

There are hundreds of 35mm cameras now on the market, and all of them are capable of taking full color transparencies and black and white pictures. Some of these cameras cost hundreds of dollars and are equipped with deluxe features that only the very advanced photographer finds practical to use. Other 35mm cameras are so inexpensive that even a beginner quickly outgrows their capacity.

**YOUR CENTURY 35,** backed by the famous Graflex name, has more quality features than any other camera in its price range. Many of these features, such as the all-metal precision die-cast body may not seem too. important, but as you use your Century 35 you will soon learn how these features help you take more and better photographs.

> One rule, above all others, that we hope you will use is: "Take plenty of pictures!" Use your Century 35 constantly. The more pictures you take, the better your pictures will be. Composition, subject, light, action, aperture, shutter speed, focus and depth of field all affect the pictures you take. When you use your Century 35 often you will soon recognize the limitations and opportunities each of these factors provides.

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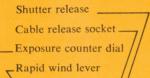
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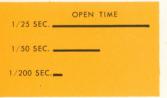
Accessory clip Rewind knob ASA film index reminder Depth of field scale Focusing scale setting Diaphragm setting (f/number) Diaphragm scale window Shutter speed setting Diaphragm lever Focusing ring Shutter speed ring Synchronizer fitting

Viewfinder-Rangefinder eyepiece Viewfinder-Rangefinder windows Four-element f/3.5 lens. coated and color corrected ENTURY -Diaphragm lever 35 Screw-in mount for lens shade and filters MFX Synchronization lever JDUINO Lock for hinged back EIROSHA-MT Tripod socket

### ALL GOOD "STILL PICTURE" CAMERAS



**DIAPHRAGM:** The quality of any photograph depends upon the amount of light that reaches the film during an exposure. There are two ways of regulating this light: (1) Diaphragm setting, (2) Shutter speed. In your Century 35 the **diaphragm** can be adjusted for a large opening (f/3.5) through eight positions to a small opening (f/2.2). The larger the opening the more light will reach the film during the exposure. On a bright sunny day you will use a small opening to limit the amount of light reaching the film, and on a dull, cloudy day you will use a large opening in order to get as much of the available light as possible onto the film.

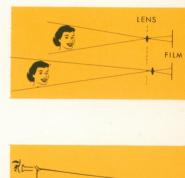


**SHUTTER SPEED:** The second way you control the light reaching the film is by adjusting the shutter speed. When you take a one-second exposure the shutter will remain open for a full second and admit a lot of light. At 1/25 second only 1/25 as much light will enter the camera. At 1/50 second you will get half as much light as you did at 1/25, and at 1/200 second you will get a fourth as much light as you did at 1/50. You can use a faster shutter speed on bright sunny days than you can on dull, cloudy days. In addition, you will want to use a fast shutter speed for action pictures in order to get sharp, unblurred photographs.

# **OPERATE ON THESE PRINCIPLES**

**FOCUS:** The adjustable focus on the Century 35 helps you get the sharpest possible pictures. To obtain truly sharp pictures, the distance from the subject you are photographing to the lens, and the short distance from the lens to the film must fit into a mathematical formula that depends upon the way the lens has been ground. Your Century 35 has an adjustable focusing mechanism that actually changes' the small distance between lens and film. You will actually see it move in and out as you turn the focusing ring. The focusing scale, marked in feet from 3 to infinity, shows you where the lens should be set corresponding to the distance the subject is any given distance away from the camera.

**RANGEFINDER:** Built into your Century 35 is an optical device that works on a principle of triangulation such as a surveyor uses. This rangefinder, in effect, measures the distance between your camera and the subject you are photographing. By coupling the rangefinder and lens focusing you are relieved of all the mathematical problems; you simply adjust the rangefinder and the lens is automatically focused for the sharpest possible photograph.





