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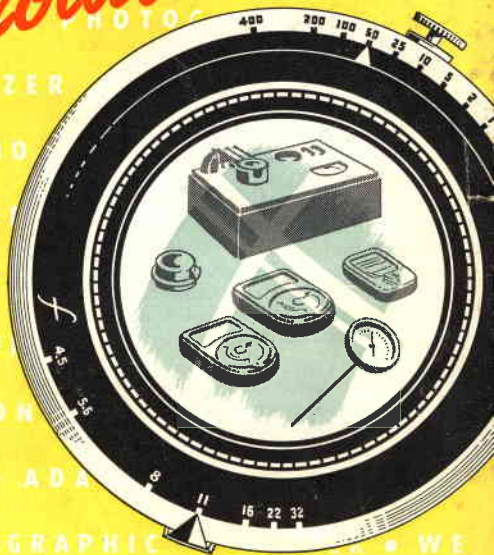
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WESTON MASTER II UNIVERSAL  
METER • WESTON  
MASTER THERMO METER  
WESTON INVERCONE  
INSTRUMENT ADAPTER  
WESTON PHOTO  
ANALYZER

THERMO  
MASTER  
METER  
II CIN  
WESTON  
LIGHT ADA  
PHOTOGRAPHIC  
PHOTOGRAPHIC THERMOMETER

# Weston Photographic Products



*including Weston Film Ratings*

## INTERESTING FACTS ABOUT WESTON PHOTOGRAPHIC EXPOSURE METERS

Weston produced the first photoelectric photographic exposure meter containing a dry disc type of barrier layer photocell in 1932.

Weston Photoelectric Cells are designated by the copyrighted name PHOTRONIC.

The photoelectric cell converts light energy into electrical energy without any loss in the life of the cell.

All metals ending in "ium" have the property of converting light into electricity. After almost one hundred years of research, selenium, as used in the Weston PHOTRONIC Photoelectric Cell, is still the best material known for the purpose.

Eleven different exposure meters have been designed by Weston since 1932. It is but natural that such improvements as greater sensitivity to low light, sealing of the photoelectric cell to insure permanence, greater legibility of scales and Exposure Control Dials, reduction in meter size and greater ruggedness, should take place over years of continued research and development on electrical measuring instruments and photoelectric cells.

It was the general practice among photographers, before exposure meters were available, to adhere to the use of one preferred film in order to assure proper exposure based upon experience. Today photographers switch from black-and-white, rated at Weston 100, to color at Weston 8 and, by a simple flick of the Exposure Control Dial on their Weston Exposure Meter, correct exposures are assured for all shots.

The Exposure Control Dial on Weston Exposure Meters is so universal that hundreds of photographic problems can be solved on it in the same manner that mathematical problems are solved on a slide rule.

# Contents...

Master II Exposure Meters

*Page 2*

Invercone Incident Light Adapter

*Page 6*

Cadet Exposure Meter

*Page 8*

Photographic Analyzer

*Page 9*

Photographic Thermometer

*Page 10*

Weston Film Ratings

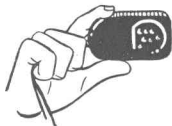
*Page 11*

Interesting Facts About Weston  
Photographic Exposure Meters

*Inside Cover*

# WESTON *Master II* EXPOSURE METER

## ASSURES CORRECT EXPOSURE

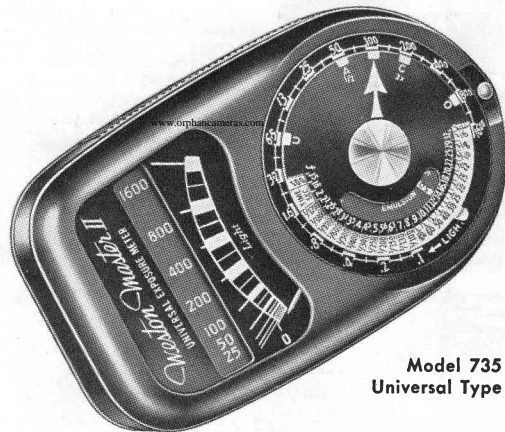


The Weston Master II Universal Exposure Meter, by its accurate reflected light measurement, tells you exactly how to set your camera for any scene, in or out-of-doors. Thus it assures correctly exposed pictures . . . the kind you always hope for . . . and prevents disappointments and film losses due to bad guessing at camera settings.

