

Facts and figures

Type: 24 x 36 mm compact viewfinder camera, with coupled rangefinder and electronic shutter speed automation.

Specification: Film quick-loading system, self-zeroing exposure counter with filmloading indication, rapid winding with ready position, double exposure and blank frame lock; rewind indication, built-in lenshood; bright-line frame in viewfinder 0.48 x with parallax marks, shutter speed/aperture indicators and areas warning of overexposure or movement blur; superimposed coupled rangefinder with lateral parallax compensation; lens shutter X-synchronized at all shutter speeds for daylight exposures with flash, hot shoe; cable release socket, 1/4" tripod bush, carrying strap eyelets.

Exposure automation: electronic shutter speed control, approx. 1/500 to 4 sec upon pre-set aperture, with switch to change over to 1/30 sec for flash exposures without daylight; film speed range 25-400 ASA/15-27 DIN; Cds cell near lens mount, also effective when using filters; measuring range 0.25-33,000 cd/m², 0.28 to 40,000 cd/sq.

yd. or exposure value 1 to 18 with 100 ASA/21 DIN; powered by 4 button cells 1.5 V, battery check by shutter speed indicator, battery compartment also accessible when film is inserted.

Lens: Voigtländer Color-Skopar 40 mm f/2.8, 4 elements, 3 components, aperture range f/2.8-f/22; focusing to 0.9m/3 ft, depth of field scale, filter thread E 49 x 0.75.

Dimensions: approx. 102 x 73 x 35 mm/
4 x 2⁷/₈ x 1³/₈ in.

Weight: approx. 490 g/17¹/₄ oz.

Accessories: Filters medium yellow, green, orange, light red, UV, R 1.5; carrying bag, carrying strap.

Caractéristiques et particularités

Type: Appareil compact 24 x 36 mm, avec télémètre couplé et système électronique d'obturation.

Équipement: Système de mise en place rapide du film, compteur d'images à retour automatique, avec indication de mise en place du film, armement rapide avec position de prêt à l'emploi, blocage contre la double exposition ou le double armement, contrôle du rebobinage, parasoleil incorporé; viseur à cadre lumineux 0,48 x avec repères de parallaxe, indication vitesse/diaphragme et signalisation contre le bougé ou la surexposition; télémètre couplé à coïncidence avec correction latérale de la parallaxe; obturateur central, avec synchronisation-X sur toutes les vitesses d'obturation pour les prises de vue avec flash en lumière du jour, griffe porte-accessoire à contact central; raccord pour déclencheur souple, filetage pour pied $\frac{1}{4}$ ", anneaux pour la courroie.

Automatique d'exposition: commande électronique de la vitesse d'obturation, $4\text{-}\frac{1}{500}$ sec environ après présélection du diaphragme, réglable sur

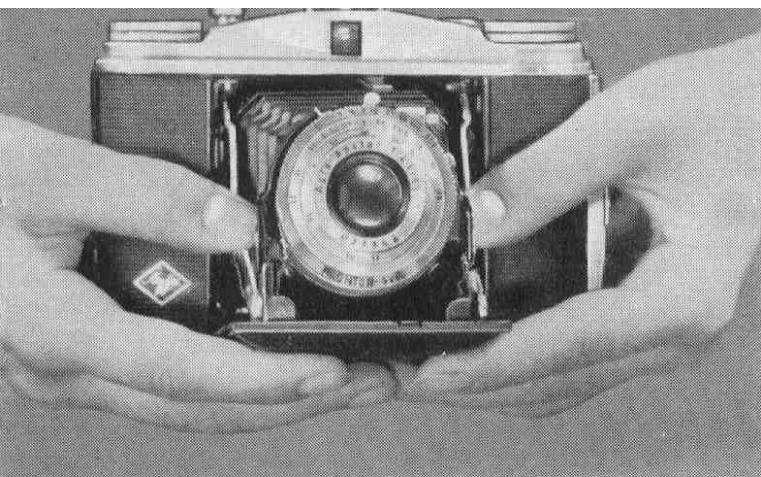
$\frac{1}{30}$ sec. pour prises de vues au flash sans lumière du jour; réglage de la sensibilité du film 15-27 DIN/25-400 ASA; cellule CdS près de l'objectif, agissant également de façon efficace en présence d'un filtre; étendue de mesure 0,25-33000 cd/m² ou indice de lumination 1-18 pour 21 DIN/100 ASA; alimentation par 4 piles-boutons de 1,5 V, contrôle des piles au-dessus de l'indication de la vitesse, logement des piles accessible, même avec film mis en place.

Objectif: Voigtländer Color-Skopar 1:2,8/40 mm, 4 lentilles, éléments, ouvertures de 2,8 à 22; réglage de la distance à partir de 0,9 m/3 ft, échelle de la profondeur de netteté, filetage pour filtre E 49 x 0,75.

Dimensions: 102 x 73 x 35 mm environ.

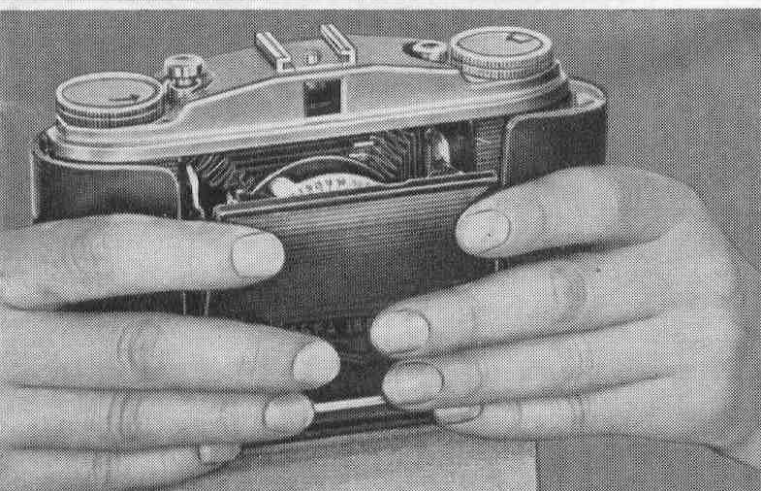
Poids: 490 g environ.

Accessoires: Filtres jaune moyen, vert, orange, rouge clair, UV, R 1,5; sacoche, dragonne.



To close the camera:

Slight pressure of the two index fingers on the joints of the braces causes the baseboard to fold up into the camera body.



Firm pressure on the hinged baseboard will lock the camera after an audible click.

After the last, 12th exposure wind the film on until the end of the backing paper has passed the film window.

Guter Rat und schnelle Hilfe

Merkmal	mögliche Ursache	Abhilfe	Bemerkung
Verschluß löst nicht aus	Schnellschalthebel nur teilweise gespannt	Hebel bis zum Anschlag durchziehen	siehe Seite 13
Meßzeiger reagiert nicht	Batterie-Kontaktfehler	Batterien blankreiben	siehe Seite 20
	Batterien entladen oder nicht (bzw. falsch) eingelegt	Batterien erneuern oder (richtig) einsetzen; falls Ersatzbatterien nicht greifbar, Belichtung mit geschätzter Blende regeln, Verschußzeit hierbei stets kürzester Wert	
starker Widerstand beim Filmtransport, Schnellschalthebel bleibt vor Endanschlag stehen	Filmlänge zu sehr ausgenutzt, Film völlig abgewickelt	Film nicht gewaltsam transportieren, Auslöser drücken, Film rückspulen; falls Film aus Patrone herausgerissen: Kamera nur in völliger Dunkelheit öffnen, Film von Hand aufspulen und lichtdicht verpacken	
Bildzählwerk zeigt nicht an	Film falsch eingelegt	Film richtig einspulen	siehe Seite 2
	Film gerissen	abgerissenes Filmstück (falls belichtet, in völliger Dunkelheit) entfernen, Film neu anschneiden und richtig einspulen	
Film über- oder unterbelichtet	Filmempfindlichkeit falsch eingestellt	Filmempfindlichkeit richtig einstellen	siehe Seite 5
Bild verwackelt	Zeiger im unteren roten Warnfeld nicht beachtet	größere Blende einstellen oder Blitz verwenden	siehe Seite 8 und 14
Bild überbelichtet	Zeiger im oberen roten Warnfeld nicht beachtet	kleinere Blende einstellen	siehe Seite 8
	Bei Aufnahme ohne Blitz Umschalter in Stellung ⚡	Umschalter auf A stellen	siehe Seite 7
Blitzaufnahme teilweise oder völlig unscharf	Umschalter in Stellung A	Umschalter auf ⚡ einstellen	siehe Seite 14
Bild teilweise oder völlig unscharf	Entfernungseinstellung vergessen, insbesondere im Nahbereich 0,9-2,5 m	Entfernung genau einstellen	siehe Seite 10
	Aufnahmen schnell bewegter Objekte in schwachem Licht	diese Aufnahmen bei hellerem Licht machen oder höherempfindlichen Film verwenden	

Merkmal	mögliche Ursache	Abhilfe	Bemerkung
oberer Bildrand abgeschnitten	Parallaxe nicht berücksichtigt	Parallaxmarken im Sucher beachten	siehe Seite 12
helle Bildteile überstrahlt und fast ohne Farbe, dunkle Bildteile fast schwarz und ohne erkennbare Details	Lichtkontrast für Farbfilm zu hoch: besonders bei Gegenlichtaufnahmen, Markt- und Straßenszenen mit hohem Sonnenstand, sowie Strand- und Hochgebirgsaufnahmen in der Mittagszeit	anderen Bildausschnitt wählen, sehr helle und sehr dunkle Motive getrennt aufnehmen, Aufnahmestandpunkt oder -richtung ändern, fotografisch günstigere Vor- oder Nachmittagssonne bevorzugen	

Handling faults and remedies

Fault	Possible cause	Remedy	Notes
Shutter does not release	Rapid winding lever only partly tensioned	Fully tension rapid lever to the stop	see page 13
Indicator needle does not respond	Oxide deposit on battery poles	Wipe oxide off batteries	see page 20
	Batteries exhausted, not inserted or wrongly inserted	Exchange or insert batteries (correctly); if spare batteries are not available, set exposure with a guessed aperture, shutter speed will remain on shortest value	
Heavy resistance against film advance, lever stops halfway	Excessive exploitation of film length, film entirely wound off	Avoid any force, press down release knob, then rewind film; if film is torn out of cartridge; open camera in total darkness only, rewind film by hand and wrap up light-proof	
Frame counter does not indicate	Film wrongly loaded	Load film correctly	see page 2
	Film torn	Remove torn piece (in total darkness, when exposed), trim new leader and re-load film correctly	
Whole film under- or overexposed	Film speed set wrongly	Set film speed correctly	see page 5
Picture underexposed	Disregard of indicator in upper red warning area	Open aperture or use flash	see page 8 and 14

Fault	Possible cause	Remedy	Notes
Picture overexposed	Disregard of indicator in lower red warning area	Stop down	see page 8
	Setting knob in position $\downarrow$, when shooting without flash	Turn setting knob into position A	see page 7
Flash picture partly or entirely unsharp	Setting knob in position A	Turn setting knob into position $\downarrow$	see page 14
Picture partly or completely unsharp	Focusing forgotten, particularly in close-up range 0,9 — 2,5 m/3 to 8 ft	Focus more accurately	see page 10
	Pictures of fast moving subjects in dim light	Take these pictures in brighter light, or use faster film	
Upper part of picture missing	Disregard of parallax	Note parallax marks	see page 12
Bright picture areas washed-out and almost colourless, dark picture areas almost black and without discernable detail	Light contrast too excessive for colour film: particularly with against-the-light shots, market and street scenes under high sun, beach and mountain scenes at midday	Select different picture area, photograph very bright and very dark subjects separately, change viewpoint or direction; give preference to morning or afternoon sun which is more suitable for photographing	

Défauts et remèdes

Défaut	Cause possible	Remède	Remarques
L'obturateur ne se déclenche pas	Le levier d'armement a été tourné à moitié	Tourner le levier à fond	Voir page 14
L'aiguille indicatrice ne réagit pas	Contact défectueux des piles	Polir les piles	Voir page 20
	Piles déchargées ou mal mises en place	Renouveler les piles ou les mettre bien en place; si l'on ne dispose plus de piles, régler approximativement le diaphragme, la vitesse d'obturation étant toujours la plus courte	
Forte résistance dans l'avancement du film, le levier d'armement ne va pas à fond	Trop grande utilisation de la longueur du film, film complètement déroulé	Ne pas forcer, appuyer le déclencheur, rebobiner le film; si le film est déchiré du chargeur, ouvrir l'appareil dans la complète obscurité, bobiner manuellement et envelopper le film de façon étanche à la lumière	
Le compteur d'images ne fonctionne pas	Film mal mis en place	Bobiner le film correctement	Voir page 2
	Film déchiré	Oter le morceau de film déchiré (dans la complète obscurité si le film est déjà exposé), recouper le film et le bobiner correctement	
Film sur- ou sous-exposé	Mauvais réglage de la sensibilité	Régler correctement la sensibilité	Voir page 5
Image présente du flou de bougé	Non-observation de l'aiguille dans la zone rouge inférieure	Prendre une plus grande ouverture ou utiliser un flash	Voir pages 9 et 15
Image surexposée	Non-observation de l'aiguille dans la zone rouge supérieure	Prendre une plus petite ouverture	Voir page 9
	Dans les prises de vue sans flash, commutation sur $\downarrow$	Commuter sur la position A	Voir page 7

Défaut	Cause possible	Remède	Remarques
Prise de vue avec flash: manque total ou partiel de netteté	Commutation sur A	Commuter sur la position $\downarrow$	Voir page 14
Manque total ou partiel de netteté	Oubli du réglage de la distance, principalement pour l'étendue 0,9—2,5 m	Régler la distance avec précision	Voir page 10
	Prise de vue de sujets très mobiles avec éclairage trop faible	Effectuer ce genre de prise de vue avec un meilleur éclairage ou employer un film plus sensible	
Bord supérieur de l'image coupé	Non-observation de la parallaxe	Tenir compte des repères de parallaxe dans le viseur	Voir page 12
Parties claires de l'image trop éclairées et presque sans couleur, parties sombres presque noires sans distinction des détails	Contraste lumineux trop fort pour film-couleur: surtout pour contre-jour, scènes de marché et de rues avec soleil à son apogée, vues prises à midi au bord de la mer et en montagne	Choisir un autre cadrage, photographier séparément motifs sombres et motifs clairs, modifier la direction de prise de vue, préférer l'éclairage photographiquement meilleur du soleil du matin ou de l'après-midi	

Technische Änderungen vorbehalten

Subject to technical modification without notice

Sous réserve de modifications techniques

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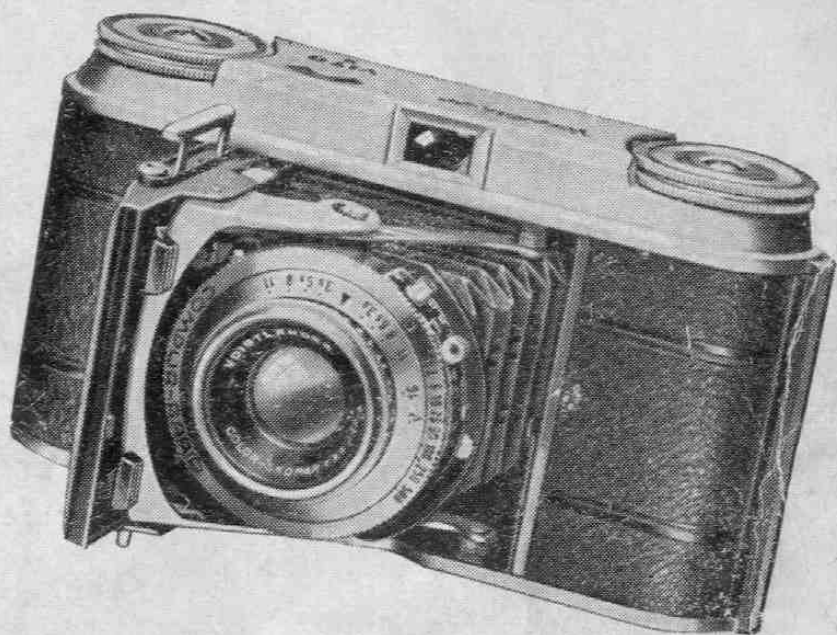
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Voigtländer
VITO
II



INSTRUCTIONS FOR USE

The most important point

of the whole instruction booklet is on this page. It consists of the request to read the instructions carefully to make yourself fully conversant with its handling before you start to take photographs or investigate the construction of the instrument.

Keep in mind, the Vito II is a finemechanical precision instrument, it wants to be handled with understanding and care and it will repay careful treatment with an endless range of good and wonderfully sharp pictures.

Voigtländer & Sohn
Aktiengesellschaft, Braunschweig

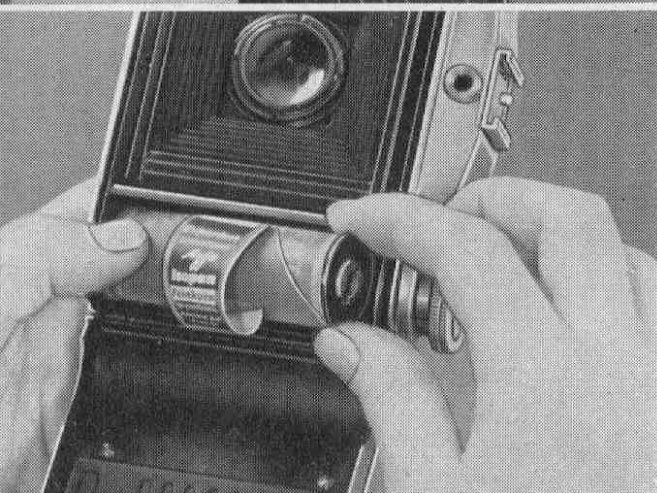
You will find	on page
The main camera parts	4
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Setting the aperture	12
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To take out the film spool:

Open the back of the camera (viz. p. 4), pull out film-winder while turning it anti-clockwise.

Hold the spool with the thumb of your left hand, to prevent the backing paper from slipping.



