

OPERATING INSTRUCTIONS

for the
**NEW AUTOMATIC
ZOOM CINE-TWIN**

by

Wittnauer

**World's First Movie Camera and
Projector Combination**

**Equipped With Bi-directional, Optically Correct
Zoom Lens System • Takes Electric Eye-Electric Drive Movies
And Shows Them Too!**

Wittnauer Camera Company

580 FIFTH AVENUE • NEW YORK 36, NEW YORK, U.S.A.

Congratulations...

Your Wittnauer CINE-TWIN CAMERA AND PROJECTOR COMBINATION represents an outstanding advance in the basic design of home motion picture equipment.

AS A CAMERA, your Cine-Twin will provide the professional versatility of a precision, multi-lens turret—a true optical Zoom viewfinder showing the exact field of view for each lens—and complete freedom from cumbersome winding through the use of Governor Controlled ELECTRIC CAMERA DRIVE.

AS A PROJECTOR, the Zoom Cine-Twin will entertain your family and friends with crystal-clear, flickerless pictures. Its new optical system features the world's first commercial Bi-Directional Lens System. Most lenses are designed to function either for Taking or for Projection. The Cine-Twin Zoom Lens functions with equal efficiency regardless of the direction of the light—from subject to camera—or from camera to screen. You get finer color fidelity—greater sharpness as a result.

Your Cine-Twin is the product of the research and experience of Longines-Wittnauer—for nearly a century world-leader in the manufacture of precision mechanisms of the highest character.

This experience is your assurance of satisfaction. For, interestingly enough, the successful operation of your new camera depends, to a very large degree, on "time". The performance of your shutter and film transport mechanisms, for example, must be perfectly "timed" to the tiny fraction of a second in order to guarantee correct exposure and brilliant color reproduction. So it is with the other small, complex parts which make up your new Cine-Twin—each is built with *watchmaker precision* and to the same high standards of quality which have won world-wide acclaim for the other famous Longines-Wittnauer products.

Care for your new Cine-Twin properly, as you would a fine watch, and it will reward you with years of Camera and Projector service.

Before operating... please read the following instructions carefully. Open this folded cover and refer to the illustrations as you read the booklet.

Wittnauer CINE-TWIN FEATURES

- *Converts from Zoom Camera to Zoom Projector in 30 seconds*
- *Automatic Electric Camera Drive (no winding necessary)*
- *Operates on 3 standard flashlight batteries*
- *Safety Signal Monitor (checks condition of batteries)*
- *Electric Eye Automatic Exposure Control*
- *Easy to load*
- *Electronic film speed control*
- *Continuous operation for full roll of film*
- *True optical zoomfinder synchronized with Zoom Lens*
- *Large... easy to read... Footage counter*
- *Large—clear flickerless pictures.*
- *High speed rewind*
- *Power cooled lamphouse*

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Strap

Focusing Ring

Bi-Directional
Zoom Lens
(For Taking and
Projecting)

Electric Eye

Release Button
Projection Lamp
Housing

Film Speed
Setting Ring

Receptacle for
Film Removal Handle

Cover Latch

Zoomfinder
Eyepiece

Zoomfinder

Zoom Lever

Light Level Indicator
(seen through Zoomfinder)

Camera Supply
Spindle

Director Base
Mechanical Coupling
(Automatic)

Tripod Socket

Camera Take-Up
Spindle

Camera Footage
Indicator

REFERENCE

Your

Wittnauer

CINE-TWIN

is an easy-to-use camera

Let's get acquainted.

Before attempting to "load" the camera, "check out" the important features. Place the camera in front of you and refer to the notes and operating suggestions which follow.

AUTOMATIC ELECTRIC DRIVE

**The ONE Feature Professionals
Consider Most Important**

Now, you may choose the length of a scene, based not on the mere capacity of a hand-wound spring, but upon the importance of the subject matter. You may run an entire roll of film as one scene, if you desire. Locking feature (described later) allows you to star in your own movies.

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Now, put batteries in the power compartment...



Open the *Power Compartment* by applying a slight pressure to the sides of the *Spring Loaded Latch*.



Open the *Battery Retaining Disks* by unscrewing them several turns (roll finger over *Disks* in *Upward* direction) and insert batteries with the top of each battery pointed in the direction indicated by the arrow.

Now, tighten the *Battery Retaining Disks* by rolling in a downward direction, until a reasonable amount of pressure is felt. Be sure that batteries are seated firmly in the *Power Compartment* to insure proper contact. Snap the cover closed and your Cine-Twin is ready to operate.

Some technical information

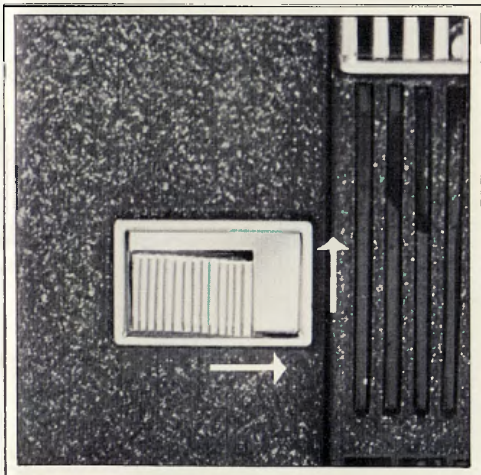
Automatic Electric Drive. The camera, when completely loaded and in operation, drains less current from the batteries than many standard flashlights. High operating efficiency and long life are assured through the use of a factory sealed drive motor that never requires lubrication.

Spring wound cameras employ a mechanical governor to regulate the speed of the film. The Cine-Twin is governed by an electrical control unit built into the drive motor. This motor operates at 4800 revolutions per minute, and by electronic control is synchronized 240 times each second—guaranteeing accurate speed control. This positive timing of shutter and transport mechanism assures uniform and consistent exposure from one roll of film to the next within a wide range of battery conditions.

IMPORTANT

Any standard "D" size flashlight battery may be used to power the Cine-Twin. However, for best service and utmost camera safety, the use of modern leakproof batteries is strongly recommended. Leakproof batteries are encased in a sturdy steel shell which prevents deterioration. Remove batteries when camera is put aside or not used for an extended period of time. The power compartment is completely isolated from the camera's working mechanism. In addition, it has been coated with a special vinyl resin which resists the corrosive action of leaky batteries. Should a battery leak while in the camera, the power compartment can be easily cleaned by wiping with a damp cloth.

To start the Camera...



Press the *Operating Button* forward until a "click" is heard. The unit comes to life instantly as the electric power source is connected to the drive motor.

If unit should fail to operate when *Operating Button* is pressed...check to make sure that the batteries are inserted as shown on *Power Compartment* diagram.