The Master II is designed to give you the same exacting control of color as it does for black-and-white. It puts "sure" in exposure!

You'll get sparkling shots in all your stills or movies . . . exactly as you want them to be . . . when you use a Weston Master II Exposure Meter.

*the meter most photographers use!*



Model 735  
Universal Type

Provides complete exposure control in all picture taking . . . color or black-and-white, with still or movie camera, in or out-of-doors.

That's why photographers everywhere rely on the Master II Meter.

WESTON MASTER II UNIVERSAL EXPOSURE METER . . . . \$29.67

# THE *Master II*

## IS SIMPLE TO USE



... aim the meter at the scene (or subject) and note its reading.

... adjust the guide dial to obtain the proper exposure (f:stop & shutter speed) for the scene.

Set your camera—any combination of f:stop and shutter speed directly opposite each other will result in correct exposure.

To change light scales, simply flip open the baffle—the high-light scale disappears and the low-light scale slides into place automatically.



Model 736  
Ciné Type

## FEATURES

**SLIM AND COMPACT** — vest-pocket size. **RUGGED AND TOUGH** — designed to “take it”. **EXTREMELY SENSITIVE** — gives accurate indications in very low light as well as measurements in high brightness . . . in daylight, tungsten or fluorescent light. **LIMITED VIEWING ANGLE** — sees only what the camera sees . . . especially important for selective color work. **SEALED PHOTOCELL** — keeps injurious moisture out. **EXCLUSIVE EXPOSURE CONTROL DIAL** — quick and easy reading . . . markings are distinct and clearly separated. **WESTON FILM SPEEDS** — the Weston System, internationally accepted as the **USERS' STANDARD**, forms basis of exposure control. **SEPARATE HIGH AND LOW LIGHT SCALES** — provide greater scale length and improved readability.

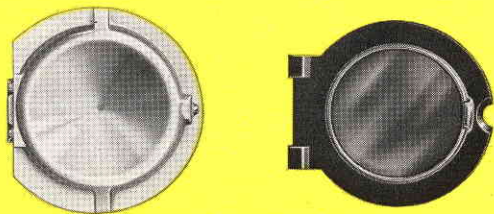
## *Master II* CINÉ EXPOSURE METER

The Master II's simplicity of operation permits correct exposure settings at a glance — no manipulations necessary — costly failures in color or black-and-white ciné shots are eliminated.

WESTON MASTER II  
CINÉ EXPOSURE METER . . . \$29.67

# WESTON *Invercone*

# INCIDENT LIGHT ADAPTER



The **INVERCONE** consists of two parts, the **INTEGRATING CONE** and the **AUXILIARY MULTIPLIER**. Designated as Weston Model 9925 it is available only in this combination.

The **INVERCONE** Incident Light Adapter is used with Weston Master or Master II Universal or Ciné Exposure Meters. With this auxiliary device, the user of any of these meters retains all of the many basic advantages of the reflected light method which are required for the bulk of his picture taking and can measure incident light where that method may be preferred.

When using the Invercone Adapter the photographer stands at the subject and aims directly at the camera position. The camera settings may then be selected in the usual manner.

... EXTENDS THE USE OF WESTON MASTER EXPOSURE METERS TO INCLUDE THE MEASUREMENT OF INCIDENT LIGHT



MODEL 715



MODEL 735

The **INTEGRATING CONE** in position on the Weston Master II Universal Exposure Meter . . .