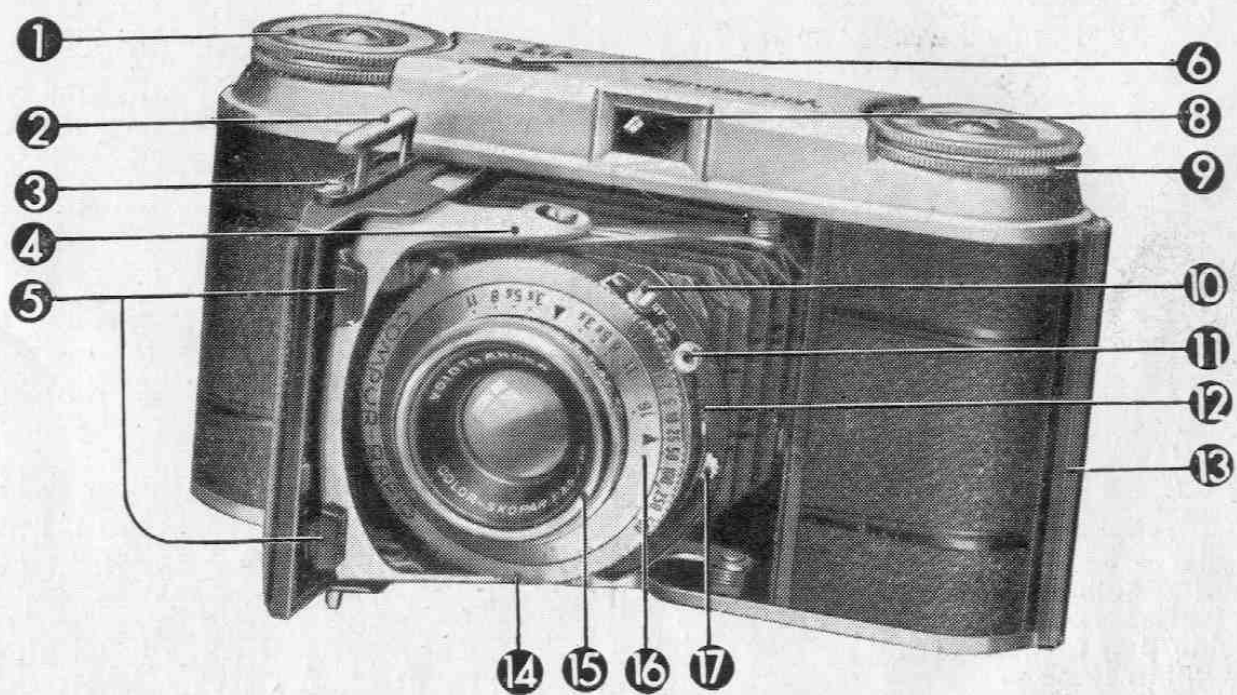
The film-spool is slightly lifted by a spring, and can therefore easily be removed.

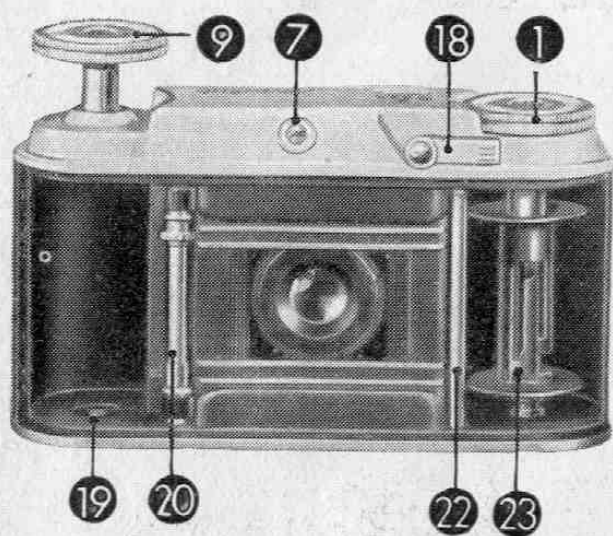
Be sure that the backing paper does not unwind during removal. Fold in flap of backing paper and secure with the attached adhesive tape. Wrap the spool immediately to exclude stray light.

1. Film winder
2. Release key
3. Cable release thread
4. Struts
5. Locking key for closing of the camera front
6. Exposure-counter window
8. Finder
9. Rewind knob
10. Flash contact
11. Shutter setting lever
12. Aperture and shutter speed scales
13. Locking ledge for the camera back
14. Exposure setting ring
15. Lens mount with distance scale
16. Front plate with depth of focus scale
17. Aperture setting lever

Explanations

to illustration opposite





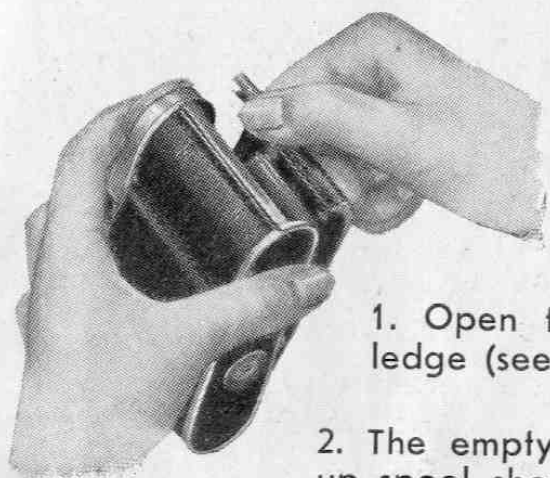
1. Film transport knob
7. Finder window
9. Rewind knob
18. Release lever for filmlock
19. Guide peg for film cartridge
20. Counting shaft
22. Film roller
23. Hook to engage beginning of film

ATTENTION: The double lock.

The Vito II is fitted with an automatical double lock (for film transport and for shutter release). In the practice it means that the release key can only be depressed after first having turned the A-knob to a definite stop.

The film can only be wound after releasing the shutter. This way a double exposure and also passing over a part of the film are made impossible.

If you like to release the shutter while there is no film in the camera you have to turn the counting shaft to the right (20) until it produces an audible click. The lock of the A-knob can be put out of action at will on pushing the lever 18 upwards to a definite stop.

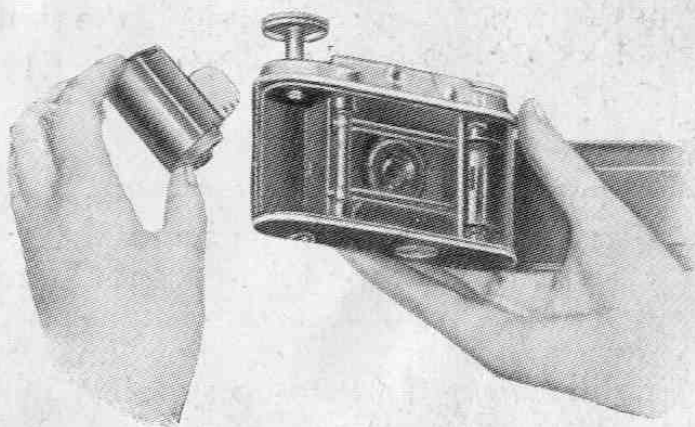


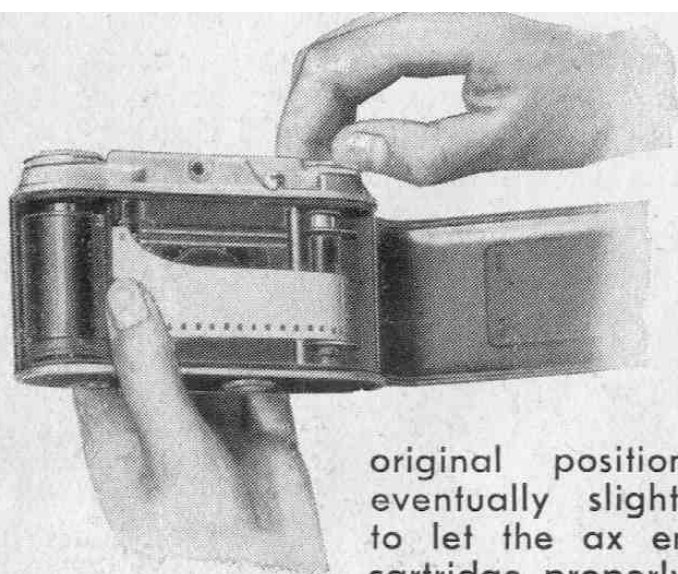
Loading the camera with film.

Loading and changing of film should best be done in the shade — the shadow of your body will do — to prevent fogging of the first exposures.

1. Open the camera back by lifting up the locking ledge (see ill.)

2. The empty take-up spool should be in the right hand side chamber, failing this it can be changed from left to right by pulling up the rewind R-knob and the film transport A-knob. To ensure that the A-knob engages the take-up spool properly the knob may be





turned to and fro, after having pushed the lever 18 upwards.

3. The left spool chamber will accept the new film cartridge. To insert film cartridge pull up the R-knob completely and push the projecting centre of the cartridge on to the peg 19. Now push R-knob back into its

original position by turning eventually slightly either way to let the ax engage the film cartridge properly.

4. Pull the beginning of the film across counting shaft 20 and film aperture, insert it into the wide slot of the take-up spool and engage it there. Give A-knob one full turn to ensure that the beginning of the film winds itself tightly on to the take-up spool. When A-knob



stops turning, push lever 18 upwards and release it again. Check that the sprockets of the counting shaft engage in the film perforations and that they take it with them. The film must run exactly along the slide way (see ill. page 8 above).

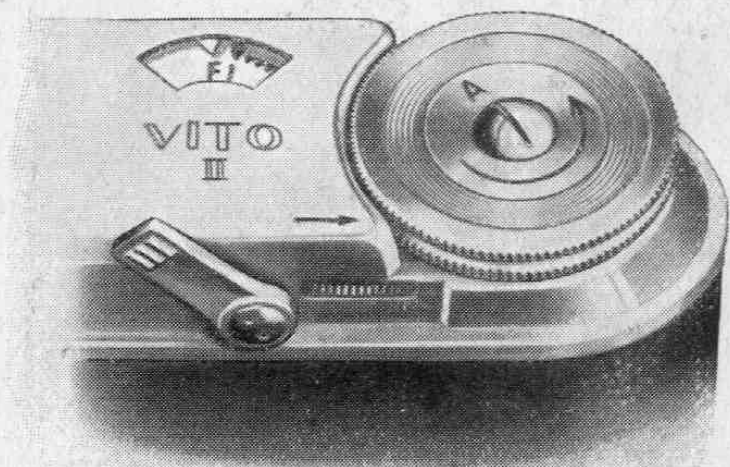
5. Close camera back and let locking ledge engage by applying some pressure with your thumb.

Setting the film counter.

If the film transport knob is not yet locked after having inserted the film it must be given a turn to right as far as it will go before setting the film counter.

When this position is reached:

Push the lever 18 upwards and hold it fast — the thus freed wheel (which is visible now) is turned in the direction of the



arrow until the index in the film counter window comes to be exactly opposite "F" — let lever 18 fall back.

Now give A-knob a turn to the right until it stops, then push blocking lever 18 upwards and release it. Give A-knob another turn until a stop. The film counter is now showing No. 1. The film is ready for the first exposure.

Opening and closing of camera front

The camera front is opened by pressing the knob on the right hand side of the camera body. Grip front on either side and pull downwards until the two struts 4 engage, but do not press on the release key. To close the camera depress both locking keys 5 simultaneously and push camera front upwards,



To get the camera ready for action

The setting of distance — aperture — exposure time is particularly simple in the VITO II as all scales are arranged on the lens mount and shutter housing and may be read off in one direction from above — together with the depth of focus scale which is on the front plate.

Distance setting. Turn lens mount 15 until the distance figure (in feet) — according to the distance to the object — comes to lie opposite the arrowhead on the front plate 16. The sign ∞ represents "infinity" that is any distance further than 75 ft. When photographing moving objects i. e. playing children, sports etc. you apply best the very practical **zone focussing** instead of individual focus setting by making use of the engraving: Δ (near) or O (far). (See illustration.) These settings cover a distance range: Δ from 8 ft



(2.5 m.) to 15 ft (5 m.), O from 15 ft (5 m.) to ∞ . Condition however being that an aperture of f 5.6 or smaller is used.

Aperture setting.

The aperture (also called "stop") regulates the amount of light falling on the film and further influences the depth of focus (see next paragraph). It is set by the lever 17 on the aperture scale, the indicator having to point to the right of the aperture figure. Apertures from f 4 to f 16 require doubling the exposure for each following f. number. The difference between f 3.5 and f 4 is negligible as far as "Black and White" film is concerned, but when employing colour film it is advisable to work strictly according to the exposure meter.

Remember well:

Small aperture numbers (i. e. f 3.5) = fast aperture = short exposure time.

Large aperture numbers (i. e. f 11, f 16) = slow aperture = long exposure time.

The Depth of focus

covers the part of the depth of the picture to the foreground and background which will be rendered fully sharp. This is however, no constant value, but depends on the focussing distance and the aperture one has set.

Transfer the empty spool to the opposite chamber. Turn out spool carrier, remove the spool—the action is the reverse to that described on p. 5—and insert it into the other chamber. Place the round hole onto the fixed peg.

Push the empty spool into the chamber, and slightly depress film winder, turning it anti-clockwise, until the winder key has engaged the slotted spool end.

After insertion of a new spool or replacing of the spool carrier close the camera back.



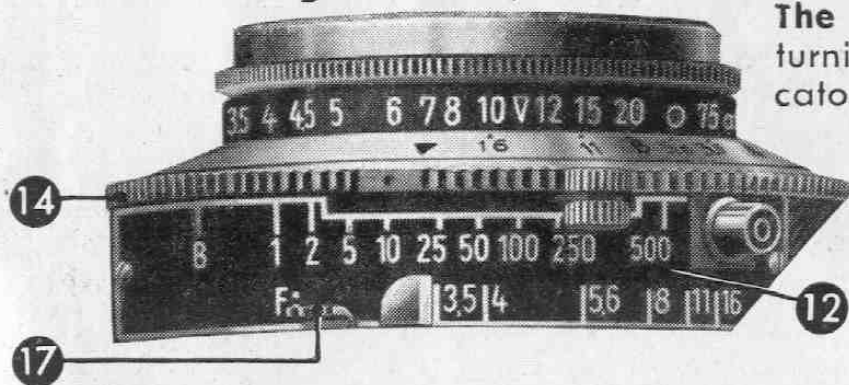
The shorter the distance to the object, and the bigger the aperture, the less depth of focus is obtainable.

The bigger the distance and the smaller the aperture the greater will be the depth of focus.

Outside the depth of focus, the definition gets less both towards the camera, and the background. As soon as the depth of focus reaches ∞ (infinity), everything into the farthest distance will be sharp.

The depth of focus scale is engraved on the front plate of the shutter to the right and left of the distance indicator (see illustration on page 11).

For example, on focussing to "near" ∇ you can read off that with aperture f 5.6 the depth starts at 8 ft (2.5 m.) and ends at 15 ft (5 m.). At aperture f 8 it begins at 7 ft (2.25 m.) and extends to 20 ft (7 m.).



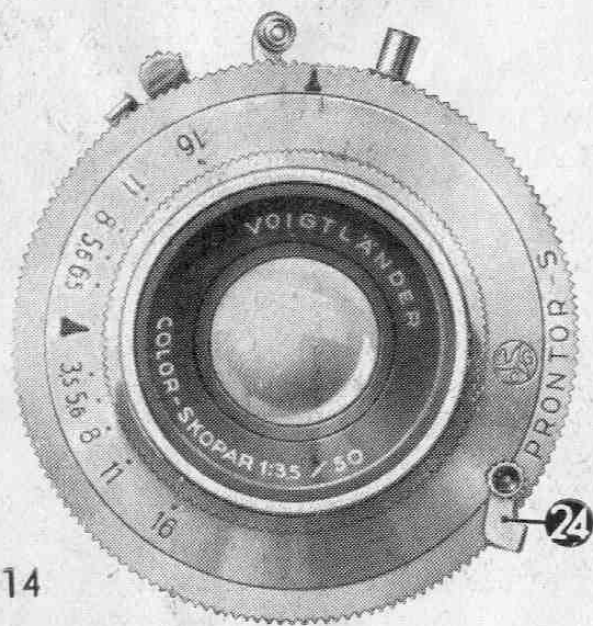
The **exposure time** is set by turning the ring 14 until the indicator dot faces the required exposure time. On setting to $\frac{1}{300}$ sec or $\frac{1}{500}$ sec a slight resistance has to be overcome which is caused by automatically setting an additional tensioning

spring. The numbers on the shutter speed scale indicate fractions of seconds, except 1 (= 1 second). Before taking a photograph the shutter has so be set by pulling the setting lever 11 to the left as far as it will go. To take an exposure with the fastest shutter speed the time has to be set before pulling the shutter setting lever. For all other speeds the shutter may be set any time, either before or after having pulled the setting lever.

To take time exposures the shutter has to be set "B" and the setting lever to be pulled up. On depressing the release the shutter will remain open as long as the release remains pressed down. For long time exposure the use of a cable release with fixing screw is recommended. This has to be screwed into the thread 3.

Delayed action release.

The Vito II with Prontor shutter has a built-in delayed action release. If you want to appear in the photograph yourself you have to place the camera on a solid support (table or tripod), the shutter is set as usual and in addition the lever with red



marking 24 is pushed to the left as far as it will go. On depressing the release there are about 10 seconds delay before the shutter actually releases, giving you time to go to the pre-arranged spot in the picture. **The delayed action release will not work on "B".**

Use of Flash:

Both, the Compur Rapid and the Prontor shutters are fitted with internal flash contacts which allow synchronisation of shutter and flash release. For use, connect the shutter with the flash attachment, by means of a cable, on releasing the shutter the flash will go off, while the shutter is fully open. The most useful shutter speed with flash is $\frac{1}{25}$ second and $\frac{1}{10}$ second. The speed must not be less than $\frac{1}{50}$ second. The choice of the aperture depends from the distance between the flash and the subject and depends also from the





flash-type. For more explanation we advise you to consult the instructions issued with the flash-bulb.

Taking the Picture.

Before taking the picture it is advisable, to check up all settings, and to see that the shutter is set too. When taking horizontal photographs, the camera is held steadily with both hands, and in addition, is pressed against forehead and nose. For upright pictures, the camera is best held, so that the lens protecting flap shows upwards (see illustration). Use a tripod, when taking time exposures.

The finder shows the picture field. The eye is brought close to the finder-window, so that all four corners of the view finder become clearly visible. It is important to look through the middle of the finder, as only then, the true image of the section you will get on your film, is visible.

While releasing the shutter, hold your breath for a moment, and release the key evenly, and gently. On no account should the release key be depressed with a jerk, this would

result in "moved" pictures.