For continuous action, you may lock the camera in running position by pushing the *Operating Button* forward and up. Then, step into the spotlight and become an active part of your family motion picture album. There is no spring to "wind-out"—the camera will run until the *Operating Button* is released (Pushed Down).



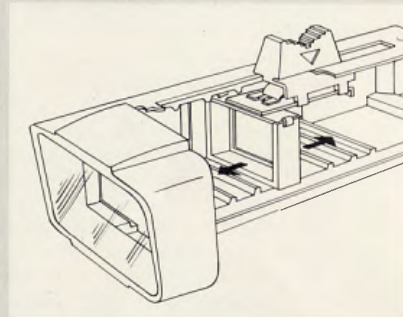
Holding the Camera...

Your Cine-Twin is balanced like a high precision telescopic rifle—to assure steady clear pictures. Hold camera firmly by placing right hand under the base in a comfortable position.

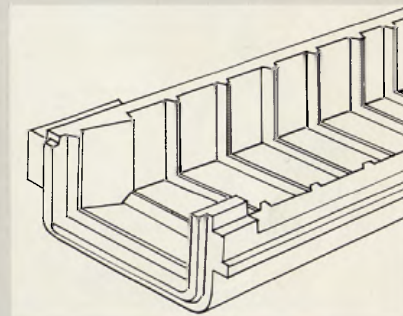
You can then reach the operating button with ease. Use left hand to operate zoom lever and to steady the camera.

Zoomfinder

Some technical information



The Cine-Twin *Zoomfinder* is a true optical viewfinder which adjusts the field of view by changing the relative positions of the lens elements. It is synchronized with your Zoom Lens.



The corrugations visible inside the *Zoomfinder* are Light Baffles that eliminate internal reflections and help assure a sharp, easy to see, image.

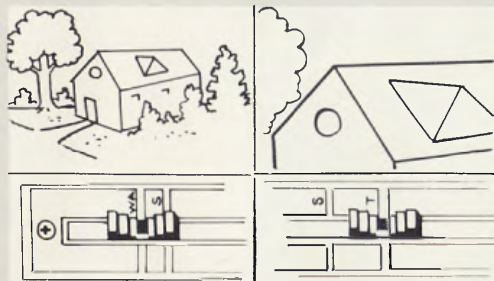
Safety Signal Monitor*

checks electrical circuit and tells battery condition. Look through the *Zoomfinder* again and start the camera. Notice the orange light glowing at the bottom rear of the *Finder*. This light indicates the condition of the batteries and checks the electrical circuit for proper continuity. The *Safety Signal Monitor* should "light" when the *Operating Button* is moved forward and should remain "lit" while the camera is in operation. When the batteries *approach* exhaustion the *Safety Signal Monitor* will not light. Thus the *Monitor*, acting like the gasoline gauge in an automobile, constantly indicates the level of the available energy. When the *Monitor* light shuts itself "off," you will still have sufficient power to *continue filming and complete the roll that may be in the camera . . .* then it is advisable to replace batteries. Of course, batteries may be changed at any time—even when the camera is loaded with film, since the film chamber is completely isolated from the battery *Power Compartment*.



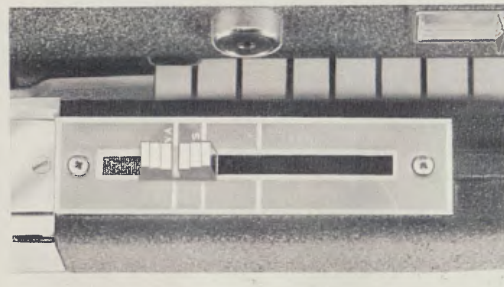
*The *Safety Signal Monitor*, an exclusive Cine-Twin feature, is provided with a lifetime light source (no bulbs to replace) and should not require service during the normal life of the camera. *One set of batteries will provide power for approximately one year of average filming . . .* (20 rolls of film).

Sighting . . .



Try sighting through the *Zoomfinder*. Notice the large life-like image. Slide the *Zoomfinder Lever* (located on top of the *Zoomfinder*) forward—notice how the image becomes smaller and the angle of view widens. Now, move the *Lever* in the opposite direction—observe how the image becomes larger and appears to zoom right up in front of the lens. Each movement of the *Zoom Lever* changes the field of view to match that of the *Automatic Zoom Lens*. Your camera will photograph *exactly* what your zoomfinder shows.

The markings *W*, *S* and *T* on the *Zoom Lever Scale* indicate the *Wide Angle (W)*, *Standard (S)* and *Telephoto (T)* fields of view.



The Cine-Twin Bi-Directional Zoom Lens and Automatic Electric Eye Exposure System

The Zoom Lens—does away with the need for accessory lenses or camera turret and provides *all* effects from Wide Angle to Telephoto at the flick of a finger. In addition the Cine-Twin zoom lens is Bi-Directional and performs with equal efficiency when used for taking *or* projection.

To Operate Zoom—sight through zoomfinder—then push zoom lever. The zoom lens adjusts automatically as zoom lever is moved. You see just what you photograph. You may pre-select a view and shoot—or zoom while shooting. The zoom lens offers professional flexibility—lets you move right in for exciting close-ups—pull back to include large groups or outdoor scenes.



STANDARD

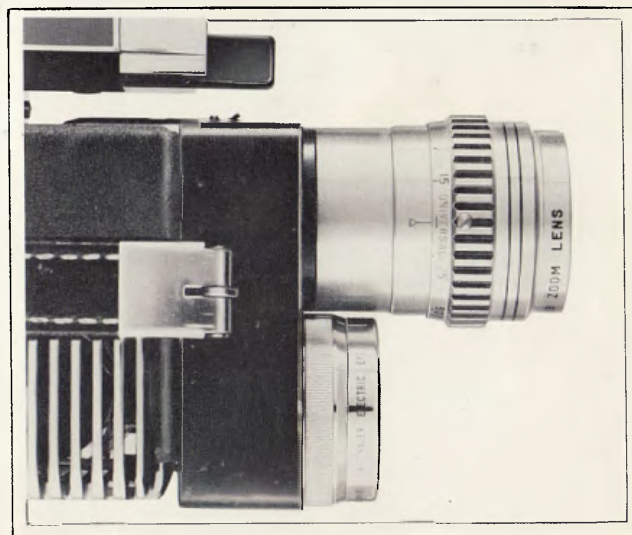


TELEPHOTO



WIDE ANGLE

Focusing—for most outdoor shooting merely set the focusing mount at “Universal”—pictures in average sunlight will be in sharp focus from 6 feet to infinity. For more critical work the focusing ring may be set for the exact subject distance.



The Fully Perfected Cine-twin Electric Eye

Light System—utilizes light energy reflected from the scene you are photographing to adjust the sensitive lens. Your color pictures will be more vibrant, more alive than you ever thought possible. Exposures are adjusted continuously and automatically *while* you shoot—even as you “pan” from bright to shady areas.