# SETTING THE DIAPHRAGM



Daylight Ektachrome ASA Index = 32; Guide Number at 1/50 second = 80; Distance to subject = 10 feet;  $80 \div 10 = 8 \dots$ for this specific example you would use a diaphragm setting of f/8.

- **1. RED DOT:** Use daylight Ektachrome or daylight Anscochrome film. Set the red f/11 opposite the red dot on the diaphragm scale. When used with the red dot shutter setting you will get good photographs of people and scenes on clear sunny days.
- 2. DAYLIGHT: Packed with every roll of film you buy is a sheet of instructions that recommend the proper shutter speeds and diaphragm settings (aperture settings) you should use for dull, clear, bright and sunny days. For convenience a sample chart for daylight Ektachrome and Anscochrome is reproduced on page 15. You set the diaphragm by lining up the f/number you want to use with the red dot in the diaphragm scale window.
- **3. FLASH:** On the instruction sheet packed with every roll of film you buy is an ASA Index Rating for Tungsten flash lamps. Locate this ASA Index on the guide number chart (page 18). Opposite this number is a series of "guide numbers" that vary with the shutter speed you wish to use. To determine the correct diaphragm setting for any flash picture, divide the guide number by the number of feet between the flash lamp and the subject you are photographing. The answer will be the approximate diaphragm setting you should use.



# SETTING THE SHUTTER SPEED

- **1. RED DOT:** Use daylight Ektachrome or daylight Anscochrome film. Set the red dot on the shutter speed ring opposite the red "50" on the shutter speed scale. When used with the red dot setting on the diaphragm scale you will get good photographs of people and scenes on clear sunny days.
- 2. DAYLIGHT: Packed with every roll of film you buy is a sheet of instructions that recommend the proper shutter speeds and diaphragm settings you should use for dull, clear, bright and sunny days. A sample chart for daylight Ektachrome and Anscochrome is reproduced on page 15. You set the shutter by lining up the red dot on the shutter speed ring with the red "50" on the shutter speed scale.
- **3.** FLASH: On the opposite page is described the way to select the proper diaphragm setting for any type of film at any shutter speed you choose to use. A sample guide number chart is printed on page 18. Similar guide number charts are printed on the instruction sheets packed with film and on most flash lamp cartons. You may also purchase an inexpensive flash calculator at any camera store, that will help you take good pictures.

# FOCUSING THE CENTURY 35 WITH THE BUILT-IN RANGEFINDER

Your Century 35 has a combined Rangefinder and Viewfinder that is very easy to use. (1) Look through the Rangefinder-Viewfinder eyepiece and you will see the large rectangular field covered by your camera lens with a small bright rectangle in the center of the field. (2) When you aim the camera at a vertical object (telephone pole, edge of a building, etc.) you will notice that the vertical lines are broken by the bright rectangle, meaning the object is out of focus. (3) By turning the focusing ring you can align the broken verticals; the object will then be in focus. (4) When your camera is focused on the subject, concentrate your attention on the full picture seen in the window. Since there is some margin of safety built into the finder, everything you see in the Viewfinder will appear in the picture.



OUT OF FOCUS



IN FOCUS

### OUT OF FOCUS PICTURE

Occasionally you may forget to focus your camera before taking a picture, or because of an optical illusion you may focus improperly. When this happens you can recognize the problem because the subject, or center of interest, will be entirely fuzzy in appearance (see illus.).



### CAMERA FOCUSED BUT IMAGE IS BLURRED BY MOVEMENT

When the picture is only blurred in places (see illus.), the cause is motion of the subject while the picture was being taken. This can usually be remedied by using a faster shutter speed. If, on the other hand, the subject and objects in the background have a "ghost image," the fault lies in camera movement; hold your breath and hold the camera steady for sharp pictures. Use a tripod for shutter speeds of 1/25 second or slower.

#### DEPTH OF FIELD

Because of the physical properties of any camera lens the entire depth, from foreground to the horizon, of a picture will never be as sharp as the subject upon which you are focused. The depth of field scale tells you how many feet in front of and in back of the subject will be in sharp focus. This depth of field varies with the diaphragm setting.

