

# WILSONWERKS ARCHIVES

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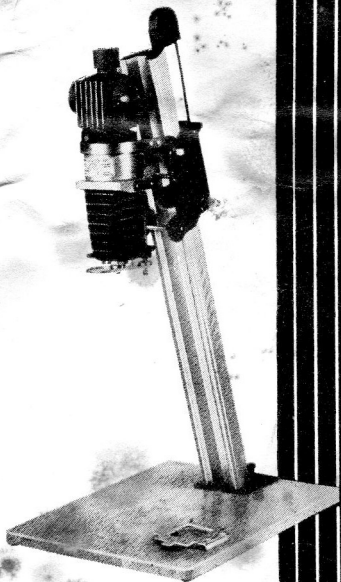
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# INSTRUCTIONS

FOR SETTING-UP AND  
OPERATING THE

## SIMMON OMEGA B-22 & B-22 XL

A  
2 1/4 x 2 1/4  
MANUAL  
FOCUSING  
ENLARGER



**SIMMON OMEGA, INC.**

Manufacturers of Fine

American Photographic Equipment

25-20 Brooklyn-Queens Expressway West

Woodside, N. Y. 11377



Printed in U.S.A.

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## **INTRODUCTION**

You now own an Omega B-22, one of the finest, most versatile enlargers ever made.

As a member of the Omega family, you are cordially invited to call on us at any time for photographic advice or assistance. Our staff of photo experts will be pleased to supply you with any additional information you may require, and if ever necessary, we will properly check or otherwise service your enlarger. Please write to Customer Service Department, Simmon Omega, Inc., 25-20 Brooklyn-Queens Expressway West, Woodside, N. Y. 11377.

## **IMPORTANT:**

The instructions that follow are very simple. Please read them as soon as possible, even before you unpack the enlarger. This will get you started on the right foot, saving you valuable time and helping you obtain topnotch results without delay.

## LIST OF PRINCIPAL PARTS

1. Lockscrews, fastening main column to baseboard.
2. Handwheel for focusing.
3. Combined handle and lock for carriage movement.
4. Removeable red safety filter.
5. Lamphouse lifting lever  
(for inserting filmholders).
6. Condenser housing.
7. Knurled screws for condenser removal.
8. Screw for fastening top lamphouse casting  
(loosen to insert supplementary condensers).
9. Lockscrews for lamp socket assembly.
10. Twist-lock lensmount.
11. Hinged type negative carrier.
12. Filter drawer.
13. Counterbalance spring.
14. Lamphousing.
15. Extra Long Extension Bellows.

## HOW THE OMEGA B-22 IS PACKED

The Omega B-22 is packed in a corrugated cardboard carton. The carriage and girder assembly are packed assembled within the outer carton. The lamphouse, baseboard, filmholders and lensmounts are contained in the same carton, therefore, do not hastily discard any apparently empty part before looking inside it.

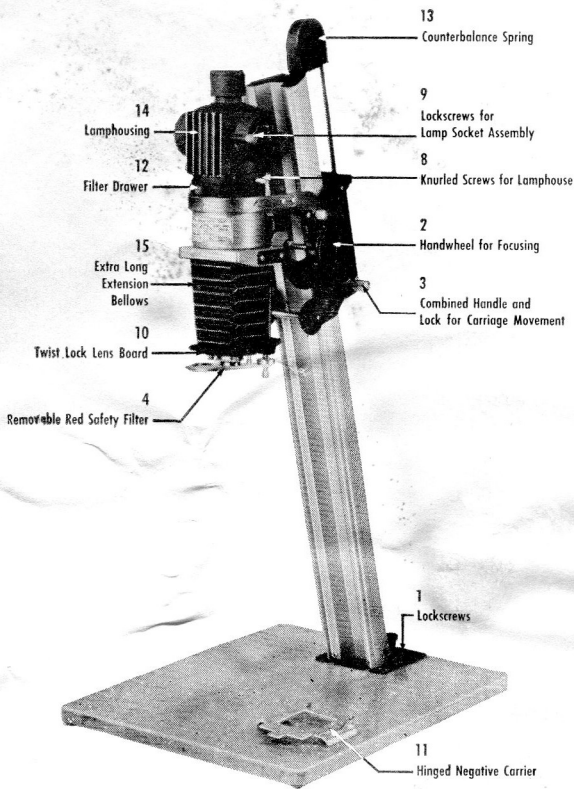
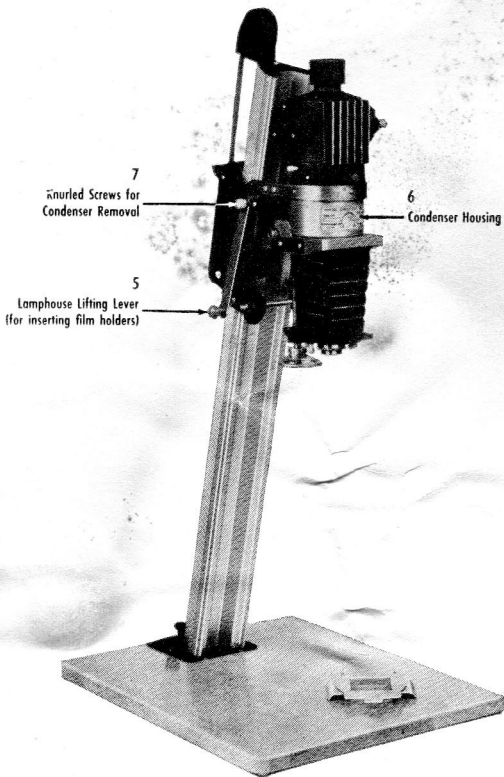


