BESELER

810V-XL
810MXT
enlarger and adapter instruction manual

IMPORTANT SAFETY INSTRUCTIONS

When using your photographic equipment, basic safety precautions should always be followed, including the following:

1. Read and understand all instructions before using.

2. Close supervision is necessary when any appliance is used by or near children. Do not leave appliance unattended while in use.

3. Care must be taken as burns can occur from touching hot parts.

4. Do not operate appliance with a damaged cord or if the appliance has been dropped or damaged---until it has been examined by a qualified serviceman.

5. Position the cord so that it will not be tripped over, pulled, or contact hot surfaces.

6. If an extension cord is necessary, a cord with a current rating at least equal to that of the appliance should be used. Cords rated for less amperage than the appliance may overheat.

7. Always unplug appliance from electrical outlet before cleaning and servicing and when not in use. Never yank cord to pull plug from outlet. Grasp plug and pull to disconnect.

8. Let appliance cool completely before putting away. Loop cord loosely around appliance when storing.

9. To reduce the risk of electric shock, do not immerse this appliance in water or other liquids.

10. To avoid electric shock hazard, do not disassemble this appliance, but take it to a qualified serviceman when some service or repair work is required. Incorrect reassembly can cause electric shock when the appliance is used subsequently.

11. The use of an accessory attachment not recommended by the manufacturer may cause a risk of fire, electric shock, or injury to persons.

12. Connect this appliance to a grounded outlet.

13. Disconnect this unit from its source of supply before replacing the projection lamp.

SAVE THESE INSTRUCTIONS

CONTENTS

I. INTRODUCTION

Congratulations on your purchase of the Beseler 810V-XL, 810MXT or Beseler 810 Adapter designed exclusively for use with Beseler 45 series Enlargers. Your Beseler products are backed by over 100 years of Beseler experience, quality, design and construction to provide years of dependable and precise service. If you have purchased either an 810V-XL or an 810MXT, these instructions will be used in conjunction with the enlarger's respective manual. In either case, these instructions will provide you with the necessary information to fully utilize the capabilities of the 810 Enlarger, and the time taken to read the manual will be well spent.

SPECIFICATIONS

Height on fully extended chassis:
45V-XL - 67'' (1702mm)
45MX and 45MCRX - 53'' (1346mm)
45MXII and 45MXT - 58'' (1473mm)