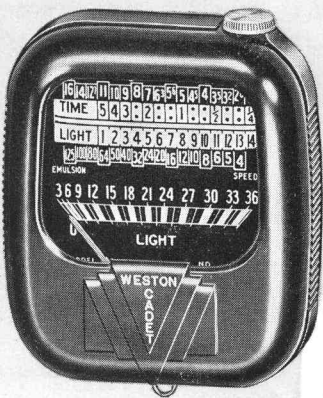
## EASY TO ATTACH AND USE

1. For most indoor, and outdoor work where illumination is relatively low, you simply flip open the exposure meter baffle and slip the Integrating Cone into place. (The Auxiliary Multiplier is not used.)
2. Where the level of illumination requires the use of the meter's high light scale, open the baffle and insert the Auxiliary Multiplier . . . it returns the high scale to operative position.
3. Then snap the Integrating Cone into place over the Multiplier.

**WESTON INVERCONE INCIDENT LIGHT ADAPTER, MODEL 9925 .. \$3.00**



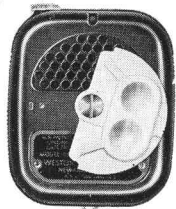
# WESTON *Cadet* EXPOSURE METER



A versatile, moderately priced, reflected and incident light meter designed especially for the amateur picture taker.

Model 852

Rear view showing the incident light collector partially lowered from the photocell opening. For incident light readings, the collector is rotated to cover the cell.



The Cadet is a compact, rugged and easy to use exposure meter for both reflected and incident light measurements. It assures correct exposure for either still or movie cameras . . . in or out-of-doors . . . with any film, black-and-white or color. Saves film . . . saves time . . . eliminates guessing at camera settings.

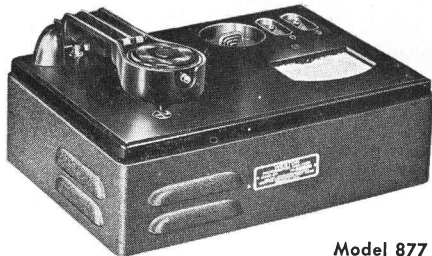
Beginners and amateurs will find new thrills in photography . . . even professionals will get better pictures—clearer pictures—more brilliant pictures with this moderately priced exposure meter—the Weston Cadet!

WESTON CADET EXPOSURE METER  
**\$21.50**

# WESTON PHOTOGRAPHIC ANALYZER

Model 877 Photographic Analyzer is basically a combination densitometer and illumination meter designed for the professional photographer or serious amateur to measure and control processing of black-and-white prints, color prints and transparencies.

Now each processing step, from negative exposure to final print, can be scientifically controlled by instrumentation . . . Ask for a demonstration.



Model 877

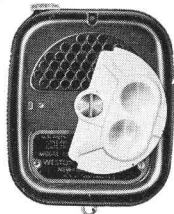
WESTON PHOTOGRAPHIC ANALYZER **\$100.00**

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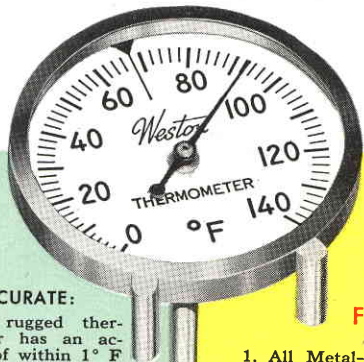
Model 877

WESTON PHOTOGRAPHIC ANALYZER \$100.00



# WESTON PHOTOGRAPHIC THERMOMETER

THE MODERN THERMOMETER  
FOR THE MODERN DARKROOM



## IT'S ACCURATE:

This rugged thermometer has an accuracy of within 1° F over its entire scale—in manufacture it is set "on" at the 68° F index mark. Its temperature-indicating bi-metal unit is in the tip of the stem.

## HOW TO USE:

In tanks or graduates the thermometer stem should be submerged at least 1½ inches. Hang it over the edge of any container—it will not roll—stays in easy-reading position.

When measuring temperatures in trays having ½ inch or greater depth of liquid hang thermometer over the edge of the tray.