Fig. 1

## HOW TO ASSEMBLE THE B-22

a. Carefully open the carton and remove the cardboard protector inserts. Remove the enlarger and accessories from the carton. *Check all items for completeness!*

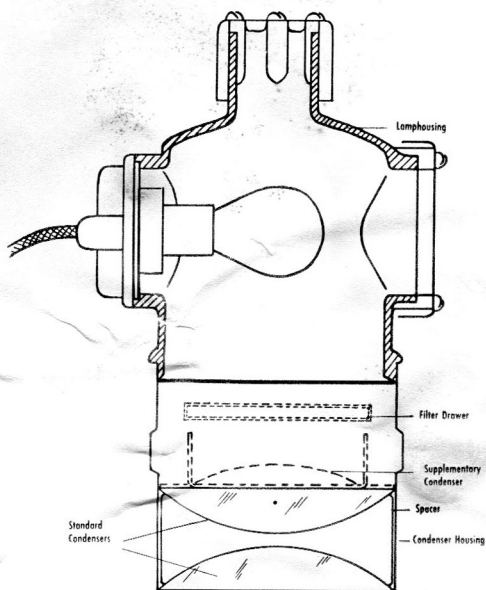
b. Before handling the enlarger proper, be sure that the projector carriage is securely locked to the column by means of lock 3.



**Fig. 2**

c. Remove three screws from baseboard. Place the base of the girder assembly over the exposed holes. Replace the screws and tighten securely.

d. Remove aluminum spacer from inside condenser housing. Please clean condensers with lens tissue or a clean soft towel. Put one lens into condenser housing. Insert spacer (with indentations to the top) until it is a fraction below the surface of the housing. Gently drop the remaining lens, curved side down, on top of the spacer, and push down until it comes to rest in the normal horizontal position.



**Fig. 3**  
**Complete Lamphouse Showing Position of Condensers**  
**for Omega B-22**

If you have an enlarging lens of 2" (50mm) or less, a supplementary condenser must be placed on top of the condensers. Loosen screw 8 (Fig. 1), lift up lamphouse, remove filter holder, and insert condenser with flat side down as shown in Fig. 3.

e. Place the lamphouse on top of the condenser assembly of the enlarger and tighten two knurled screws (8).



## RECOMMENDED LENSES, LENS MOUNTS AND CONDENSERS FOR OMEGA B-22, B-22 SPECIAL

Max. Neg. Size Lens Will Cover	f: Focal Length	Name of Lens	Approx. Magnification Ratios†		Twist-Lock Lensmount	Condensers
			Max. B-22	Min. B-22 XL		
2 1/4" x 2 1/4"	4.5	Rodenstock Omegar	7.6 X	1 X	Flat Disc	Standard double condensers
	4.5	Rodenstock Omegar				
	4.5	Wollensak Graphic Raptar				
	4.5	Kodak Ektar				
35mm	5.6	Schneider Componon	7 X	10.5 X	1.75 X	
	4.5	Rodenstock Omegar	12.5 X - 18 1/4 X	.5 X	Flat Disc	Double condensers with supplementary condenser
	3.5	Rodenstock Omegar				
	4.5	Wollensak Graphic Raptar				
	4.5	Kodak Ektar				
4.0	Schneider Componon					
Ultra Miniature	4.0	Rodenstock Omegar	27 X	38.5 X	Recessed Lensmount	Double condensers with supplementary condenser
	4.0	Schneider Componon				
	4.0	Rodenstock Omegar				

\* Larger magnifications may be made by projecting on floor.