Lamp: Cold Light Fluorescent
Super Deluxe Cool White
Approx 3500 degrees K°

Electrical requirements
Cat. #8350, 117VAC, 60Hz, 2A
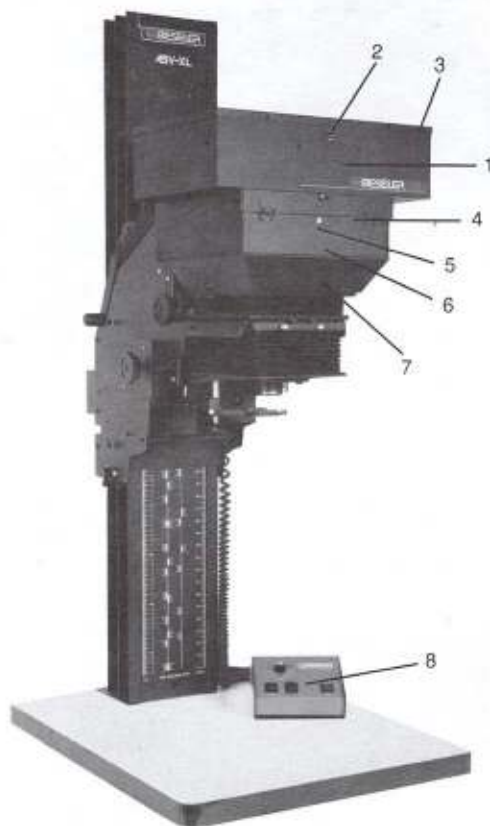
Shipping dimensions:
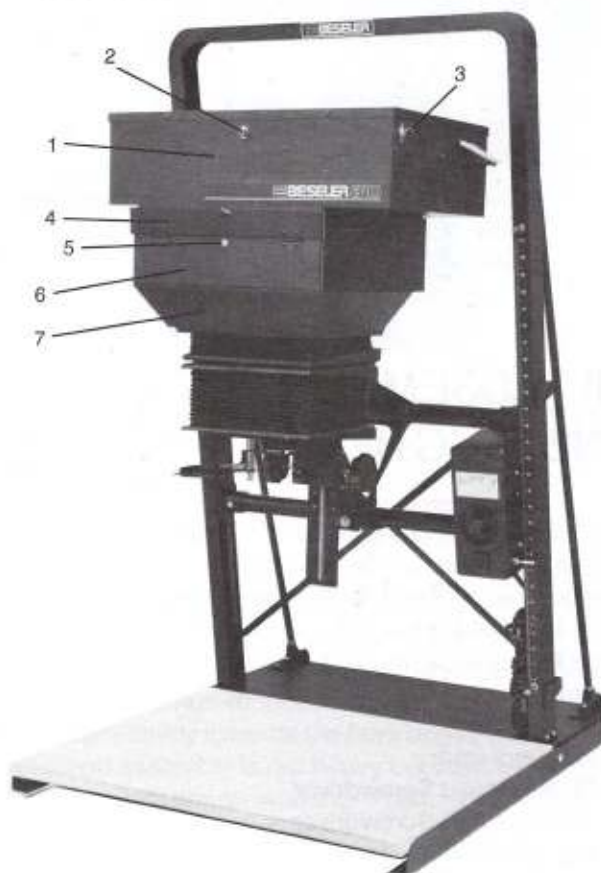17 3/4'' x 16 3/4'' x 21 1/2''
(451mm x 425mm x 546mm)

Beseler 810V-XL and the 810 MXT

810V - XL

810 MXT

Components of the 810 Lightsource

1. Light source assembly
2. Heater power indicator light
3. Heater power switch
4. 810 negative stage door
5. Door latch
6. Negative stage housing
7. Light source support casting
8. Optional power/elevation control

II. UNPACKING INSTRUCTIONS

Remove the following components.
1 Light source assembly
4 Cold light lamps
1 Negative stage housing
1 Upper bellows assembly
1 Universal glass negative carrier
1 Glassless negative carrier
1 Small light source adapter plate
1 Small format adapter housing
2 Hardware Kits which contain:

    A. 45MX and MCRX hardware:
        1ea. Large rectangular spacer block
        1ea. Small rectangular spacer block
        1ea. 5" #3/8-16 hex head machine screw
        2ea. 3" #8-32 flat head machine screws
        1ea. 5/32" hex key

    B. 45MXII and MXT hardware:
        1ea. Cylindrical spacer block
        1ea. Rectangular spacer block
        1ea. 4-1/2" #3/8-16 hex head machine screw
        1ea. 25/64" ID, 3/4" OD, 1/16" plain washer
        4ea. 2" #10-32 pan head machine screws
        4ea. #10x3/8" OD, 1/32" plain washers
        4ea. #10 lock washers

III. ASSEMBLY INSTRUCTIONS

The adaptation of the Beseler 810 to a 45 M series enlarger is a simple, reversible procedure as described below. Basically, the projection assembly optical axis is shifted forward to permit the substitution of a new light source housing, bellows and upper negative stage assembly.

Tools Required:
  Phillips Head Screwdriver
  Slotted Head Screwdriver
  Adjustable Wrench
  Carpenter's Square

Before proceeding with the assembly, read over this instruction book and the instructions for your enlarger to familiarize yourself with all the components. Be sure to unplug all electrical connections to the enlarger and any lightsource mounted to it. Remove the lens, negative carrier and lightsource to avoid damage to these and position the enlarger so there is working space available in the front, the rear and one side.
When installing the 810 lightsource on the 45MX, MCRX,

MX II or the MXT, raise the negative stage and lens stage until both bellows are completely compressed. This avoids damage and simplifies handling.

If you are installing the 810 light source on the 45V-XL chassis, carefully read the cautions and counterbalance information before proceeding. To remove the existing condenser stage assembly on the 45V-XL chassis it is recommended that the lower bellows of the lens stage be fully extended. This provides easy access to the four hex cap screws. The four hex cap screws are located behind the light source elevation plate.

