

Wollensak
SYNCHROMATIC
ALPHAX

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ALPHAX SHUTTER

SYNCHROMATIC

In the Alphax Shutter, every consideration has been given to the fact that instruments of this type are sometimes subjected to continuous and often hard usage. It, nevertheless, is a sensitive instrument, and should be handled carefully, the same as a valuable timepiece.

★ TO OPERATE

The markings on the speed dial represent the *effective exposure times* in fractional parts of a second, i. e.

T	B	50	25
Time	Bulb	1/50 Sec.	1/25 Sec.
	10	5	2
	1/10 Sec.	1/5 Sec.	1/2 Sec.

T or TIME setting is used generally when the shutter is to be opened for focusing the lens. Turn the speed indicator, the outside knurled disc, until the indicator is opposite "T." To open, press the cable release, or pull down on the operating lever. This action will cause the shutter blades to open, and remain open until this lever is again tripped in the same direction so the blades will close.

B or BULB setting is used for making exposures of prolonged duration. Set the speed indicator to "B" and trip the operating lever, or cable release, to open the shutter. It will remain open as long as pressure is maintained on the lever or cable release. When pressure is released the shutter will close.

INSTANTANEOUS EXPOSURE

Set the indicator dial to the exposure desired, and release the shutter by pulling the operating lever down or by pressure on the cable release. It is recommended for correct exposures that the indicator be set accurately at the exposure desired.

NOTE: No harm will befall the shutter if the speed indicator is set between any two given markings. It is possible that at this setting you may get an approximate intermediate exposure. *This, however, we do not guarantee.*

★ TO OPERATE THE SHUTTER FOR SYNCHRONIZED FLASH

To permit synchronization of flash lamps and high speed electronic flash units with this shutter, a special mechanism called the synchronizer is built into the shutter. The electrical contacts in the synchronizer are controlled by a mechanism so that the flash circuit is closed at the proper time to permit full benefit of the flash.

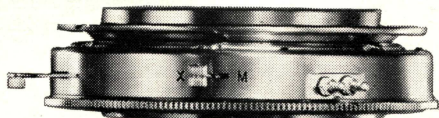
No external synchronizers or solenoids are necessary for flash work with the Synchronomatic-Alphax. *The only battery current needed is to flash the lamp.*

To connect the shutter with the flash gun or flash unit, fasten one end of the connecting cord to the connector posts protruding from the shutter case. Plug the other end of the cord into the *series* outlet of the

flash gun. The electrical connector posts are insulated from each other and from the shutter case. Thus there is no danger of shock when handling the shutter. The Synchronomatic-Alphax can be safely used with cameras having metal cases and metal shutter boards. Furthermore, it is not necessary to observe polarity when connecting a high speed electronic flash unit to the shutter. The connector cord may be plugged into the shutter either way.

The Synchronomatic-Alphax has the synchronizer mechanism easily adjustable for synchronization with a given class of lamp by merely setting the indicator lever to the appropriate marking on the case. The markings are—"M," the setting for Class M (20 m.s.) lamps at all shutter speeds; and "X," the setting for *trigger-type* high speed electronic flash units at all shutter speeds. If Class F (5 m.s.) lamps are to be used, they will be in synchronization at speed settings of 25 and slower when the synchronizer indicator lever is at "X."

No other adjustment is necessary before exposing except to see that the flash lamp is inserted. TRIPPING THE SHUTTER IN



This is a top view of the Alphax shutter showing the synchronizer lever to control synchronization.

SETTINGS FOR FLASH PICTURES*

	<i>With Speed Setting—</i>	<i>Set Synchronizer Lever at—</i>
For Class M All Speeds (20 m.s.) Including Lamps B & T		"M"
For Class X All Speeds (Electronic Flash) Including Flash B & T		"X"
For Class F 25 & Slower (5 m.s.) Including Lamps B & T		"X"

*See pages 7 and 8 for explanation of M, F, and X Classifications.

THE NORMAL WAY AUTOMATICALLY OPERATES THE SYNCHRONIZER.

SINCE THE SYNCHRONIZER IS ALWAYS IN AT ANY SETTING OF THE SHUTTER INCLUDING TIME AND BULB, IT IS NECESSARY (WHEN A FLASH LAMP IS IN THE CIRCUIT) TO REMOVE THE CONNECTOR CORD FROM THE SHUTTER TO PREVENT FLASHING THE LAMP WHEN OPENING THE SHUTTER ON TIME FOR FOCUSING.

It is recommended that if more than one Class F or Class M lamp is used, additional batteries should be used. Using 1.5 volt photoflash battery cells, the wiring for extension flash lamps, using No. 18 or larger wire should be:

3 cells	15 ft. wire	2 lamps max.
4 cells	25 ft. wire	2 lamps max.
5 cells	50 ft. wire	2 to 3 lamps max.
6 cells	75 ft. wire	2 to 3 lamps max.

HERE IS WHAT IS MEANT BY "M", "F", & "X"

There are in common use for between-the-lens shutters three general types of flash-lamps, classified according to their "time-to-peak" ratings as follows:

Type	Time-to-peak	Typical Examples
Class M	20 milliseconds	G. E. No.5, 11, 22. Wabash 25,0, 40, etc.
Class F	5 milliseconds	G. E. SM Wabash SF
Class X	0 milliseconds	Electronic high speed: Kodatron, Electroflash, etc.

The electronic high speed flash units listed as Class X lamps (also called "0" type, and trigger type) have a gas discharge tube in the trip circuit which acts instantaneously and thus the time-to-peak is listed as

0 milliseconds. There are also some high speed flash units on the market which use a relay in the trip circuit. Since the relay does not act instantaneously, there is a delay or lag between the time the circuit is closed and the time the lamp flashes. This lag is usually adjustable on the flash unit to 5 or 20 milliseconds to synchronize with shutters adjusted for Class F and/or Class M lamps respectively. Because of this time lag they are not classified as Class X, as far as synchronization with a shutter is concerned, even though the speed of the flash itself is about the same for both types of electronic high speed flash units. Typical relay trip units are made by Triumph, Stillman, Wilmar, Everflash, etc.

★ DON'T

DON'T use oil on the shutter. Special greases have been applied that make it unnecessary to use any additional lubricants. *Oil will ruin the shutter.*

DON'T use graphite. If the shutter acts sluggish, it may be the result of continuous wear, extreme atmospheric conditions, or

undue exposure to dust. Dust should present no problem when lens cells are screwed into the shutter, keeping it free from this condition. But if the shutter is exposed to dust without the lenses in place, trouble may be anticipated. Should dust settle on the shutter blades, it is recommended that a soft camel hair brush be used to remove same, or blow the dust out with a rubber syringe bulb.

Guarantee

This shutter is warranted to give perfect satisfaction. If any Wollensak product, with proper care, fails to give satisfaction within two years after leaving our factory, repair or replacement will be made free of charge.

Wollensak

MEANS FINE LENSES

OPTICAL COMPANY

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