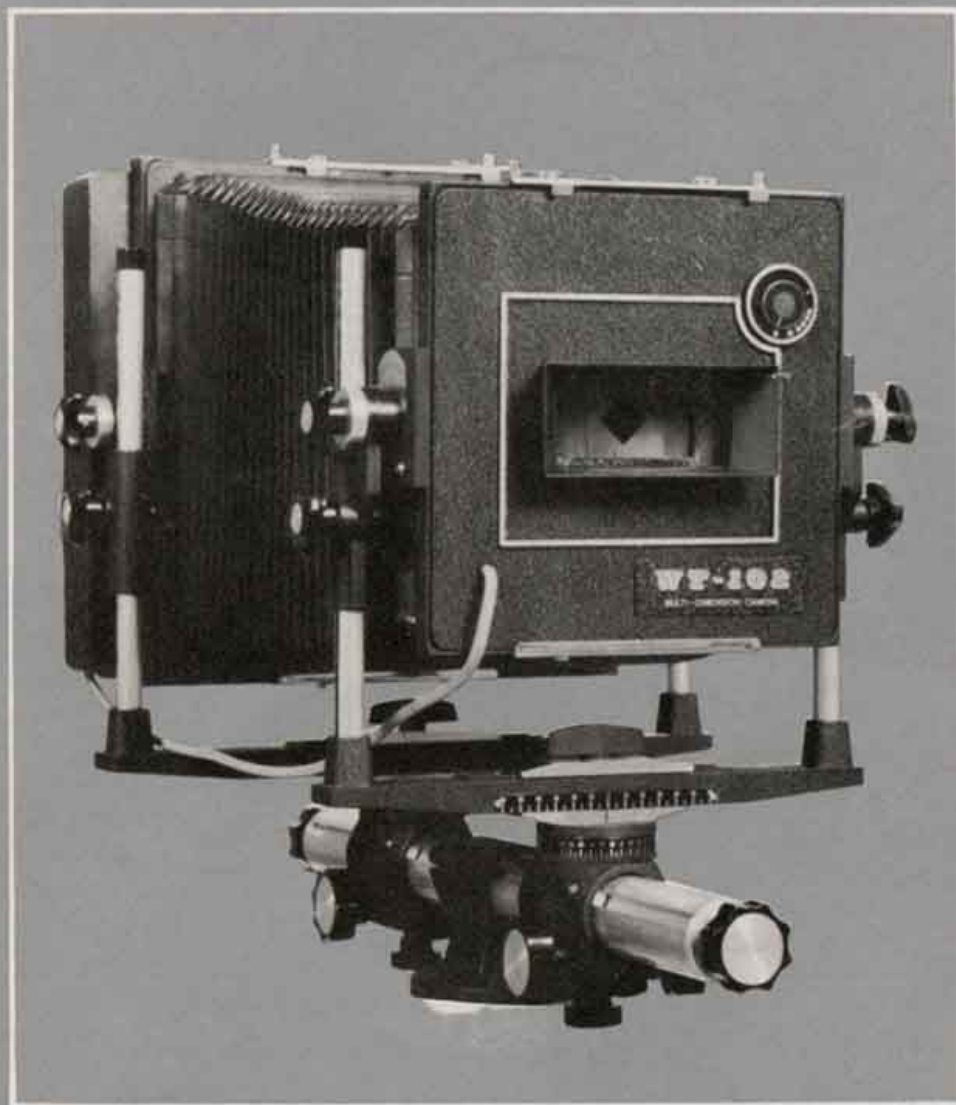


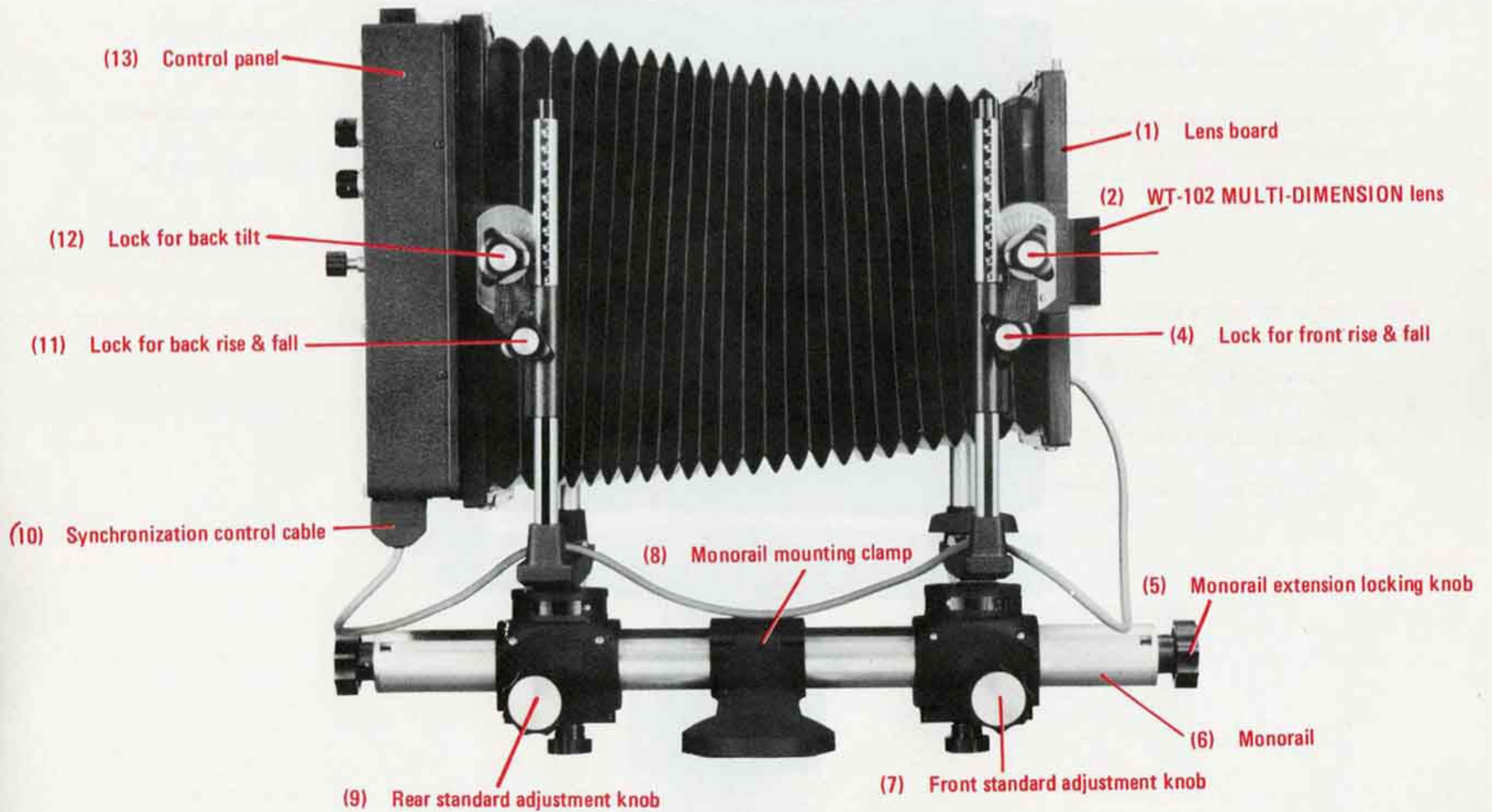
# WT-102

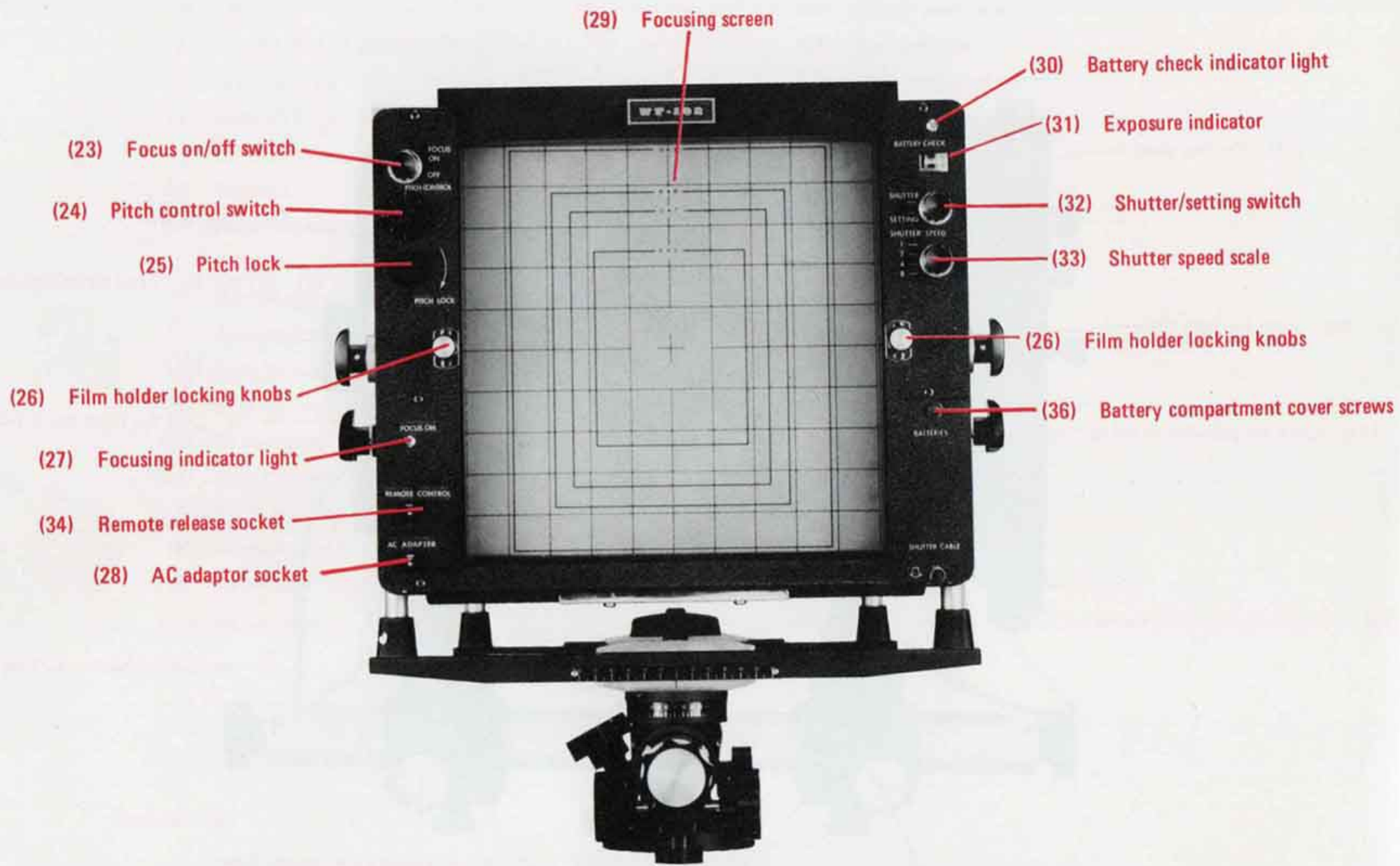
MULTI-DIMENSION CAMERA



INSTRUCTION MANUAL

- (1) Lens board
- (2) WT-102 MULTI-DIMENSION lens
- (3) Lock for front tilt
- (4) Lock for front rise & fall
- (5) Monorail extension locking knob
- (6) Monorail
- (7) Front standard adjustment knob
- (8) Monorail mounting clamp
- (9) Rear standard adjustment knob
- (10) Synchronization control cable
- (11) Lock for back rise & fall
- (12) Lock for back tilt
- (13) Control panel
- (14) Rear standard
- (15) Front standard
- (16) Lensboard lock