† All figures have been computed for an easel 1" high.

f. You may now loosen lock 3 whereupon the entire projector assembly can be moved up and down.

## LENSES AND LENS MOUNTS

a. The lens must be of the proper focal length for the size negative to be enlarged. The following focal length lenses are recommended: a 3" lens for  $2\frac{1}{4}$  x  $2\frac{1}{4}$ ", a 2" lens for 35mm ( $1 \times 1\frac{1}{2}$ ") and bantam and a 1",  $1\frac{3}{16}$ " and  $1\frac{3}{8}$ " lens for ultra miniature negatives.

b. Any lens will enlarge negatives smaller than the largest possible size, but the magnification ratio obtainable under these circumstances will be correspondingly smaller than if a shorter lens were used (see chart on page 8).

## CONDENSER LAMP HOUSE

a. Condenser must match the enlarging lens. For a 3" lens, the standard double condensers are used. Supplementary small condenser lens is added for enlarging lenses of 2" focal length and less.

b. The supplementary lens is inserted on top of the condenser, i.e., the lamphouse is detached after screws No. 8 has been loosened and filter drawer removed and the supplementary lens is then inserted, always with the flat side down.

c. **Replacing Lamp:** The lamp-socket assembly can be detached after loosening lockscrews 9. A No. 111A enlarging lamp (General Electric or Westinghouse) is used. This lamp has a bayonet socket like an automobile lamp.

d. **Cleaning Condensers:** Remove lamphouse by loosening knurled screws 8. The standard double condensers are removed by loosening the knurled screws

7, then grasp the condenser housing and lift slightly, pushing backwards at the same time, until slots are clear of the screws.

Holding the condenser housing in the palm of one hand, turn it over to one side and the top lens will slide into your other hand. Then remove the circular spacer that separates both lenses, tilt again and slide out the bottom lens. After the lenses are cleaned, reverse the procedure as follows: Put one lens into condenser housing, flat side down; insert spacer until it is a fraction below the surface of the housing. Gently drop the remaining lens (curved side down) on top of the spacer and push down until it comes to rest in the normal horizontal position. Replace lamphouse and tighten knurled screws.

## **NEGATIVE CARRIERS**

The type supplied is of the newest design and will enable you to use single frame or film strips. The insertion works quickly since the top plate is hinged and with a flick of your finger, is closed down for perfect pin register.

## **HOW TO OPERATE THE B-22**

a. Adjusting the enlarger to the desired negative size:

1. Insert a lens mounted on the lensmount. This lens must be of suitable focal length for the desired negative size (see chart on page 8).
2. Be sure that the proper condensers are used for this lens; i.e., the standard double condensers only for a 3" lens, the double condensers with an additional supplementary lens for the 2" or smaller enlarging lens.

b. **Inserting the negative:** After the negative has been inserted, lift the lamphousing slightly (with the aid of lifting lever 5), then place the negative carrier all

the way back until it is stopped by the retaining pins on the negative stage of the enlarger. Lower the lamp-house, which then by its weight, keeps the filmholder in place. Negatives are always inserted in the negative carrier with the emulsion (dull) side down.

**c. Adjusting the magnification:** Loosen the knurled screw or lock 3, and holding same, move projector up and down. After a satisfactory degree of magnification has been achieved, lock 3 may be tightened again and fine focusing achieved by rotating handwheel 2.

**d. Red Filter:** The red filter is fastened by a knurled screw to a rod which is part of the lens stage.

No red filter is perfectly "safe," and sensitized paper placed on the easel should not be exposed through the red filter for any appreciable time.

**e. Exposures:**

1. Insert negative into filmholder and place on film stage of enlarger as described above. Insert a white piece of paper into your paperholder and place this on the baseboard of the enlarger.
2. Adjust magnification by moving projector up and down as described above and fine focus by means of handwheel 2.
3. After a satisfactory composition has been achieved, the lens is usually stopped down. No lens performs as well at full opening as with a smaller stop, and the unusually high light output of the enlarger permits stopping down to  $f/8$  or more.
4. Switch the light off, insert a piece of sensitized paper into your paperholder, and make an exposure. The use of a time switch is recommended.
5. No definite exposure time values can be given. They depend upon many factors, such as the density of the negative, the magnification ratio, the  $f$  number of the diaphragm stop, and the sensitivity of your paper.

