

CONVERSION TABLE

Your Range-O-Matic is calibrated in A.S.A. film speed ratings. If film purchased is rated otherwise, conversion may be made to A.S.A. by using the following table.

A.S.A.	WESTON	GENERAL ELECTRIC	AMERICAN SCHEINER
0.8	0.65	1.0	8
1.6	1.3	2	10
3	2.5	4	13
6	5	7.5	16
12	10	15	19
25	20	30	22
50	40	60	25
100	80	120	28
200	160	250	31
400	320	500	34
800	650	900	37

Your Range-O-Matic Combination Photo Meter has been engineered and built with rugged precision to give you many years of trouble-free service. Unlike more expensive, more delicate instruments it requires no special care or handling beyond avoiding, as for all photographic materials, excessive heat such as found in automobile glove compartments or on hot radiators, and for all practical purposes it is indestructible.



PRODUCT ENGINEERING LABORATORIES CO., INC.

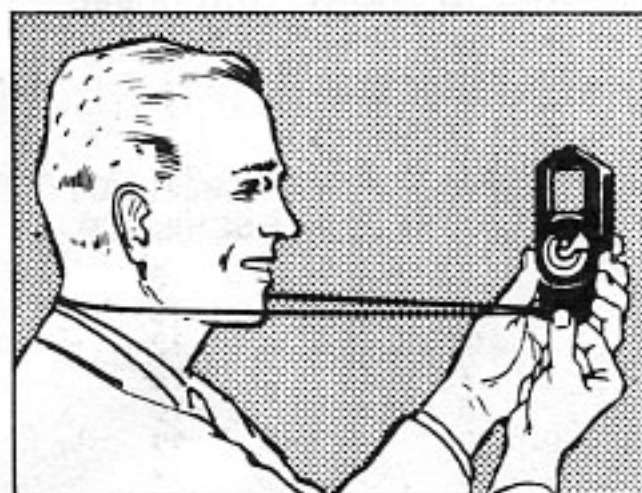
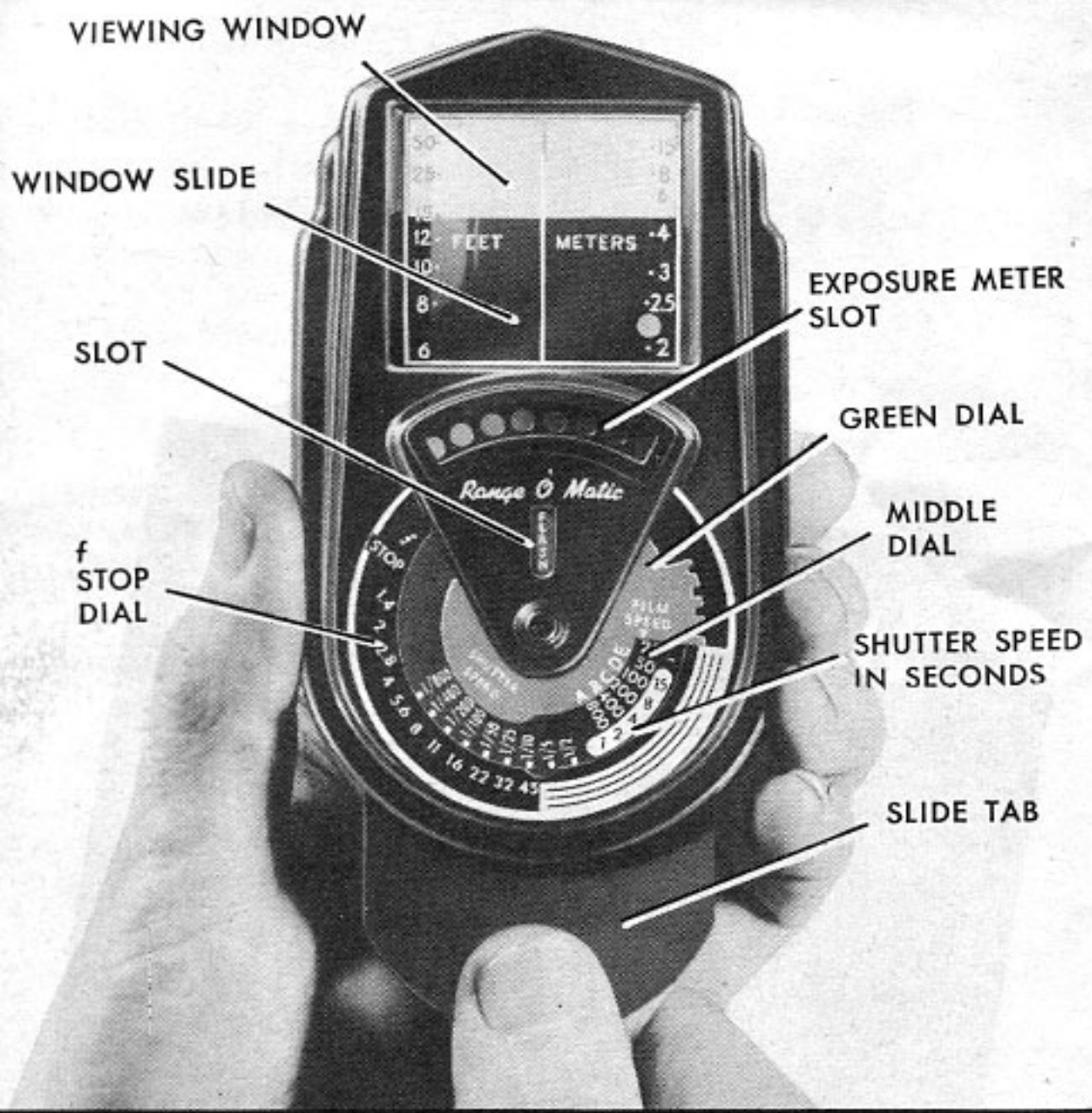
NEWARK 5, NEW JERSEY

