing ring on the lens until the image in the upper half of the circle is perfectly aligned with the image in the lower half. Your SA-I is now in focus.

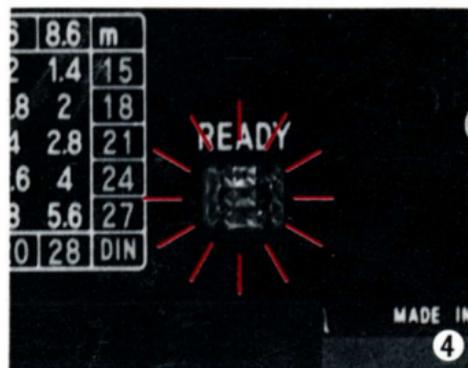
For added focusing accuracy, the split image finder has an external micro prism circle. When a shimmering effect in this area is completely eliminated and you get a clear sharp image, your SA-I is in focus.

## HOLDING THE CAMERA



Even the slightest movement of your body, while pressing the camera's shutter release, may cause camera shake and a resulting blurriness of your photograph. To avoid this we suggest the following: Hold the camera steady with your left hand supporting the bottom of the camera and the lens. Keep your left elbow close to your body and place your eye as close to the viewfinder as possible. Firmly grasp the camera action grip (on the right side of the camera) with your right hand and then lightly place your right index finger on the shutter release button.

# AUTOMATIC FLASH PHOTOGRAPHY With the Sigma Electronic Flash SA240



The Sigma Electronic Flash SA240 is a fully automatic, dedicated flash exclusively designed for the Sigma SA-I. For automatic operation the shutter speed dial is always set at the "A" (automatic) position.

① Slide the Electronic Flash into the camera's hot shoe and tighten the flash mount locking ring by turning it clockwise.

② Set the shutter speed dial at the "A" position. Simultaneously set the SA-240 at its "A" position.

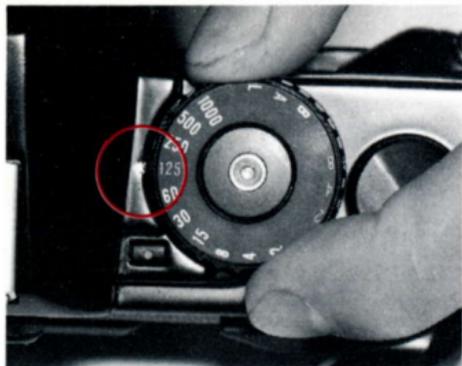
③ Set the lens at the f/stop that the Electronic Flash suggests for auto exposure.

④ When you turn on the flash power switch, the camera's shutter speed is automatically set at 1/125 second; when the flash is fully charged and ready the red LED light in the viewfinder display area, starts to glow. In addition, the ready light signal on the Electronic Flash also starts to glow.

(NOTE: For more detailed operating instructions, please refer to the SA240 Electronic Flash Instruction Book.)

# MANUAL FLASH PHOTOGRAPHY

When using flash units other than the SA240



ASA	1.5	2.2	3	4.3	6	8.6	m
25	8	5.6	4	2.8	2	1.4	15
50	11	8	5.6	4	2.8	2	18
100	16	11	8	5.6	4	2.8	21
200	22	16	11	8	5.6	4	24
400		22	16	11	8	5.6	27
ft	5	7	10	14	20	28	DIN

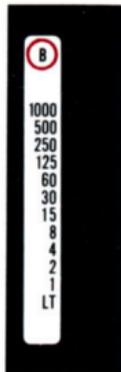


- ① Set the camera's shutter speed at 1 / 125 for flash synchronization.
- ② Follow the instructions for the flash unit you are using and set the f/stop number on the lens as required.