After taking the picture, the A-knob is wound on evenly in the direction of the arrow, as far it will go. The exposure counter will automatically advance to the next number. The double lock prevents the shutter to be released a second time, before the film has been wound on, and the film can only be wound on when the previous one has been exposed.



Unloading the camera

After all 36 exposures have been taken, the film has to be rewound into its cartridge. The procedure to be adopted is:

1. Lift up lever 18 as far as it will go, and keep in this position.
2. Gently turn R-knob in the direction indicated by its arrow, until the A-knob stops running.

The camera back may now be opened, and the cartridge removed from its spool chamber, on pulling up the R-knob.

Voigtländer-Filters

For outdoor pictures, and in particular, outdoor portraits, the use of a good yellow filter is recommended. This will also bring out clouds, and produce a considerably better graduation. A filter is irreplaceable for snowscapes.



Voigtländer Yellow filters are optically worked, plane-parallel and spectroscopically tested. The definition of the valuable Color-Skopar is not affected by these filters. For use they are simply pushed on the lens mount,

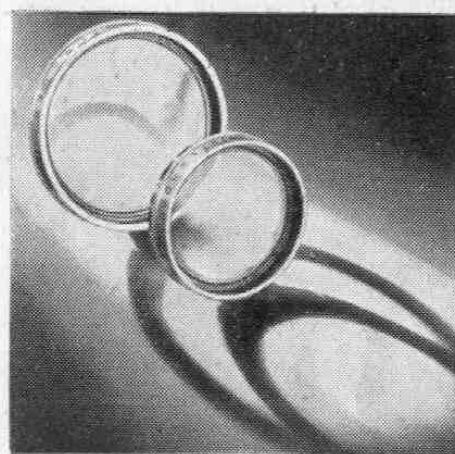
Good panchromatic film calls for the light yellow filter G 1, for more dramatic effects and snowscapes one generally uses the stronger G 2 filter.

The filter increases the exposure time as follows:

Filter G 1	1 $\frac{1}{2}$ —2 times,
Filter G 2	3—4 times.

The Voigtländer Focar Lenses

open up the interesting field of "Close-up" photography. They allow relatively large reproduction of flowers, small animals, postage stamps, etc. Further, book pages or small pictures may be copied with their help. For use, they are pushed on to the lens mount, similar to the



filters. Focar lens 1 allows to focus as close as 18" (44 $\frac{1}{2}$ cm.) and Focar lens 2 even down to 12" (31 cm.).

For focussing you have to use the tables opposite exactly, and the distance between object and front of Focar lens has to be measured accurately. You will find further notes in the instructions, issued with the Focar lenses.

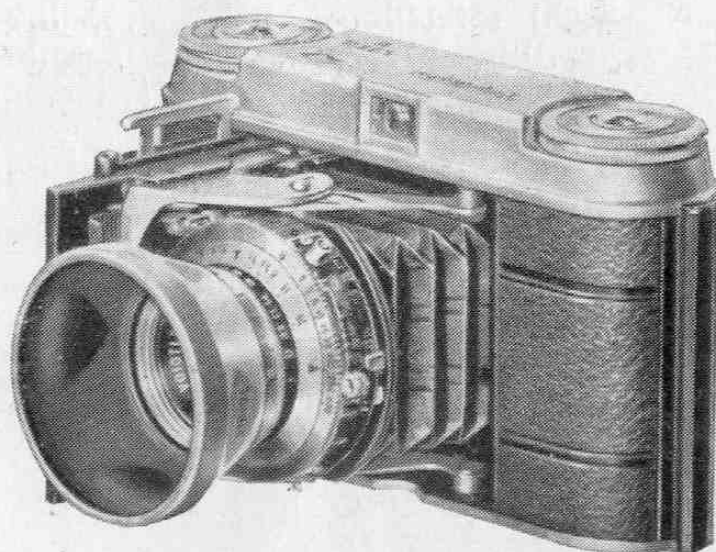
Lens hood.

The use of the Voigtländer Lens hood is recommended. It protects against stray light in photographs. Further it will protect the "Color-Skopar" from rain and snow.

When focussing on	Sharp definition with	
	Focar 1	Focar 2
∞	2' 7 $\frac{1}{2}$ "	1' 5 $\frac{1}{2}$ "
60'	2' 6 $\frac{1}{4}$ "	1' 5"
○	2' 5 $\frac{1}{4}$ "	1' 4 $\frac{3}{4}$ "
20'	2' 3 $\frac{3}{4}$ "	1' 4 $\frac{1}{4}$ "
15'	2' 2 $\frac{3}{4}$ "	1' 4"
12'	2' 1 $\frac{3}{4}$ "	1' 3 $\frac{1}{2}$ "
▽	2' 1 $\frac{1}{2}$ "	1' 3 $\frac{1}{2}$ "
10'	2' 1"	1' 3 $\frac{1}{4}$ "
8'	1' 11 $\frac{3}{4}$ "	1' 2 $\frac{3}{4}$ "
7'	1' 11"	1' 2 $\frac{1}{2}$ "
6'	1' 10"	1' 2"
5'	1' 8 $\frac{3}{4}$ "	1' 1 $\frac{1}{2}$ "
4,5'	1' 8"	1' 1 $\frac{1}{4}$ "
4'	1' 7"	1' 3 $\frac{1}{4}$ "
3,5'	1' 6"	1' 1 $\frac{1}{2}$ "

Everready case.

Messrs. Voigtländer have produced for their Vito II Camera a leather everready case, which allows the camera to work, without removing it from the case. This will enhance the quick readiness for action of the Vito II. A retaining screw on the base protects the camera from falling out of the case.



Care of the lens.

The "Color-Skopar" shows a bluish violet reflection. This is a sign that the lens has been "coated", meaning it has been covered with an:

Anti-reflection Film.

On looking through the lens, the glasses appear completely clear and colourless. These AR-films which cover all air to glass surfaces, prevent

light reflections in "against the light-photography" or reduce them considerably. At the same time the brilliancy of the picture, and the light transmission of the glass is increased.

While uncoated lenses should be carefully treated, those covered with AR-film call for even greater care in cleaning. The film covering is very hard, but are of the unimaginable thinness of $\frac{1}{10000}$ mm. The lens is best cleaned with a fine hair-brush, or a soft clean chamois. Grease or oil stains can be removed after careful dabbing with pure alcohol or ether.

*

AGFA AMBI SILETTE



MADE IN GERMANY



INSTRUCTIONS FOR USE

Short Lesson

1. Open camera-back.
2. Insert cartridge with film into left-hand-side spool chamber.
3. Fix beginning of film to take-up spool.
4. Close camera-back.
5. Set exposure counter.
6. Open camera-front.
7. Set Distance, Aperture, and Exposure Time.
8. Set shutter.
9. Determine subject in viewfinder and release.
10. Wind film transport knob evenly as far as it will go and close camera-front.

After having taken the 36th. exposure.

11. Lift up exposure-counter locking lever as far as it will go.
12. Rewind film by means of the R-knob.
13. Open camera-back and remove film.

12309 — 13 A/1250

Printed in Germany

INSTRUCTION BOOK

for the Model S141/735

WESTON MASTER II EXPOSURE METER

INTRODUCTION TO METERED PHOTOGRAPHY

Brightness

Your exposure meter is designed to measure reflected light or brightness and not incident light. It is the reflected light which strikes the film in your camera and thus affects the exposure of the film. Both the incident light (i.e. the light falling on the subject) and the reflected light (or brightness) vary from scene to scene.

You can guess at exposures and get passable results and even good results on occasions. This is because some average subjects come within the margin of error from the correct exposure which modern films allow. But the eye is not a light measuring device which produces infallible judgement of correct exposures. Consider the brightness of your subject with the eye by all means, but use your exposure meter to measure that brightness with scientific accuracy to obtain real quality in your photographs.

Exposure

Exposure is the product of the length of time the light from the scene acts on the film, multiplied by the amount of light striking it. At all times this product should be approximately the same for the same film. If the amount of light is small, the time would be long; if the amount of light is large, the time would be short.

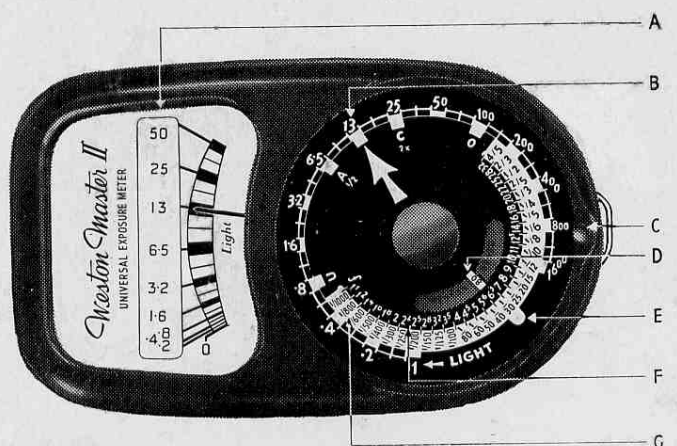
EXPOSURE

$$= \textit{Light} \times \textit{Time}$$

Controls of Exposure

Since the light reflected from the scene is the light which will fall on the film, camera adjustments are necessary to compensate for changing scene light. The controls of exposure are the f/stop and shutter speed. The f/stop controls the amount of light and the shutter speed the length of time light acts on the film. The lower the f/stop number, the larger the aperture. On most cameras where the lens is mounted in the shutter, shutter speeds written as 2, 5, 10 are fractions of seconds, 2 being $\frac{1}{2}$ etc.

One



- A. Light scale recording light value of scene.
- B. Figures on exposure dial corresponding to above.
- C. Button to release dial for film speed settings.
- D. Window indicating film speed setting.
- E. Tab to rotate dial for film speeds.
- F. Figures indicating f/stops (lens apertures).
- G. Figures indicating shutter speeds (time).

Two

HOW TO USE YOUR

Film Speeds

Your "Master" meter is a photo-electric instrument which measures the reflected light of the subject with scientific accuracy. The exposure dial converts the light readings into the correct exposure combinations. Since emulsion speeds differ from one type of film or plate to another and for different kinds of illumination, make sure that you use the correct number on the list of "Weston Film Speed Values" supplied with the Meter.

1. Set for Film Speed

Depress Button "C" then turn tab "E" until the Weston speed number of your film appears in window "D."

2. Take a Light Reading

Aim the meter at the scene and note reading on light scale "A." Turn the exposure dial until its Arrow points to the same figures as the light reading. See example at "B."

3. Make Camera Settings

The correct settings for your camera now lie directly opposite each other—the f/stop (lens opening) settings are on row "F" and the shutter speeds (time) are on row "G." Any suitable combination of these figures may be selected, providing they are directly opposite each other, and will result in a correct exposure (see Selecting the f/stop on Page 6).

WESTON MASTER METER

4. Unnumbered Divisions

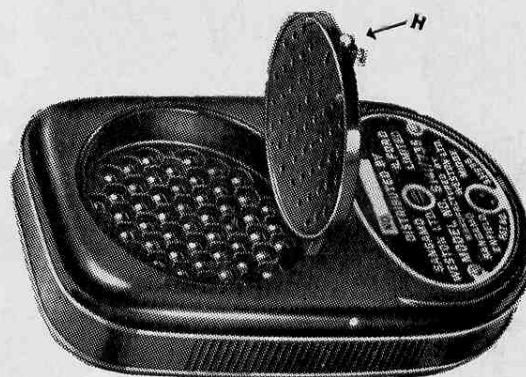
When the pointer of the light scale lies on an unnumbered division or block, set the Arrow of the exposure dial in just the same way to the corresponding unnumbered division or block on the exposure dial.

5. High Light Scale

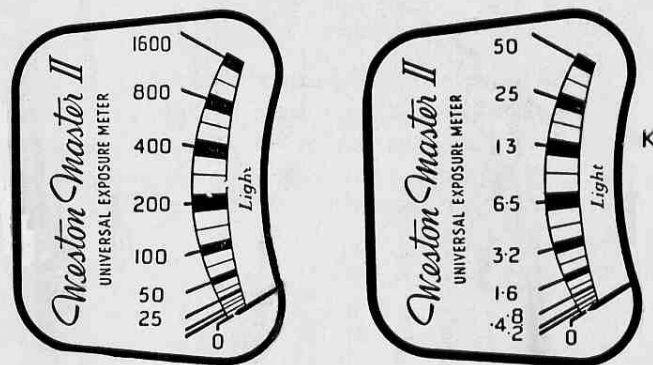
On the rear of the meter a hinged baffle will be found. The light sensitive photo cell is directly beneath the baffle. When the baffle is closed, the High light scale is in use. This scale measures from 0 to 1600 candles per square foot and is for use for all average and brightly lighted objects. Keep the baffle closed if the light reading is 50 or higher.

6. Low Light Scale

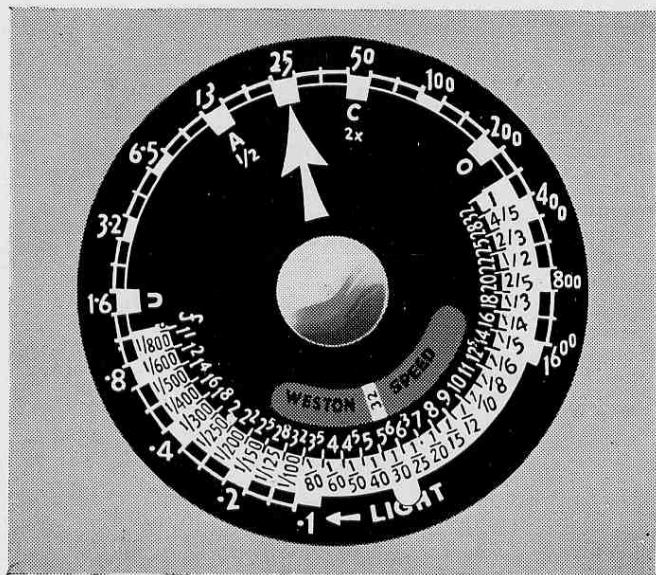
When the light reading is less than 50, open the baffle by releasing latch "H" and turn it back against the case so that the latch engages holding it wide open. The Low Light scale automatically appears measuring from 0 to 50 candles per square foot. The first division .2, or $\frac{1}{5}$ th candle per square foot, is a very low order of illumination even for indoor scenes.



H. The baffle half open and the release latch "H."



J. High Light Scale 0-1600 candles per square foot.
Low Light Scale 0-50 candles per square foot.



Direct Reading Feature

A useful feature of the Master Meter is that with the baffle closed and at the following Film Speed and f/stop values, the light reading is a direct indication of the shutter speed required e.g. when the pointer indicates 100, the shutter speed required is 1/100th sec., etc.

Film Speed	f/stop
24	f:5.6
32	f:6.3
50	f:8
100	f:11
200	f:16

SELECTING THE F/STOP

For each picture you take you have the choice of a number of different exposure combinations of f/stop and shutter speed. As the exposure dial is set on this page you might select an f/stop of f:6.3 at 1/25th sec. or an f/stop of f:22 at 1/4 sec. Any one of the combinations shown on the dial would result in a correct exposure (providing the figures taken were directly opposite each other) but the selection of the correct combination depends upon the requirements of the subject.

If the scene is an action one, select a fast shutter speed and use the f/stop directly opposite. If maximum depth is needed, then you can select a slower shutter speed with its corresponding smaller stop opening. Remember that the smaller the aperture the higher the f/stop number . . . also that more of the objects will be in sharp focus when smaller stops are used.

In close ups or very near subjects, bear in mind that the depth of field covered by the lens is considerably reduced and that in order to obtain sharp definition over the parts of the subject nearest and most distant from the camera, the smallest possible f/stop should be used.

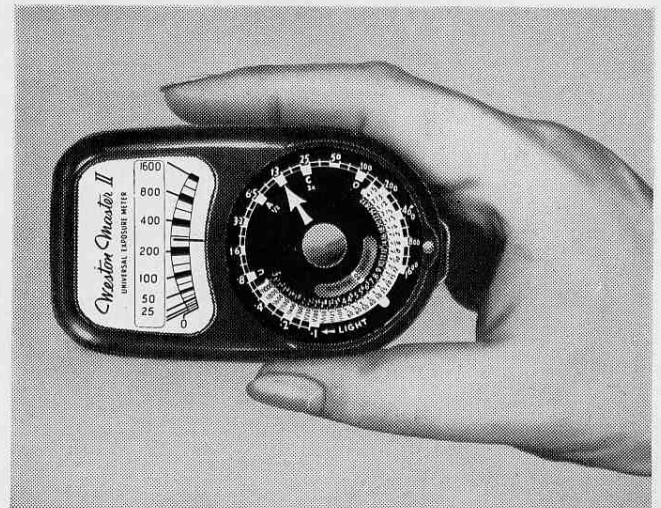
CLASSIFICATION OF SCENES

It will simplify the classification of scenes to remember that the exposure meter measures the average value of light or brightness coming from the entire scene. Thus for normal exposures the Arrow position on the exposure dial is used. For scenes requiring less than normal exposure an "A" position is provided; for those requiring more, a "C" position is provided.

Flat scenes lacking in contrast, such as distant views and landscapes on dull days, generally require less than normal exposure and more than normal development for best reproduction. Set the "A" position on the exposure dial opposite the light value measured for such scenes.

The contrast scene such as a sunlit street with dark shadows for best reproduction requires more than normal exposure and less than normal development. Set the "C" position on the exposure dial opposite the light value measured for these scenes.

Remember, however, that about eighty per cent. of all scenes require a normal exposure and when in doubt about any scene, use the Arrow position on the exposure dial.



Aiming the Meter

Aim the meter as shown above, looking across the top of the case at the subject. Tilt the meter slightly downwards to avoid measuring the sky, which, being very much brighter than the rest of the subject will "inflate" the reading, resulting in under exposure. See that the photo-cell is not obstructed by your fingers or the neck cord.

When making close up readings, make sure that you do not cast a shadow with the meter or with your hand on the object being measured.



CAMERA POSITION METHOD

The normal method of use of the meter is at the camera position i.e. close to the camera. It is a simple method and the one used most frequently by photographers. This method gives a correct exposure for the overall scene and does not isolate any particular object from an exposure point of view.

Make a light reading (avoiding sky areas) and set the exposure dial as already described. Choose a combination of f/stop and shutter speed consistent with the scene to be photographed. A fast shutter speed is required if there is action, or a small aperture (high f/stop number) if maximum depth of field is needed.