- (17) Swing scale
- (18) Bellows lock
- (19) Control panel lock
- (20) Aperture scale
- (21) Swing and shift lock
- (22) Swing scale
- (23) Focus on/off switch
- (24) Pitch control switch
- (25) Pitch lock
- (26) Film holder locking knobs
- (27) Focusing indicator light
- (28) AC adaptor socket
- (29) Focusing screen
- (30) Battery check indicator light
- (31) Exposure indicator
- (32) Shutter/setting switch
- (33) Shutter speed scale
- (34) Remote release socket
- (35) Film holder pressure plate control
- (36) Battery compartment cover screws





(29) Focusing screen

(30) Battery check indicator light

(23) Focus on/off switch

(31) Exposure indicator

(24) Pitch control switch

(32) Shutter/setting switch

(25) Pitch lock

(33) Shutter speed scale

(26) Film holder locking knobs

(26) Film holder locking knobs

(27) Focusing indicator light

(36) Battery compartment cover screws

(34) Remote release socket

(28) AC adaptor socket



After 16 years of research and development, the WT-102 MULTI-DIMENSION Camera is the world's first single lens camera capable of taking both MULTI-DIMENSION and 2-D pictures in one single exposure on standard black and white or color sheet film. The film is processed in the conventional way for transparencies or prints.