A. 45MX and 45MCRX Series

1. Remove the two flathead screws on either side of the gear track from the front of the focus rail (Fig. 2). These screws secure the lower portion of the rail to the bottom of the enlarger head carriage casting.

Flat Head Screws   Fig. 2

2. Loosen the large hex head screw located at the top rear of the enlarger head carriage casting (Fig. 3). While supporting the weight of the entire projection

Hex Head Screw

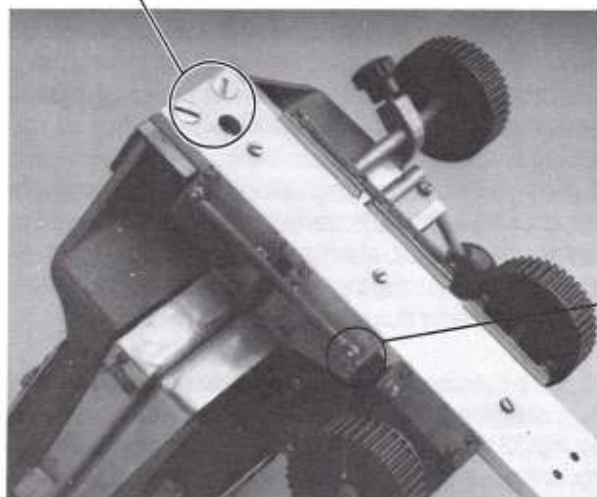
Fig. 3

Flat Head
Screws

Springs

Fig. 4

assembly continue to loosen the screw until you can pull the assembly towards the front and remove it. The projection assembly is not heavy but may be handled easier with two people working. Position the assembly on a flat work surface.

3. Remove the two flat head screws at the top rear of the focus rail securing the upper casting (Fig. 4). These may be either Allen-socket or slotted screws. Unhook the two springs from the upper negative stage casting. Lossen the screw protruding through the top of the focus gear track prior to removing the upper bellows assembly. Rotate the negative stage adjustment knob to remove the entire upper bellows assembly from the focus rail. Spacers (if any) and the upper bellows assembly will not be reused.

4. Slide the new upper bellows assembly on the focus rail and position the light source support casting over the top of the focus rail so that it can be secured using the two original flathead screws. Retighten the screw protruding through the top of the focus gear track and rehook the two springs onto the new upper negative stage casting.

5. Replace the large hex head screw at the top of the enlarger head casting with the longer one provided. Slide the large spacer block over the screw, positioned so that the notch is facing out and down to accommodate the screwhead on the top rear of the focus rail.

6. Lift the projection assembly back into position and tighten the hex head screw enough to hold it in place. Insert the small spacer block between the bottom of the focus rail and the enlarger head carriage casting; then secure with the two long flathead screws provided. Tighten all screws and proceed to section "D".

B. 45MXII, 45MXT Series and 810MXT

(NOTE: If you have purchased an 810MXT, your hardware bag will contain in addition to the 45MXT hardware:

2ea	1" #1/4-20 Flat Head Screws	
1ea	7/8" #3/8-16 Flat Head Screw	
2ea	Springs	

Assemble the chassis and baseboard as per the 45MXT instructions and and follow the steps below disregarding step 4. Use the extra hardware mentioned above for step 5.)

