



OPERATING INSTRUCTIONS

Ultrabeleitz

COMET

Butkus-us

Contents	1. Technical data	2
	2. ULTRABLITZ COMET flash photography is so simple	4
	a) Accumulator operation	4
	b) A-C operation	7
	3. Charging the accumulator	8
	4. Re-forming the storage condensers	9
	5. Guide number and setting of diaphragm	9
	6. Film and developing	10
	7. ULTRABLITZ COMET is always with you	12
	8. Special Hints for obtaining even better snapshots with ULTRABLITZ COMET	13
	9. Service and Guarantee	14

1. Technical data

Guide numbers

Film	ASA	Guide Number*
Black-white	20	62
	32	80
	50	88
	64	100
	80	125
	100	150
	125	175
	160	200
	200	255
	250	300
300	350	
500	400	
Color	Kodachrome	32
	Ektachrome	45-55
	Super Anscochrome	75-85

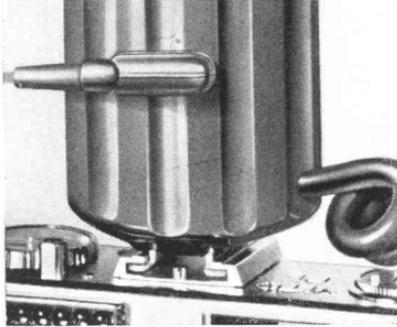
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* The guide numbers are calculated for normal developing time, but may vary due to location.

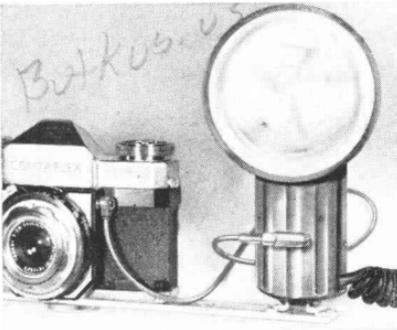
Electric energy:	about 40 Ws
Color temperature:	about 5600° K.
Number of flashes:	per charged accumulator about 40—50
Flash sequence:	accumulator plug-in 12—15 sec. 10—12 sec.
Flash speed:	1/2000 sec.
Angle of illumination:	about 50°
Line voltages:	110—125 volts AC (40—60 cycles) charger built-in
Weight:	about 2,1 lbs. with flash head
Dimensions:	about $5\frac{9}{10} \times 4\frac{1}{3} \times 1\frac{9}{10}$ inches.

2. ULTRABLITZ COMET flash photography is so simple

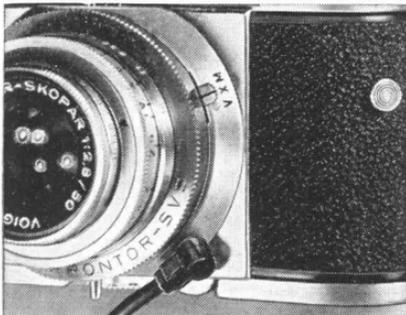
a) *Accumulator operation*



- ◀ Push the flash head with the spring-loaded foot into the shoe on your camera or



- ◀ mount it on the universal bracket (special accessory) and screw this to your camera.



- ◀ Plug the synchronizing cord into the camera and set the synchronizing lever to "X". Set the shutter to about 1/100 sec. (with focal plane shutters see camera handbook).

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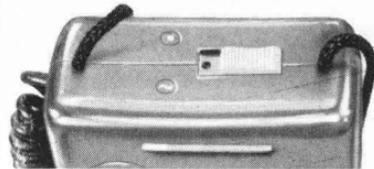
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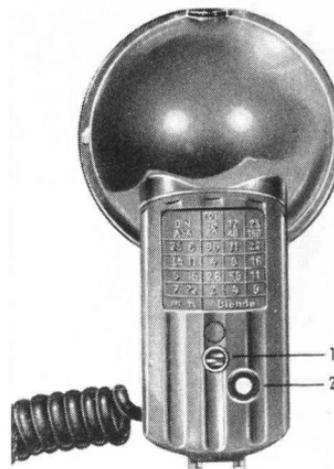
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To switch on: Press the operation switch on the upper side of the unit to its outward position so that the red dot will be visible.