Generally, the Arrow position on the exposure dial should be used. For flat scenes, or for scenes with extreme contrast of highlights and shadows, use the "A" or "C" position as described on Page 7.

The camera position method should not normally be used for back-lighted snow, sand or water, since specular reflections can result in under exposure of the shadowed areas. (See Brightness Range Method). But for landscapes, general views and other photographs where a quick reading is wanted the camera position method is quite satisfactory.



USE OF SHUTTERS

Diaphragm setting: 3.5 4 (4.5) 5.6 8 11 16 22

Range (feet): 3 3.5 4 5 6 8 10 15 30 Infinity

Exposure times: B 1 2 5 10 25 50 100 300

The whole numbers on the shutter ring stand for fractions of seconds, e. g. 2 = $\frac{1}{2}$ sec., 50 = $\frac{1}{50}$ sec.

- ⑥ Synchro-lever for three settings: M, X, V.

Position M and X for flash synchronization (see chapter on Flash Technique, p. 21). When in these positions, the synchro-lever has no influence on shutter action.

Position V = automatic shutter release (delayed action release). When synchro-lever is in position V, the shutter—the delayed action mechanism is wound for pictures with automatic shutter release. It is also of taking delayed action pictures with flashlight (X synchronization only!). If set in position V, the synchro-lever must be reset to X to avoid any undesired delay in shutter release when taking the next picture (2, p. 2) to take a cable release.

- ⑦ Depth-of-field scale (see pp. 18/20).

PRONTOR-SVS speed-s

- ① Joint index mark for exposure

To set exposure time, turn outer miller.
To set the range, turn front lens mount.

- ② Shutter winding lever: before each exposure. This lever also applies to "B".

- ③ Feet scale (see "1" range setting).

- ④ Diaphragm lever and scale.

- ⑤ Contact bush for flashlight 3 m.

THE CLOSE-UP METHOD

In the close-up method the meter is held close to the object being photographed. In this way the film is exposed particularly for the one object of interest and the background is subjugated accordingly.

Hold the meter close to the principal object, about as far away as the object's smallest dimension. The meter can be held closer than this distance, but no farther away. If the object is the face 6 inches is sufficient. The distance can be increased to say 5 feet if it is desired to isolate a small group of people from the background, or even to 10 feet in the case of larger surfaces. Make quite certain, however, that no light reaches the cell from unimportant objects.

When making a reading, make sure that you do not cast a shadow on the subject with the meter or with your hand. Also do not let your body interfere with the natural illumination of the subject. To avoid casting shadows, the meter may have to be held at an angle to the direct light on the subject, i.e. you can measure the reflected brightness by standing slightly to one side.

Having taken a close-up light reading, set the exposure dial to the Arrow position and make your camera settings.





Substituted Readings

It is not always possible or convenient to take close-up readings. In such cases, substituted readings of nearby similar objects can be made. In the above example, a close-up reading of the hand would be a substitute for the sails of the barge and a close-up reading of the river bank close by would suffice for the darkest object. Similarly, a white handkerchief can often be substituted for a white wall or a lady's blouse. But ensure that the lighting is the same and that the objects are similar.

Eight

BRIGHTNESS RANGE METHOD

The Brightness Range Method consists of measuring the light values of the lightest and darkest objects of the subject and thereby balancing the exposure midway between the two extremes. It is the most accurate method known for the determination of correct exposure and is recommended for the best possible negative from an exposure viewpoint.

In an average scene, various objects reflect different amounts of light—the dark objects little light, the bright objects much light. In a fine photograph, all objects should be correctly exposed and thus the above extremes should be measured.

Make a close-up reading of the darkest object (for example, a dark hedge) in the scene and note the light value. Then make a close-up reading of the brightest object (for example, a white wall) again noting the light reading. If you are not sure which are the darkest and lightest objects measure several that appear so, and take the lowest and highest readings respectively.

Set the Arrow on the exposure dial midway between the darkest and brightest object light values, i.e. the Arrow should be the same number of divisions or blocks from the darkest light value, as it is from the brightest. You can then read off the correct combinations of f/stop and shutter speed for the scene.

Most films can record a long range of brightness in any one subject, but there are limits to the range of deep shadows and bright highlights which can be

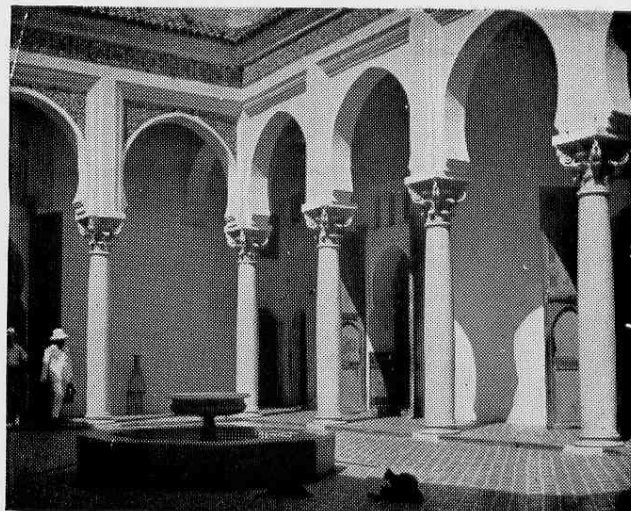
THE "U" AND "O" POSITIONS

recorded with reasonable truth in a single negative. A knowledge of these limits can prevent unnecessary loss of detail in extreme shadows or highlights when long range subjects are encountered.

The "U" and "O" positions on the exposure dial show the limits of subject brightness which the average film can record on a single negative, the ratio of these being about 128:1. For a given setting of the dial all objects whose light values fall on or between these two limits will be correctly exposed. Any object having a light value below the "U" position will be under-exposed and any object with a light value above the "O" position will be over-exposed.

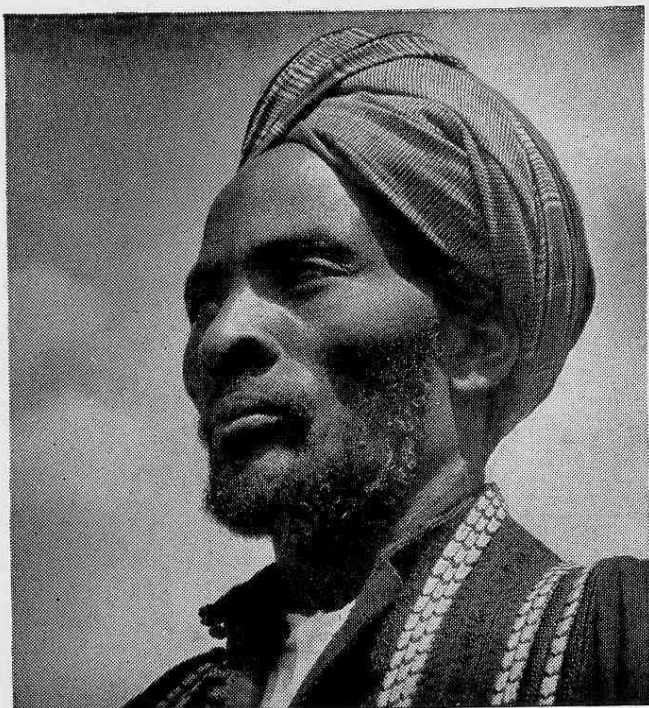
By setting the "U" position opposite the darkest object light value, the minimum correct exposure will result. If the "O" position is set opposite the brightest object value, the maximum correct exposure will be obtained. The Arrow position gives the normal exposure.

When movement in a scene dictates a minimum exposure, you can use the "U" position and although the densities on the negative will be as thin as is permissible, the exposure will still be correct. On the other hand, in a dark hall or cave, it might be impossible to obtain a reading from anything but the brightest object. By using the "O" position, the maximum range of the negative will be used and correct exposure obtained but the density will be increased.



Highlights and Shadows

In a scene such as the above, the brightness range greatly exceeds the film range i.e. the patches of sunlight may measure 500 candles per sq. ft. and the deep shadows 1 candle per sq. ft. The average film range is thus not wide enough to give details in both the highlights and shadows, although good average exposure can be obtained by using your meter as already described. According to the effect you require, however, you can choose to expose for details in the shadows by using the "U" position or, alternatively, for detail in the highlights by using the "O" position.



Colour Film Range

The range of colour film is far more restricted than that of monochrome film. The permissible range of light values is approximately 4 to 1 and this range is covered by the "A" and "C" positions on the exposure dial. The "A" position represents the lower limit and the "C" position the upper limit. Thus after setting the dial for any scene, all objects whose light values fall between these positions will

COLOUR PHOTOGRAPHY

be correctly exposed. If any objects have a light value below the "A" position, they will be under-exposed and if any have a light value above the "C" position they will be over-exposed. This knowledge enables you to select the best exposure for the colours in which you are most interested.

Brilliance in colour photography is obtained through colour contrast and not from highlights and shadows as in black and white photography. The method recommended for best exposures is the Brightness Range Method described on page 10.

In colour work, black and white should not be considered as colours and must not be measured. First, make a close-up reading of the darkest colour in the scene. Then take a close-up reading of the brightest colour. Set the Arrow position on the exposure dial midway between the light values of the darkest and brightest objects and make your camera setting.

The above method centres the exposure in the middle of the film range and is ideal for the average colour photograph where the colour contrast is low and flatly illuminated. If, however, the dark colours are of principal interest, set the "A" position on the Exposure dial opposite the darkest colour light value. Alternatively, if the brightest colours are of principal interest, set the "C" position opposite the brightest colour light value. These positions match the lower and upper limits of the film range respectively.

Usually the most pleasing colour pictures result from exposure for the brightest colours and remember that slight over-exposure gives better colour rendition than under-exposure. Avoid shadows and extreme contrast in lighting wherever possible.

CINE PHOTOGRAPHY

A cine camera is essentially the same as a still camera but it exposes a series of pictures in a given interval at a fixed shutter speed. For the best exposure results, the Brightness Range Method described on Page 10 is recommended.

Make close-up readings of the darkest and brightest objects in the scene and set the Arrow position midway between the light values obtained. The correct f/stop to use will then be found opposite the particular shutter speed of your cine camera. In panning the camera, watch the contrast in lighting and, if possible, first determine the correct exposure settings for each part of the scene, altering the f/stop when the camera moves from light to dark areas, etc.

The standard number of frames exposed by the average amateur cine camera is 16 per second at a shutter speed of 1/30th of a second. For other frames per second than 16, the shutter speed is proportional as shown in the following table:—

8 frames per second	1/15th
16 „ „ „	1/30th
24 „ „ „	1/45th (use 1/40th)
32 „ „ „	1/60th
48 „ „ „	1/90th (use 1/100th)
64 „ „ „	1/120th (use 1/130th)

Some cameras may have a different shutter speed at 16 frames per second, such as 1/40th or 1/50th, and the f/stop for these should be read off against this shutter speed on the exposure dial. If the shutter speed of your camera is unknown, ascertain it from the camera manufacturer.



Colour Cine Film

Follow the accompanying instructions and those given for still colour film photographs. Avoid extreme lighting conditions and allow the colour to provide all the necessary contrast. For outdoor shots, expose between 10 a.m. and 3 p.m. if possible as the quality of the light is normally best during that period. If the sun is shining it should be directly behind the camera. Watch the reflection values of the surroundings, i.e. a white dress can be turned pink by a red reflection. Avoid shadows and subjects in shadow. These are illuminated by skylight which is bluer than sunlight for which the film is balanced. In an ideal scene, the colour contrast is low, flatly illuminated and it is taken on a clear sunny day.



Back Lighted Subjects

If the meter is aimed directly at a back-lighted subject, i.e. one where the main lighting comes from behind, it is obvious that the light value reading can be inflated resulting in under-exposure. To overcome this, turn around and make the reading on a similar object with your back to the lighting. For example,

Twelve

ADDITIONAL NOTES

in the above picture a close-up reading could be made of your hand for the girl's face or a handkerchief for her dress. This applies to all beach scenes where sand is back-lighted, or sparkling snow scenes. Take the light reading on the snow or sand with the sun over your shoulder. Direct reflections from sparkling water should be avoided when taking light readings.

These instructions obviously do not refer to the position of the camera.

Filters

Filters have a multiplying factor in relation to the film with which they are used and the exposure required must be increased accordingly. The easiest method of making this increase is to divide the filter factor into the Weston speed of the film and set the exposure dial on the meter with the resultant value. For example the filter factor using a certain film, may be 2 and the film speed 100. Dividing 100 by 2, the result, 50, is used to set the film speed on the exposure dial.

Equipment Errors

Photographic equipment is sometimes subject to small errors, e.g., in shutter speeds and f/stops. Usually these errors cancel each other, but it is possible for them to be additive, resulting in consistently over- or under-exposed films. These errors can be compensated for by adjusting the listed film speeds, lowering them if results are consistently under-exposed and raising them if over-exposed.

Weston Film Speeds

Different developers have an influence on the effective emulsion speed value of a film. A note is made of this in the Weston Film Speed List.

CARE OF YOUR EXPOSURE METER

1. Your "Master" Meter is rugged and well made but like a fine watch, which it resembles in many ways, it should be treated with all reasonable care.
2. If the pointer of your meter does not register zero when no light strikes the cell, it requires a slight adjustment. Cover the cell with your hand or a card and with a small screwdriver rotate the small screw on the back of the meter below the cell until the pointer rests on zero. Tilt the meter at an angle of about 45° when making the adjustment. Zero adjustment, however, is only very occasionally necessary and should be made with great care.
3. Do not leave the photo-cell exposed to strong sunlight for long periods. This treatment is harmful. Keep the meter in its case or box when not in use.
4. Do not drop the meter, otherwise its jewelled bearings may suffer.
5. Do not overheat the meter by leaving it on a hot radiator, etc. Normal temperature or even abnormal summer temperatures will not harm the meter.
6. Your "Master" meter is moisture proof but not waterproof, so do not drop it in the lake.

If your meter is in need of repair, take it to your regular photographic dealer.

If this is not possible, pack the meter very carefully and return it with details of fault to :—

Repair Department
SANGAMO WESTON LTD.
Great Cambridge Road, Enfield, Middlesex, England

INTRODUCTION A LA PHOTOGRAPHIE MESURÉE

Votre posemètre est conçu pour mesurer la lumière réfléchie ou luminosité avec une précision scientifique vous permettant d'obtenir des photographies de réelle qualité.

L'exposition est le produit du temps pendant lequel la lumière réfléchie par le sujet agit sur le film, multiplié par l'intensité de la lumière qui frappe ce film.

Les moyens de réglage de l'exposition sont l'ouverture du diaphragme et la vitesse de l'obturateur; la première règle l'intensité de la lumière, et la seconde le temps pendant lequel la lumière agit sur le film.

Mode d'emploi du Posemètre Weston Master

La légende suivante devra être lue en s'aidant de l'illustration à la page 2.

- A. Echelle de luminosité indiquant la luminosité du sujet.
- B. Chiffres sur le cadran du calculateur correspondants à l'échelle ci-dessus.
- C. Bouton de déblocage du cadran pour le réglage de la rapidité de l'émulsion.
- D. Ouverture indiquant le réglage de la rapidité d'émulsion.
- E. Onglet de rotation du cadran pour réglage de rapidité.
- F. Chiffres indiquant les ouvertures du diaphragme.
- G. Chiffres indiquant les vitesses d'obturateur (temps de pose).

INTRODUCCIÓN A LA FOTOGRAFÍA CON EXPOSICIÓN MEDIDA

El medidor de exposiciones se destina a medir la luz reflejada o brillantez con exactitud científica, haciendo segura una calidad real en las fotografías.

La exposición es el producto de la duración del tiempo que la luz que viene de la vista actúa sobre la película, multiplicada por la cantidad de luz que cae sobre dicha película.

Los controles de la exposición son la abertura de la lente y la velocidad del obturador; la primera controla la cantidad de luz y la segunda la duración del tiempo con que la luz actúa sobre la película.

Manera de Usar el Medidor de Exposiciones Weston Master

La clave siguiente debe ser leída en conjunción con la ilustración de la página 2.

- A. Escala de la luz que registra el valor de la luz de la vista.
- B. Cifras en el cuadrante del calculador que corresponden a los valores del párrafo anterior.
- C. Botón para soltar el cuadrante para poner en su punto la velocidad de la película.
- D. Ventana que indica la puesta en su punto de la velocidad de la película.
- E. Orejeta para girar el cuadrante para las velocidades de las películas.
- F. Cifras que indican los números focales (aberturas de la lente).
- G. Cifras que indican las velocidades del obturador (tiempo).

Cadran du Calculateur

Le cadran du calculateur transforme les lectures de luminosité en combinaisons correctes d'exposition. Pour obtenir ces combinaisons, pressez d'abord le bouton "C", ensuite tournez l'onglet "E" jusqu'à ce que le chiffre de rapidité d'émulsion Weston apparaisse dans la fenêtre "D". Présentez alors le posemètre vers le sujet, en le penchant légèrement vers le bas, afin d'éviter de mesurer le ciel, et notez la lecture sur l'échelle des luminosités "A". Tournez le cadran du calculateur jusqu'à ce que son index vienne en face des chiffres correspondant à la lecture de luminosité, voir "B". Les réglages corrects de votre appareil sont maintenant face à face—les ouvertures de diaphragme sur l'échelle "F" et les temps de pose sur l'échelle "G".

Echelles des Grandes et Faibles Luminosités

Le posemètre est pourvu d'une échelle à grande luminosité et d'une échelle à faible luminosité (voir illustrations "J" et "K", page 3), permettant de mesurer des luminosités de 0 à 1600 bougies par pied carré. On se sert de l'échelle de grande luminosité pour tous les sujets de luminosité moyenne ou brillante. Lorsque la lecture de luminosité est au-dessous de 50, on doit se servir de l'échelle de faible luminosité. Celle-ci est mise en opération en dégageant le loquet "H", maintenant le cache à charnière placé sur la face arrière du posemètre (voir l'illustration à la partie supérieure droite de la page 5), et en retournant le cache contre le boîtier jusqu'à l'enclenchement du loquet qui le maintiendra grand ouvert.