adjust
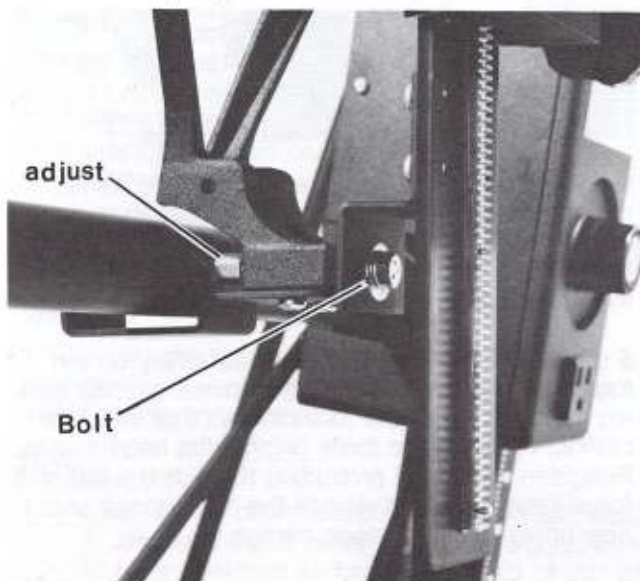
Bolt

Fig. 5

1. Remove the hex head bolt and washers securing the tilt plate to the bottom of the enlarger head carriage casting. This bolt is located behind the lower section of the focus rail (Fig. 5). Note the assembly sequence of washers as they vary on different models.

2. Loosen the large hex head screw located at the top rear of the enlarger head carriage casting (Fig. 6, item 1). While supporting the weight of the entire projection assembly continue to loosen the screw until you can pull the assembly towards the front and remove it. The projection assembly is not heavy but may be handled easier with two people working. Position the assembly on a flat surface.

3. Remove the four screws and washers securing the tilt plate to the lower rear section of the focus rail (Fig 6, item 2). Insert the rectangular spacer block between the tilt plate and the focus rail. Reattach using the four longer screws, lock washers and plain washers provided, in that order.

4. Remove the flat head screws at the top rear of the focus rail securing the upper casting (Fig. 6, item 3). Unhook the two springs from the upper negative stage casting. Loosen the screw protruding through

3

Fig. 6

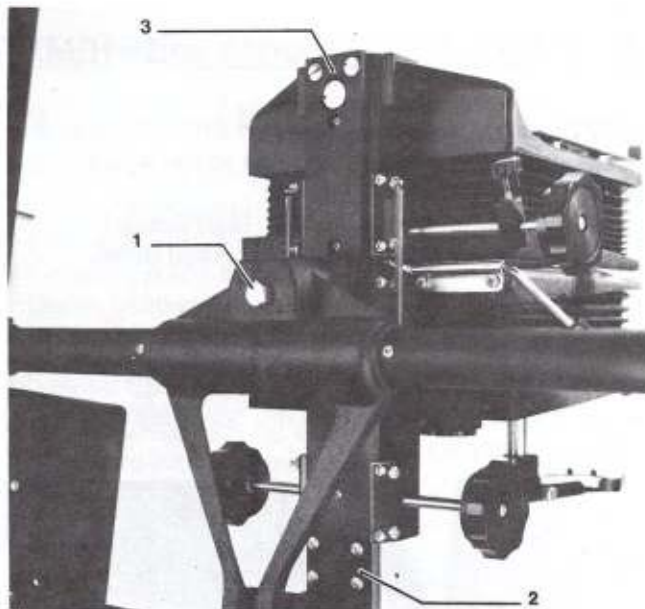the top of the focus gear track prior to removing the upper bellows assembly. Rotate the negative stage adjustment knob to remove the entire upper bellows assembly from the focus rail. Spacers (if any) and the upper bellows assembly will not be reused.

5. Slide the new upper bellows assembly on the focus rail and position the light source support casting over the top of the focus rail so that it can be reattached using the three original flat head screws. Retighten the screw protruding through the top of the focus gear track and rehook the two springs onto the new upper negative stage casting.

6. Slide the large washer over the long hex head screw, both provided, and use it to relace the large hex head screw at the top of the casting. Slide the cylindrical spacer block over the screw.

7. Lift the projection assembly back into position and tighten the large hex head screw enough to hold it in place. Reattach the lower hex head screw and washers in original sequence. Tighten both hex head screws. Proceed to section "D".

NOTE: It may be necessary to readjust the counter balance spring on the 45M series enlargers to compensate for the extra weight of the 810 Cold Light Source. See your 45M enlarger instructions for more information on enlarger maintenance.

C. 45 V- XL Enlarger

Caution: Before removing the lightsources and stages or adapters from the 45V-XL, first lock the carriage in position then adjust the counterbalance weight to coincide with that required for the 810 lightsource.