Set the Film Speed—The Electric Eye has been designed to accept *all* popular color and black and white films—and is completely adjustable for all speeds from *ASA 10 through ASA 100*. Speed ratings are provided by the manufacturer and are printed on every film package.

Turn the film speed ring until index is aligned with desired film speed rating. Settings between those engraved on the speed ring may be approximated.





Red Warning Signal Means

Poor Light — look through the zoomfinder — in the upper right corner you will see the *light indicator*. As you shift the camera from sunny to shady areas the *light indicator scale* will move showing you, at all times, the exact lens setting being selected by the automatic Electric Eye — *when* light conditions are too poor for good results the *light indicator* will shine **RED** — *Red signal in light indicator means NOT enough light exists for good results!*

SOME PROFESSIONAL ADVICE

Your Cine-Twin Zoom Camera can be preset for a particular scene or actually zoomed while filming. *For best results we suggest that you do not allow the availability of the Zoom feature to complicate your regular shooting.* Professional film-makers use the zoom feature only when it will actually add to the dramatic or pictorial effect — not just as a “device”. There is a tendency (especially among those not familiar with the new zoom feature) to introduce a zoom into almost every shot. *Beware of this!* Select the view that will best illustrate your scene (wide-angle, standard, telephoto or any other scene in between) and try to avoid too many camera moves. Experience will be your best guide.

Loading the Camera...

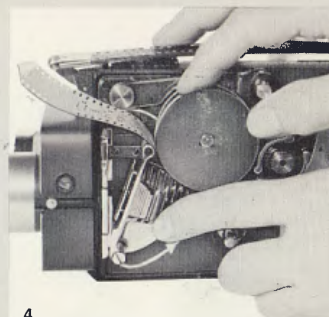
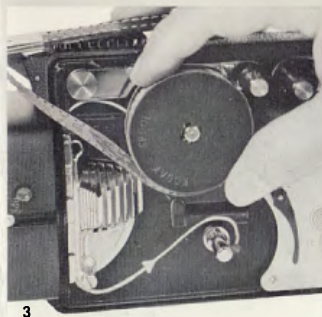
The Cine-Twin will accept any standard 8mm roll film. The film (commonly called "double 8") is supplied on 25 foot daylight loading reels, which actually contain 16mm film. Each reel is run through the camera twice. During the first "run through", one half (or 8mm) of the width of the film is *exposed*. Then the film is re-loaded and the remaining half is *exposed*. At the processing laboratory, it is developed slit down the middle and returned to you ready for projection as 50 feet of 8mm film.

Roll film is, by far, the most economical method of buying movie film.



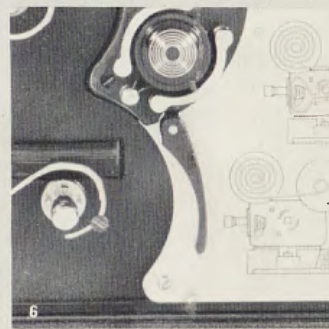
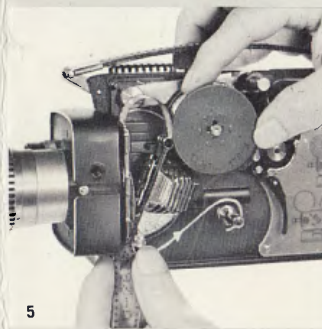
1. To open the camera... depress the *Spring Lock* with the thumb of the right hand and slide the *Locking Lever* over it with the thumb of the left hand (as indicated by arrow).

2. Now, grasp the *Zoomfinder* and gently lift off the *Cover*. Notice that the entire camera is open and accessible. There are no side walls to interfere with efficient loading.



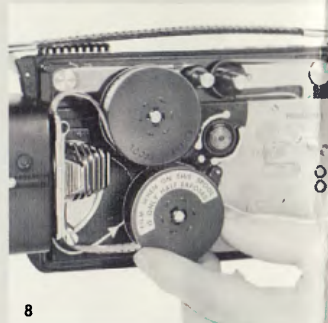
3. Now, open the protective box or can, and remove the film. Save the wrapper for use again when you return the film to the laboratory for processing. Remove the paper strip from around the film before loading. Be sure not to let too much film unwind... or it may become "fogged" with light. Note: Always load and unload the camera in subdued light—never in direct sunlight. Place the roll of film on the *Supply Spindle* (top spindle). The spool will only fit on the *Spindle* if the side with the *Three-Notched Hole* is down. Be sure that the reel is properly seated. When correctly positioned, the end of the *Supply Spindle* will project through the hole in the spool flange. The grey line indicates the path that the film must follow for proper loading.

4. Open the *Film Gate* (by inserting finger nail between ridges on *Gate*) and swing toward the rear of camera.



5. Thread the film through the *Film Gate* (between *Pressure Pad* and *Aperture Plate*)... and close the *Gate*. The *Gate* should "click" closed with a positive action. If film does not slide freely downward through the *Film Gate*, open the *Gate* and re-thread.

6. Open the *Footage Indicator Lever* by swinging it to the right . . . until a "click" is heard and the *Lever* "pops" up about one-eighth of an inch. It is not necessary to release the *Lever* after loading as it is "set" automatically when the *Cover* is replaced on the camera.

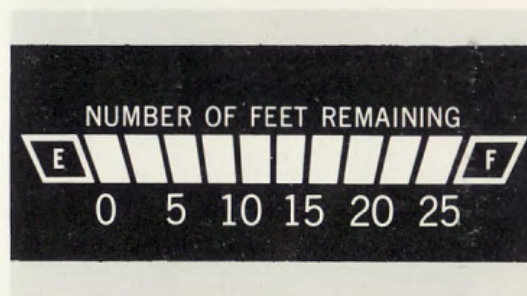


7. Remove *Take-Up Reel* from *Take-Up Spindle* (bottom spindle). Be sure that the *Four-Notched Hole* is facing down. Bend the end of the film slightly and fit it into the slot in the core of the *Reel*. Turn *Take-Up Reel* about 2 turns clockwise in order to secure the film.

8. Replace the *Reel* on the *Take-Up Spindle*. Turn the spool slightly if necessary, until it fits properly . . . the end of the *Take-Up Spindle* should protrude slightly through the hole in the *Reel* flange. Turn the *Take-Up Reel* until the film is taut. Now, push the camera operating button forward for several seconds. The automatic electric drive should transport the film and it should wind smoothly onto the *Take-Up Reel*. There are no sprockets to engage and with a little practice, loading can be accomplished in a matter of seconds.