Classification des Sujets

Le posemètre mesure la valeur moyenne de la lumière ou luminosité provenant de l'ensemble de la scène. Ainsi pour les expositions normales, c'est la flèche du

Cuadrante del Calculador

El cuadrante del calculador convierte las lecturas de la luz en las combinaciones correctas de exposición. Para obtener estas combinaciones, primero, se oprime el botón "C", y después se hace girar la orejeta "E" hasta que aparece en la ventana "D" el número Weston de velocidad. A continuación se coloca el medidor apuntando a la vista, inclinándolo ligeramente hacia abajo para evitar la medición del cielo, y se toma nota de la lectura en la escala de la luz "A"; se gira el cuadrante del calculador hasta que la flecha apunta a las mismas cifras que la lectura de la luz, véase "B". Las puestas a punto correctas para la cámara están ahora la una enfrente de la otra directamente—los números focales están en la fila "F" y las velocidades del obturador en la fila "G".

Escalas para Luz Intensa y Luz Débil

El medidor está provisto de una escala para luz intensa y otra escala para luz débil (véanse las ilustraciones "J" y "K" en la página 3) que cubren un campo de 0 a 1600 bujías por pie cuadrado. La escala de luz intensa es para uso con todos los objetos iluminados con luz media y luz brillante. Cuando la lectura de la luz es de menos de 50 bujías por pie cuadrado, se debe usar la escala de luz débil. Esta escala se pone en operación soltando el pestillo "H" que sujeta un disco deflector en la trasera del medidor (véase la ilustración de la parte superior derecha de la página 5), y haciendo girar el disco deflector hacia atrás contra la caja, de modo que se enganche el pestillo y mantenga el disco abierto.

Clasificación de las Vistas

El medidor de exposiciones mide el valor medio de la luz o brillantez que viene de la vista entera. Por tanto, para exposiciones normales se usa la posición de la

cadran du calculateur qu'il faut utiliser. Pour les scènes qui demandent un temps de pose inférieur à la normale, c'est-à-dire les scènes manquant de contrastes, on a prévu le repère "A". Pour celles qui demandent plus d'exposition que la normale, c'est-à-dire pour les scènes présentant des contrastes, on a prévu le repère "C".

Méthode de la Gamme des Luminosités

Cette méthode est recommandée pour obtenir de bonnes photographies lorsqu'il est indispensable que tous les objets d'une scène soient correctement exposés. Elle consiste à mesurer la luminosité de l'objet le plus brillant et celle de l'objet le plus sombre du sujet.

Pour cela, prenez une lecture de premier plan de l'objet le plus sombre et une lecture de premier plan de l'objet le plus brillant, placez ensuite la flèche du cadran du calculateur au milieu de l'intervalle compris entre la luminosité de l'objet le plus sombre et celle de l'objet le plus brillant. Vous pouvez alors choisir les combinaisons correctes de diaphragme et d'obturateur pour la scène en question.

S'il n'est pas possible de prendre une lecture de premier plan, on peut faire des lectures sur des objets de même nature, mais alors il faut s'assurer que les conditions de luminosité sont bien les mêmes et que les objets sont semblables.

Les Repères "U" et "O"

Les repères "U" et "O" du cadran du calculateur donnent les limites de la gamme de luminosité que la plupart des pellicules peuvent enregistrer sur un seul négatif. Pour un réglage donné du cadran, tous les objets dont la luminosité tombe sur ou entre ces limites seront correctement exposés.

Dans un sujet où la gamme de luminosité dépasse de

flèche du quadrant du calculateur. Para vistas que necesiten una exposición menor que la normal, es decir, vistas que carezcan de contraste, el aparato está provisto de una posición "A"; y para aquellas vistas que necesiten una exposición mayor que la normal, es decir, vistas con contrastes, el aparato lleva una posición "C".

Método de los Límites de Brillantez

El método de los límites de brillantez se recomienda para buenas fotografías en las que es esencial que todos los objetos de la vista tengan una exposición correcta, y consiste en medir los valores de la luz de los objetos más brillantes y de los objetos menos brillantes de la vista.

Esto se consigue tomando una lectura desde muy cerca del objeto más oscuro y haciendo otra lectura de una manera semejante del objeto más brillante. A continuación se coloca la flecha del cuadrante del calculador en el punto medio entre los valores de la luz del objeto más oscuro y del objeto más brillante. Entonces se pueden leer las combinaciones correctas de número focal y velocidad del obturador para la vista.

Si no fuera posible tomar una lectura muy de cerca, se pueden tomar lecturas substitutas pero hay que asegurarse de que las condiciones de iluminación son las mismas y de que los objetos son semejantes

Las Posiciones "U" y "O"

Las posiciones "U" y "O" en el cuadrante del calculador muestran los límites de la brillantez del objeto que la película media puede registrar en una sola negativa. Para una preparación dada del cuadrante, todos los objetos cuyo valor de luz caiga en esos límites o entre ellos, tendrán una exposición correcta.

En una vista en la que el campo de brillantes exceda

synchronized

time and range settings.

ring until mark indicates the required exposure time.

nt 3 until index mark indicates the required distance.

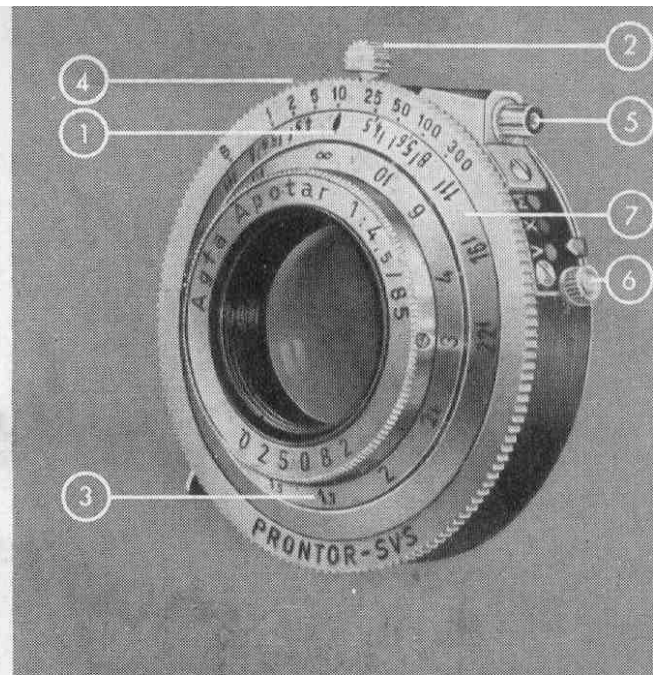
each exposure wind lever **until it is caught**—this

g).

m. diameter.

taking pictures without flashlight, these settings have

et to V—which can be done before or after winding
release; delay appr. 10 seconds. Position V permits
tentionally on V, the synchro-lever can be removed
de with delayed action release the synchro-lever has
icture. The release knob is provided with a thread



beaucoup la sensibilité de la pellicule, le détail dans les parties les plus ombrées comme dans les parties les plus ensoleillées devra évidemment être sacrifié. En plaçant le repère "U" en face de la lecture de luminosité de l'objet le plus sombre, on obtiendra le temps minimum de pose correct, mais si c'est le repère "O" que l'on place en face de la lecture de luminosité de l'objet le plus brillant, on obtiendra le temps maximum de pose correct. On peut aussi obtenir un temps de pose moyen en se servant du posemètre comme il a été décrit précédemment.

Photographie en Couleurs

La sensibilité des pellicules en couleurs est celle indiquée par les repères "A" et "C" du cadran du calculateur. Tous les objets dont la luminosité tombe entre ces repères seront correctement exposés. Les objets ayant une luminosité inférieure à celle de "A" seront sous-exposés, tandis que ceux dont la luminosité sera supérieure à celle de "C" seront sur-exposés.

La luminosité dans la photographie en couleurs est obtenue par le contraste des couleurs, et la méthode recommandée pour obtenir le meilleur temps de pose est la méthode de la gamme des luminosités. Il y a lieu de se rappeler que le blanc et le noir ne doivent pas être considérés comme des couleurs et qu'ils ne doivent pas être mesurés. Faites une lecture de premier plan sur la couleur la plus vive et sur la couleur la plus sombre, et placez la flèche du cadran d'exposition au milieu de l'espace compris entre ces deux lectures de luminosité.

La méthode de la gamme des luminosités centre l'exposition au milieu de l'intervalle de sensibilité de la pellicule, elle est idéale pour la plupart des photographies en couleurs. Si cependant les couleurs sombres sont le principal intérêt, placez le repère "A" du cadran du calculateur en face de la luminosité de la couleur la plus sombre. Si, au contraire, ce sont les couleurs claires

con mucho del campo de la película, como es natural, habrá que sacrificar detalles del objeto más oscuro y/o del objeto más brillante. Poniendo la posición "U" de modo que esté enfrente del valor de la luz del objeto más oscuro, se obtendrá la exposición correcta mínima, pero si se pone la posición "O" enfrente de la luz del objeto más brillante, se obtendrá la exposición correcta máxima. Alternativamente, se puede obtener una exposición media empleando el medidor como ya se ha descrito.

Fotografía en Colores

El campo de películas para fotografía en colores está cubierto por las posiciones "A" y "C" en el cuadrante del calculador. Todos los objetos cuyo valor de luz caiga entre esas posiciones tendrán una exposición correcta. Los objetos que tengan un valor de luz por debajo de la posición "A" estarán con poca exposición y todos los objetos que tengan un valor de luz por encima de la posición "C" estarán con una exposición excesiva.

La brillantez en la fotografía en colores se obtiene por medio del contraste entre los colores y el método que se recomienda para obtener la exposición mejor es el método de los límites de brillantez. Se debe recordar que el negro y el blanco no se consideran como colores y no se deben medir. Se debe tomar una lectura muy de cerca de los colores más brillantes y otra de los colores más oscuros y la flecha del cuadrante de exposiciones se debe colocar en el punto medio entre los dos valores de luz obtenidos.

El método de los límites de brillantez centra la exposición en el medio del campo de la película y es ideal para los trabajos medios en color. Sin embargo, si los colores oscuros fueran los de interés principal, póngase la posición "A" en el cuadrante del calculador enfrente del valor de luz del color más oscuro; y alternativamente

que vous voulez mettre en relief, placez le repère "C" en face de la luminosité de la couleur la plus claire.

Cinématographie

Les appareils de prise de vues de cinéma exposent une série d'images à un intervalle de temps déterminé et à une vitesse d'obturateur constante. Les ouvertures de diaphragme servent à compenser les variations de l'intensité lumineuse et, de ce fait, l'exposition du film particulier avec lequel votre appareil est chargé.

Pour obtenir les meilleurs résultats du point de vue de l'exposition, il est recommandé d'employer la méthode de la gamme des luminosités qui a été décrite précédemment. En vous servant de cette méthode pour la cinématographie, vous trouverez l'ouverture correcte de diaphragme à utiliser juste en face de la vitesse d'obturateur propre à votre caméra sur le cadran du calculateur.

Le nombre d'images par seconde est proportionnel à la vitesse d'obturateur, comme il est montré sur la table se trouvant à la page 11.

Films Ciné en Couleurs

Suivez les instructions qui précèdent et celles qui sont données pour les photographies en couleurs.

A NOTER ÉGALEMENT

Sujets a Contre-Jour

Si vous dirigez le posemètre directement sur un sujet éclairé à contre-jour, la lecture de luminosité sera

si les couleurs brillantes fueran los de interés principal, entonces, póngase la posición "C" enfrente del valor de la luz del color más brillante.

Fotografía Cinematográfica

Las cámaras cinematográficas hacen la exposición de una serie de fotografías en un intervalo dado a una velocidad de obturador fijada. El número focal controla las variaciones en la intensidad de la luz y, por tanto, la exposición de la película particular con que está cargada la cámara.

Para obtener los mejores resultados de la exposición se recomienda el método de los límites de brillantez, que se ha descrito anteriormente. Empleando este método para la fotografía cinematográfica, se necesita emplear el número focal que está directamente enfrente de la velocidad de obturador particular de la cámara de toma, en el cuadrante del calculador.

El número de fotografías tomadas por segundo es proporcional a la velocidad del obturador como se muestra en la tabla de la página 11.

Películas Cinematográficas en Colores

Síganse las instrucciones citadas y las que se han dado para la fotografía en colores de imágenes fijas.

NOTAS ADICIONALES

Fotografía a Contraluz

Si el medidor está dirigido directamente a un objeto iluminado a contraluz, la lectura del valor de la luz se inflará y dará como resultado una exposición

exagérée et il en résultera une sous-exposition. Pour éviter cela, tournez le dos au sujet et prenez une lecture sur un objet semblable avec la lumière derrière vous.

Filtres

Les filtres ont un facteur de multiplication s'appliquant à la pellicule avec laquelle ils sont utilisés, et l'exposition doit être augmentée en conséquence. La méthode la plus simple pour faire cette correction est de diviser le chiffre de rapidité d'émulsion Weston par le facteur de correction du filtre et de régler le cadran du calculateur du posemètre à la valeur ainsi trouvée.

insuficiente. Para vencer esta dificultad, la persona que maneja el medidor debe dar la vuelta y tomar una lectura con un objeto semejante dando la espalda a la luz.

Filtros

Los filtros tienen un factor de multiplicación con relación a la película con la que se usan y la lectura del medidor de exposiciones se debe aumentar de acuerdo. El método más fácil de hacer este aumento es dividir la velocidad Weston de la película por el factor del filtro y poner el cuadrante del calculador en el medidor con el valor resultante.

SANGAMO WESTON LIMITED

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THE WESTON
Master II

UNIVERSAL EXPOSURE METER

MODEL S141/735

**SANGAMO WESTON LTD.
ENFIELD MIDDLESEX**

INSTRUCTION BOOK

for the Model S141/736

WESTON MASTER II CINÉ EXPOSURE METER

Warranty

Your Weston Exposure Meter is an entirely British product and is made by the recognised leaders in fine instrument construction.

It is warranted against faulty workmanship and defective materials for a period of one year from date of manufacture.

Handle your meter with the care and respect to which a fine mechanism is entitled and it will give you faithful service adding considerably to your photographic pleasure.

An accident may happen, however, and in such a case you should consult your dealer or our Service Department regarding its return to this factory for repair and adjustment.



SANGAMO WESTON LIMITED
ENFIELD, MIDDLESEX, ENGLAND.

INSTRUCTIONS
for
WESTON
MASTER II CINÉ
EXPOSURE METER
MODEL S141/736

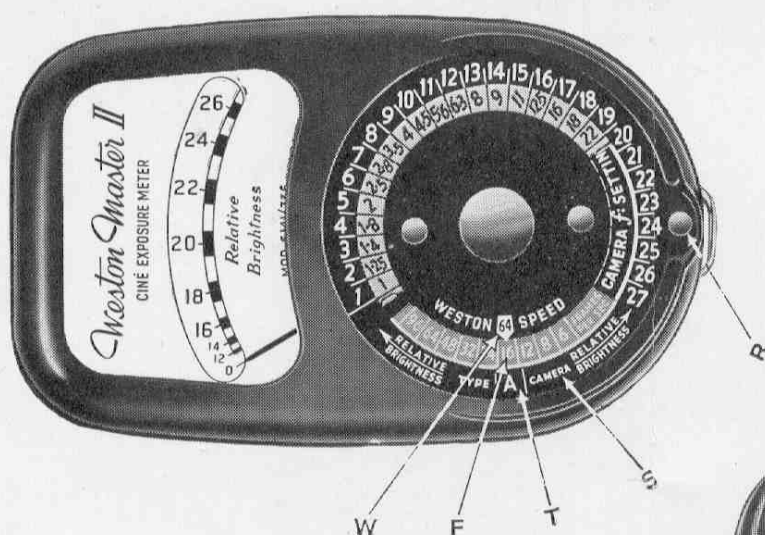
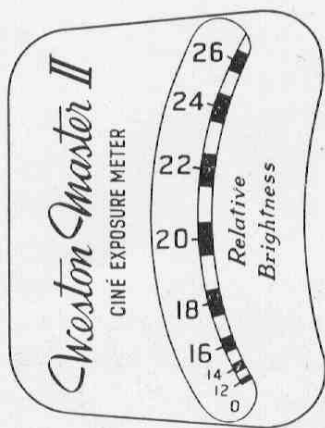


Fig. 1

Fig. 2

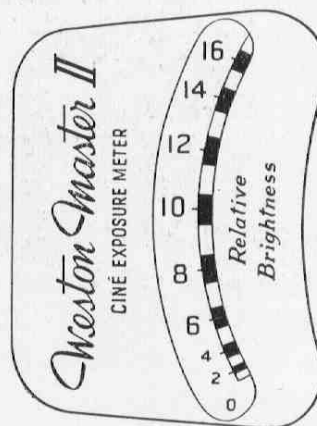




HIGH LIGHT SCALE

On the rear of the meter a hinged baffle will be found. The light sensitive PHOTRONIC* cell is beneath the baffle. When the baffle is closed, the scale range is 0-26. Keep the baffle closed if the light is 16 or higher.

**Registered Trade-mark*



LOW LIGHT SCALE

When the light is reading less than 16, open the baffle, the scale will then read in brightness units of 0-16. To open the baffle, simply slide the latch, and swing the baffle open against the case until the latch engages in the socket.

USE OF SHUTTERS

Diaphragm setting: 3.5 4 (4.5) 5.6 8 11 16 22

Range (feet): 3 3.5 4 5 6 8 10 15 30 Infinity

Exposure times: B 1 2 5 10 25 50 100 300

The whole numbers on the shutter ring stand for fractions of seconds, e. g. 2 = $\frac{1}{2}$ sec., 50 = $\frac{1}{50}$ sec.

PRONTOR-SVS speed-synchronized

① Joint index mark for exposure time and range settings.

To set exposure time, turn outer milled ring until mark indicates the required exposure time.
To set the range, turn front lens mount 3 until index mark indicates the required distance.

② Shutter winding lever: before each exposure wind lever **until it is caught**—this also applies to "B".

③ Feet scale (see "1" range setting).

④ Diaphragm lever and scale.

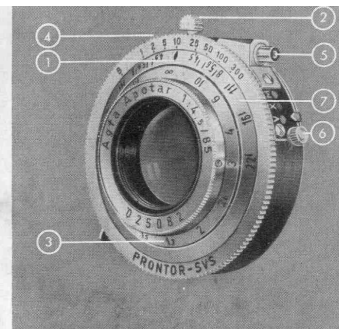
⑤ Contact bush for flashlight 3 mm. diameter.

⑥ Synchro-lever for three settings: M, X, V.

Position M and X for flash synchronization (see chapter on Flash Technique, p. 21). When taking pictures without flashlight, these settings have no influence on shutter action.