Printed in U.S.A.

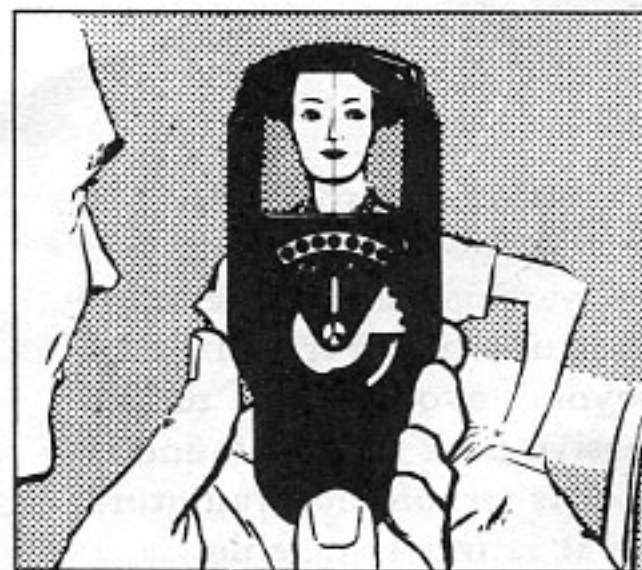
**INSTRUCTIONS
FOR USE OF
YOUR**

Range O/Matic

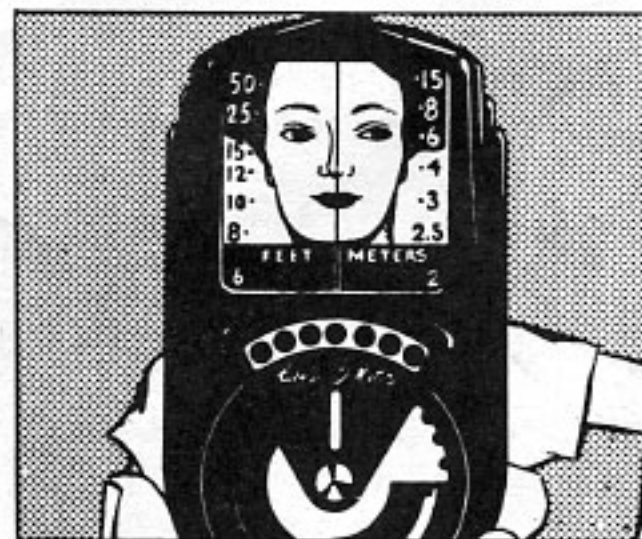
FOR USE AS A RANGE FINDER



Step 1: Hold meter before you with window slide in open position and no slack in the neck cord. Avoid clothing.