9. **IMPORTANT** First make sure zoom lever (on zoomfinder) is in *Telephoto* (T) position. Place cover carefully on camera body. Lock cover by moving *Locking Lever* forward until a slight "click" is heard. Then slide zoom lever forward (toward W) until it engages the zoom lens. If directions are followed zoomfinder and zoom lens will automatically engage. If zoom lever does not engage lens — or does not move freely — it could not have been in the telephoto position when cover was replaced. Remove cover, place zoom lever in T position and reassemble.

The Footage Counter...



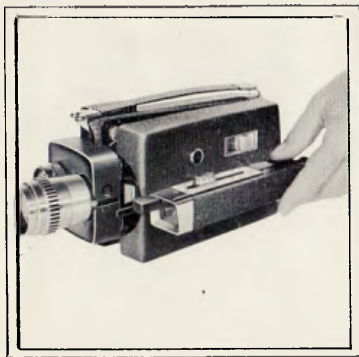
The Cine-Twin Footage Counter actually measures the amount of film used as the film winds on the take-up spool. When the camera is closed, the *Footage Counter* will always reset itself automatically to the "full" (25 foot) position. However, if the camera is *not* loaded with film, the counter will not show any change even though the operating button is "ON". This is as it should be, since no film is actually traveling through the film gate.

When the camera is loaded with film, you may notice a slight oscillating movement of the Footage Counter needle. This is quite normal, as the film itself is subject to some movement as it is transported by the camera mechanism. If this slight oscillating motion makes it difficult to tell the exact point at which the Counter needle leaves the red "F" portion of the Footage Dial, do not be concerned—merely allow the camera to run for a few seconds after the cover has been replaced. The purpose of this is to remove the leader which has been exposed or fogged during the loading operation.

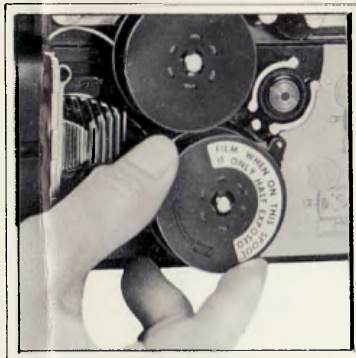
Most film manufacturers provide for a liberal amount of additional film to be used as leader when loading or unloading the camera. Because of this, many spools of film actually contain more than 25 feet. Since the Footage Counter is calibrated to measure 25 feet (the standard 8mm spool), it is possible that a slight additional amount of footage may remain in the camera after the Footage Counter registers zero. Therefore, it is wise to make sure that all the film has been exposed before opening the camera cover. With slight practice, you will be able to "hear" the difference in the sound of the transport mechanism when the film actually runs off the supply spindle and is completed (no longer being transported by the transport mechanism). By observing this suggestion, you may often gain a "bonus" of several additional scenes per roll.

Reloading...

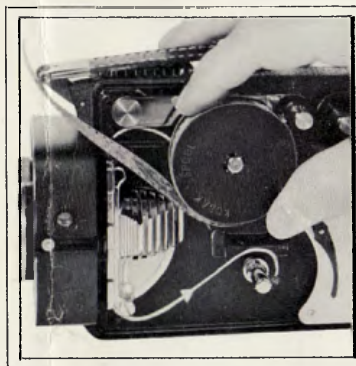
When the film has been run through the camera for the first time, only one side has been exposed (25 feet). To expose the other side (the remaining 25 feet) ...



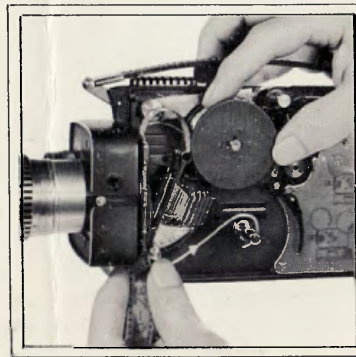
1. Remove the *Cover* (in same manner as when *loading*). Open the footage indicator lever by swinging to the right.



2. Remove both *Spools* from respective *Spindles*.



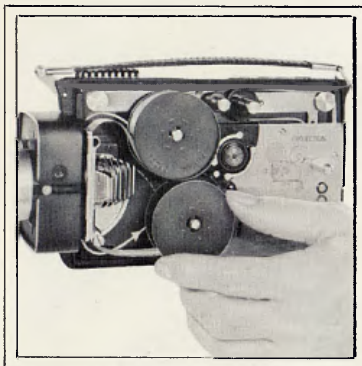
3. Place the full *Spool* on the *Supply Spindle* with the *Three-Notched Hole* facing down.



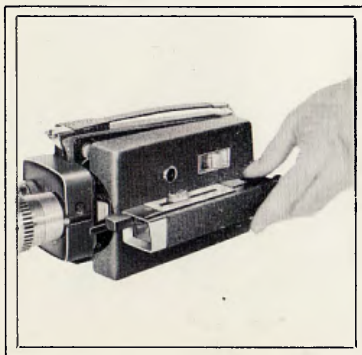
4. Rethread the film as described in the section on *loading*.



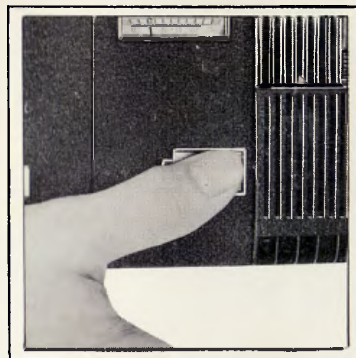
5. Hold the empty *Spool*, with the *Four-Notched Hole* facing down and thread the end of the film into the slot.



6. Place the empty *Spool* on the *Take-Up Spindle* and twist clockwise until the film is taut.



7. Make sure zoom lever is in *Telephoto* position. Replace the camera cover.



8. Run the motor until the pointer on the *Footage Counter* reaches "25".

IMPORTANT

If you encounter any problems when reloading . . . refer to the section on loading. When the second "run" has been finished, the film has been completely exposed. Run the camera for several seconds until all "leader" has been taken up. Remove the film and repack in original container for shipment to your dealer or processing laboratory.

The Fully Perfected Cine-twin Electric Light Hyatt

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Remove and replace unexposed film at any time!

Now your Cine-Twin camera can be used as a projector at any time—even when loaded with partially exposed taking film. You can also replace outdoor color film with indoor color film. Later, you can return your original unexposed film to the camera to complete picture taking.

First, set your Magic Memory slide rule. Simply align the top of the *Magic Memory* pointer with the indicator needle on the footage counter. This will automatically remind you how much unexposed film remains on the roll. Once you set the *Magic Memory* take care not to accidentally move it until you have replaced the taking film again after projection.

2.

Now, screw the film rewind crank into the film removal device on the viewfinder side of the camera.