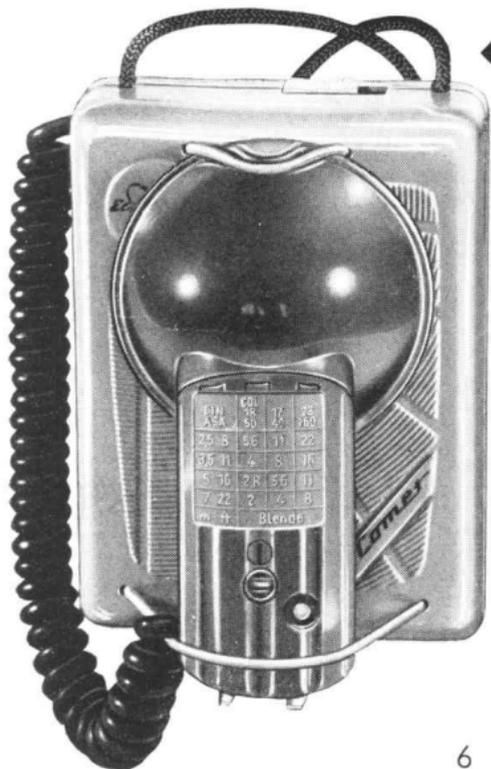


Red signal light (1) indicates readiness for flashing. To flash: release the camera shutter or for open-flash press the red hand release knob (2).



To switch off: Remove operation switch back to position  .





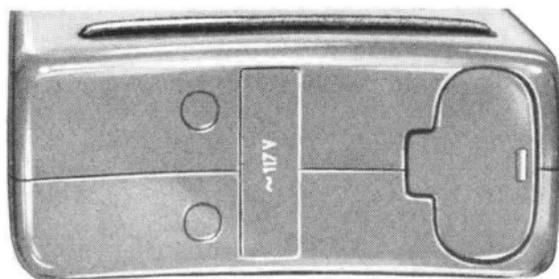
For carrying, disconnect the flash head from the camera and fix the head on the case by means of the rubber cords.

Important note: Switch off the unit after taking a flash picture, to avoid unnecessary drain on the accumulator. To leave it switched on needlessly for one minute is equivalent to the loss of one flash.

b) A-C operation

The unit is provided for 110, 117, 125 volts A-C operation. No change of voltage is necessary within the unit. Any ordinary line cord (as it is used to connect an electric iron) may also be used to connect the unit to the wall socket. The line cord is connected to the unit by inserting it into a special socket which is accessible after removing a sliding plate under the unit itself. With A-C operation the operation switch must be in position 

When you insert the line plug into the wall socket the unit will be switched on. The red signal light indicates readiness for operation. With A-C operation the equipment is switched off by withdrawing the line cord from the wall socket.

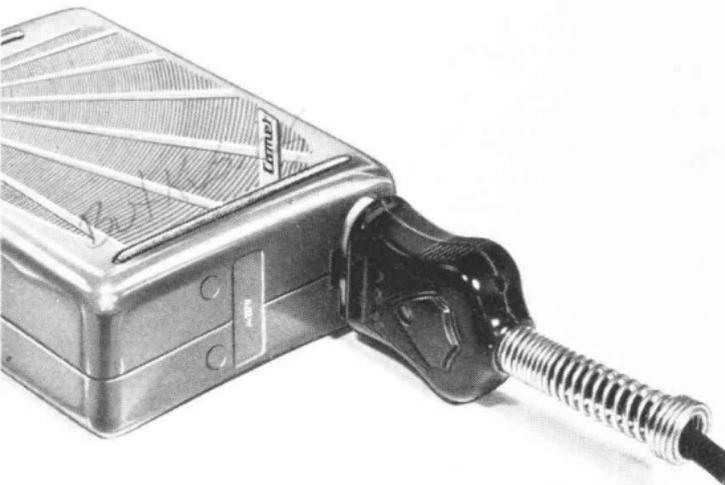


3. Charging the accumulator

Just the same procedure as is required for A-C operation. No further operation is necessary. The nickel-cadmium accumulators are gasproof and they do not need any maintenance.

There will occur no damage if you keep your accumulator uncharged even during extended periods. However, it should be always recharged in order to maintain its full output of flashes. The state of charge of the accumulator

can be checked by the time of flash sequence. After the accumulator is recharged completely the time of flash sequence is 12...15 sec. After 20 flashes it will increase to 20 sec. If the time of flash sequence is more than 20 sec., it will be advisable to recharge the equipment. Recharging of a completely discharged accumulator will be completed after about 14 hours. Over-charging the accumulator occasionally will not damage the cells.