Everybody is fascinated by pictures which appear to have depth. Pictures which create the impression that one could reach out and touch the object.

To date, 3-D photography has been extremely complicated, involving multiple cameras, multiple exposures or multiple lenses and special viewing systems. All of which required large investments in equipment and a high degree of technical skill, making the cost of 3-D photography prohibitive for most uses.

The WT-102 MULTI-DIMENSION camera and the MULTI-DIMENSION photo system eliminate all of these technical problems and reduce the cost of MULTI-DIMENSION pictures to that of conventional 2-D photographs.

No special skills are required. You use the same kind of sheet film and the same kind of processing you are familiar with. And you complete the MULTI-DIMENSION effect, already present in the image, in one single finishing operation by laminating a LENTICULAR SCREEN onto the transparency or print. Neither complicated equipment or tricky finishing procedures are needed and your employees will easily master the laminating technique after a few trials.

Read these instructions carefully with the camera before you. The WT-102 MULTI-DIMENSION Camera requires careful and knowledgeable handling. Your reward will be unsurpassed results.

## LOADING THE FILM HOLDER

The sheet film holder that comes with your WT-102 MULTI-DIMENSION camera, can be used with any size sheet film (8 x 10", 6 x 8", 5 x 7" or 4 x 5") in either vertical or horizontal position.

The WT-102 MULTI-DIMENSION system is completely different from conventional 2-D photography. During the exposure period, it is imperative that the emulsion side of the film be in complete contact with the LENTICULAR SCREEN fitted inside the camera.

The film holder has been designed for this purpose.

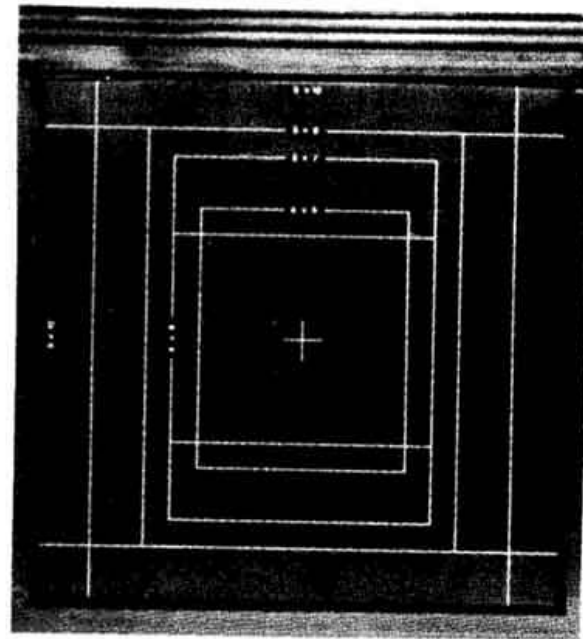
### To load the film

1. Decide on the size of your sheet film and whether you will be taking a vertical or horizontal shot.
2. Stick high quality double-sided adhesive tape to the upper side of the film pressure plate (see red area of illustration).
3. Place sheet film onto the double-sided adhesive tape in desired position.

### Important

Never release the film holder pressure lever on an empty film holder. Releasing the pressure lever would stick the dark slide to the pressure plate making it very difficult to remove the dark slide.