EX)

$$\text{f/stop number (8)} = \frac{\text{Guide number (24)}}{\text{Distance to object (3m)}}$$

# SETTING BULB SHUTTER SPEED



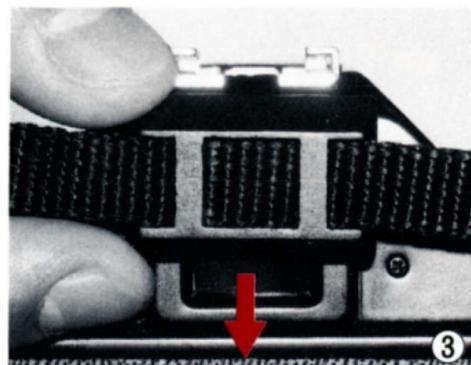
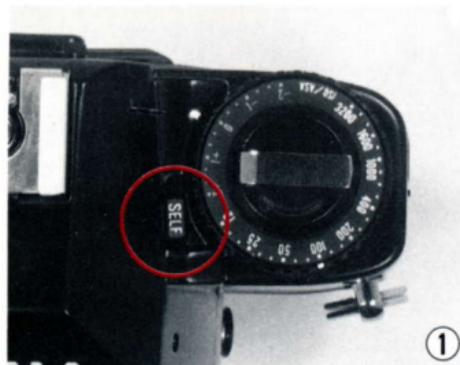
When long time exposures are required (for shooting night scenes or very dark subjects) the use of the "B" (Bulb) setting is recommended.

① Press the shutter speed dial release button and turn the dial to the "B" position. When you are in the "B" position the "B" signal at the top of the viewfinder display will go on.

② As long as you continue to hold the shutter release button down, the camera's shutter will remain open.

(NOTE: In order to avoid shaking when shooting time exposures, the use of a cable release and tripod are recommended.)

# USING THE SELF-TIMER



① After you have set the camera and are ready to shoot, press the self-timer switch button to start the timer.

② The red LED self-timer indicator light will start to blink and you will hear a "beeping" sound.

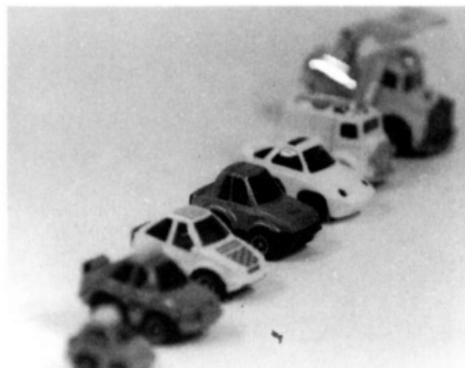
The shutter will be released after approximately 10 seconds.

③ When using the self-timer with the A (Auto) setting, to prevent light from entering the viewfinder eyepiece and causing incorrect exposure, use the Viewfinder Cap attached to the strap to cover the viewfinder eyepiece.

You may cancel the self-timer operation while it is "on" by pressing the self-timer switch button again.

# DEPTH-OF-FIELD

depth-of-field  
preview lever



Depth-of-field (the areas in front and behind your subject that are in focus) can be checked with the Sigma SA-1 in two ways:

① On each Sigma lens there is a clearly engraved depth-of-field readout scale on both sides of the distance mark. When the camera is in focus the distance setting on the focusing scale is aligned with the focus index. Using the markings for the f/stop setting you have selected, you can determine the depth-of-field distances by following the readout scale lines that correspond with that f/stop.

You will note from the depth-of-field scales, the larger the f/stop, the greater the depth-of-field, and the smaller the f/stop, the narrower the depth-of-field.

② After you have focused the camera you visually check the depth-of-field by pressing the depth-of-field preview lever. Please note that due to the nature of the aperture system of the lens, the viewfinder may get darker as you change the f/stop settings.

Be sure to release the depth-of-field preview lever before you press the shutter release to take your photographs.

