**THE SHUTTER FOR FLASH PHOTOGRAPHY**

**Wollensak ... RAPAX SYNCHROMATIC**

**RAPAX FULL SYNCHROMATIC**

Here is completely automatic synchronization for X-type electronic high-speed lamps, plus automatic synchronization of Class M (20 milliseconds) and Class F (5 milliseconds) lamps.

Easy-to-read, easy-to-set scale at bottom of shutter provides selection for proper delay for each class of lamp. Black "M" setting synchronizes Class M lamps at shutter speed settings of 100 and faster (marked in black); red "M" and red "F" with Class M and F lamps respectively at shutter speed settings of 50 and slower (marked in red); black "X" setting with "X" type (zero delay) electronic high-speed flash units at any shutter speed setting.

Cocking shutter automatically cocks synchronizer as well. This automatic action greatly simplifies flash photography and avoids fatal neglect to cock synchronizer.

**CONSTRUCTION DETAILS**

A. Diaphragm indicator
B. Release lever
C. Returning mechanism
D. Cable release bearing
E. Setting lever
F. Main lever
G. High-speed spring
H. Main spring
I. Press-focus lever
J. Synchronizer release
K. Synchronizer contacts
L. Synchronizer delay indicator
M. Synchronizer delay mechanism

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**RAPAX "X" SYNCHROMATIC**

This shutter offers built-in electrical contacts for flashing "X" type electronic high-speed lamps at any shutter speed (also known as trigger type, "O" type and thyratron trigger type). For ordinary flash lamps, Rapax "X" Synchronic is operated with solenoid.

Simple to use with high speed lamps. Rapax "X" Synchronic cord connects circuit of flash unit with contact posts on shutter. When shutter is tripped, built-in contacts automatically close to synchronize lamp at any shutter speed. Both contacts are insulated, eliminating polarity requirements.

**RAPAX NON-SYNCHROMATIC**

Your present flash equipment for solenoid synchronization can be used with this shutter for excellent results. Except that it has no internal synchronizer, this shutter is identical to Rapax Synchromatics described in this folder.

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**Wollensak SHUTTERS FOR LONGER FOCUS LENSES**

**ALPHAX SYNCHROMATIC**

Professional photographers welcome the reliability, convenience, and compactness of internal synchronization offered by Nos. 2, 3, 4 and 5 Alphax Synchromatics. Built-in mechanism assures positive automatic synchronization of any popular type flash lamp.

Simple as operating a box camera...there's no cocking lever to bother with. Decrescendo operating lever by hand or cable release; lamp flashes in automatic synchronization with shutter to take the picture.

**ALPHAX NON-SYNCHROMATIC**

This standard Alphax fills the needs of those who do not use flash lamps. Except that it does not have built-in synchronization, this shutter is identical to Alphax Synchromatic shutters.

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**SPECIFICATIONS**

<table>
<thead>
<tr>
<th>Size</th>
<th>Maximum Diaphragm Size</th>
<th>Lens Name Size</th>
<th>Flap Size</th>
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**ALPHAX SHUTTERS**

<table>
<thead>
<tr>
<th>Size</th>
<th>Type of Shutter</th>
<th>Speeds</th>
<th>Synchronized Speeds With</th>
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<td>Alpha X Synch.</td>
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<tr>
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<tr>
<td>5</td>
<td>Alpha X Synch.</td>
<td>Class X</td>
<td>All speeds</td>
</tr>
</tbody>
</table>

Available upon request with press-focus lever as additional comp.
THE SHUTTER FOR UNIFORM EXPOSURE... **Wollensak PRECISION-MADE RAPAX**

WHY YOU NEED A PRECISION-MADE SHUTTER

Because the camera shutter has a critical bearing on your picture-making results, it's essential to choose that shutter with care. Like a fine watch that accurately measures time in seconds, the camera shutter must also measure time intervals in accurate fractions of seconds. Set for any given speed, the shutter must maintain that speed every time it opens. When timing is not uniform, negatives will be over or under-exposed. Color transparencies may be completely ruined, a particular picture opportunity lost forever.

The best lens cannot compensate for an unreliable shutter. Only when it is precision-made, by skilled craftsmen, can you expect uniform accuracy in exposure time, a vital factor in quality photography.

WHY YOU'LL WANT A RAPAX

Accuracy... dependability... easy operation... enjoy these benefits with a Wollensak Rapax shutter—proven superior in nearly every field of photography. This between-the-lens, rim-set shutter has accurately fitted train of gears and pinsions coordinated with a series of levers and carefully tempered springs. Speeds range from 1 second up to 1/1000 second, with Bulb and Time settings.

Two operating levers simplify use. Setting lever "cocks" shutter, putting springs under proper tension for desired speed. Depress release lever to make exposure. Cable release socket is also provided.

PRESS-FOCUS LEVER

FOR FAST GROUND-GLASS FOCUSING

Shutter blades can be opened for focusing without revolving speed ring to Time position. To check focus before exposure and after shutter has been cocked, simply depress press-focus lever to open blades. This can be done at any speed setting. After focusing, lift press-focus lever to close blades. Shutter is still cocked and ready for exposure.

ADVANTAGES OF RAPAX INTERNAL SYNCHRONIZATION

OVER SOLENOID SYNCHRONIZATION

1. **Maximum efficiency over entire shutter range**—made possible by use of two synchronizer delay settings. Black "M" setting covers shutter speeds of 1/100 and faster; Red "H" setting covers 1/50 and slower. Maximum synchronization efficiency is not possible at 1/50 second when shutter is synchronized for speeds faster than 1/100, regardless of whether synchronizer device is internal or external.

2. **Action is consistent and reliable**—mechanical-synchronizer delay system is independent of condition of batteries in gun, whereas external synchronization varies with condition of batteries, solenoids, associated circuit of cords and sockets, and temperature changes.

3. **Internal synchronization conserves battery life**—Battery current is used only to flash lamps and is not drained by solenoid coil.

4. **Permits "off-the-camera" flash shots**—shutter is tripped from gun held away from camera for better lighting effects. With some flash guns, such as the new Gradel, solenoid can act as remote tripper only, letting internal shutter synchronizer provide synchronization.

5. **Commercial BC flash circuits can be used with internal synchronization without harm to contacts.**
Wollensak MEANS UNIFORM QUALITY

Professionals, commercial photographers and amateurs who are serious about the quality of their photographic work know the importance of accuracy and dependability in a shutter. Wollensak skilled craftsmanship assures you of the consistent uniformity in quality of Rapax shutters.

Behind the Wollensak guarantee of quality are such factors as their more than fifty years of experience in manufacturing photographic products, quality control and rigid inspection throughout production . . . highest quality materials . . . skilled craftsmanship by men who have learned their trade through years of apprenticeship, accurate testing of every product before it leaves the factory.

It's no accident that Wollensak products enjoy a reputation for outstanding quality and dependability. When you buy photographic equipment, look for the name Wollensak . . . your guarantee of fine performance.

ONE-YEAR GUARANTEE
Wollensak shutters are warranted to give satisfaction. If, with proper care, they fail to do so within one year after leaving our factory, repairs will be made free of charge if returned directly to the factory.

ADVISORY SERVICE
Consult your Wollensak dealer for information and demonstration of any Wollensak product. For optical or shutter problems which he is not equipped to answer, write to our Service Department. We will be happy to give your queries our prompt attention, without obligation.

Wollensak MASTERPIECE SHUTTERS
WITH AND WITHOUT SYNCHRONIZATION