

**Bewi**  
AUTOMAT

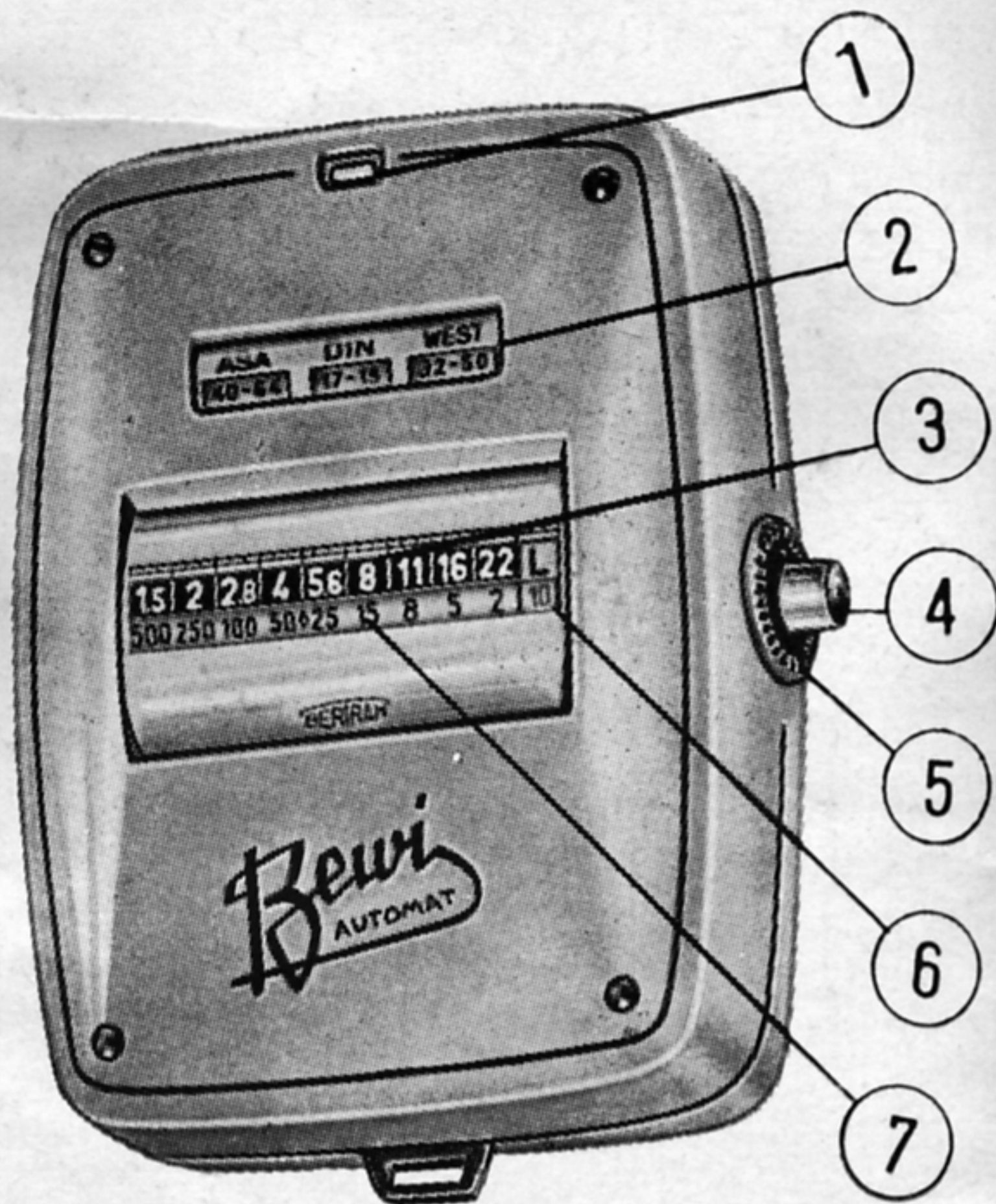
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GEBRAUCHSANLEITUNG  
OPERATING INSTRUCTIONS  
MODE D'EMPLOI



E.&W. BERTRAM MÜNCHEN GERMANY





Vergleichstabelle für Filmempfindlichkeiten  
Comparative Film Speed Table  
Tabl. comparatif des échelles sensitométriques

General Electric	Weston	H & D	ASA	Scheiner	DIN
6	4	100	4	19	8/10
8	5	125	6	20	9/10
9	6	150	8	21	10/10
12	8	200	10	22	11/10
16	10	250	12	23	12/10
18	12	300	16	24	13/10
24	16	400	20	25	14/10
32	20	500	25	26	15/10
36	24	600	32	27	16/10
48	32	800	40	28	17/10
64	40	1000	50	29	18/10
75	50	1250	64	30	19/10
100	64	1600	80	31	20/10
125	80	2000	100	32	21/10
150	100	2500	125	33	22/10
200	125	3120	160	34	23/10
250	160	4000	200	35	24/10
300	200	5000	250	36	25/10



The BEWI AUTOMAT is a fully automatic exposure meter. Its mechanism is rendered operative by depressing a button. Upon the button being released, the brightness reading is automatically indicated.

To use your BEWI AUTOMAT to good advantage, be sure to read carefully the following instructions.

### EMULSION SPEED SETTING

Rotate the knurled ring (5) surrounding the press button until the desired emulsion speed range is indicated in the upper window. (2)

**Example:** For negative material having an emulsion speed of 50 ASA, use the 40–64 ASA range.

The ratio between any two adjacent ranges of emulsion speed is the same as that existing between any two successive f-stops.