Position V = automatic shutter release (delayed action release). When synchro-lever is set to V—which can be done before or after winding the shutter—the delayed action mechanism is wound for pictures with automatic shutter release; delay appr. 10 seconds. Position V permits also of taking delayed action pictures with flashlight (X synchronization only!). If set unintentionally on V, the synchro-lever can be removed from this position without actuating the delayed action mechanism. After each exposure made with delayed action release the synchro-lever has to be reset to X to avoid any undesired delay in shutter release when taking the next picture. The release knob is provided with a thread (2, p. 2) to take a cable release.

⑦ Depth-of-field scale (see pp. 18/20).



HOW TO USE YOUR WESTON CINÉ EXPOSURE METER

ADJUST FOR TYPE OF CAMERA

For purpose of simplification all ciné cameras have been divided into two groups, Types "A" and "B"—according to the angle of the shutter opening.

Cameras having an angle within the range 90° to 149° are classed as Type "B", whilst those having an angle between 150° and 230° are Type "A".

If the exposure time corresponding to a particular number of frames per second is known, the type can be decided by reference to the table on page 10.

When the angle of the shutter opening is not given in the manufacturer's handbook the meter should be set to group "A". If the resultant prints appear consistently under-exposed it is probable that your camera has a smaller angle of shutter opening and better results will be obtained using group "B".

To set the Exposure Meter to the desired group, press the dial release "R" (fig. 1) and move segment "S" until the correct type of your camera "A" or "B" appears in the opening "T".

SET FOR FILM SPEED

Determine the Weston Film Rating of the film with which your camera is loaded, from the Weston Film Rating Book packed with your meter. Hold the middle dial stationary and rotate the top dial until this value appears in the window "W".

SET FOR CAMERA SPEED

Rotate both the top and middle dials as one, until the index "F" directly below the window "W" is opposite the figure representing the frames per second at which your camera is to be operated.

HOW TO USE YOUR WESTON CINÉ EXPOSURE METER

When the above settings have been made, you are ready to measure the scene to be photographed.

YOU DO NOT HAVE TO CHANGE ANY OF THESE SETTINGS UNTIL YOU USE A DIFFERENT TYPE CAMERA, A DIFFERENT TYPE OF FILM OR A DIFFERENT CAMERA SPEED.

AIM THE METER

Hold the meter any way natural to you, but be sure you do not obstruct the cell opening with your hand, or with the neck cord, as this will result in incorrect brightness readings.

When measuring the relative brightness of the scene to be photographed, an overall reading taken from the Camera Position will usually be satisfactory. **DIRECT THE METER AT THE SCENE OR SUBJECT**, and sight across the top of the case. Do not measure sky, as this will result in an inflated reading.

Close-up and Brightness Range Methods are discussed on pages 6 and 7.

READ THE SCALE

Note the pointer deflection on the scale. If it is below 16 with the baffle closed, open the baffle, which will move the low-range scale into position and enable low light intensities to be measured.

SET YOUR CAMERA

Having obtained the relative brightness as indicated by the pointer find the corresponding number on the outer scale of the exposure control dial. The figure immediately opposite this, is the f/stop value to be used. For example: Assuming a film rating of 32—Brightness reading 15—the f/stop at 16 frames per second would be f/8 with an "A" Camera, or f/6.3 with a "B".

TAKE THE PICTURE

THE CLOSE-UP METHOD

The Close-up Method is so named because the meter is held close to the object of principal interest in the scene to be photographed. With this method only one object is measured, therefore the film will be exposed particularly for this object. It is used where there is but one object of principal interest, the rest of the scene being background, and of no importance.

TAKE CLOSE-UP READING

Take a close-up reading of the object of principal interest. Hold the meter close to the object—about as far away as the object's smallest dimension. The meter may be held closer than this distance but not farther away.

DO NOT CAST A SHADOW

Do not cast a shadow of the meter or your hand on the object being measured. To do so would cause an erroneous reading. If necessary, hold the meter at an angle to the direction from which the light is coming.

SET YOUR CAMERA

Note the light reading obtained. Locate this figure on the outside row of numbers on the exposure control dial . . . directly opposite you will find the correct f/stop setting.

THE BRIGHTNESS RANGE METHOD

The brightness Range Method is so named because the brightness or light values are determined by measuring the lightest and darkest objects, and using the average of the two readings. Exposure is then balanced between the two extremes. This method is the most accurate known for either black-and-white or colour photography.

CONSIDER THE SCENE

Let us consider an average scene. There are various objects in it reflecting different amounts of light. The dark objects reflect little light . . . the bright objects much light.

MAKE A CLOSE-UP READING

Make a close-up reading of the darkest object in the scene, *i.e.*, that object which yields the smallest light reading.

MAKE A CLOSE-UP READING

Make a close-up reading of the brightest object in the scene, *i.e.*, that object which yields the greatest light reading.

SET YOUR CAMERA

Take the average value of the brightest and darkest close-up readings. For example: Assuming a film rating of 32; if the darkest object reading is 4, brightest object 22, add 4 to 22=26, divide 26 by 2=13. Against 13 on the outer scale will be found the correct stop, $f/5.6$.

COLOUR PHOTOGRAPHY

Due to the fact that colour film has far less latitude than black-and-white film, it is necessary that greater care be exercised in making measurements for colour photography. For this reason the Brightness Range Method is recommended. **REMEMBER IN COLOUR PHOTOGRAPHY, BLACK-AND-WHITE ARE NOT CONSIDERED COLOURS.**

MAKE A CLOSE-UP READING

Make a close-up reading of the darkest colour in the scene. Hold the meter at least as close to the object as its smallest dimension.

MAKE A CLOSE-UP READING

Disregarding the white, make a close-up reading of the brightest colour.

DO NOT CAST A SHADOW

Be careful that neither the meter nor your body casts a shadow on the subject.

SET YOUR CAMERA

Take the average of the darkest and brightest colour readings, and use the f/stop directly opposite this figure.

HINTS ON COLOUR PHOTOGRAPHY

TIME OF DAY

If pictures are taken before 10 a.m. or after 3 p.m. a colour correction filter should be used and the exposure corrected accordingly.

LIGHTING

Do not use a lighting set-up of extreme contrast when photographing in colour. Colour itself will provide ample contrast in the picture. Too great a lighting contrast results in a scene beyond the range of the film, making correct exposure for all objects impossible. Flat lighting is best for colour.

SUBJECTS IN SHADE

Do not photograph shaded subjects in colour. The shaded portions of the scene are lighted by reflected skylight, rather than sunlight. Skylight is bluer than sunlight for which the film was balanced. Flesh tones and light clothing in a portrait may be falsified by reflected light from coloured walls, materials or foliage in close proximity.

FACE TONES

In close-ups or portraits, usually the brightest colour is the face. Since that is usually the most important colour anyway, an excellent way of exposing close-ups or portraits in colour is to measure the highlight on the face.

SUBSTITUTE THE HAND

The palm of the hand makes an excellent substitute for a person's face. Orient the palm of the hand so it is in the same plane as the face, take a reading, and set your camera to the f/stop opposite this reading.

GENERAL INFORMATION

PANORAMING

Panoraming over areas where there is a wide variation of brightness, requires considerable care. For best results it is advisable to take separate readings of the bright and dark areas. Then when actually taking the pictures, change the camera f/stop as indicated by the meter for each set of different conditions.

FOR STILL CAMERAS

A ciné camera is essentially a still camera which takes a number of still pictures in rapid succession with a definite exposure for each frame.

The ciné meter can therefore be used with still cameras as well as ciné types.

1. Set the Film Speed Rating.
2. Set the meter to type "A" or "B" depending upon the shutter speed desired.
3. Consider the following relationships:

TYPE "A"	
Frames Per Second	Effective Shutter Speed
6	1/10
8	1/15
12	1/25
16	1/30
24	1/50
32	1/60
48	1/100
64	1/120
96	1/200

TYPE "B"	
Frames Per Second	Effective Shutter Speed
6	1/20
8	1/25
12	1/40
16	1/50
24	1/75
32	1/100
48	1/150
64	1/200
96	1/300

4. Choose the shutter speed desired from the table on the previous page and set the index to the corresponding value for frames per second.
5. Opposite the light value obtained from the scene will be found the correct f/stop for the chosen speed.

For example: If a shutter speed of 1/300th of a second is to be used, the meter is set for type "B" camera and the index set to 96 frames per second. If a speed of 1/120th of a second is desired, set the meter for type "A" camera and the index to 64 frames per second.

CARE OF THE EXPOSURE METER

Your new exposure meter is rugged and well made. But like a fine watch, which it resembles in many ways, normal care should be given.

DO NOT OVERHEAT METER

Normal or even abnormal summer temperatures will not harm the meter. But do not store in a hot place such as on a radiator or in the glove compartment of a car.

DO NOT DROP METER

Like a watch, the jewelled bearings and exactly shaped pivots may be damaged by a fall.

DO NOT CARRY METER WITHOUT CASE

Do not carry the meter loose in the pocket or camera case with other objects. Keep it in its own case when not in use.

GENERAL INFORMATION

ZERO CORRECTOR

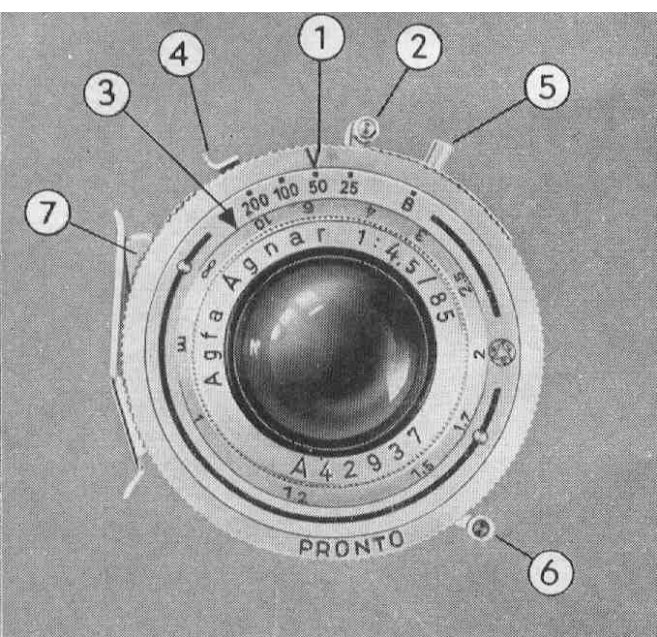
When no light reaches the PHOTRONIC* cell, the instrument pointer should rest directly over the zero position on the scale.

If the pointer does not rest over the zero position, place a card over the cell to exclude all light. Hold the meter at an angle of about 45° , and with a small screwdriver rotate the small screw on the back of the meter below the cell, until the pointer rests on zero.

USE OF FILTERS

Exposure must be increased when a Filter is used. A simple way to compensate for this: Divide the Film Speed Rating of the film in use, by the Filter Factor. Set the resultant Film Speed number on the Exposure Guide Dial. For example: If Film Speed Rating is 100, Filter Factor 2, then Film Speed to use would be 50 ($100 \div 2 = 50$).

**Registered Trade-mark*



- ⑥ Automatic shutter release.
 Appr. 7 secs. delayed action.
 1 Wind shutter.
 2 Wind automatic shutter release lever.
 3 Press shutter release button or cable release (not to be used with setting "B").

PRONTO

Exposure times: B 25 50 100 200
 and automatic shutter release

Range (feet): 3 3.5 4 5 6 8 10 15 30 ∞
 Diaphragm Stops: 4.5 5.6 8 11 16 22

- ① Index for exposure time settings: rotate outer milled ring.
 ② Shutter winding lever: wind before each exposure, including at setting "B".
 ③ Index for range setting: rotate front lens mount.
 ④ Diaphragm lever.
 ⑤ Contact bush for flashlight, 3 mm. diameter.
 ⑦ Nipple for cable release. (Please note that the double exposure lock will be put out of action when using a cable release!)

The whole numbers on the shutter ring stand for fractions of seconds, e. g. 25 = $\frac{1}{25}$ sec., 50 = $\frac{1}{50}$ sec.

MODE D'EMPLOI DE VOTRE POSEMÈTRE DE CINÉ WESTON

RÉGLAGE SUIVANT LE TYPE DE CAMÉRA

Pour simplifier, nous avons divisé toutes les ciné-caméras en deux groupes: le Type "A" et le Type "B"—selon l'angle d'ouverture de l'obturateur.

Les caméras ayant un angle d'ouverture compris entre les limites de 90° et 149° sont classées sous le Type "B", tandis que celles dont l'angle d'ouverture est situé entre 150° et 230° sont classées sous le Type "A".

Pour régler le posemètre au type désiré, pressez le bouton "R" de déblocage du cadran (Fig. 1) et déplacez le segment "S" jusqu'à ce que le type "A" ou "B" correspondant à votre caméra apparaisse dans l'ouverture "T".

RÉGLAGE POUR LA RAPIDITÉ D'ÉMULSION

Déterminez le chiffre de rapidité d'émulsion Weston pour le film qui est chargé dans votre caméra, en vous servant de la brochure Weston qui traite de la rapidité des films et qui est fournie avec votre posemètre. Tenez le cadran du milieu de façon à ce qu'il ne bouge pas et faites tourner le cadran supérieur jusqu'à ce que la valeur apparaisse dans le fenêtre "W".

RÉGLAGE DE LA VITESSE DE LA CAMÉRA

Faites tourner ensemble le cadran supérieur et celui du milieu comme s'ils n'en formaient qu'un seul, jusqu'à ce que l'indicateur "F", placé immédiatement au-dessous de la fenêtre "W", se trouve en face du chiffre représentant le nombre d'images que votre caméra tourne par seconde.

Après avoir fait les réglages ci-dessus, tout est prêt pour mesurer la scène à filmer.

VOUS N'AVEZ PAS BESOIN DE MODIFIER AUCUN DE CES RÉGLAGES À MOINS QUE VOUS N'EMPLOYIEZ UN TYPE DE CAMÉRA OU DE FILM DIFFÉRENT OU ENCORE UNE VITESSE D'OBTURATION DIFFÉRENTE.

CÓMO HA DE EMPLEARSE SU MEDIDOR DE EXPOSICIONES CINEMATOGRAFICO WESTON

AJUSTE SEGÚN EL TIPO DE CÁMARA

Para los fines de la simplificación todas las cámaras cinematográficas han quedado divididas en dos grupos, tipos "A" y "B"—según el ángulo de abertura del obturador.

Las cámaras que tienen un ángulo de abertura comprendido dentro de los límites de 90° a 149° están clasificadas como del Tipo "B," mientras que las que poseen un ángulo entre 150° y 230° son del Tipo "A".

Para poner en punto el Medidor de Exposiciones a fin de que corresponda al grupo deseado, se oprime el botón "R" (fig. 1) de suelta del cuadrante y se mueve el segmento "S" hasta que el tipo correcto de su cámara "A" o "B" aparezca en la abertura "T".

PUESTA EN PUNTO PARA LA VELOCIDAD DE LA PELÍCULA

Debe determinarse la velocidad Weston de la película con la cual se halla cargada la cámara de Vd., sirviéndose al efecto del Libro Weston de Velocidades de Películas, el cual se expide a Vd. con su medidor. Ahora se mantiene fijo el cuadrante del centro y se hace girar al cuadrante de arriba hasta que este valor aparezca en la ventanilla "W".

PUESTA EN PUNTO PARA LA VELOCIDAD DE LA CÁMARA

Se hace girar a los dos cuadrantes, superior y central, como uno sólo, hasta que el índice "F" previsto directamente bajo la ventanilla "W" se halle frente a la cifra que representa el número de fotografías por segundo de acuerdo con el cual ha de operarse la cámara de Vd.

Una vez efectuadas las puestas en punto arriba descritas, está Vd. en condiciones de medir la escena que ha de fotografiarse.

NO TIENE VD. NECESIDAD DE MODIFICAR NINGUNA DE ESTAS PUESTAS EN PUNTO HASTA QUE UTILICE VD. UN TIPO DISTINTO DE CÁMARA O DE PELÍCULA O UNA VELOCIDAD DISTINTA DE CÁMARA.

POINTEZ LE POSEMÈTRE

Tenez le posemètre d'une façon qui vous soit naturelle, mais assurez-vous que vous n'obstruez pas l'ouverture de la cellule avec votre main ou avec le cordonnet de suspension, car cela fausserait les lectures de luminosité.

Quand on mesure la luminosité relative de la scène à filmer, une lecture d'ensemble, prise de l'emplacement de la caméra, est généralement suffisante. **POINTEZ LE POSEMÈTRE VERS LA SCÈNE OU VERS LE SUJET**, et regardez l'objet par-dessus le boîtier. Ne mesurez pas le ciel, car il en résulterait une lecture exagérée.

Les méthodes de premier plan et de la gamme de luminosités sont décrites aux pages 8 et 9.

PRENEZ LA LECTURE SUR L'ÉCHELLE

Notez la déviation de l'aiguille sur l'échelle. Si cette lecture est au-dessous de 16 quand le cache est fermé, on doit ouvrir celui-ci, ce qui mettra en place l'échelle de faible luminosité et permettra de mesurer les faibles intensités de lumière.

RÉGLEZ VOTRE CAMÉRA

Après avoir obtenu la luminosité relative indiquée par l'aiguille, cherchez le nombre correspondant sur l'échelle extérieure du cadran du calculateur. Le chiffre qui se trouvera immédiatement en face sera celui de l'ouverture du diaphragme qu'il y aura lieu d'utiliser. Par exemple, si nous prenons un film dont la rapidité d'émulsion Weston est de 32—lecture de luminosité 15—l'ouverture à 16 images par seconde sera de 8 avec une caméra du type "A" et de 6,3 avec une caméra du type "B".

FILMEZ

MÉTHODE DE PREMIER PLAN

La méthode de premier plan est ainsi dénommée parce que l'on tient le posemètre tout près de l'objet présentant l'intérêt principal dans la scène à filmer. Avec cette méthode, on ne mesure qu'un objet; en conséquence,

DIRIGIR EL MEDIDOR HACIA LA ESCENA

Se debe sostener el medidor en una forma cualquiera natural con respecto a Vd. mismo, pero es preciso cerciorarse de que uno no obstruye la abertura de la célula con la mano, ni con la cuerda del cuello, pues esto dará por resultado lecturas incorrectas de brillantez.

Cuando se esté midiendo la brillantez relativa de la escena que ha de fotografiarse, por lo general bastará con tomar una lectura general desde la posición de la cámara. **DIRÍJASE EL MEDIDOR HACIA LA ESCENA O EL OBJETO**, y tómese la puntería a través de lo alto de la caja. No hay que medir el cielo, pues esto dará lugar a lecturas exageradas.