You will require the following tools to assemble the unit:

Phillips head screwdriver
5/32" hex Allen wrench
7/16" wrench (an adjustable wrench will work)

Have the enlarger carriage in a convenient position to do the work. Make certain that the carriage lock is in good working condition and that it is locked. Have the 45V-XL instruction book on hand for reference. Remove any lightsource installed on the illumination stage or lightsource adapter bracket.

1. From behind the illumination elevation plate, remove the four 10-32 x 1/2" screws that secure the illumination stage or adapter brackets to the illumination stage elevation plate, using the 5/32" Hex Allen wrench. Remove the illumination stage or adapter bracket.

2. With reference to the back of the standard illumination stage and upper bellows assembly, remove the four 8-32 x 1/2" Phillips head screws that secure the two mounting brackets and nylon slide bearings to the lower casting of the illumination stage (Fig. 7). Make note of the orientation of the brackets and slide bearings to the casting, then remove these and set aside.

Fig. 7

3. Use a 7/16" wrench to remove the two 1/4-20 x 1/2" hex bolts that attach the elevation rail to the upper casting. Remove the elevation rail.

4. Carefully unpack the 810 lightsource support casting and bellows assembly as one unit. Work will be done on the back side of the assembly. Support the lower casting as you work.

5. Align the two holes of the adjustment rail with the holes on the lightsource support casting. Use the two 1/4-20 x 1/2" hex head bolts to secure the rail to the casting.

6. Secure one of the two mounting brackets and its nylon slide bearing to the proper side of the lower casting with two 8-32 x 1/2" phillips head screws. Make

4

certain that the thin tab of the bearing rests on top of the casting and that the screw holes of the bearing and bracket align with the holes on the casting.

7. Engage the gear rack of the adjustment rail with the gear on the lower casting. The side of the rail will also be in contact with the installed bearing and bracket. Hold the casting and rail together and install the nylon slide bearing and bracket on the other side. Secure with two 8-32 x 1/2" phillips head screws. Turn the large elevation knob on the assembly and check for proper operation.

8. To reassemble the casting and bellows assembly to the 45V-XL, it is best to have the illumination stage elevation plate in the closed or lower position. Align the mounting holes of the illumination stage elevation plate with those of the lightsource bracket. Insert the four hex cap screws through the plate and into the threaded holes of the bracket. Start each screw until they are all in before tightening them with the 5/32" hex Allen wrench. Pull the negative stage elevation lever forward and check for proper operation.

9. Unlock the carriage and check for proper counter-balance.

D. Mount the Negative Stage Housing and Lightsource

1. Facing the front of the enlarger place the negative stage housing on top of the light source support casting so that the hinged door is in the upper position facing you.

2. Insert the four cold light lamps into the lamp house by first locating the contact pins on the lamps and then inserting the lamp into the lamp socket. Snap down the pin connection side of the lamp first, then snap down the opposite end of the lamp into the lamp support clamp. It is required that the light source be placed down on a table with the lamp sockets facing up. Begin installing the lamps from the socket closest to you. It is necessary to insert the lamps in a vertical fashion in order to insert them in the lamp house. Install the light source assembly by lowering it into the negative stage housing. The Beseler name should be facing you, and the preheat switch on the right side should be in the "off" position.

NOTE: Please note there are two cold light lamps which have been coated with a white translucent material. These two lamps should be placed in the center with the translucent white material facing in the direction of the negative stage.

3. Use a carpenter's square or other right angle on the 45MX, MCRX, MX II and MXT to check that the focus rail is perpendicular to the baseboard when viewed from the side. Adjustment for this alignment is accomplished by rotating the adjustment screw (Fig. 5) at the bottom of the enlarger head carriage casting.

NOTE: The 810 adapter uses gravity to hold its components together and is not designed for use in any situations other than normal downward vertical projection.

E. Electrical Connection

1. Plug the cord labeled "To Wall Outlet" from lamphouse into a convenient wall outlet. If you are using a 45M series enlarger you may use the outlet on the 45M motor box. Then plug the enlarger into a grounded wall outlet.