Example;

Focused at 10 feet; diaphragm setting of f/11; everything from 6 feet to 30 feet will be sharp.





## LOADING

Your new Century 35 will accept standard 20 or 36 exposure 35mm film cartridges (black and white or color). Loading is quick and easy. Never load or unload in bright, direct light, Simply follow the steps on these pages.

- **1.** Slide the lock lever downward as far as it will go. Open the camera back (see illus.).
- 2. Hold the camera in your right hand and pull the rewind knob upward as far as it will go. Drop cartridge into chamber and press rewind knob back into place, turning slightly to engage cartridge (see illus.).
- **3.** Insert end of film under clip in take-up reel which can be advanced with the right thumb. Make sure sprocket teeth engage sprocket holes in film and film winds straight. Advance film by moving rapid wind lever in direction of arrow as far as it will go. It is not necessary to use excessive pressure (see illus.). Close camera back and lock into place by sliding locking lever upward as far as it will go.

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# YOUR CENTURY 35 CAMERA

### WARRANTY:

To the initial purchaser of this camera:

Skilled craftsmen have produced this camera. They have built into it a level of quality and performance which will insure your enjoyment in the making of fine pictures.

Each new camera is warranted to be free from faulty materials and workmanship, except as hereinafter set forth. If any time during your first year of ownership, any servicing is necessitated by faulty material or workmanship, it will be provided (or the equipment replaced at our option) without charge except for transportation charges, by your nearest Graflex Service facility. Returns for servicing should be made through your Graflex Dealer; or if this is not convenient, the equipment should be carefully packed in a stiff container with adequate packing (not excelsior). Attach name and address and any specific instructions to the package, which should be adequately secured and fully insured.

This warranty is not applicable:

- A. To any non-Graflex manufactured accessory items:
- B. To Equipment which in our judgment has been damaged, abused, or requires replacement of parts due to wear and tear from use, or for any reason other

than faulty materials and workmanship. Such equipment will be serviced at factory-established rates;

- C. To Equipment which has been tampered with or serviced by other than Graflex personnel;
- D. If adaptations or accessories of other than Graflex recommendations have been made or attached;
- E. If the equipment has not been registered with Graflex by means of the attached registration card or appropriate substitute within 60 days from date of purchase. No liability is assumed for film which is damaged or is unsatisfactory for any reason (due to equipment malfunction or otherwise), nor is Graflex, Inc., obligated to replace such film. No liability is assumed for expenses or damages resulting from interruptions in operation of equipment.

In order that we may be able to pursue our continuing program of product improvement, Graflex reserves the right to make changes in design, or add improvements to any product without incurring any obligation to include such revisions in equipment previously produced.

This warranty is made in lieu of any other guaranty, warranty, or liability expressed or implied. It is valid only to the original purchaser as indicated by the registration card. Graflex's liability under the within warranty is limited to repair or replacement as herein provided.

Graflex Service facilities are at the following locations:

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Rochester	Allen Street	Rochester 6, N.Y.
New Vork Area	Rockefeller Plaza, Suite 922	New York 20, N.Y.
Midwest Division	0 West Ohio Street	Chicago 10, Ill.
Western Division 80	0 N. Cole Ave., P.O. Box 38606	
Canada 13	7 Wellington St. West	Toronto, Ont., Canada
Canada	, mennigron on menningroup	

Record here the serial number for your insurance file and future reference.

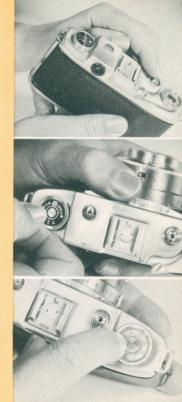
Century 35 1972

No. 1112098

GRAFLEX, INC., Rochester 3, N.Y.