4. Re-formig the storage condensers

After a period of a few weeks without use, we recommend running the unit from $\frac{1}{4}$ to $\frac{1}{2}$ hour plugged into A-C. The operation switch should meanwhile be set to . This procedure, without flash operation, will re-form the storage condensers, so that you will get the maximum number of flashes per accumulator charge.

5. Guide number and setting of diaphragm

The guide number is determined by the light output of the ULTRABLITZ unit. The required aperture can be calculated with the aid of this guide number with the following formula:

$$\text{stop} = \frac{\text{guide number}}{\text{range}}$$

(The range quoted is from the flash lamp to the subject).

The stop table numbers as given in the table can serve only as a general guide, e. g. for medium-sized, bright rooms.

The aperture should be increased by one or two stops for out-door flashing, in large halls or at great distance from reflecting areas. If the distance is shorter than 8 ft. a greater diaphragm should be taken, e. g. at a distance of 3 ft. take the next larger stop.

6. Film and developing

ULTRABLITZ light is equivalent to daylight of 5600° K. Therefore always use daylight film for color exposures. For black-and-white exposures, it is best to use panchromatic film with a normal developing. Very satisfactory negatives meeting the highest requirements as to a favorable gradation will be obtained by the use of modern rapid developers. The indicated values are calculated for a normal time of developing.

Stop table

Feet		8	12	15	20	30	40	50
Black-White	32	10	6,3	5,6	4	2,8	2	1,4
	50	11	8	6,3	4,5	3,5	2,8	2
	80	16	11	8	6,3	4,5	3,5	2,8
	125	22	16	11	8	5,6	4,5	3,5
	200	32	22	16	11	8	5,6	4
	300	45	32	22	16	11	8	5,6
Color	10	3,5	2,8	2	1,4			
	32	5,6	4	2,8	2	1,4		
	100	8	6,3	5,6	4	2,5	2	1,4
	200	16	11	8	5,6	4	2,8	2
	A S A	Diaphragm stop						

7. ULTRABLITZ COMET is always with you

Owing to its convenient shape and small weight you can easily carry your COMET unit with you wherever you will go. If you hide the COMET in the pocket of your jacket you can do the flashing like a magician, as only the camera and the small high-performance flash lamp are visible. Whether the equipment is carried in a lady's handbag, in a suitcase, in the pocket of your jacket or overcoat or whether it is carried with a shoulder sling strap under or over your clothing the COMET will never bother you and it will be **always with you**.



8. Special Hints for obtaining even better shots with the ULTRABLITZ COMET

Pictures shot with frontal light often are very flat. You can obtain a more effective illumination and a more plastic effect when you direct the light upon the object from the side or from above. The loss of illuminating power may be compensated by increasing the diaphragm aperture.

In cloudy weather ULTRABLITZ COMET will contribute often extra illumination and it is possible to get the same effect as in sunlight. Sharply contrasting illumination when shooting against the light can also be softened in this way, and this is very important especially for color photography, as too sharp contrasts will be softened too.

The following is a practical example:

At a range of 12 feet suppose the right stop is 8 taking 96 as guide number. For the general lighting you find an exposure time of $1/25$ sec. for f 8 with an exposure meter. Set your camera to this exposure time. Then if you set the diaphragm to 11, the supplementary flash will have about the same photographic effect as the daylight. The shorter the exposure time is set, the more the effect of outside illumination will diminish.

9. Service and Guarantee

If these instructions are properly followed, the ULTRABLITZ COMET will perform well for many years to come. In the event, however, that your ULTRABLITZ should at any time fail to function properly, the camera store where the ULTRABLITZ COMET was purchased should be consulted, or Allied Impex Corp., 17 West 17th Street, New York 11, N.Y., sole factory-authorized importer (see import certificate).

The ULTRABLITZ COMET is guaranteed by us, through our representative for six months in accordance with the conditions set forth in the guarantee certificate enclosed with the COMET. Whenever the COMET is returned for repairs, it must be accompanied by the guarantee certificate, as otherwise our representative will have to charge for the repair. The terms of the guarantee should be carefully studied.

The following special accessory for the ULTRABLITZ COMET unit is recommended:

Universal Camera Bracket,

to be screwed to your camera if this is without any shoe to take up the flash head.

Distr. **Allied Impex Corporation**

17 West 17th Street, **New York 11, N. Y.**