2. Plug the cord labeled "To Timer" from the lamphouse into your enlarging timer. Special internal circuitry permits the use of virtually any timer with this system.

3. Care should be taken to assume that all wiring is arranged neatly and out of the way of the enlarger's moving parts and controls.

NOTE:

1. Do not attempt to connect a cold light stabilizer to the power supply as there are currently no units designed to handle the load of the 810 lightsource.

2. The Zone VI Compensating Metronome (Zone VI Studios, Newfane, VT 05345) and the Metrolux Darkroom Lamp Controller (Redlight Enterprises, Star Route 228, Santa Barbara, CA 93105) are both compatible cold light accessories.

IV. OPERATING INSTRUCTIONS

A. Lens Selection and Mounting

You will need to use a lens of the appropriate focal length for the negative format from which you will be printing. With the 810 adapter installed, the format capability of your enlarger has been expanded to include 5x7 and 8x10 films which typically need 210mm and 300mm focal length lenses respectively.

The basic 45 series enlarger lens stage was designed to accept most lenses up to and including 210mm although certain brands and versions which have oversize rear elements or require excessive depths

Accessories (Continued)

LENSBOARDS

Three Lens Turret
#8225 Holds 3 lenses (from 35mm to 150mm) for easier, faster lens changing.

Lens Mounts for Turret
Converts to 39mm male thread (female to male)
#8370 Lens Mounts 39mm x 6.5mm
#8371 Lens Mounts 39mm x 11mm
#8372 Lens Mounts 42mm x 12mm
#8373 Lens Mounts 50mm x 21mm

Lensboards With Pilot Light
#8021 Flat lensboard 39mm opening, counterbore on face.
#8022 Lensboard 39mm opening, 5/8" recess.
#8023 Flat lensboard 39mm opening, counterbore on rear.
#8029 Lensboard 39mm opening, 5/8" extension.
#8037 Flat lensboard 50mm opening.

Lensboard without Pilot Light
#8016 Blank, flat lensboard, requires baring by customer.

3-1/4" Extension Cone
#8038 For 39mm mount lenses. Used for image reduction, small print sizes.

Jam Nuts
#8095 39mm for all Leica mount lenses.

LENSES

Beseler HD Enlarging Lenses
State-of-the-art six element lenses. Most feature illuminated aperture, pre-set diaphragm and removable full and half stop detentes. Includes lens cap and jam nut.
#8640 50mm f/2.8 for 35mm
#8641 80mm f/4 for 6x6cm
#8642 105mm f/5.6 for 6x7cm
#8643 135mm f/5.6 for 4"x5"
#8644 150mm f/5.6 for 4"x5"

240mm APO HD LENS
#8645 The 240mm f/9 APO HD lens is one of the finest lenses available and is recommended when working with the 8" x 10" format. It is an apochromatic lens that features the same state-of-the-art design and fine craftsmanship of our other HD series lenses.

OTHER SYSTEM ACCESSORIES

#8040 Red Safety Filter (replacement)
#8163 Light Integrator
#8177 Audible/Repeating Enlarging Timer (117VAC)
#8179 Footswitch for Enlarging Timer

Boarderless Easels
#8508 8" x 10" Boarderless Easel
#8511 11" x 14" Boarderless Easel
#8516 16" x 20" Boarderless Easel

UNIVERSAL FOUR BLADED EASELS

#8501 11x14 Universal Easel
#8502 20x24 Universal Easel
#8503 11x14 Boarderless Easel Kit
#8504 20x24 Boarderless Easel Kit
#8505 16x20 Universal Easel
#8506 16x20 Boarderless Easel Kit

LENSBOARD SELECTOR GUIDE

Lensboard listed below are all 4" x 4" for use with Beseler 23C, 45, and CB-7 Enlargers.

Most current enlarging lenses are designed with a 39mm (Leica) mounting thread. These fit through the standard Beseler lensboards and are secured with a jam nut which is either supplied by the lens manufacturer or available as catalog #8095.

Measure the mounting thread of the lens and refer to the first chart for 39mm mount lenses and to the second chart for all others. As lens manufacturers are constantly making changes, it is essential that you measure the actual lens before using these charts as a guide.