Los Métodos de los Límites de brillantez y de proximidad son discutidos en las páginas 8 y 9.

LECTURA DE LA ESCALA

Obsérvese la desviación de la aguja sobre la escala. Si se halla a menos de la cifra 16 con el disco deflector cerrado, debe abrirse éste, y así se desplazará la escala de los límites hasta su posición y permitirá medir las intensidades de luz débil.

PUESTA EN PUNTO DE SU CÁMARA

Una vez obtenida la brillantez relativa tal como lo indica la aguja, hay que hallar el número correspondiente sobre la escala externa del cuadrante del calculador. La cifra inmediatamente enfrente de ésta, es el número focal que ha de adoptarse. Por ejemplo: Suponiendo una velocidad de película de 32—lectura de brillantez 15—el número focal a razón de 16 fotografías por segundo sería de 8 con una Cámara "A", o de 6,3 con una del tipo "B".

TOME LA FOTOGRAFÍA

EL MÉTODO DE PROXIMIDAD

El Método de Proximidad recibe esta denominación por virtud de que el medidor se mantiene a proximidad del objeto que presenta el mayor interés en la escena que ha de fotografiarse. Con este método sólo se mide un objeto; por lo tanto, la película será expuesta

le film sera exposé spécialement avec cet objet en vue. On ne se sert de cette méthode que lorsqu'il n'y a qu'un objet d'intérêt principal, et que le reste de la scène constitue l'arrière-plan et n'a aucune importance.

POUR PRENDRE DES LECTURES DE PREMIER PLAN

Prenez une lecture de premier plan de l'objet présentant l'intérêt principal. Tenez le posemètre tout près de l'objet—à une distance à peu près égale à la plus petite dimension de l'objet. On peut tenir le posemètre plus près de l'objet, mais pas plus loin.

NE PROJETEZ PAS D'OMBRE

Ne projetez pas l'ombre de votre main ou du posemètre sur l'objet que vous êtes en train de mesurer, car autrement la lecture serait faussée. Si cela est nécessaire, tenez le posemètre de façon à former un angle avec la ligne de direction d'où vient la lumière.

RÉGLEZ VOTRE CAMÉRA

Prenez note de la lecture de luminosité obtenue. Cherchez ce chiffre sur la rangée extérieure des chiffres du cadran du calculateur . . . juste en face, vous trouverez l'ouverture correcte de diaphragme.

MÉTHODE DE LA GAMME DES LUMINOSITÉS

La méthode de la gamme des luminosités est ainsi dénommée parce que les valeurs de luminosité ou de lumière sont déterminées en mesurant la luminosité de l'objet le plus brillant et celle de l'objet le plus sombre et en utilisant la moyenne des deux lectures. L'exposition se trouve ainsi équilibrée entre ces deux valeurs extrêmes. Cette méthode est la plus précise que l'on connaisse tant pour la photographie en blanc et noir que pour celle en couleurs.

ÉTUDIEZ LA SCÈNE

Étudions une scène ordinaire. Dans cette scène se trouvent différents objets, reflétant des valeurs différentes de lumière. Les objets sombres reflètent peu de lumière . . . les objets brillants en reflètent beaucoup.

de modo particular para dicho objeto. Se utiliza en los casos en que hay únicamente un objeto de interés primordial, sirviendo de fondo el resto de la escena, sin ofrecer importancia alguna.

TÓMESE UNA LECTURA DE PROXIMIDAD

Es preciso se tome una lectura de proximidad del objeto de interés primordial. Téngase el medidor próximo al objeto—a una distancia casi igual a la dimensión más pequeña del objeto. El medidor podrá tenerse a mayor proximidad que ésta, pero no a una distancia más grande.

NO PROYECTE SOMBRA ALGUNA

No se debe proyectar sombra alguna del medidor ni de la mano sobre el objeto que se trata de medir. Hacer tal vendría a ocasionar una lectura equivocada. Si es preciso, manténgase el medidor a un ángulo determinado respecto a la dirección de la cual viene la luz.

PUESTA EN PUNTO DE LA CÁMARA

Obsérvese la lectura obtenida de la luz. Encuéntrase esta cifra sobre la fila externa de números prevista sobre el cuadrante del calculador . . . y directamente enfrente de ella encontrará Vd. la puesta en punto exacta del número focal.

EL MÉTODO DE LOS LÍMITES DE BRILLANTEZ

El Método de los Límites de Brillantez ha sido denominado así porque los valores de brillantez o de luz se determinan mediante la medida de los objetos más claros y más oscuros, y adoptando el término medio de las dos lecturas. Así, pues, la exposición queda equilibrada entre los dos extremos. Este método es el más exacto que se conozca, tanto para la fotografía en blanco y negro como para la en colores.

EXAMEN DE LA ESCENA

Examinemos una escena corriente. En ella existen varios objetos que reflejan distintas cantidades de luz.

Los objetos oscuros reflejan poca luz . . . los objetos brillantes mucha luz.

PRENEZ UNE LECTURE DE PREMIER PLAN

Prenez une lecture de premier plan l'objet le plus sombre de la scène, c'est-à-dire de l'objet donnant la lecture de luminosité la plus basse.

PRENEZ UNE LECTURE DE PREMIER PLAN

Prenez une lecture de premier plan de l'objet le plus brillant de la scène, c'est-à-dire de l'objet donnant la lecture de luminosité la plus élevée.

RÉGLEZ VOTRE CAMÉRA

Prenez la moyenne des lectures de la plus faible luminosité et de la luminosité la plus élevée. Prenons un exemple: supposons qu'un film dont la rapidité d'émulsion correspond à 32 soit dans la caméra. Si la lecture de l'objet le plus sombre est de 4, et que celle de l'objet le plus brillant soit de 22, ajoutez 4 à 22, soit 26. Divisez 26 par 2, soit 13. Sur l'échelle extérieure on trouvera en face de 13, l'ouverture correcte de diaphragme, soit 5,6.

PHOTOGRAPHIE EN COULEURS

Du fait que le film en couleurs offre des possibilités beaucoup plus restreintes que celles du film ordinaire blanc et noir, on doit apporter un soin encore plus grand à la prise des mesures pour les vues en couleurs. Pour cette raison, il est recommandé d'utiliser la méthode de la gamme des luminosités. **RAPPELEZ-VOUS QUE DANS LA PHOTOGRAPHIE DES COULEURS, LE BLANC ET LE NOIR NE DOIVENT PAS ÊTRE CONSIDÉRÉS COMME DES COULEURS.**

PRENEZ UNE LECTURE DE PREMIER PLAN

Prenez une lecture de premier plan de la couleur la plus sombre de la scène. Tenez le posémètre à une distance aussi rapprochée de l'objet que la plus petite dimension de cet objet.

PRENEZ UNE LECTURE DE PREMIER PLAN

Ne tenant pas compte des blancs, prenez une lecture de premier plan de la couleur la plus brillante.

TÓMESE UNA LECTURA DE PROXIMIDAD

Tómese una lectura de proximidad del objeto más oscuro en dicha escena, esto es, del objeto que registra la lectura de menor luz.

TÓMESE UNA LECTURA DE PROXIMIDAD

Tómese una lectura de proximidad del objeto más brillante en dicha escena, esto es, del objeto que registra la lectura de mayor luz.

PUESTA EN PUNTO DE SU CÁMARA

Tómese el valor promedio de las lecturas de proximidad de los objetos de mayor y de menor brillantez. Por ejemplo: Suponiendo una velocidad de película de 32, si la lectura del objeto más oscuro es 4, la del objeto más brillante 22, se agrega 4 a 22=26, se divide 26 por 2=13. Enfrente de la cifra 13 sobre la escala externa se hallará el número focal correcto, 5,6.

FOTOGRAFÍA EN COLORES

Debido al hecho de que las películas en colores ofrecen una latitud infinitamente menor que las películas en blanco y negro, es preciso consagrar un mayor cuidado a la toma de las medidas para la fotografía en colores. Por tal razón se recomienda el Método de los Límites de Brillantez. **TÉNGASE BIEN PRESENTE QUE EN LA FOTOGRAFÍA EN COLORES, EL BLANCO Y EL NEGRO NO ESTÁN CONSIDERADOS COMO COLORES.**

TÓMESE UNA LECTURA DE PROXIMIDAD

Tómese una lectura de proximidad del color más oscuro que haya en la escena. Téngase el medidor por lo menos tan próximo al objeto como la menor dimensión de éste.

TÓMESE UNA LECTURA DE PROXIMIDAD

Prescindiendo del blanco, tómese una lectura de proximidad del color más brillante.

NE PROJETEZ PAS D'OMBRE

Faites attention de ne pas projeter d'ombre sur le sujet, pas plus avec le posemètre qu'avec votre corps.

RÉGLEZ VOTRE CAMÉRA

Prenez la moyenne entre les lectures de la couleur la plus sombre et de la couleur la plus brillante, et utilisez l'ouverture de diaphragme indiquée directement en face de ce chiffre.

QUELQUES CONSEILS CONCERNANT LA PHOTOGRAPHIE EN COULEURS HEURES DU JOUR

Si les photographies sont prises le matin avant 10 heures ou l'après-midi après 15 heures, il y aura lieu de se servir d'un filtre correcteur des couleurs et le temps de pose devra être modifié en conséquence.

ÉCLAIRAGE

Pour les photographies en couleurs, on ne doit pas se servir d'un éclairage donnant des contrastes extrêmes. Les couleurs elles-mêmes donneront un contraste largement suffisant à l'image. Quand le contraste d'éclairage sera trop poussé, il en résultera une scène hors de la portée du film, ce qui rendra impossible l'exposition correcte de tous les objets. La lumière sans éclat convient le mieux à la photographie en couleurs.

SUJETS DANS L'OMBRE

On ne doit pas prendre en couleurs les objets ombragés. Les parties ombragées de la scène sont éclairées par la lumière du jour réfléchie plutôt que par la lumière solaire. La lumière du jour est plus bleue que la lumière solaire pour laquelle le film a été établi. Dans un portrait, les tons de la peau et des vêtements clairs peuvent être faussés par la lumière que réfléchissent les murs de couleurs, les étoffes ou le feuillage qui se trouvent à proximité.

NO PROYECTE SOMBRA ALGUNA

Téngase cuidado de que ni el medidor ni el cuerpo de Vd. proyecte sombra alguna sobre el objeto.

PUESTA EN PUNTO DE LA CÁMARA DE VD.

Tómese el término medio de las lecturas del color más oscuro y del más brillante, y adóptese el número focal que se halle directamente enfrente de esta cifra.

RECOMENDACIONES PARA LA FOTOGRAFÍA EN COLORES HORA DEL DÍA

Si se toman vistas antes de las 10 de la mañana o después de las 3 de la tarde deberá emplearse un filtro corrector de los matices, y corregirse la exposición según sea preciso.

ALUMBRADO

No hay que emplear una disposición de alumbrado que presente un contraste extremo cuando se fotografíe en colores. El color mismo habrá de ofrecer amplio contraste en la foto. Un contraste demasiado grande en el alumbrado da lugar a producir una escena fuera del alcance de la película, haciendo que sea imposible una exposición correcta para todos los objetos. El alumbrado mate es el mejor para los colores.

OBJETOS EN LA SOMBRA

No deben fotografiarse los objetos sombreados en colores. Las partes sombreadas de la escena reciben su luz mediante el reflejo que proviene del cielo, más bien que del sol. La luz del cielo es más azul que la luz solar, para la cual fué compensada la película. Los tonos de la carne y de la ropa clara en un retrato podrán quedar falseados por la luz que reflejan las paredes de colores, los materiales o bien el follaje a estrecha proximidad.

LES TONS DU VISAGE

Dans les prises de vues de premier plan ou les portraits, la couleur la plus brillante est généralement celle du visage. Comme c'est aussi la couleur qui, en principe, est la plus importante, c'est une excellente idée d'exposer les premiers plans ou les portraits en couleur en prenant la mesure sur la partie la plus lumineuse du visage.

SUBSTITUEZ LA MAIN

La paume de la main est un substitut excellent pour le visage d'une personne. Orientez donc la paume de la main pour qu'elle se trouve dans le même plan que le visage à photographier, prenez une lecture et réglez votre caméra l'ouverture du diaphragme située en face de ce chiffre.

RENSEIGNEMENTS GÉNÉRAUX VUES PANORAMIQUES

Les prises de vues panoramiques de scènes présentant toute une gamme de luminosités demandent un soin particulier. Pour obtenir les meilleurs résultats, il est recommandé de prendre des lectures séparées des régions éclairées et des régions sombres. Quand par la suite on prendra les vues, il faudra changer l'ouverture du diaphragme de la caméra comme le posemètre l'aura indiqué pour chaque région différente.

POUR LES APPAREILS PHOTOGRAPHIQUES ORDINAIRES

Un appareil de prise de vue cinématographique est essentiellement un appareil photographique prenant un certain nombre de photographies ordinaires en succession rapide, avec un temps d'exposition déterminé pour chaque image.

On peut donc se servir du posemètre de ciné pour les appareils photographiques ordinaires aussi bien que pour les cinécaméras. Pour cela, on doit:—

TONOS DEL ROSTRO

En las fotos tomadas muy de cerca o en los retratos, el rostro es, por lo general, el color más vivo. Como éste es, de costumbre, el color más importante en todo caso, un modo excelente de exponer las fotografías a tomar muy de cerca o bien los retratos en colores es medir la parte más luminosa de la cara.

LA MANO COMO SUBSTITUTO

La palma de la mano constituye un substituto excelente del rostro de una persona. Oriéntese la palma de la mano de tal modo que se halle en el mismo plano que la cara, tómese una lectura, y colóquese la cámara al número focal que se encuentre frente a esta lectura.

INFORMES GENERALES VISTAS PANORÁMICAS

La toma de vistas panorámicas donde existe una gran diversidad de brillantez exige un cuidado considerable. Para obtener los mejores resultados se recomienda tomar lecturas separadas de los sectores claros y de los oscuros. Entonces, cuando se está tomando las fotos, cámbiese el número focal de la cámara tal como lo indica el medidor para cada serie de condiciones distintas.

PARA CÁMARAS ORDINARIAS

La cámara cinematográfica es esencialmente una cámara ordinaria que toma un cierto número de vistas en sucesión rápida con un tiempo de exposición definitivo para cada fotografía.

Por lo tanto, el medidor cinematográfico puede ser empleado tanto con las cámaras ordinarias como con las cámaras cinematográficas.

1. Régler au chiffre correspondant à la rapidité d'émulsion du film.
2. Régler le posemètre à type "A" ou à type "B," suivant la vitesse d'obturation requise.
3. Tenir compte des rapports suivants:—

Images par seconde	Vitesse effective de l'obturateur	
	TYPE "A"	TYPE "B"
6	1/10	1/20
8	1/15	1/25
12	1/25	1/40
16	1/30	1/50
24	1/50	1/75
32	1/60	1/100
48	1/100	1/150
64	1/120	1/200
96	1/200	1/300

4. Choisir le vitesse d'obturateur désirée en utilisant la table précédente et placer l'onglet à la valeur correspondant au nombre d'images par seconde.
5. En face de la valeur de luminosité que l'on aura obtenue pour la scène, on trouvera l'ouverture exacte de diaphragme pour le vitesse choisie.

Par exemple: si on doit se servir d'une vitesse d'obturation de 1/300 de seconde, on règle le posemètre pour la caméra Type "B" et l'onglet sur 96 images par seconde. Si c'est une vitesse de 1/120 de seconde que l'on désire, on règle le posemètre pour la caméra Type "A" et l'onglet à 64 images par seconde.

SOIN DU POSEMÈTRE

Votre posemètre est d'une construction robuste et soignée mais, comme une bonne montre à laquelle il ressemble en bien des points, il faut en avoir soin.

1. Ponga en punto el número correspondiente a la velocidad de la película.
2. Regule el medidor de acuerdo con el tipo "A" o el tipo "B," según lo exija la velocidad deseada del obturador.
3. Deben tenerse presentes las relaciones siguientes:—

Número de Fotografías por segundo	Velocidad Efectiva del Obturador	
	TIPO "A"	TIPO "B"
6	1/10	1/20
8	1/15	1/25
12	1/25	1/40
16	1/30	1/50
24	1/50	1/75
32	1/60	1/100
48	1/100	1/150
64	1/120	1/200
96	1/200	1/300

4. La velocidad deseada del obturador debe ser seleccionada del cuadro que aparece en la página anterior y el índice ha de colocarse al valor correspondiente para el número de fotografías por segundo.
5. Frente al valor de luz que se obtiene de la escena se hallará el número focal correcto para la velocidad seleccionada.

Por ejemplo: Si ha de adoptarse una velocidad de obturador de 1/300 de segundo, la puesta en punto para el medidor es la relativa a la cámara tipo "B" y el índice se sitúa para 96 fotografías por segundo. Si se desea una velocidad de 1/120 de segundo, hay que regular el medidor para el tipo "A" de cámara y colocar el índice para 64 fotografías por segundo.

CUIDADOS CON EL MEDIDOR DE EXPOSICIONES

Su nuevo medidor de exposiciones es de construcción robusta y buena mano de obra. Pero lo mismo que un reloj fino de bolsillo, al cual se parece en muchos aspectos, debe ser objeto de cuidados normales.

ÉVITEZ QUE LE POSEMÈTRE NE CHAUFFE

Les températures estivales normales, et mêmes anormales, ne risquent pas d'abîmer le posemètre. Cependant, il ne faut pas le ranger à un endroit chaud comme, par exemple, sur un radiateur ou dans le compartiment à gants d'une voiture.

NE LAISSEZ PAS TOMBER LE POSEMÈTRE

De même que pour une montre, les rubis et les pivots de précision peuvent se trouver endommagés si on laisse tomber le posemètre.

NE PORTEZ PAS LE POSEMÈTRE SANS SON ÉTUI

Ne portez pas le posemètre sans son étui dans la poche ou dans l'étui de la caméra avec d'autres objets. Gardez-le dans son étui quand vous ne vous en servez pas.

RENSEIGNEMENTS GÉNÉRAUX

Correcteur du zéro

Lorsque la cellule PHOTRONIC* n'est pas atteinte par la lumière, l'aiguille de l'instrument doit demeurer exactement sur le repère zéro de l'échelle.