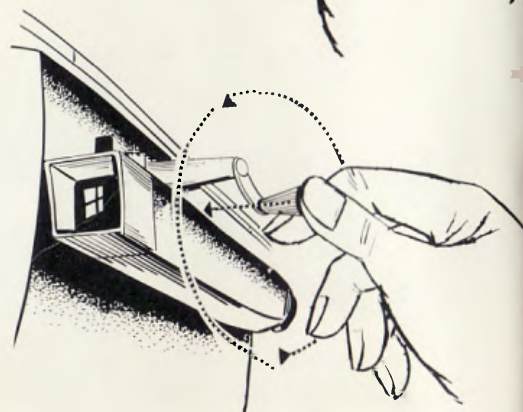
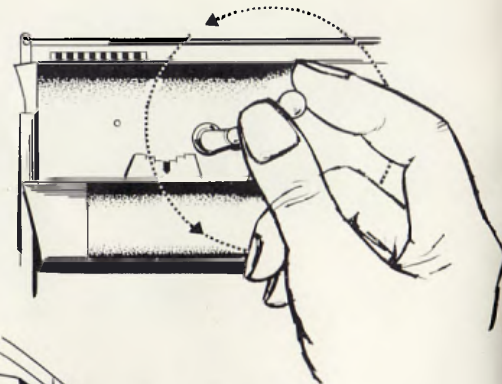
Note, crank contains *left hand thread* and must be screwed on counter-clockwise.

3.

Depress rewind handle and at the same time rotate *counter clockwise*. As you begin turning the rewind crank you will hear a slight click as the film gate (inside the camera) snaps open. Continue rewinding until all the film has been removed (footage indicator will then indicate full). You will hear the film as it finally slips off the take-up spool and rewinds onto the full supply spool.

partially exposed

film...



Returning partially exposed film to the camera...

1.

Load film in the usual way as shown on Page 8 of your instruction book.

4.

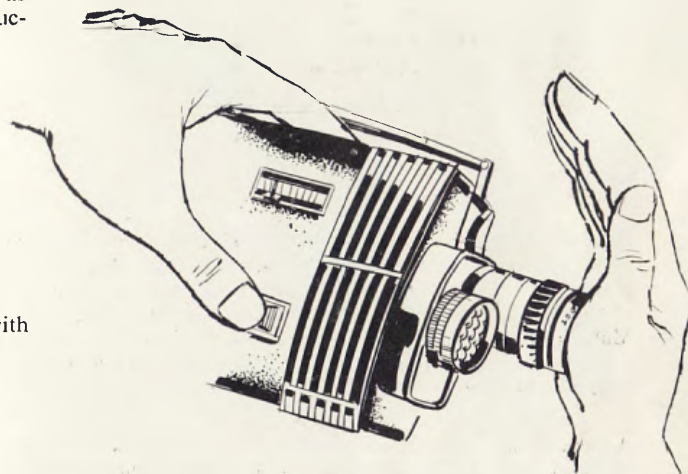
When the film has been completely rewound, the camera cover may be opened and the film returned to its original protective box for storage. If you change from indoor film to outdoor film it would be wise to note on the film box the unexposed footage remaining.

5.

Remove crank (unscrew clockwise).

2.

Cover zoom lens firmly with hand or lens cap.



3.

Start electric camera operating button and watch footage indicator. When footage indicator lines up with Magic Memory Pointer (which you will remember was set before removing film) you are ready to continue photographing in the usual way.

This new Wittnauer film removal device can also be used to advantage to remove unfinished outdoor film when it is desired to replace it with indoor color film—or to replace black and white film with color film at any time, even before a roll has been completed. The Wittnauer film removal device offers the flexibility of magazine film—with the economy of roll film.

Helpful hints for Better movies...

Scene length ... the *Automatic Electric Drive* built into your Wittnauer Cine-Twin makes you a Master Director. For now you can determine scene length based on the importance of the subject matter—not on the capacity of a mere spring motor. Make sure that your scenes are long enough. Give your audience a chance to enjoy your pictures. A quick shot of this or a fast look at that is never satisfying.

A scene should rarely be shorter than 8 seconds. It takes 5 seconds to run 1 foot of film. To gauge the length of your scenes, you might try counting 1001, 1002, 1003, etc. *It is better to make your scenes too long rather than too short.* Long scenes can be “edited” and made shorter, but short scenes, naturally enough, cannot be made longer.

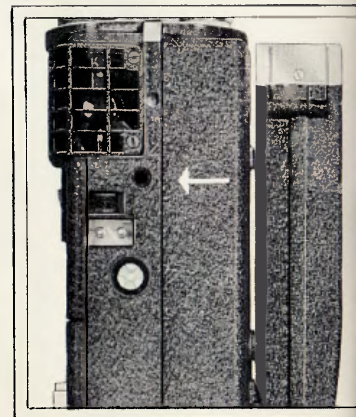
With Wittnauer *Automatic Electric Drive* you can make your scenes as long as you desire ... without the fear of the camera “winding-down.”

Check your exposure index before shooting. Remember your Electric Eye will provide correct exposures automatically—give it the right information. Make sure it is set at the correct film speed.



Dramatization ... Add the “professional” touch to your movies—take full advantage of the Zoom Lens on your Cine-Twin. The use of Wide Angle and Telephoto effects in conjunction with Standard shots can produce “Hollywood” type results.

Steady pictures ... Yours automatically because of Cine-Twin's better, finer balance. The Tripod Socket at the bottom of the camera will accept any standard American tripod. A steady camera is especially important when your Zoom Lens is set in the Telephoto position. The Telephoto position magnifies the image—and it will also magnify any apparent camera movement.



Panoraming... "Panning" is accomplished by swinging the camera in a horizontal plane from side to side while filming. Hold the camera steady; plant your feet firmly on the ground, and pivot very s-l-o-w-l-y from the waist. To assure rocksteady pictures, when panning, use a tripod. Most movie tripods are equipped with a "Pan Head" that will enable you to pan from side to side, or tilt up and down, with comparative ease. Avoid panning when you are filming near-by subjects, or when you are using the Telephoto setting. These extremes may cause the objects to appear blurred on the screen. A good rule to remember is to pan at least twice as slowly as you think necessary. The same advice applies to zooming while the camera is running.

Titling... to help tell your story and to make your movies more entertaining. You can "set the stage," explain action, add a touch of humor with clever and resourceful titling. Titles may be spliced into the film at any desired place. You can make your own titles or purchase them from your dealer. Most titlers are simple to use and can be easily attached to your camera.

**BEFORE LEAVING FOR VACATION
MAKE SURE THAT YOUR
CAMERA IS CLEAN AND IN GOOD
WORKING ORDER. CHECK
YOUR BATTERIES... MAKE
SURE THAT YOU ARE
WELL SUPPLIED WITH FILM.**

Things to remember...