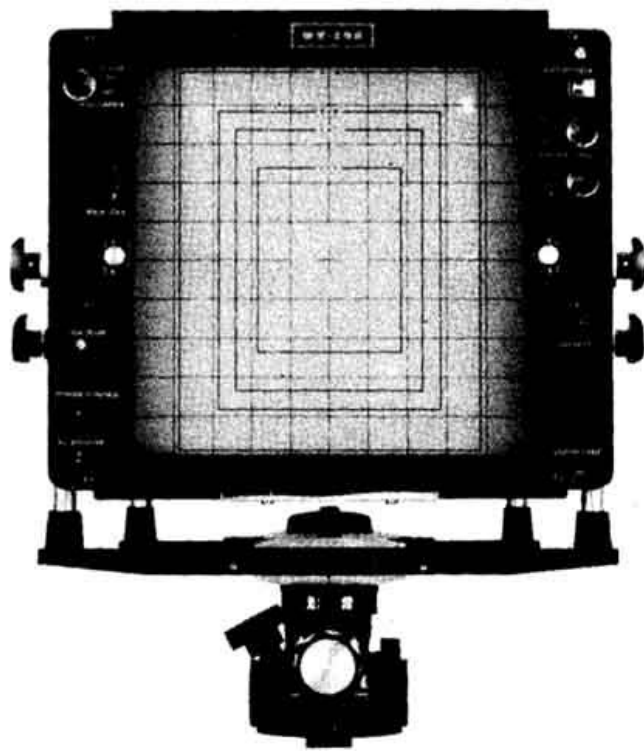
In order to prevent finger prints, always use darkroom gloves for film loading. .



## TO OPERATE THE WT-102 MULTI-DIMENSION CAMERA

### A. focusing

- 1. Switch on the remote release.**  
*The battery check needle should go all the way to the right ... into the red area ... to indicate batteries are strong enough.*
- 2. Move focus on/off switch (23) to "on" position.**  
*The focusing indicator (red light) will come on at this time.*
- 3. Move shutter/setting switch (32) to "setting" position.**  
*This moves the aperture to the center position for focusing. (If the shutter/setting switch is already setted in the setting position, turn the switch to "shutter" position, the aperture will then move to the center and be ready for focusing.*
- 4. Set aperture scale (20) to F16.**  
*The widest opening to make focusing easier.*
- 5. Insert focusing screen (29) into the control panel (13).**  
*Be certain to tighten both of the locking knobs (26).*
- 6. Adjust focusing knob (7) until image is sharp.**
- 7. Remove focusing screen (29).**  
*You are now ready to insert the film holder and take a picture.*



**B. Taking the MULTI-DIMENSION picture**

- 1. Move the focusing on/off switch (23) to "off" position.**  
*The focus red light indicator (27) should be out.*
- 2. Turn shutter/setting switch (32) to "setting position."**  
*This returns the aperture to the left side of the camera (front view). The camera will not operate properly if the aperture is on the right or center. If the aperture is not on the left side, turn shutter/setting switch (32) once more to "shutter position" and watch front of camera for aperture movement.*
- 3. Push remote release to "off".**
- 4. Turn shutter/setting switch (32) to "shutter" position.**
- 5. Set shutter speed scale (33) to desired speed.**  
*1 to 8 seconds exposure time.*
- 6. Set the aperture scale (20) to required opening.**
- 7. Insert the film holder into the control panel.**

- 8. When film holder is in place, tighten the locking knobs (26) and pull out the dark slide.**
- 9. Lift up the lever (35) in the back center of the film holder.**  
*This keeps the emulsion side of the film flush with the LENTICULAR SCREEN. The camera is now, ready for exposure.*
- 10. Push remote release to "on" position.**  
*The picture is being taken at this point.*