If tray contains less than ½ inch of liquid place entire thermometer in tray—it withstands submersion—will not roll if placed on feet.

## FEATURES

1. All Metal—Not subject to ordinary breakage hazards
2. Cased in Stainless Steel
3. Withstands Submersion
4. Shockproof — Accidental dropping will not impair accuracy
5. Easy to Read—Dial type scale
6. Scale Indexed at 68° F.
7. Accurate Within 1° at All Other Points
8. Improved Speed of Response
9. New Shorter Stem Length—6"
10. Equipped with Metal Utility Feet — Holds Thermometer in easy-reading position in trays or beakers.

# THE WESTON SYSTEM OF EMULSION RATINGS

Correct exposure depends upon (1), the accurate measurement of light and (2), the proper speed rating to be applied to the emulsion of the film being used. The Weston System provides ratings that have long been universally accepted in photographic circles.

Development practices have a great influence on emulsion ratings. Weston tests films and plates using the development recommended by the manufacturers. Many photographers, however, prefer their own development and Weston has recognized this by rating emulsions according to Group Numbers.

The number given for each film represents a group of three consecutive emulsion speeds. Each group contains a rating based on recommended processing with one value below and one above this figure. If, by using the recommended rating (middle number), negatives are thinner or denser than desired, then use another number within the group or even outside the group. Lower numbers give denser negatives and greater shadow detail while higher numbers give thinner negatives.

A few test shots will quickly show the rating which best fits your equipment and development technique for a particular film.

The following table shows the group number and the three emulsion speeds that it represents.

<i>Daylight</i>		<i>Tungsten</i>	
Group No.	Speed Range	Group No.	Speed Range
200	160-200-250	125	100-125-160
100	80-100-125	64	50- 64- 80
50	40- 50- 64	32	24- 32- 40
24	20- 24- 32	16	12- 16- 20
12	10- 12- 16	8	6- 8- 10
6	5- 6- 8	4	3- 4- 5
3	2.5- 3- 4	2	1.5- 2- 2.5
1.5	1.2- 1.5- 2		

Photoflood lamps require tungsten values

WESTON PHOTOGRAPHIC THERMOMETER, MODEL 2265.... \$6.85

**ROLLS AND PACKS**

		Daylight Group No.	Tungsten Group No.
<i>Anken</i>	Oritho.....	50T	32T
<i>Anso</i>	Superpan Press.....	100	64
	Superpan Supreme.....	50T	32T
	Plenachrome.....	50	32
<i>Gevaert</i>	Superchrome.....	50	32
	Panchromosa.....	50T	32T
<i>Kodak</i>	Super-XX.....	100	64
	Plus-X.....	50	32
	Super Oritho Press (Packs Only).....	100T	32T
	Verichrome.....	50	32
	Infrared.....		8T †
<i>Polaroid</i>	Type 40 Oritho.....	100T	64T
<i>Kryptar</i>	Panchromatic.....	50T	32T

**MINIATURE CAMERA FILMS**

<i>Anso</i>	Ultra Speed Pan.....	100	64
	Supreme.....	50	32
<i>Dupont</i>	Superior 2.....	50	32
	Superior 3.....	100T	64T
	Microcopy.....		2*
<i>Gevaert</i>	Microgran.....	24T	16
	Panchromosa.....	50T	32
<i>Kodak</i>	Super-XX.....	100	64
	Plus-X.....	100T	64T
	Panatomic-X.....	50T	32T
	Direct Positive Pan Rev.....	50T	32T
	Micro-File.....		2*
	Infrared.....		8T †

**8 AND 16 MM. M. P. FILM**

Ratings in single numbers only — not in groups.

<i>Anso</i>	Triple S. Pan Rev.....	100	64
	Hypan Rev.....	32	24
	Supreme Negative.....	50	32
<i>Gevaert</i>	Ultra Pan Rev.....	50T	32T
	Super Pan Rev.....	20T	10T
	Micro Pan Rev.....	10T	
<i>Kodak</i>	Super-XX Pan Rev.....	100	80
	Ciné-Kodak Pan Rev.....	8	6
	Super-X Pan Rev.....	32	24
<i>Universal</i>	Univex—100 up.....	24T	12

\* Read from white card.