- Clean lens at regular intervals with lintless tissue or camel's hair brush.
- Make sure that batteries are in good condition before going out to take pictures.
- Set Electric Eye for correct film speed.
- Plan your shots before you start filming.
- Make sure that you have enough light on the subject—watch for red light indicator.
- When panning, be sure to pivot your camera very s-l-o-w-l-y.
- Make scenes at least 10 seconds in duration.
- Do not attempt to take lens apart.
- Do not oil camera.

Your *Wittnauer* **CINE-TWIN**

combination is an

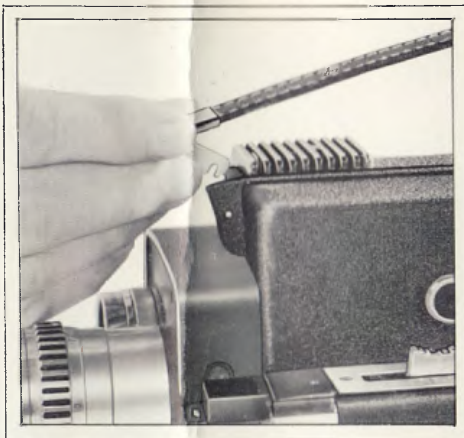
easy-to-use projector...

It will provide flickerless, rock-steady, big screen pictures. Before using, "check out" the important features. Unfold cover in back of booklet and refer to the diagrams as you read through these instructions.

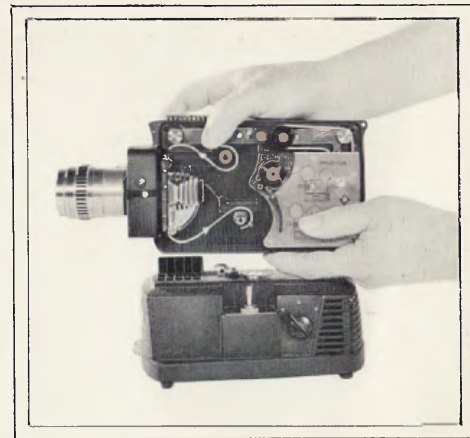
It takes a brief thirty seconds to convert your camera to a projector—and there are no extra parts to store away or assemble. In less than half a minute the Cine-Twin can be ready to go to work projecting movies for you.



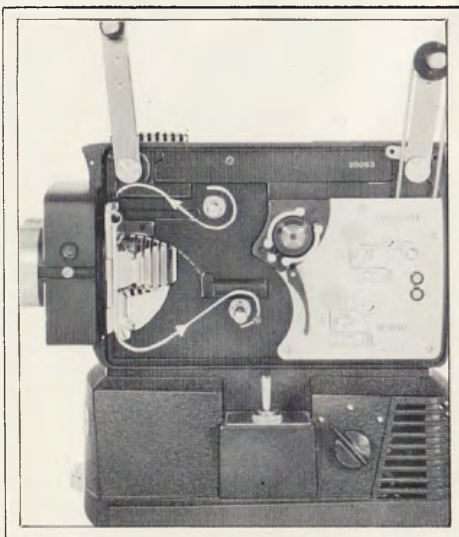
- 1.** Remove the *Carrying Strap* from the camera . . . Dislodge *Open-End Hook* from its housing by twisting slightly. Grasp *Strap* and pivot toward front of camera.



- 2.** Lift *Flat Hook* on front of handle from camera hinge. Remove camera *Cover* in same manner as when *Loading*; swing out the *Footage Indicator Arm* and remove small *Take-Up Reel*.



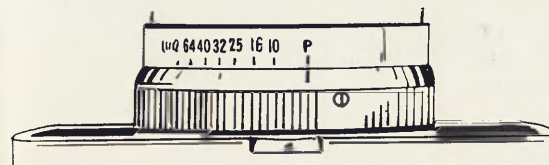
- 3.** Next . . . place the *Projection Base* on the table before you, with the *Electrical Socket* toward the *right*. The small knob on the side of the base, directly above the *Electrical Socket*, is the *Locking Knob*. Turn this knob in the direction indicated by the arrow as *unlock* until it stops turning. Place the camera *Body*, with the lens facing forward, on the *Projection Base*. When properly positioned, the *Sockets* on top of the *Base* and those in the bottom of the camera *Body* will interlock. Tighten the *Locking Knob* (turn in the direction indicated by the arrow as *lock*) and your camera and base become an integral unit.



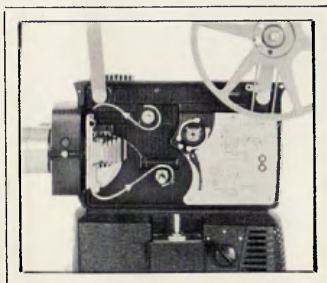
Let's set the projector up...

- 4.** Rotate the *Projector* so that the open side of the unit is facing you. Lift the *Reel Arms* by swinging them *upward* until a "click" is heard. The *Reel Arms* will lock in an upright position when they are completely extended. Open *Reel Retainers* by swinging them outward. Connect *Power Cord* to base socket and plug other end of cord into 110 volt AC wall socket.

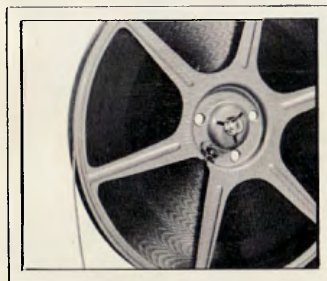
Set Electric Eye Film Speed ring at *P* for projection.



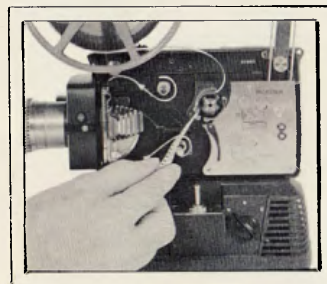
Now load the film . . .



LOADING FILM . . . Place the empty *Take-Up Reel* (notches towards arm) on the *Take-Up Arm* (rear arm). Rotate *Reel* until it is firmly seated. Fold down the *Reel Retainer*.



Place full *Reel* of film on the supply *Arm* as shown on *projection diagram*. When properly wound and set, the film will come off the *Reel* with the perforations *away from you*. Close the *Reel Retainer* by folding *upward*.

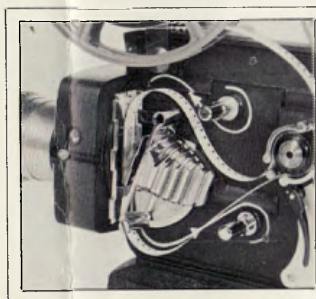


Unwind about two feet of film from the *Reel*. Following the *projection diagram*, thread the film through the upper side of the *Sprocket Wheel*. Simply slip the film under the sprocket wheel *Guide* and slide until perforations catch and the film holds tight.