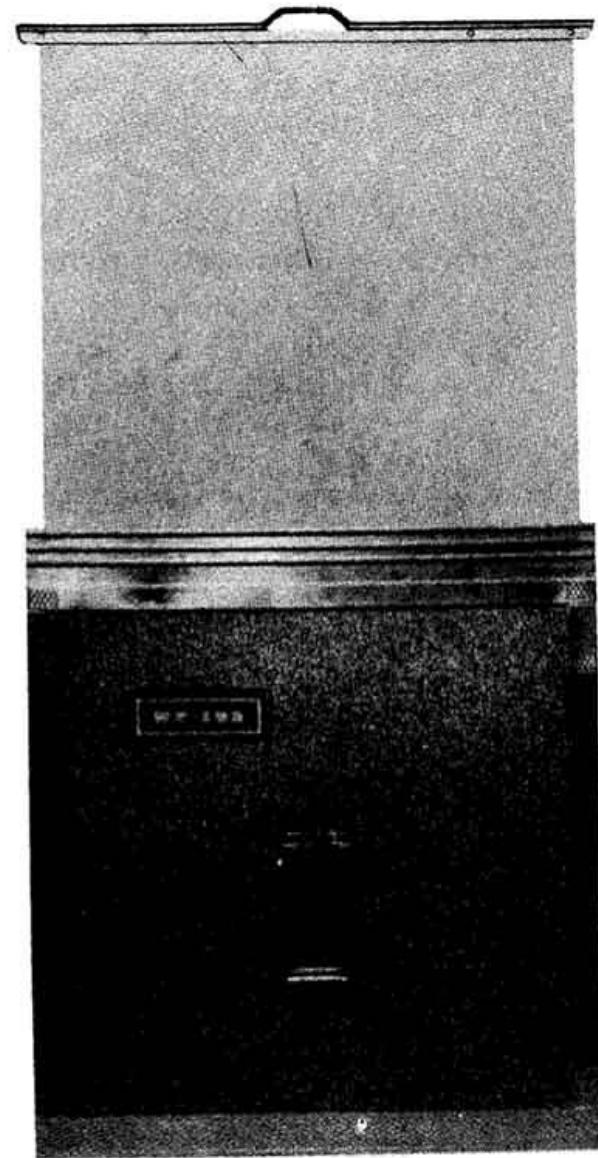
**C. After the picture is taken**

- 1. Push down lever (35) in the back center of the film holder to release pressure.**
- 2. Insert dark slide into the film holder.**
- 3. Loosen the locking knobs (26).**
- 4. Remove the film holder from the control panel.**
- 5. Move remote release to "off" position.**

**D. Exposure control**

Any accurate exposure meter can be used. Since the light passes through the LENTICULAR SCREEN, always allow two (2) extra F stops as a correction for the light stopped by the LENTICULAR SCREEN, ie F64 becomes F32.

For best results, use an aperture between F32 and F90.



## IMPORTANT

### 1. Pitch setting and lock

Before the WT-102 MULTI-DIMENSION camera leaves the factory, it is thoroughly tested to make certain the pitch setting is set to match the original LENTICULAR SCREEN. However, careless handling in shipping may knock the setting out of alignment. We recommend the user check the pitch setting by taking one black and white test picture before using the camera for colour work. (See instructions and illustrations below for test procedures) Normally it will not be necessary to reset the pitch once it has been set correctly.



**NORMAL PITCH SETTING**



**OVER PITCH SETTING**



**UNDER PITCH SETTING**

*To adjust the pitch setting control switch (24), turn it clockwise for over & counter-clockwise for under.*

*When proper pitch is determined, tighten pitch lock (25).*

## **2. Camera body adjustment**

For MULTI-DIMENSION photography, all camera adjustment must be set zero, the bellows must be set straight. Various angles of the bellows should only be used in 2-D photography.

## **3. Film contact**

Be certain to keep the film emulsion side is fully in contact with the LENTICULAR SCREEN while exposure is being made. Otherwise, undersirable results will arise.

## **4. Batteries and AC adaptor**

Unscrew the two screws (36) and remove the cover from the battery compartment, insert six 1.5 volt drycell "penlight" type batteries or use 9 volt AC adaptor (1 amp.) When the AC adaptor is used, the DC power supply will be automatically cut off.

## **5. Monorail extension**

Unscrew the front or rear knob (5) of the monorail. Screw in the monorail extension for close-up photography.

## **6. Tripod**

Although we recommend the WT-102 heavy duty tripod, any heavy duty tripod may be used as long as it is capable of supporting a minimum of 27 pounds.

### **Standard Specifications: WT-102 MULTI-DIMENSION camera**

**Type:** Precision built, modular design, monorail view camera. The WT-102 is suitable for single exposure MULTI-DIMENSION photography as well as conventional 2-D photography.

**Film size:** 8 x 10" (approx. 20.3 x 25.4 cm) with 3-D camera back and MULTI-DIMENSION film holder. (With optional 2-D camera back and film holder — any film size up to 8 x 10").