# INFRA-RED PHOTOGRAPHY

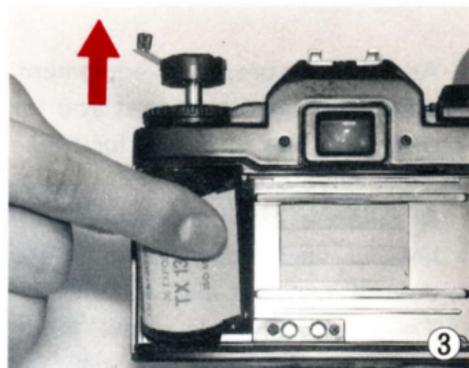
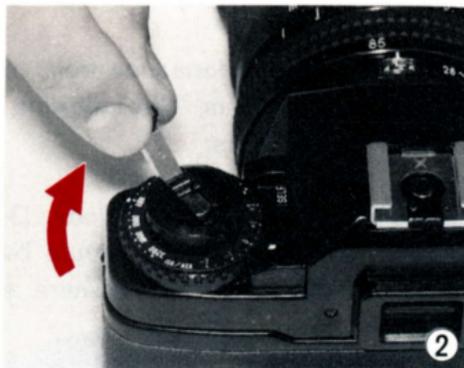


When shooting with an infra-red film and a red filter (R60 or equivalent) you will have to make a manual correction after you focus normally.

- ① Focus the camera and read the distance indicated focus index.
- ② Turn the focusing ring to reset the focusing distance next to the "R" (Infra-red) line.

(NOTE: For additional information, please refer to the instructions packed with the infra-red film.)

## REWINDING THE FILM



When you have completed shooting a roll of film, it must be rewound back into the film cassette before opening the back cover of the camera. To rewind the film:

- ① Press the film rewind button located on the bottom of the camera.
- ② Pull out the film rewind crank and start to turn it clockwise. Continue to turn until you no longer feel any tension and the lever turns freely.
- ③ Raise the film rewind knob further until the back cover lock spring is released and the back cover opens.

Remove the film cassette, return the film rewind crank to its closed position and lock the back cover of the camera securely.

# BASIC CARE OF CAMERA AND LENS

As with any precision equipment, to get maximum performance from your camera and lens for a long period of time, it is important that you take proper care of them. The following list represents basic, but vital steps you should take in caring for these valuable investments:

① To remove dust and dirt...

A Silicone cloth is recommended for cleaning the camera body. Do not, however, use it to clean the lens or viewfinder glass. For this a soft, dry, clean cloth should be used. A blower brush or a can of dust-off spray is also a handy tool to remove dust from both camera and lens.

② To clean the inside of the camera body and lens...

It is recommended you do not attempt to clean the inside of your camera and lens yourself. Instead, bring your equipment to your local camera shop or service station and have them attend to it there.

③ Keep camera and lens dry...

Any moisture outside or inside your camera and lens can be harmful. If your equipment does get wet, dry it off right away. And if moisture gets inside, bring your equipment to your local camera shop or service station for immediate care.

④ When camera is not in use...

When your camera is not in use, it should be kept in a dry place. If you normally store your camera and lenses in a gadget bag or a camera case, it is recommended you take them out from time to time. Batteries should be removed from all equipment left idle for any extended length of time.

# SIGMA SA-1 SYSTEM ACCESSORY GROUP



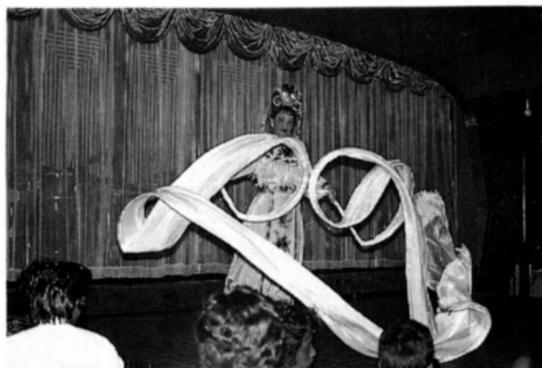
# AUTO WINDER SA



When shooting high speed action, or when you need to keep your eye in the viewfinder to concentrate on composition, the **Sigma Auto Winder SA** is the perfect accessory.