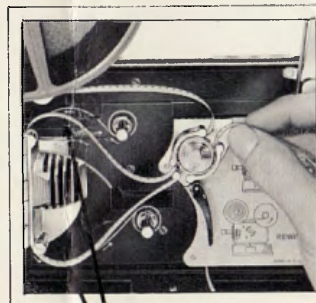
REMEMBER! The gray lines on the camera body indicate correct film path for *taking pictures*. Refer to the printed diagram for *projection*.



Open the *Film Gate* by swinging outward.

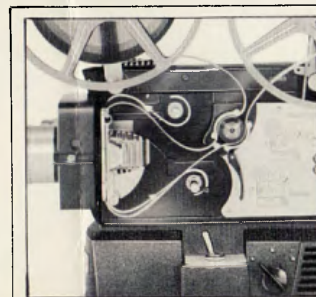


The *Projection Aperture* is the small rectangular hole on the "inside" of the *Film Guides*. Thread the film through channel in *Film Gate* between *Pressure Pad* and *Aperture Plate*. Leave a generous loop of film above the *Film Gate*. The film *must* be threaded so that it covers the *Aperture Hole*. The *Film Guides* do not engage the sprocket on the film . . . they merely guide the film through the proper channel. Close the *Gate* . . . a positive "click" will be heard.



Leave another generous loop under the gate. Thread the film through the lower side of the *Sprocket Wheel*. Slip the film under the sprocket wheel guide and slide until sprockets engage and film holds firm. Make sure that film is threaded between "taking" spindles as shown in illustration.

LOOPS



Bend the end of film slightly, and slip it into the hub of the *Take-Up Reel*. The *Take-Up Reel* will rotate in a forward (counter-clockwise) direction when the projector is in operation . . . be sure to thread the film on the *Reel from underneath*. Turn *Reel* in direction shown in *projection diagram*, until all "slack" has been taken up.

Before you turn the Projector "on" . . . check once again to make sure that you have threaded the film on the "inside" of the Taking Spool Spindles.

To operate the projector...

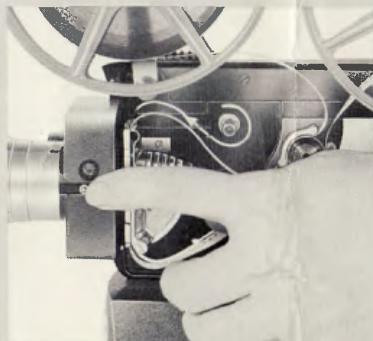


The *Operating Switch* on the *Projection Base* controls the "Project", "Off" and "Rewind" actions of the projector. To turn the projector "on"... push the *Operating Switch* forward to the position marked "Project."



When the projector is running, the picture should be centered on the screen. If the picture is too high or too low, correct by turning *Height Adjustment Dial*. If picture is too far to the right or left, simply rotate the base to desired position.

TO STOP THE PROJECTOR ... return the *Operating Switch* to the center position ... labeled "Off."

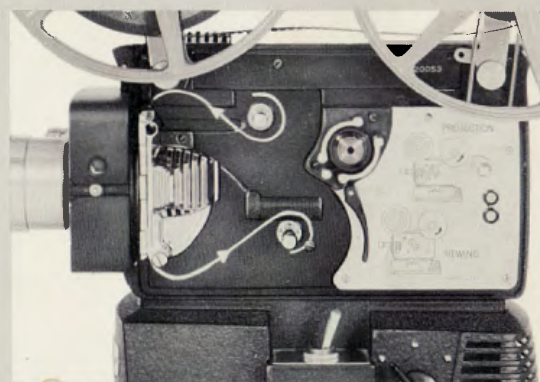


If the projected picture is too large or too small to fill the entire screen—simply adjust by sliding zoom button on lens. **TO FOCUS** ... grasp the lens mount between the thumb and forefinger and revolve until the image appears bright and sharp on the screen.

High-speed rewinding of film saves time...

TO REWIND ... after the entire picture has been projected, place the full *Reel* on the *Supply Spindle* and the empty *Reel* on the *Take-Up Spindle*. Be sure that both *Reels* are properly seated on their respective *Spindles*. Close the *Reel Retainers* in the same manner as before. Draw the film from the full *Reel* to the empty *Reel* in accordance with the *rewind diagram*. Bend the end of the film slightly and place it into the hub in the *Take-Up Reel*.

The *Take-Up Reel* will rotate in a *forward* direction while rewinding. Be sure to thread the film from *underneath*. Push the *Operating Switch* to the position marked "Rewind" and the film will rewind quickly and correctly.



DO NOT TWIST THE FILM WHEN REWINDING ... OR THE PICTURE WILL NOT PROJECT PROPERLY WHEN NEXT USED.

After you have enjoyed the show and have finished using the projector...

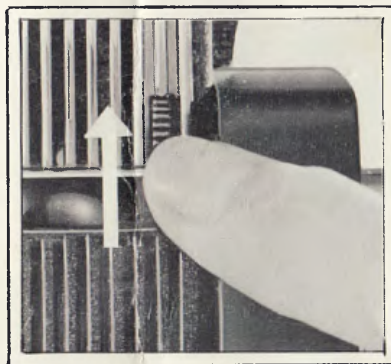
- Remove both *Reels*.
- Depress *Pressure Springs* behind *Reel Arms* and lower *Arms* into camera body.



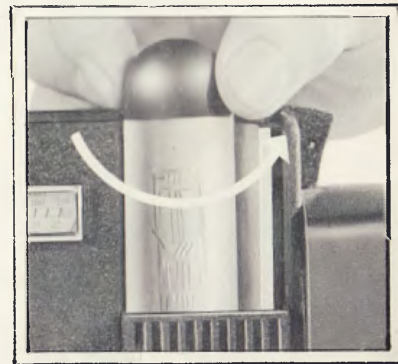
- Unlock the *Locking Knob* and lift *Camera* from *Base*.
- Replace small "taking" reel on *Take-Up Spindle*... so that you will again be ready to take pictures.
- Replace camera *Cover*.
- Replace *Carrying Strap*.
- Remove *Power Cord* from *Base*.
- Replace *Camera* and *Base* in your case.

Replacing the projection bulb...

It is not necessary to remove the *Projection Bulb* when you are using the camera to take pictures. The *Bulb Compartment* is separated from the camera mechanism. A special *Chimney* holds the bulb securely in position. If the *Projection Bulb* should require replacement (the average bulb life is approximately 25 hours):



1. Remove *Carrying Strap* and press the *Projection Bulb Compartment Release Button*; and gently slide the cover upward until it becomes completely separated from the camera *Body*.