† Exposed through Wratten A Filter No. 25

T—Tentative value subject to further test.

**★COLOR FILMS**

Since color film must be processed under carefully controlled conditions and, also, since exposure must be exact in order to obtain proper color rendition, color film is rated in single numbers only and not in groups.

*Anso*

Color Roll Film:

	Daylight	Tungsten
Roll and 35mm, Daylight Type.....	10	....
Roll and 35mm, Tungsten Type.....	....	10
16mm, Daylight Type... ..	8	....
16mm, Tungsten Type... ..	....	12

Color Sheet Film:

Daylight Type.....	8	....
Tungsten Type.....	....	8

Plenacolor Roll Film

Daylight Type.....	20T	....
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*Kodak*

Kodachrome

Roll Film

8, 16, 35mm, and Bantam, Daylight	8	3s
8, 16, 35mm, and Bantam, Type A	8s	12

Professional Film

Daylight Type... ..	6	....
Type B.....	4*	6 †

Ektachrome

Roll Film

Daylight Type.....	6T	....
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Sheet Film

Professional, Daylight.....	6T	....
Professional, Type B.....	5T*	8T †

Kodacolor

Roll Film, Daylight

Type.....	20	....
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\* Exposed through Wratten Filter No. 85B.

† 3200° K Light Only.

s—With Recommended Filter.

T—Tentative value subject to further test.

★ **IMPORTANT:** When using the Weston Cadet Exposure Meter with color film, use a film rating *one step higher* than the rating listed above.

**PRESS FILMS**

*Anasco*  
*Defender*  
*Kodak*

	Daylight Group No.	Tungsten Group No.
Superpan Press.....	100	64
Ortho 7.....	100	64
Super Panchro-Press, Type B.....	100	64
Super Ortho-Press.....	100	32
Super Panchro-Press Plate.....	100	64
Super Panchro-Press, Sports Type.....	200	125

**PROCESS FILMS AND PLATES**

Reading should be taken from a white surface.

*Anasco*  
*Defender*  
*Hammer*  
*Kodak*

Process.....	12	4
Process.....	12T	4
Process Pan.....	12	8
Special Super Process.....	6	2
Safety.....	6	2
Contrast Pan Plate.....	6	4
Special Process Plate.....	6	2
Process Plate.....	6	2
Process Pan Plate.....	6	2
Contrast Process Ortho.....	8	8
Contrast Process Pan.....	8	8
Process Plate.....	6	1
M Plate.....	32	32
Process Pan Plate.....	32	32
Metallographic Plate.....	16	16

**PORTRAIT AND COMMERCIAL**

*Anasco*

Triple S Pan.....	200	125
Triple S Ortho.....	100	64
Isopan.....	50	32
Superpan Portrait.....	50	32
S. S. Plenachrome.....	50	32
Commercial Ortho.....	24	16
Commercial.....	24	8

T—Tentative value subject to further test.

*Defender*

	Daylight Group No.	Tungsten Group No.
Hi-Speed Pan.....	200T	125T
Arrow Pan.....	100	64T
X. F. Pan.....	50	32
X. F. Ortho.....	50	16
Ortho 7.....	100	64
Pentagon.....	24	16
F. G. Pan.....	24	16
Portrait.....	24	16T
Commercial.....	24	8T
Seed 23 Plate.....	6	2
Seed 27 Plate.....	24	8