Step 2: With one eye closed, view adult subject through window, aligning center line of window with center line of adult's face.*



Step 3: Close slide until it frames the subject's face from the hairline to the bottom of the chin.

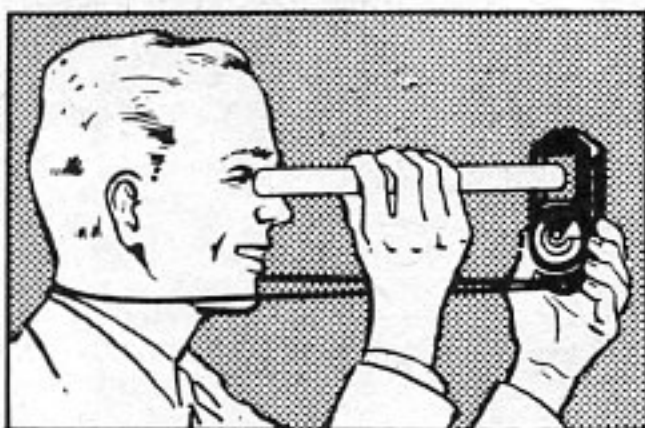
Range (distance) may now be read in feet or meters at top edge of slide.

PERSONAL ADJUSTMENT

Adjust cord length around neck (avoid clothing) so that the window of your RANGE-O-MATIC is 13 $\frac{1}{3}$ inches from the eye when there is no slack in the cord. For your convenience, this instruction folder has been made the proper length so that when rolled into a cylinder and used as in illustration, the adjustment will be correct.

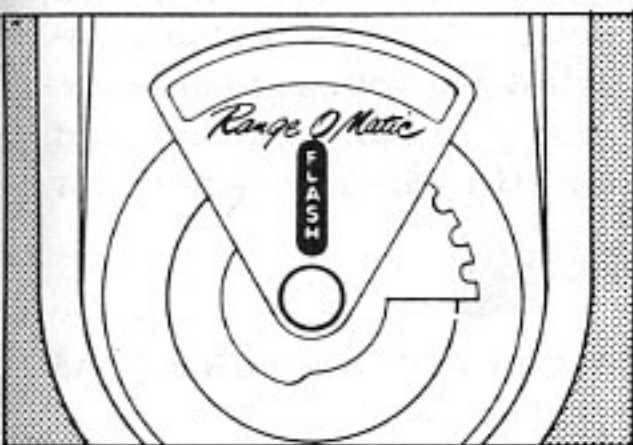
This first adjustment is your permanent adjustment.

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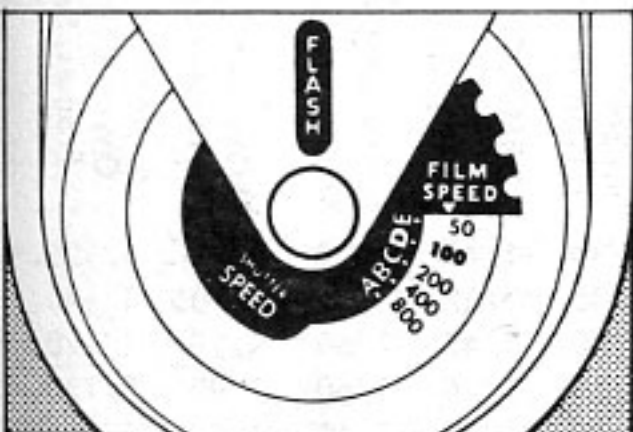


*In absence of an adult subject, such as in pictures of infants, children, animals or open landscapes, use RANGE-TARGET included in each meter carton.