## YOUR CENTURY 35

- 4. Trip the shutter by depressing the shutter release (see illus.) on top of camera as far as it will go. This simultaneously trips the shutter and releases the film wind interlock mechanism. Wind and trip two times to advance film sufficiently to be ready for first exposure.
- **5.** Set film speed on dial on rewind knob by rotating black inner dial in either direction until proper number is seen through window (see illus.).
- 6. Set counter dial (see illus.) by turning counterclockwise to appropriate number (20 for 20-exposure rolls 36 for 36-exposure rolls). After each exposure, advance the film winding lever to its fullest (without force); the exposure counter dial will automatically advance one space and will tell you how many exposures you have left.



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# **DAYLIGHT PICTURES**

- RED DOT SETTING: Your Century 35 has red markings for 1/50 second, f/11 and 15-foot focus. Using this combination with daylight Ektachrome or Anscochrome film, you will get good pictures in bright sunlight.
- 2. CHOICE OF FILM: The Century 35 camera will accept any type of black and white or color film available in '#135 size. This film comes in a metal cartridge which you insert into the camera (see pages 12-13). You may choose either the 20 or 36 exposure films. We recommend that beginners select one type of film such as Daylight Ektachrome or Anscochrome with 20 exposures and continue using this same type and size until they are completely familiar with the camera and results.
- **3.** FRONT AND SIDE LIGHTING: Never let the sunlight shine into the lens of your camera while taking a picture. Always stand with the sun shining on your back or from the side. When photographing people, look for large, dark shadows around the eyes, nose, mouth and chin, and try to avoid them by turning the subject's face toward or away from the sun.

### WHAT EXPOSURE FOR DAYLIGHT?

Most subjects fall into one of three standard types or groups to which definite exposures can be assigned. This table is for Ektachrome and Anscochrome Daylight Type under common lighting conditions. For other films consult the instruction sheet packed with the film.



DARK SUBJECTS

Masses of dark areas or people standing near shrubbery which does not reflect light can be classed as "Dark Subjects" AVERAGE SUBJECTS Basic Exposure

Brightly colored gardens, houses, pets, nearby people, etc., not in the shade. Most pictures fall into this group.

#### LIGHT SUBJECTS

Beach, marine, and snow scenes, where everything is lightcolored and the surroundings reflect light onto the subject to give a brilliant, flat lighting.

Daylight Ektachrome and Anscochrome Exposure Table		Diaphragm Setting	Shutter Speed	Diaphragm Setting	Shutter Speed	Diaphragm Setting	Shutter Speed
Light	Subject in clear, direct sunlight	f/8 - f/11	1/50	RED DOT f/11	RED DOT	f/11 - f/16	1/50
Conditions	Hazy Sun Soft shadows cast	f/5.6-f/8	1/50	f/8	1, 50	f/8 - f/11	1/50
	Cloudy but bright no shadows	f/4 - f/5.6	1/50	f/5.6	1/50	f/5.6-f/8	1/50





# FLASH PICTURES WITH THE GRAFLASH B-C

- Choice of flash lamps: Your Century 35 is automatically synchronized at all shutter speeds for "M" (medium peaking) and "F" (fast peaking) flash lamps used in the Graflash B-C. You may also use an electronic flash unit, such as the Graflex-made Strobomite, by setting the synchronization lever at "X" (instantaneous). We recommend that beginners use #5 or #25 (clear or blue) medium peaking flash lamps until they become familiar with the camera and its results.
- 2. Inserting batteries: Simply pry off the back cover of the Graflash B-C battery case and insert a 22½ volt photo-flash battery as indicated. The cover snaps back into position. See its instruction leaflet for further details.