It allows you to shoot 2-frames per second, continuously, without advancing the film yourself. The film is advanced automatically, immediately after you release the shutter.

## ELECTRONIC FLASH SA 240



The Sigma Electronic Flash SA 240 is an automatic electronic flash designed especially for use with the Sigma SA-1.

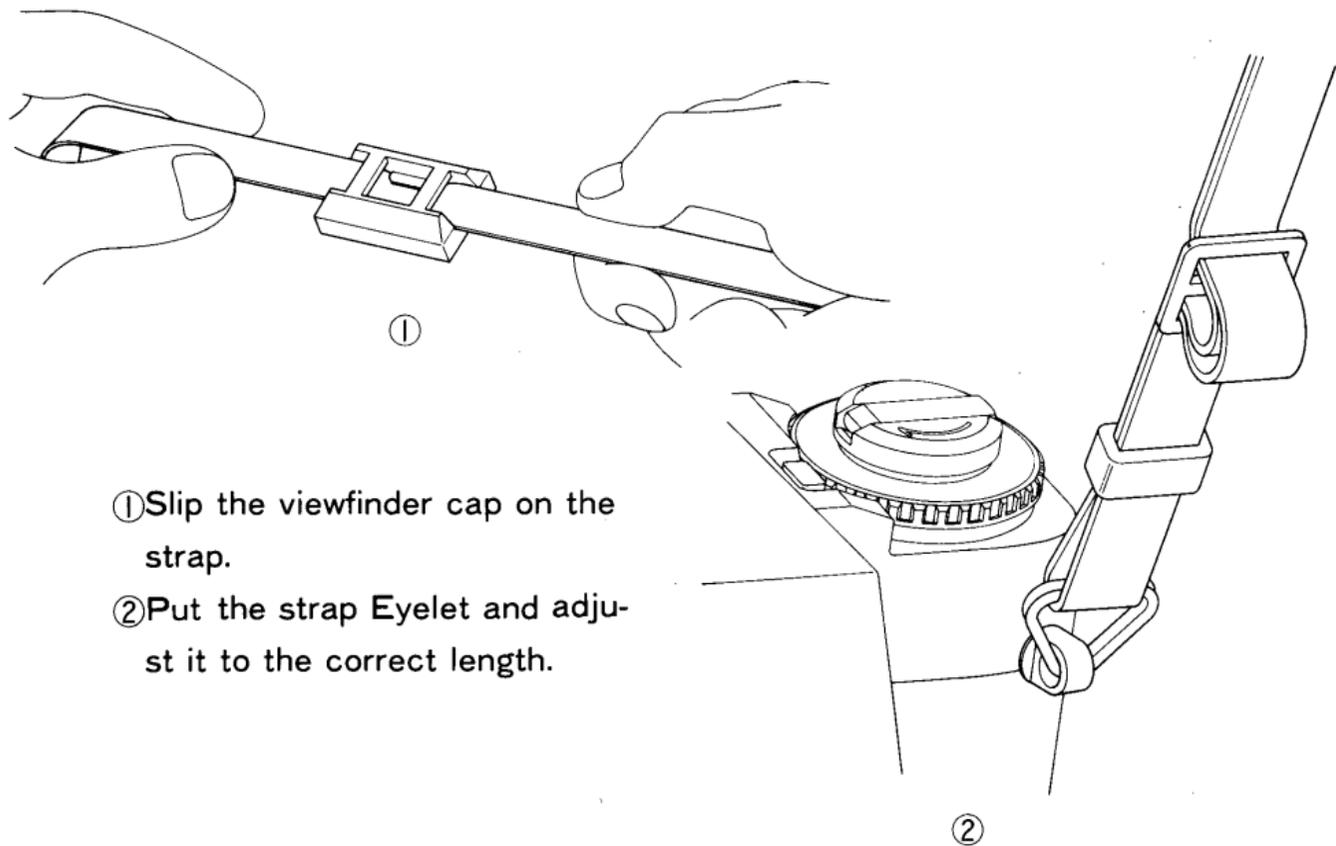
This compact, lightweight flash attaches easily to your camera and is simple to operate. Indoors and out, at night, and even during the day where fill-in flash is needed, the SA240 lets you expand your picture creativity.