## HOW TO HANDLE SPECIAL WORK

### a. Contrast Control:

1. The simplest way to control the contrast of prints is by using photographic paper of different contrast grades.
2. Variable Contrast paper: An improved method of contrast control is offered by the use of Variable Contrast paper which yields any degree of contrast depending upon the color of the light to which it is exposed. The B-22 Enlarger is excellently suited to this type of work because, due to its high light output, exposure times will be short, even with the necessary color filters. If filters are to be used below lens, a special filter holder is available as an optional accessory.

**b. Color:** Practically all color print processes require the use of filters made of gelatin. These filters may either be placed in front of the enlarging lens, like the red filter, or preferably between the source of light and the transparency. The latter has the advantage that small imperfections of the filters have no effect upon the sharpness of the print. In this enlarger, a square filter of  $2\frac{3}{4}$ " diameter with corners slightly clipped should be placed in the filter drawer of the lamphousing. A heat absorbing glass is recommended for color work.

For full information regarding any one of the various color processes, please contact the manufacturer of the materials required for the process that you intend using.

**c. Very large magnifications:** Projecting on the floor: Fasten the baseboard of the enlarger to the table by means of C-clamps or the like. Loosen lockscrews 1, rotate the enlarger on its pivot  $180^\circ$  and replace and tighten the lockscrews. The enlarger will then project onto the floor and naturally yield much larger prints.

**d. Small Magnifications:** As the light output of the B-22 is quite high, we recommend placing a ground or opal glass on top of the upper  $3\frac{1}{2}$ " condenser for magnifications of about 1:1. This will improve the light distribution and, at the same time, reduce the printing speed.

Cat. No. 473-012—3½" Ground Glass (2x exposure increase)

Cat. No. 473-002—3½" Opal Glass (6x exposure increase)

## GENERAL INFORMATION

**a. What kind of negatives to use:** No enlarger can yield really good results unless the negatives to be enlarged fall at least approximately within a certain range of contrast. This is because of the fundamental inability of photographic papers to reproduce the full range of tones included in a "snappy" negative.

The deepest shadow areas of such a negative may transmit 500 or 1000 times as much light as distinguishable details of the densest areas. Against this, unexposed white paper reflects only about 50 or 60 times as much light as completely exposed, fully developed areas.

Therefore, excessively brilliant negatives not only are useless but harmful. The best negatives for enlarging have a soft gradation and are rather thin. This is not the place for detailed instructions on processing, but there are numerous fine grain developers available, and suitable negatives are easily obtainable by being careful not to develop too long.

**b. How to store your negatives:** Small negatives are best stored in short strips usually of six frames of 35mm film, two frames of 2¼" x 2¼" etc. Very practical paper or cellophane envelopes are carried by all dealers for this purpose.

Never store roll film in entire rolls. Film loses its moisture content, becomes brittle, and any attempt to manipulate it then results in severe scratches and other damage. No filmholder can keep such film flat.

**c. Uniformity of illumination:** Great care has been taken to render the illumination of this enlarger as uniform as possible over the area of the easel. By means of a very carefully designed optical system, we have achieved a better performance than that given by other instruments available not only with 3" lenses, but also with 2" lenses and smaller.

## OMEGA VERSATILE ACCESSORIES

Catalog  
No. \*

- 472-001 MOUNTED SUPPLEMENTARY CONDENSER—for use with 1" and 2" lenses.
- 421-005 TWIST LOCK LENS BOARD (Standard with enlarger).
- 421-006 RECESSED LENS MOUNT for 25/28 mm focal length lenses.
- 421-007 RECESSED LENS MOUNT for 35mm lens.
- 429-090 HEAVY DUTY WALL ENLARGER MOUNT.
- 473-101 HEAT ABSORBING GLASS.
- 473-002 OPAL GLASS, 3½" dia.
- 473-012 GROUND GLASS, 3½" dia.
- 429-022 VARIABLE CONTRAST FILTERHOLDER—For mounted plastic 2½" x 2½" filters between lens and image.
- 479-011 TRANSPARENT DUSTCOVER—Prevents harmful dust and dirt from settling on enlarger.