- **3.** Mounting on Century 35: Slide the Graflash B-C mounting foot into the accessory clip on top of the camera and tighten the knurled thumb screw.
- 4. Attaching shutter cord: The Graflash B-C has a shutter connector cord that attaches to the synchronizer fitting just above the MFX synchronization lever. Press the cord plug firmly onto the fitting.
- Guide numbers: In order to select the proper diaphragm setting for any flash picture you must use the Guide Number Chart on page 18 or an inexpensive flash calculator sold in most camera stores.
  - a. Locate the correct guide number on the Guide Number Chart. Check type of film or ASA index rating; type of flash lamp and shutter speed you intend to use.
  - **b.** Focus your camera and determine the distance in feet between the flash lamp and the subject you are photographing.
  - c. Divide the guide number by the distance in feet . . . the answer is your approximate diaphragm setting.

Example;

Daylight Ektachrome film ASA Index = 32 (use blue flash lamps); guide number at 1/50 =80; Distance to subject = 10 feet;  $80 \div 10 =$  $= 8 \dots$  for this specific example you would use a diaphragm setting of f.8.

### AVERAGE FLASH EXPOSURE GUIDE NUMBERS

Guide numbers are provided so that you may have a basic satisfactory exposure. You may prefer a lighter or darker transparency (or negative) than that provided by the figures given in the table below. Check the suggested guide numbers provided with the film and the lamps. Some compromise or adjustment of these guide numbers may provide you with a slide or negative which will be more pleasing to you.

Remember that in small, light colored rooms it is advisable to use at least  $\frac{1}{2}$  stop (f/ number) smaller, and in large, darker rooms, halls or churches  $\frac{1}{2}$  stop larger.

#### Daylight Color Film - Use 5B or 25B Bulbs

	1/50	1/100	1/250	1/500	
Kodachrome	50	46	35	25	
Ektachrome	90	85	60	50	
Anscochrome	, 90	85	60	50	
Super Anscochrome	170	135	95	80	
Indoor Color Film — Use Cle	ar #5 or #2	5 Bulbs			
Kodachrome F	95	85	65	50	
Ektachrome F	120	100	70	60	
Anscochrome Flash Type	120	100	70	60	
Black and White Films — Use Clear #5 or #25 Bulbs					
Panatomic X	110	95	75	60	
Plus X	170	150	120	95	
Tri X	280	240	180	140	
Supreme	155	120	90	75	
Ultra Speed Pan	220	170	130	95	

Spaces are provided for you to insert guide numbers for other films.

## HOW TO REMOVE THE FILM FROM YOUR CAMERA

When the exposure dial on your Century 35 reads 0, you will have taken all the pictures on the roll. Usually it will be impossible to wind the film past this point. The exposed film must now be rewound back into the light-tight cartridge before removing it from the camera.

- **1.** Remove the camera from its ever-ready carrying case. depress the rewind release button on the bottom of the camera (see illus.).
- **2.** Lift the rewind knob to first position (approximately  $\frac{1}{2}$  inch) (see illus.).
- 3. Hold the camera in your left hand with thumb depressing the rewind release button. With your right hand, turn the rewind knob clockwise until you have all the exposed film safely rewound into the cartridge.
- **4.** Release the lock on the side of the camera, and open the back.
- **5.** Pull the rewind knob all the way out, as far as it will go, and lift out the cartridge (see illus.). Reload your camera so that it will always be ready for use.





# PICTURE-TAKING TIPS -

#### The best pictures are those which tell a single simple story

Check the background to make sure that there is no distracting material such as a branch or a telephone pole which appears to grow out of the head or shoulders of your subject. Horizontal lines such as the clapboards or shingles on a house can be distracting. When photographing pets or children the camera should be held at or below their level.

Get your subject to relax. Try to have him doing something besides looking at you.

**OUTDOOR PORTRAITS** — Side lighting and back lighting of the subject will be found helpful in the making of more interesting pictures. Open shade will be most helpful in the making of finer portraits, but be sure that your subject's face will receive light reflected from surrounding areas on both sides so that there will be no dark areas. Since exposure will have to be increased considerably even in the open shade and particularly when subjects are side lighted or back lighted, be sure to check film manufacturer's instruction sheet very carefully. Use a good lens shade when shooting toward the sun or other bright areas. Get close enough to your subject. Fill the entire viewfinder window.