FOR USE AS A FLASH METER



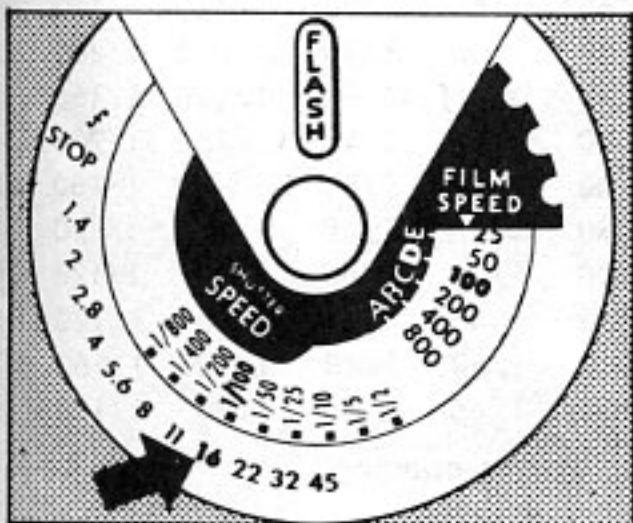
Step 1: Set green dial so that the word **FLASH** appears in slot.



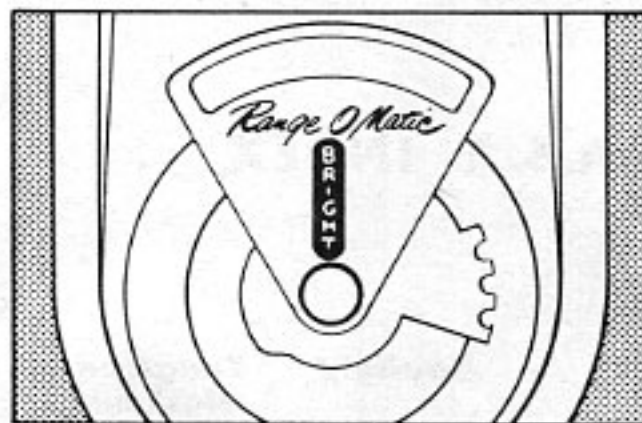
Step 2: Set middle dial so that the A.S.A. rating (tungsten) of your film lies opposite the index letter for your bulb size as found on chart on back of the meter.



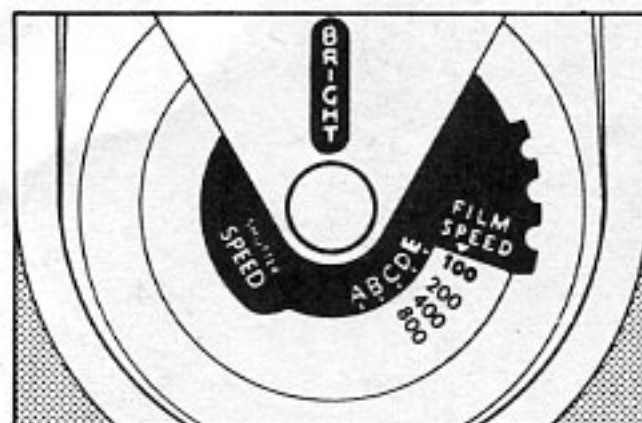
Step 3: Proceed as for range finding. When subject's face* is correctly framed the range may be read at the top of the slide, and the proper *f*/stops and shutter speeds will be found opposite each other on the two black dials. *For shutter speed slower than 1/50 of a second, use *f*/stop opposite 1/50.*



FOR USE AS AN EXPOSURE METER (Daylight and Photo Flood)



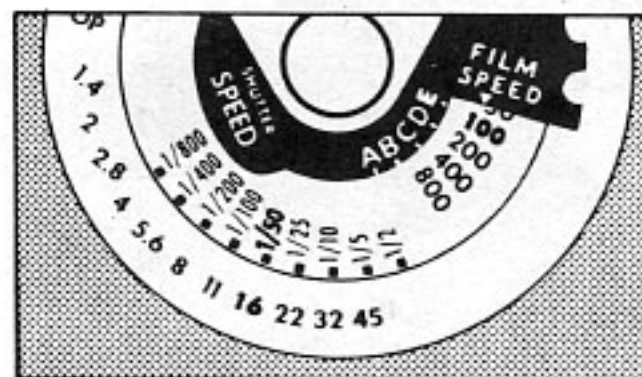
Step 1: Set green dial so that existing sky condition, "DULL, BRIGHT, BRILLIANT, ETC.", appears in slot. (See note below for broader descriptions.)



Step 2: Set middle dial so that the A.S.A. rating of your film lies opposite index letter E on green dial. (If a lens filter is being used, refer to chart on back of meter for proper index letters.)



Step 3: Hold meter at normal reading distance. Direct it at subject and draw slide slowly downward, observing the decreasing brightness of each succeeding circle of light in exposure slot. When circles no longer appear, reverse direction of slide until a circle of light reappears.