**Example:**

	ASA		ASA
	40—64	—	80—125
f-stop	2.8	...	4

In the case of negative material for black-and-white pictures, this spacing between successive emulsion speed settings will provide for sufficient accuracy. Where it is desired, especially in the case of colour film, to

use intermediate values, this can be achieved by setting the shutter or the diaphragm at suitable intermediate positions.

**Example:** When using 40 ASA material the lens opening, for example 2.8 is to be increased by one-third by shifting the f-stop lever of your camera by one-third division from 2.8 towards 2, or the time of exposure is to be increased by one-third, for example by setting the shutter by one-third division from  $\frac{1}{50}$  sec. towards  $\frac{1}{25}$  sec. — The three panels visible above each f-number indicate the three respective emulsion speeds that have been grouped together.

**Example:**

<b>40-64</b>	<b>=</b>	<table border="1" style="display: inline-table; border-collapse: collapse;"><tr><td style="width: 20px; height: 20px;"></td><td style="width: 20px; height: 20px;"></td><td style="width: 20px; height: 20px; text-align: center;">40</td><td style="width: 20px; height: 20px; text-align: center;">50</td><td style="width: 20px; height: 20px; text-align: center;">64</td><td style="width: 20px; height: 20px;"></td></tr></table>								40	50	64	
		40	50	64									
<table border="1" style="display: inline-table; border-collapse: collapse;"><tr><td style="width: 20px; height: 40px; text-align: center; vertical-align: middle;"><b>2</b></td><td style="width: 20px; height: 40px; text-align: center; vertical-align: middle; background-color: black; color: white;"><b>2.8</b></td><td style="width: 20px; height: 40px; text-align: center; vertical-align: middle;"><b>4</b></td></tr></table>								<b>2</b>	<b>2.8</b>	<b>4</b>			
<b>2</b>	<b>2.8</b>	<b>4</b>											

### TAKING LIGHT READINGS

To release the meter mechanism, depress the button (4) as far as it will go. Release the button after approximately two seconds. Now the optimum



shutter speed can be immediately read from the large lower window, this reading remaining unchanged until another reading is taken.

(3) White numerals = f-numbers

(7) Blue numerals = fractional seconds

Black numerals = full sec. e.g. 1" . .

The light values (6) indicated in red numerals at the extreme right under the letter "L" are intended for direct use with the Compur shutter with time-and-f-stop coupling.

If a red warning flag becomes visible in the small window at the top of the instrument housing, light conditions will just permit a last reading to be taken. However, if the red warning flag appears while only one-half of the shutter speed scale can be seen in the respective window, light conditions are too poor to be measured.

The BEWI AUTOMAT will respond to the slightest change in brightness even if it may not be perceptible to the human eye. Therefore, it is possible that the reading may change if the direction in which the reading is taken is changed however slightly. On the other hand, whenever an in-

termediate value should result, the meter will follow the strongest tendency and indicate the nearest possible value.

## MOTION PICTURES

The correct f-stop for the standard operating speed of 16 frames per second can be immediately read above the red mark  $\diamond$  between  $1/25$  and  $1/50$  second. The relation between the camera operating speed and the resulting frame exposure time is as follows:

8 frames per second: $1/15$ second					
16	"	"	"	$1/30$	"
32	"	"	"	$1/60$	"
64	"	"	"	$1/125$	"

The BEWI AUTOMAT may be used to measure the brightness of both photographic subjects and the intensity of light.

## SUBJECT BRIGHTNESS

By directing the instrument toward a subject it is possible to measure the brightness of the subject, i. e. the light reflected by it. — In the case of subjects showing contrast it is recommended to take readings at very



close range and only for those parts which are of special importance in regard to the picture to be taken.

### **INTENSITY OF LIGHT**

To measure the intensity of light, the exposure meter is directed away from the subject, i.e. towards the camera, a direct light reading thus being taken. In the case of such measurements, the dispersion lens supplied with the instrument will have to be placed over the window of the photo-electric cell.

### **HINTS FOR NATURAL-COLOUR PHOTOGRAPHY**

A natural-colour picture, as distinguished from a black-and-white one, derives its effect from contrasting colours rather than from differences in brightness. Since colours appear the stronger the shorter the distance, the best results will be obtained with close-up shots.

Under favourable light conditions the meter reading may be used directly, while in the case of flat illumination, where colours tend to lose their power, the next longer exposure time should be used. The same rule applies for

snow scenes, in which case a longer exposure time will tend to emphasize weak tones.

### **RANGE OF READINGS**

The BEWI AUTOMAT covers an exposure time range extending from  $\frac{1}{1000}$  second to two minutes.

### **SHOCK RESISTANCE**

The mechanism of the BEWI AUTOMAT has an oscillating spring of novel design ensuring maximum shock resistance.

### **GENERAL**

The BEWI AUTOMAT is a precision-built high-sensitivity instrument. Its robust construction incorporating a jewel-bearing measuring system with novel oscillating-spring suspension gives it maximum protection from shock. Nevertheless it should be handled with care in order to ensure prolonged service life. In the event of any trouble or damage to your BEWI AUTOMAT be sure to have it repaired by a skilled specialist who uses genuine Bertram-made spare parts; or send it to the manufacturers who are prepared to give you quick and reliable service.

The manual presents the same instructions in three languages (German, English and French). Only the english pages are scanned to avoid redundancy.