Si l'aiguille ne reste pas sur le repère zéro de l'échelle, placez une carte sur la cellule, de façon à exclure toute lumière. Maintenez l'instrument à un angle de 45° et, à l'aide d'un petit tournevis, faites tourner la petite vis qui est à l'arrière du posemètre, au-dessous de la cellule, jusqu'à ce que l'aiguille reste sur le zéro.

EMPLOI DE FILTRES

Quand on utilise un filtre, il faut augmenter le temps d'exposition. Il y a une méthode simple pour effectuer cette correction: divisez le chiffre de rapidité d'émulsion du film employé par le facteur de multiplication du filtre. Réglez sur le chiffre de rapidité d'émulsion qui en résulte sur le cadran du calculateur. Par exemple: si le chiffre de rapidité d'émulsion est de 100, le facteur de multiplication du filtre 2, le chiffre de rapidité à employer pour le film sera de 50 (soit $100 \div 2 = 50$).

*Marque déposée

NO DEBE RECALENTARSE EL MEDIDOR

Las temperaturas de verano normales o aun siendo anormales no han de perjudicar al medidor. Pero no hay que depositarlo en un sitio caliente, tal como sobre un radiador o en el compartimiento para guantes de un automóvil.

NO HAY QUE DEJAR CAER EL MEDIDOR

Lo mismo que en un reloj de bolsillo, los cojinetes de joya y los pivotes de precisión podrían averiarse con una caída.

NO LLEVE VD. EL MEDIDOR SIN SU ESTUCHE

No lleve Vd. el medidor suelto en el bolsillo o en el estuche de la cámara con otros objetos. Guárdelo en su propio estuche cuando no lo esté utilizando.

INFORMES GENERALES CORRECTOR A CERO

Cuando no haya luz alguna que llegue hasta la célula PHOTRONIC*, la aguja del instrumento deberá quedar situada directamente sobre la posición cero de la escala.

Si dicha aguja no viene a colocarse sobre la posición cero, póngase una tarjeta sobre la célula con el fin de excluir toda luz. Manténgase el medidor a un ángulo de unos 45°, y con un pequeño destornillador hágase girar al tornillo pequeño situado en el respaldo del medidor debajo de la célula, hasta que la aguja se sitúe sobre cero.

EMPLEO DE FILTROS

Cuando se emplea un filtro es preciso aumentar el tiempo de exposición. He aquí una manera sencilla de compensarlo: Divídase el número de velocidad de la película que se utilice por el factor de multiplicación del Filtro. Márquese el número resultante de la velocidad de la película sobre el cuadrante del calculador. Por ejemplo: Si el número de velocidad de la película es 100, el factor de multiplicación del Filtro 2, entonces la velocidad de la película que ha de adoptarse será de 50 ($100 \div 2 = 50$).

*Marca Registrada

SANGAMO WESTON LIMITED

Head Office and Works: **Enfield, Middlesex, England**

Telephone: **Enfield 3434 (6 lines) 1242 (6 lines)**

Scottish Factory: **Port Glasgow, Renfrewshire**

Branches: **London, Glasgow, Manchester, Newcastle-on-Tyne, Leeds, Liverpool, Wolverhampton, Nottingham, Bristol, Southampton, Brighton**

**ADDITIONAL COPIES OF THIS INSTRUCTION BOOK
ONE SHILLING EACH**

THE **WESTON**
Master II

CINÉ EXPOSURE METER

MODEL S141/736

SANGAMO WESTON LTD.
ENFIELD MIDDLESEX

Double exposure lock. Incorporated in the Isolette is an ingenious device preventing inadvertent double exposure of a piece of film. After each exposure the release button is automatically locked—a red mark next to the release button indicates this—and can only be actuated after the film has been wound on. *The film should therefore only be wound on immediately before the next exposure.* (See hint on p. 22.)

SHUTTER- AND DIAPHRAGM SETTINGS

Shutter and diaphragm are adjusted to the values found with the exposuremeter or by experience (see illustration p. 17). Both scales are operated comfortably from above with the camera in the "ready"-position. Rotate shutter ring and set the required speed opposite the black mark. Set diaphragm lever on required stop number on the scale. Do not wind shutter until you are about to expose; cock lever 2 (pp. 13/14).

Depth-of-field. It is essential that the serious amateur should make himself familiar with the conception of „depth-of-field“. This is the zone of sharp definition in front of and behind the point focused upon. At short distances, this zone of sharp definition is less than at long distances.

The
WESTON
Master III

UNIVERSAL EXPOSURE METER



SANGAMO WESTON LIMITED · ENFIELD · MIDDLESEX

MODEL S.141 FORM 3

**SANGAMO
WESTON
LIMITED**

*Enfield, Middlesex,
England*



Warranty

Your Weston Exposure Meter is an entirely British product and is made by the recognised leaders in fine instrument construction.

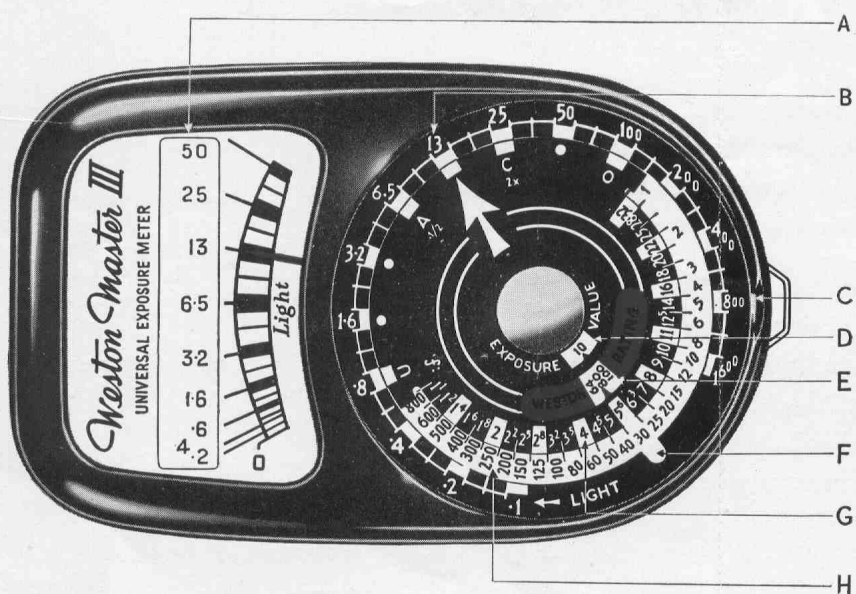
It is warranted against faulty workmanship and defective materials for a period of one year from date of manufacture.

Handle your meter with the care and respect to which a fine mechanism is entitled and it will give you faithful service adding considerably to your photographic pleasure.

An accident may happen, however, and in such a case you should consult your dealer or our Service Department regarding its return to this factory for repair and adjustment.

Use of a leather ever-ready case is strongly recommended. Cases of approved design are obtainable from any photographic dealer. When fitting the instrument into the leather case, the neck cord should be passed through the slot provided in the case.

This Instruction Book must of necessity be fairly concise and it will be appreciated that the use of the Exposure Meter for some subjects is often a matter of individual preference and technique. Several excellent books on the subject of Exposure have been published and of these we would mention: *Exposure Meters and Practical Exposure Control* by J. F. DUNN, M.I.E.E., A.M.I.MECH.E., F.R.P.S.



- A Light scale recording light value of scene.
- B Figures on exposure dial corresponding to above.
- C Tab to release dial for Weston Ratings.
- D Window indicating exposure value.
- E Window indicating Weston Rating.
- F Tab to rotate dial for Weston Ratings.
- G Figures indicating f/stops (lens apertures).
- H Figures indicating shutter speeds (time).

HOW TO USE YOUR *Master III*

On the top calculator dial will be found the following markings: the "normal" arrow, "A" and "C" markings, "U" and "O" markings and dots at the intermediate "whole stop" positions. Thus there is a complete series of markings at "whole stop" intervals between the "U" and "O" markings.

Emulsion Speeds

Your "Master" meter is a photo-electric instrument which measures reflected light. The calculator dial converts the light readings into the correct exposure combinations. Since emulsion speeds differ from one type of film or plate to another and for different kinds of illumination, make sure that you use the correct number from the list of "Weston Ratings" supplied with the meter.

Set for Weston Rating

Depress tab "C" then turn tab "F" until the Weston Rating number of your film appears in window "E".

Take a Light Reading

Aim the meter at the scene and note reading on light scale

"A". Turn the exposure dial until its arrow points to the same figures as the light reading.

Make Camera Settings

The correct settings for your camera now lie directly opposite each other—the f/stop (lens aperture) settings are on scale "G" and the shutter speeds (time) are on scale "H". Any pair of figures for f/stop and shutter speed lying opposite each other will result in correct exposure (see Selecting the f/stop on page 6).

It should be noted that on scale "H" the numbers in black represent fractions of a second (i.e. $2=\frac{1}{2}$; $3=\frac{1}{3}$; $4=\frac{1}{4}$ etc.), whereas the red numbers indicate whole seconds.

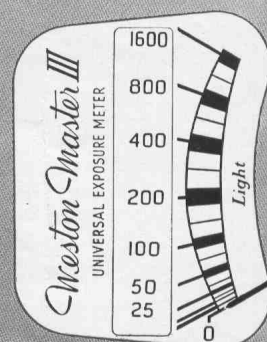
Exposure Values

An additional scale is provided for use with those cameras having shutters calibrated in exposure values.

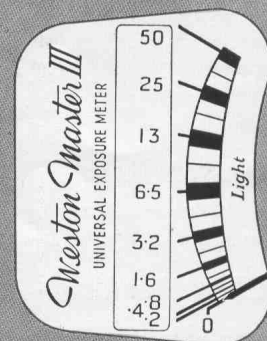
The exposure value for any scene is obtained from the meter after presetting the Weston Rating, taking a light reading and setting the exposure dial in the manner previously described. The appropriate exposure value is then to be found in window "D".



The baffle half open and the release latch "J"



**HIGH RANGE
LIGHT SCALE**



**LOW RANGE
LIGHT SCALE**

High Range Light Scale

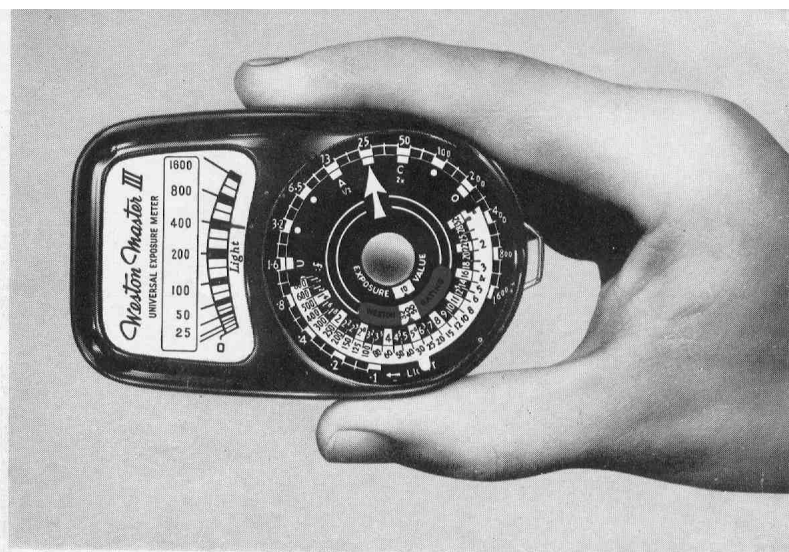
On the rear of the meter a hinged baffle will be found. The light sensitive photo-electric cell is directly beneath the baffle. When the baffle is closed, the high range light scale is in use. This scale measures relative brightness units from 0 to 1600 and is for use for all average and brightly lighted objects. Keep the baffle closed if the light reading is 50 or higher.

Low Range Light Scale

When the light reading is less than 50, open the baffle by releasing latch "J" and turn it back against the case so that the latch engages holding it wide open. The low range light scale automatically appears measuring relative brightness units from 0 to 50. The first division, $\cdot 2$, indicates a very low order of subject brightness, even for indoor scenes.

Aiming the Meter

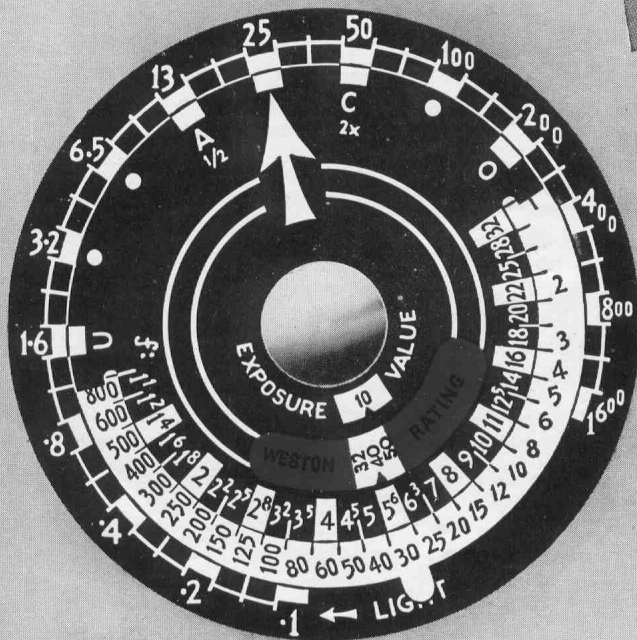
Aim the meter, as shown here, looking across the top of the case at the subject. Tilt the meter slightly downwards to avoid measuring the sky, which, being very much brighter than the rest of the subject would "inflate" the reading,



resulting in under exposure. See that the photo-electric cell is not obstructed by your fingers, the neck cord, or the ever-ready case.

When making close-up readings, make sure that you do not cast a shadow with the meter or with your hand on the object being measured.

SELECTING THE F/STOP



For each picture taken there is a choice of a number of different exposure combinations of f/stop and shutter speed. With the exposure dial set as illustrated on this page you might select an f/stop of f:6.3 at 1/25th second or an f/stop of f:22 at $\frac{1}{2}$ second. Any one of the combinations shown on the dial would result in a correct exposure (provided the figures taken were directly opposite each other) but the selection of the correct combination depends upon the requirements of the subject.

If the scene is an action one, select a fast shutter speed. If maximum depth of focus is needed, then you can select a slower shutter speed with its corresponding smaller stop opening. Remember . . . the smaller the aperture the higher the f/stop number.

In close ups or very near subjects, bear in mind that the depth of field covered by the lens is considerably reduced and

that, in order to obtain sharp definition over the parts of the subject nearest and most distant from the camera, the smallest possible f/stop should be used.

Direct Reading Feature

A useful feature of the "Master" meter is that with the following Weston Rating and f/stop values, the light reading is a direct indication of the shutter speed required, e.g. when the pointer indicates 100, the shutter speed required is 1/100th second, etc.

<i>Weston Rating</i>	<i>f/stop</i>
8	f:2.8
12	f:3.5
16	f:4
20	f:4.5
32	f:5.6
40	f:6.3
64	f:8
125	f:11
250	f:16
500	f:22

Classification of Scenes

It will simplify the classification of scenes to remember that the exposure meter measures the average value of light or brightness coming from the entire scene. Thus for normal exposures the arrow position on the calculator dial is used. For those scenes, however, requiring less or more than the normal exposure the "A" and "C" positions may be employed, where $\frac{1}{2}$ or double normal exposure is required.

The following recommendations apply primarily when black and white negative film is being used.

Flat scenes lacking in contrast, such as distant views and landscapes on dull days, generally require less than normal exposure and more than normal development for best reproduction. Set the "A" position on the calculator dial opposite the light value measured for such scenes.

The contrasty scene such as a sunlit street with dark shadows for best reproduction requires more than normal exposure and less than normal development. Set the "C" position on the calculator dial opposite the light value measured for these scenes.

Remember, however, that about eighty per cent. of all scenes require a normal exposure and when in doubt about any scene, use the arrow position on the calculator dial.



Large stop
e. g. 5.6 =

great speed,
but small
depth-of-field



Small stop
e. g. 22 =

slow speed,
but large
depth-of-field

Hence, a larger depth-of-field is obtained with a small stop (large number). On the other hand, the object itself may be made to stand out sharply from its surroundings by choosing a large stop (small number), because the shallow depth-of-field of large apertures causes part of the foreground as well as the background to be out of focus.

Two-point focusing is the most convenient method to avoid having to think about the variable depth-of-field—be it through lack of time or for other reasons—and still obtain snapshots of any given subject in good time and with assurance. To do this, the diaphragm lever is adjusted to the red mark between 8 and 11, and the focusing ring either on the red number 10 or the red number 35, when the entire range from $7\frac{1}{4}$ ft. to infinity will be covered. The following ranges of sharpness giving medium values for both focal lengths should be memorized:

Diaphragm setting	Distance setting	Range of sharpness
Red mark	10 ft. (close-up)	$7\frac{1}{4}$ ft. — $15\frac{1}{2}$ ft.
between 8 and 11	35 ft. (distance)	$15\frac{1}{2}$ ft. — Infinity

CAMERA POSITION METHOD



The normal method of use of the meter is at the camera position, i.e. close to the camera. It is a simple method and the one most frequently used. This method gives a correct exposure for the overall scene and does not isolate any particular object from an exposure point of view.

Make a light reading (avoiding sky areas) and set the calculator dial as already described. Choose a combination of f/stop and shutter speed consistent with the subject to be photographed.

Generally, the arrow position on the calculator dial should be used. For flat scenes, or for scenes with extreme contrast of highlights and shadows, use the "A" or "C" position as described on page 7.

The camera position method should not normally be used for back-lighted snow, sand or water, since specular reflections can result in under exposure of the shadowed areas. (See page 15). But for landscapes, general views and other photographs where a quick reading is wanted the camera position method is quite satisfactory.

THE CLOSE-UP METHOD

In the close-up method the meter is held close to the subject being photographed. In this way the film is exposed particularly for the one centre of interest and the background is subjugated accordingly.

Hold the meter close to the principal object, about as far away as the object's smallest dimension. The meter can be held closer than this distance, but no farther away. If the object is the face, six inches is sufficient. The distances can be increased to say five feet if it is desired to isolate a small group of people from the background, or even to ten feet in the case of larger surfaces. Make quite certain, however, that no light reaches the cell from unimportant objects.

When making a reading, make sure that you do not cast a shadow on the subject with the meter or with your hand. Also do not let your body interfere with the natural illumination of the subject. To avoid casting shadows, the meter may have to be held at an angle to the direct light on the subject, i.e. you can measure the reflected brightness by standing slightly to one side.

Having taken a close-up light reading, set the calculator dial to the arrow position and make your camera settings.