2. Grasp the top of the bulb with the thumb and forefinger, depress slightly and turn counter-clockwise until the bulb unseats from the socket. Now, simply lift the bulb from the *Compartment*.

3. To install a new projection bulb... follow the procedure outlined above. Twist the new bulb clockwise until it is firmly seated in the socket. Then, replace *Cover* by sliding over the bulb until it "clicks" into position.

BE SURE THAT BULB IS COOL AND POWER CORD HAS BEEN REMOVED FROM BASE BEFORE ATTEMPTING ANY BULB REPLACEMENT

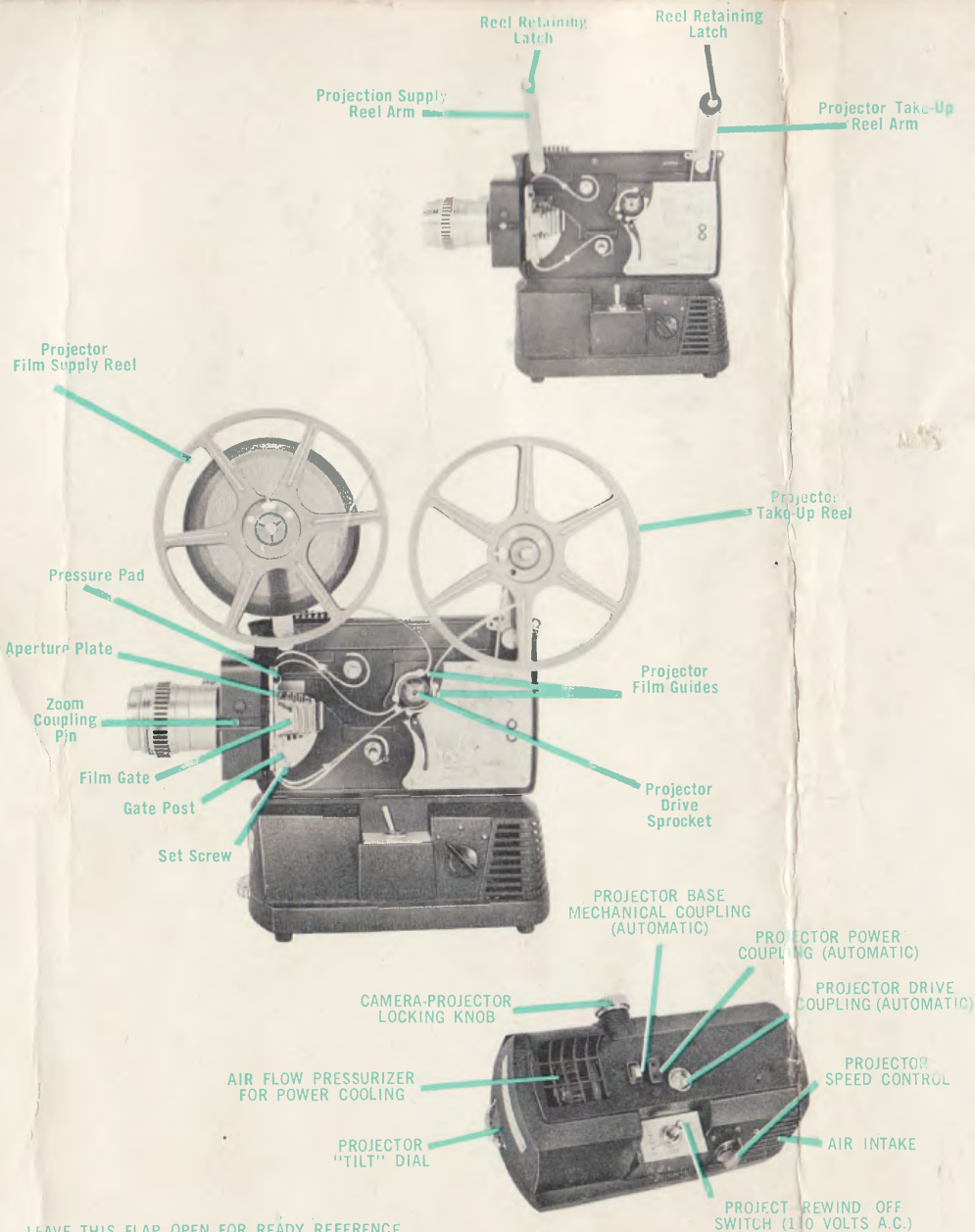
**Towards more enjoyable
movie programs...**

Easy-to-take, life-like films—in full and brilliant color will help you relive memories, happy occasions and cherished moments.

Make your programs interesting by editing out the poorer sequences and adjusting the “timing” of your scenes to give your picture “pacing”. Edit films together so that your reels have ample running time. Your Wittnauer Cine-Twin projector will accept three hundred feet of film—25 full minutes of screen enjoyment.

Keep your equipment clean. Check out operating features before you go on a trip or vacation.

Your Wittnauer Cine-Twin Combination is the ultimate in home movie equipment. The sturdy, die-cast body will withstand all reasonable service. Care for your Cine-Twin properly and it will reward you with many years of pleasure and entertainment.



LEAVE THIS FLAP OPEN FOR READY REFERENCE
WHILE READING INSTRUCTIONS

Wittnauer

**CINE-TWIN CAMERA-PROJECTOR
GUARANTEE**

THIS WITTNAUER CINE-TWIN CAMERA-PROJECTOR COMBINATION HAS BEEN SUBJECTED TO RIGOROUS INSPECTION AND IS GUARANTEED AGAINST ORIGINAL DEFECTS FOR A PERIOD OF ONE YEAR FROM DATE OF PURCHASE. SERVICE NECESSARY BECAUSE OF IMPERFECTIONS IN ORIGINAL MANUFACTURE WILL BE PERFORMED WITHOUT CHARGE DURING THE GUARANTEE PERIOD (EXCEPT FOR TRANSPORTATION COSTS TO AND FROM FACTORY).

THIS GUARANTEE IS VALID ONLY AS FAR AS THE ORIGINAL PURCHASER IS CONCERNED AND DOES NOT APPLY IN ANY WAY, DIRECTLY OR INDIRECTLY, TO FILM, LAMP, BATTERIES OR ACCESSORIES. NO OTHER LIABILITY IS ASSUMED OR EXPRESSED. MACHINES WHICH NEED REPAIR AS A RESULT OF DAMAGE CAUSED BY MISUSE, INCORRECT HANDLING, OR NORMAL WEAR WILL BE REPAIRED AT FACTORY ESTABLISHED RATES. OWNER'S REGISTRATION CARD MUST BE ON FILE AT THE WITTNAUER CAMERA COMPANY IN ORDER TO VALIDATE THIS GUARANTEE.

Wittnauer Camera Company

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WITNAUER