**SHARP PICTURES ARE OF UTMOST IMPORTANCE** — Check the rangefinder rectangle to be sure that the camera is properly focused. Hold the camera motionless when making the exposure. Be sure that the shutter release is pressed down smoothly when making the exposure. Jabbing at it will cause camera movement. Hold your breath for the instant the exposure is made and you will be rewarded with clearer, sharper pictures.

**ACTION** — Action will require the use of a fairly fast shutter speed. 1/100 second will stop normal motion around the home; but fast action will require the 1/500 setting. Action can best be stopped if the subject is moving toward or away from the camera, but will be harder to stop if moving at right angles to the camera.







## PROXIMETERS

**Close-ups** — Close-up pictures are fun and enable you to make interesting and pleasing shots of flowers, very small animals and similar objects. The Graflex Proximeters, which clamp right onto the camera lens, include a special prism which permits focusing through the rangefinder and framing the subject in the viewfinder without parallax problems. No change in exposure determination is needed. Full instructions covering their use are included with the attachments.

Proximeter	Closest Distance	Farthest Distance	
Proximeter I Cat. No. 8130	21″	41''	
Proximeter II Cat. No. 8131	15"	22''	
Proximeter I plus Proximeter II	123⁄4''	153/4''	

NOTE: Distances are measured from subject to film plane.

Very slight vignetting (darkening of the corners) may be noted with the Proximeter II. With both the Proximeter I and II, used over the camera lens, vignetting will be more marked.

### STROBOMITE

(Cat. No. 2201): An excellent accessory for the amateur photographer is the Graflex-made Strobomite, a portable electronic flash unit. Strobomite operates on 4 "D" size photoflash batteries or common 110 volt household AC current. Lightweight and convenient, Strobomite cuts cost to less than 1c a flash and provides advantages unmatched by other artificial light sources. Ask your camera dealer for a demonstration. Has a guide number of 55 for Daylight Ektachrome and Anscochrome.



### **GRAFLEX SPEED TRIPOD**

(Cat. No. 8094): A tripod helps you get better pictures more often by freeing your hands and attention, letting you concentrate on a subject's changing expression. For "B" time exposures and when shooting at speeds slower than 1/25 second, a tripod and cable release are a **must**, in order to eliminate camera motion.

### CONSTELLATION SLIDE PROJECTOR:

If you take good color slides with a good camera you should also show your slides with a projector. The Graflex-made Constellation is an excellent 500 watt projector with 4" f/3.3 lens for bright, clear projection. Remote operation model available. Ask your camera dealer for a demonstration.



### FILTERS

Filters are always helpful in the making of better pictures. The instruction sheet which came with the film will give you information concerning the use of some filters, recommended for that film. In general the Skylight filter will take care of most requirements for the Daylight color films. Black and white films allow the use of a wide variety of filters. Your Graftex dealer can supply you with suitable filters and information concerning them.



The Graflex lens shade and filter kit, Cat. No. 8180, includes a lens shade, a screw-in adapter, the Skylight, the 85-C and the medium yellow (K-2) filters. Spaces in the leather carrying case provide for storage of at least three other Series 5 filters.

Skylight - To reduce bluish haze with all daylight color films.

 $85\text{-}\mathrm{C} \rightarrow \text{When using Kodachrome F, Ektachrome F, and Anscochrome Flash Type films out of doors in daylight.}$ 

Medium Yellow (K-2) — For use with black and white film, darkens sky slightly and produces more pleasing reproduction of clouds.

Other commonly used filters available from your Graflex dealer.

Light Green (X-1) — For black and white films — for true rendition of foliage, trees, etc.

Red (A) — For black and white films — for striking cloud pictures with ordinary film and dynamic night shots with infrared film.

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