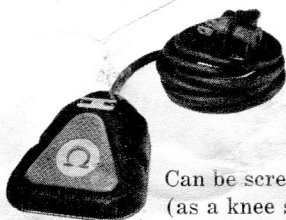
### NEGATIVE CARRIERS

(Standard Size Openings)

#### GLASSLESS RAPID SHIFT WITH TROUGHS

- 423-102 Minox
- 423-103 35mm single frame
- 423-104 35mm
- 423-105 Instamatic
- 423-106 4 x 4 cm
- 423-107 2¼" x 2¼"
- 423-110 MOUNTED 35mm TRANSPARENCY.
- 423-111 UNMOUNTED 35mm TRANSPARENCY.
- 429-012 PORTRAIT DIFFUSION GRID ATTACHMENT—Mounted screen for diffusing projected image.

## OMEGA HEAVY DUTY FOOTSWITCH



Frees the Hands. . . .  
Speeds the Work!

Features solid metal casting with cork-lined anti-slip base.

Can be screwed to floor or side of table (as a knee switch).

Treadle lies within cast frame, permits foot to rest on side of switch. Luminous disc on treadle for easy locating in dark. Complete with 6' heavy duty line cord.

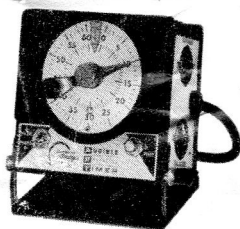
110/125V, 10 Amps.

Cat. No. 461-051

## OMEGA AUDIBLE REPEATING TIMER

WITH SILENT OR AUDIBLE TIMING

1-60 Second Intervals



Ticks while you dodge or burn in—synchronous motor resets itself after each cycle—dial a setting—press a button—extremely accurate—focus and print switch. Safelight and enlarger outlets. Table or wall mounting. Tilting base. 110V, 60 c/s, 750W capacity.

Cat. No. 461-001

## OMEGA MECHANICAL FOOT SWITCH

For use with above timer.

Cat. No. 461-052

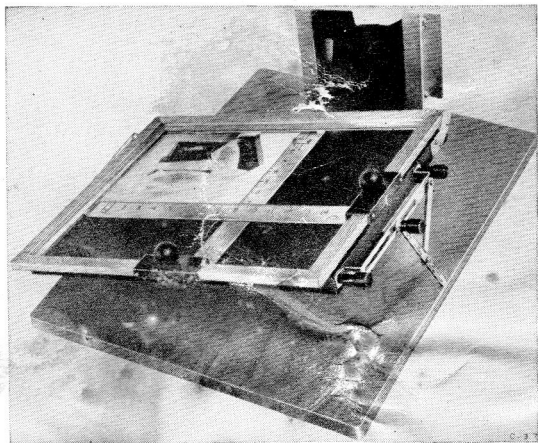
## 464-001

## OMEGA COMPLETE DARKROOM OUTFIT

- 3 Yankee 8x10 Developing Trays
- 1 Yankee Developing Tank, with Thermometer/Agitator
- 1 Yankee Safe-Lite with brown filter
- 1 Yankee Film Squeegee
- 2 Yankee Print Tongs and 1 Paddle
- 2 Yankee Film Clips
- 1 Yankee 16 oz. Graduated Beaker
- 1 Premier 4-way Printing Easel
- 1 Premier 10x14" Stainless Steel Ferrottype Plate
- 1 Testrite 6" Print Roller
- 1 Alpha Blotter Press
- 1 Kodak Darkroom Manual



# NEW SIMMON OMEGA AUTOMATIC 11x14 EASEL FOR ALL AUTOMATIC ENLARGERS



## FIRST EASEL WITH ALL THESE FEATURES

1. **One Inch High Base** . . . essential for accurate and focusing alignment.
2. **New Automatic Dual Paper Grip** . . . guarantees paper alignment after loading.
3. **New Dual Position Paper Stop** . . . assures fast, simple insertion of paper.
4. **New, Always Visible, Margin Control** . . . makes adjustments without calculations, permits double-checking.
5. **New "See-Thru" Window** . . . keeps paper edges in sight under masking bands for alignment check.
6. **Slip-Proof Base** . . . prevents easel from moving on smooth top of baseboard.
7. **New Special Bracket** . . . keeps easel-frame automatically in raised position.
8. **New Special Tilting Device** . . . for easy distortion correction. Available separately as an accessory.

Cat. No. 411-001—Omega Automatic 11 x 14 Easel

Cat. No. 411-003—Tilting Device for Easel

**SIMMON OMEGA, INC.**

25-20 Brooklyn-Queens Expressway West

Woodside, New York City, N.Y. 11377