At this setting, the proper *f*/stops and shutter speeds will be found opposite each other on the two black dials.

DULL	HAZY	AVERAGE	BRIGHT	BRILLIANT
Cloudy Deep shade Dark-walled interiors (photo-flood pictures)	Cloudy, but bright Open shade Interiors with medium colored walls	Sunny, without sharp shadows Light-walled interiors	Sunny Sharp shadows	Sunlit sea, beach, or snow scenes

MOVIE

Since correct range and proper exposure are equally valuable to the movie enthusiast, a table of movie camera shutter speeds appears below for your convenience. Find the shutter speed of your particular camera and use the Range-O-Matic as for still cameras—both for range and exposure.

FILM SPEEDS—A.S.A. INDEX

Rolls & Packs:		Daylight	Tungsten (Flash and Photo-Flood)
ANSCO	Superpan Press	125	80
	Superpan Supreme	50	32
	Plenachrome	50	25
	Reversible Color	12	12
DUPONT	Superior Pan 2	50	32
	Superior Pan 3	100	64
KODAK	Super XX	100	80
	Plus X	50	32
	Verichrome	50	25
	Kodachrome Regular	10	—
	Kodachrome Type A	—	16
	Kodacolor	25	—
GEVAERT	Superchrome	50	25
Movies:			
ANSCO	Triple S Pan	100	80
	Hy Pan	40	32
	Supreme Negative	50	32
	Reversible 16	10	12
KODAK	Super XX Pan	100	80
	Super X Pan	40	32
	Kodachrome Regular	10	—
	Kodachrome Type A	—	16

SHUTTER SPEEDS OF MOTION PICTURE CAMERAS

TYPE OF CAMERA	NORMAL SPEED (SILENT) 16 Frames/Sec.	NORMAL SPEED (SOUND) 24 Frames/Sec.	SLOW MOTION 32 Frames/Sec.	SLOW MOTION 48 Frames/Sec.	SLOW MOTION 64 Frames/Sec.
	Bolex 4-8, 8-16	1/30	1/45	1/60	1/90
Bolex L-8	1/35	1/52	1/70	1/105	1/140
Cine Ansco model B	1/30	1/45	1/60	1/90	1/120
DeVry (all 16mm models)	1/30	1/45	1/60	1/90	1/120
Eastman Cine-Kodak (all models)	1/30	1/45	1/60	1/90	1/120
Filmo 70-D, 70-DA, 70-E	1/30	1/45	1/60	1/90	1/120
Filmo 121	1/30	1/45	1/60	1/90	1/120
Filmo Auto Load & Automaster	1/40	1/60	1/80	1/120	1/160
Filmo 8mm (all models)	1/35	1/52	1/70	1/105	1/140
Filmo 75	1/40	1/60	1/80	1/120	1/160
Eyemo 71	1/40	1/60	1/80	1/120	1/160
Keystone A-3, A-7	1/36	1/54	1/72	1/108	1/144
Keystone K-8, K-22	1/40	1/60	1/80	1/120	1/160
Keystone K-8	1/50	1/75	1/100	1/150	1/200
Keystone K-40, K-45	1/35	1/52	1/70	1/105	1/140
Keystone K-50	1/38	1/57	1/76	1/114	1/152
Revere	1/30	1/45	1/60	1/90	1/120
Simplex	1/40	1/60	1/80	1/120	1/160
Sept	1/90	1/135	1/180	1/270	1/360
Stewart-Warner "Hollywood"	1/40	1/60	1/80	1/120	1/160
Stewart-Warner 8mm	1/50	1/75	1/100	1/150	1/200
Stewart-Warner Model 532	1/40	1/60	1/80	1/120	1/160
Universal (Univex & Cinemaster)	1/30	1/45	1/60	1/90	1/120
Victor (all models)	1/30	1/45	1/60	1/90	1/120
Zeiss Ikon Movikon 8	1/30	1/45	1/60	1/90	1/120
Zeiss Ikon Kinamo S-10-16	1/40	1/60	1/80	1/120	1/160
Zeiss Ikon Movikon 16	1/30	1/45	1/60	1/90*	1/120*

*With shutter at 180 degree opening.