**Base:** 20" (approx. 50.8 cm) monorail and 8" (approx. 20.3 cm) monorail extension.

**Standard optics:** WT-102 MULTI-DIMENSION lens, 300 mm (approx. 11.8"), F16-F90 with built-in shutter, aperture and lens hood, mounted on lens board.

**Shutter:** Electronically controlled, motor driven, scanning-type, in-between lens shutter with built-in aperture and 38" (approx. 98.5 cm) remote control release cable. Shutter speeds: 1, 2, 4, and 8 seconds.

**Focusing:** Conventional ground glass focusing.

**Camera front and back movement:** 60° swing and 30° tilt in both directions Vertical movements: 30 mm (approx. 1-3/16") down and 100 mm (approx. 3-15/16") up from zero position. Horizontal movements: 50 mm (approx. 1-31/32") in both directions from zero position.

**WT Camera back:** Ground glass type with built-in high precision lenticular screen, controls for lenticular screen pitch and electronic shutter.

**WT Camera front:** WT-102 MULTI-DIMENSION standard lens board and aperture control setting.

**Film holder:** Two WT-102 MULTI-DIMENSION film holders with spring loaded pressure plate for optimum contact between film and LENTICULAR SCREEN.

**Bellows:** Accordion type with 25" (approx. 63.5 cm) maximum extension.

**Power source:** Six 1.5 Volt dry cell type AA "penlight" batteries or 110 Volt or 220 Volt A.C. with 9v. 1 amp. A.C. Adaptor.

**Weight:** With standard lens 12 kgs. (approx. 26.5 lbs) net.

## OPTIONAL EQUIPMENT

### WT-102 lens:

F16-F90, 400 mm (approx. 15.75") lens with built-in electronic shutter in WT-102 MULTI-DIMENSION lens board.

### Lens Board:

To fit all makes of 2-D optics, custom made to your specification.

### Conventional 2-D camera back:

For standard 8 x 10" film holders.

### Tripod:

Specially designed for WT-102 MULTI-DIMENSION camera.

**Enlarger:**

Designed to produce 1.5X or 2X enlargements.

**Laminating machines:**

Designed to laminate the LENTICULAR SCREEN sheets to transparencies or prints, accepts any size picture up to 16 x 20"

**Cutter:**

Cutter for laminated MULTI-DIMENSION prints or transparencies.

**Warranty information**

Each new WT-102 MULTI-DIMENSION camera is warranted to be free from faulty materials and workmanship. During your first year of ownership, any servicing necessitated by faulty materials or workmanship will be provided (or the equipment or part thereof replaced at our option) without charge except for transportation to Warranty Card specifies incoming changes be consistent your nearest SERVICING CENTER.

Warranty claims should be made in accordance with the printed WT-102 warranty provided with each camera.

**SUPPLIES****LENTICULAR SCREEN:**

Type P-1 for any size up to 8 x 10"

P-2 for 11 x 14"

P-3 for 16 x 20"

**ADHESIVE:**

This special adhesive is clear, durable and allows "line register" after lamination.

**DEPTH OF FIELD TABLE**  
**300mm WONDERVIEW 3-D STANDARD LENS**

<b>Subject distance</b>	<b>f32</b>	<b>f45</b>	<b>f64</b>	<b>f90</b>
5'	4'4"- 5'10"	4'2"- 6'6"	3'10"- 7'3"	3'6"- 9'2"
7'	5'6"- 8'9"	5'4"-10'	4'10"- 12'	4'3"-18'6"
9'	7'2"-12'6"	6'6"-15'2"	5'10"- 25'	5' -50'
11'	8'2"-16'6"	7'6"-22'	6'8" - 35'	5'6"-Inf.
15'	10'3"-28'	9' -48'	7'10"-350'	6'6"-Inf.

**SUGGESTED 3-D PHOTOGRAPHIC SETTING**

<b>Subject distance from camera</b>	<b>Foreground distance from subject</b>	<b>Background distance from subject</b>
5'	1'	4'- 6'
7'	1.5'	5'- 8'
9'	2'	7'- 9'
11'	3.5'	8'-20'
15'	4'	9'-INF.

**WONDERVIEW OPTICAL INDUSTRIES OF CANADA LTD.**  
991 Granville St., Vancouver, B.C., Canada V6Z 1L3