# DATA BACK QUARTZ SA



By replacing the normal camera back with this DATA BACK QUARTZ SA, you can record the year, month, date, hour, minute, second and even elapsed time on the bottom right corner of your picture. The information is imprinted by an LED optical system, and it makes the DATA BACK QUARTZ SA an ideal accessory for family travel, anniversary and birthday, sports events photos and more.

# ATTACHING THE VIEWFINDER CAP AND STRAP



- ① Slip the viewfinder cap on the strap.
- ② Put the strap Eyelet and adjust it to the correct length.

# SIGMA SA-1 SPECIFICATION

- CAMERA TYPE:** 35mm Autoexposure, aperture priority single lens reflex camera
- SHUTTER:** Vertically traveling, metal, focal-plane type
- SHUTTER RELEASE:** Electrical magnetic type
- SHUTTER SPEED RANGE:** Stepless speeds on automatic exposure control from 16 sec. to 1/1,000 sec., stepped speeds from 8 sec. to 1/1,000 sec. on manual plus bulb setting
- LENS MOUNT:** Universal Bayonet mount
- ACCESSORY LENSES:** Automatic open aperture metering, manual fixed aperture, K bayonet mount lenses
- VIEW FINDER:** Eye-level type
- FOCUSING SCREEN:** Fixed, Split and Micro Prism mat type
- FIELD OF VIEW:** Vertical 93% Horizontal 93%
- VIEWING MAGNIFICATION:** 0.88 with 50mm lens
- VIEW FINDER DISPLAY:** Fixed shutter speed number display, and LCD shutter speed needle, over/under exposure mark, manual mode indicator, slow shutter speed warning, flash recycled signal, exposure memory signal, long time exposure indicator
- MIRROR SYSTEM:** Swing-back, quick return
- EXPOSURE METER:** TTL average center bottom weighted
- METERING DEVICE:** Silicone Photodiode
- EXPOSURE RANGE:** From EV 0 to EV 18 (ASA/ISO 100)
- FILM SENSITIVITY CONTROL:** ASA/ISO 12 to 3,200
- MANUAL APERTURE COMPENSATION:** + - 2EV (each 1/3 step) by compensation dial
- SELF-TIMER:** Electrical control, operation delay about 10 sec., LED and sound warning system. Can be cancelled without shutter release
- CAMERA BACK COVER:** Pull up open hinged type by film rewind knob
- FILM WIND:** Easy loading by slit spool, single stroke, 35 degree standoff, 135 degree winding angle
- FILM COUNTER:** Additive, auto reset
- BATTERY CHECK:** By pushing exposure meter switch, warning signal in view finder display
- FLASH TERMINAL:** PC and Hot Shoe for X-synch
- FLASH SYNCHRONIZATION:** 1/125 sec. Electronic Flash SA240 automatically set synch speed of camera
- POWER SOURCE:** Two LR44 Alkaline or SR44 Silver Oxide, or one CR-1/3N, GL2-76 Lithium battery
- TRIPOD SOCKET:** JIS B7103
- SHUTTER CABLE RELEASE SOCKET:** JIS B7104 tapered
- OTHER FEATURE:** Body fixed action grip, depth-of-field preview lever, exposure memory switch, back cover memo holder
- DIMENSIONS:** 136mm(5.35 in.) long X 86mm(3.38 in.) wide X 51 mm(2 in.) height body only
- WEIGHT:** 470g (16.57 oz.) body only

2-3-15 Iwato-Minami Komae-shi, Tokyo201

Tel: 03(480)1431 Telex: 2423580 SIGMAJJ

No. 31030S