*Gevaert*

Panchromosa.....	50T	32T
Ortho Portrait.....	50T	32

*Kodak*

Tri-X Panchromatic.....	200	125
Ortho-X.....	100	64
Super-XX.....	100	64
S. S. Ortho Portrait.....	50	16
Portrait Pan.....	50	32
Commercial Ortho.....	24T	8
Commercial (and Matte)	24	8T
Panatomic-X.....	24	16
Polychrome Plate.....	24	8
50 Plate.....	24	8
40 Plate.....	24	8
30 Plate.....	12	4
33 Plate Matte.....	12	4
Written Pan Plate.....	12	8
Commercial Plate.....	12	8
Super Ortho-Press Plate.....	100T	64T
Super Panchro-Press Plate.....	100	64
Panatomic—X Plate.....	24	16
Tri-X Pan Type B Plate.....	100T	64T
Tri-X Pan Type B, Matte Plate.....	100T	64T

*Hammer*

Portrait Ortho.....	24	16
Medium Commercial Ortho.....	12	8
Medium Commercial.....	12	4
Slow.....	3	1
Slow Ortho.....	3	1
Commercial Pan Plate.....	6	4
Extra Fast Plate.....	24	8
Medium Com. Ortho Plate.....	12	4
Medium Com. Plate.....	12	8
Portrait Ortho Plate.....	24	16
Soft Gradation Pan Plate.....	12	4
Slow Plate.....	3	1
Slow Ortho Plate.....	3	1

T—Tentative value subject to further test.

## SHUTTER TIME FOR MOTION PICTURE CAMERAS

16 Frames per Second

Camera	Time (Sec.)
Ciné Anso Model B.....	1/30
Ciné Kodaks (all models).....	1/30
Bolex H-8, H-16, and L-8.....	1/30
DeVry.....	1/30
Filmo—153's.....	1/40
Filmo all 70's and 121.....	1/30
Filmo Golf 70, 71's, 75 and 141.....	1/40
Filmo 8mm. (all).....	1/30
Keystone Late Model A-3.....	1/40
Keystone Late Model A-7.....	1/30
Keystone Model K-8 No. 872650 and above.....	1/40
Keystone (other models).....	1/50
Maurer 16 Professional either.....	1/30 or 1/50
Paragon.....	1/30
Revere.....	1/30
Simplex.....	1/40
Stewart Warner 8.....	1/50
St. W. Hollywood and 532 A.....	1/40
Sept.....	1/90
Universal Cinemaster.....	1/30
Univex (Single 8).....	1/30
Victor (all models).....	1/30
Zeiss Kinamo S-10-16.....	1/30

Note:—The difference in shutter time for the same number of frames per second is due to the varying size of shutter openings.

Shutter speeds of multi-speed cameras are proportional. If your camera shows a shutter speed of 1/30 sec. for 16 frames then for 64 frames per sec. the shutter speed will be four times as fast or 1/120 sec., etc.

*Note:—All Film Ratings established by Weston may be reproduced by others, if designated as "Weston Film Ratings", without specific permission.*

There are two accepted series of f/ numbers. One employs f/4 as a base and includes f/5.6, f/8, f/11, f/16, f/22 and f/32. The other uses f/4.5 as a base and includes f/6.3, f/9, f/12.7, f/18 and f/25. The Weston Exposure Control Dial includes both series of numbers. All Weston Exposure Meters are equally good for both domestic and foreign made cameras.

The research work done by Hurter and Driffield, published in 1890, is still considered one of the classics in photography. The Weston is the only exposure meter which allows photographers to fit the scene to the film according to the teachings of Hurter and Driffield.

If the copper wire were removed from all Weston Exposure Meters in use by photographers everywhere and placed end-to-end it would more than encircle the world at the equator.

The power required by the electrical measuring instrument in a Weston Exposure Meter is so minute that one cents worth of electricity would keep the meter oscillating for 2,950 years!

The Weston System of Emulsion Ratings (Weston Film Speeds) was the first which rated film and coordinated ratings with an exposure meter.

Weston is the only exposure meter manufacturer maintaining a complete sensitometric laboratory and studio where films are tested and processed under the same methods that photographers employ.

Weston has no commercial interest in the manufacture of photographic film or paper and rates these items solely on their technical characteristics.

Weston instruments provide accurate measurements for each step, from the setting of the camera to the processing of the final print.

WESTON is "the Meter Most Photographers use!"