Standard 39mm Mount Lenses

Focal Length	Lensboard
35-40mm	8022
50-60mm	8021
63-90mm	8023
105-135mm	8029

Other Lenses	Lensboard
Beseler 150mm HD and 240mm APO-HD	8037
Old Style Schneider (25mm) Mount Lenses	use 25-39 Schneider Adapter
Schneider & Vivitar 100mm, 135mm & 150mm lenses	8037
Rodenstock 120 WA and 150mm Rodagon	8037
Schneider 150mm Apo-HM lens	8016
Fujinon-EX 135mm	8016
Other Lenses not listed	8016

LENS MOUNTING GUIDE FOR THE 45 SERIES ENLARGERS

Most enlarging lenses are equipped with a 39mm (Leica) mounting thread which will screw directly into the three openings on the lensplate. If your lens does not have a 39mm thread or if the distance from the mounting face to the rear of the lens is greater than 13mm, or the outer diameter of the lens is greater than 54mm, then a lens mount or spacer is required.

Currently, only the following lenses require a lens mount, all others fit directly:

Beseler
Beseler-HD 80mm	8370
Beseler-HD 135mm	8371
Beseler-HD 150mm	8373

Nikon
El-Nikkor 40mm	8370
El-Nikkor 63mm	8371
El-Nikkor 135mm	8370

Rodenstock
Rodagon-G 50mm	8370
Rodagon 80mm	8370
*Apo-Rodagon 90mm	8371 (see note)
Rodagon 135mm	8371
Rodagon 150mm	8373

Schneider
WA-Componon 40mm	8370
WA-Componon 60mm	8371
*WA-Componon 80mm	2-8371 combined (see note)
APO-Componon HM 90mm	8371
Componon-S 100mm	8371
Componon-S 135mm	8373 w/50mm mount
Componon-S 135mm	8372 w/42mm mount
Componon-S 150mm	8373

*Note: These lenses require removal of rear lens cell group before the adapter can be attached and because of their design do not permit illuminated lens aperture. Reassemble lens after mounting adapter. Contact the lens manufacturer if you have difficulty with this procedure.

Currently the following lenses cannot be mounted on the Turret and must be used with a flat lensboard:

Fuji
Fujinon-EX 135mm	8016

Rodenstock
Rodagon-WA 120mm	8037

Schneider
Apo-Componon HM 150mm	8016

Certain older style lenses may require adapters from the following manufacturers:

Nikon	15mm EI Extension Ring (M39 to M39)
Schneider	"00" (M25) to Leica (M39)
	"0" (M32.5) to Leica (M39)

Others may not be suitable for use on the Turret.

Beseler Color Analyzers

Beseler Color Analyzers have set the standards for home darkrooms everywhere—and a good many professional darkrooms as well. Two models are available with the capabilities you need, at a cost that fits your budget. Even the least expensive boasts the incomparable sensitivity of a photomultiplier probe, plus the flexibility of a remote probe, Beseler's safety overload circuitry, solid-state electrical system and built-in voltage stabilizer.

Beseler PM1A Color Analyzer

Economical to buy and simple to use, the PM1A is the only U.S.-made analyzer in its price range with the sensitivity of a photomultiplier probe (and a separate probe at that).

The convenient, easy reading meter gives you a choice of spot or integrated readings. A lot of analyzer for the money!

Beseler PM2A Color Analyzer

A big, easy-to-read meter with fully linear response makes the PM2A unusually fast and accurate. You can read out actual exposure and filtration values, direct from the meter. For added readability and simplicity, the filtration units are evenly spaced across the dial. There's provision for both spot and integrated readings, and either lens aperture or exposure time can be adjusted. For still more repeatability and convenience, add optional accessory Program Modules ...you can actually change from one program to another in an instant!

Beseler Audible Enlarging Timer

If you often make enlargements which require dodging, burning-in, masking or other forms of manipulation, this professional quality timer is a must. In addition to all the standard functions of an electronic enlarging timer, it can produce an audible "beep" at precise 1-second intervals. 0.1 to 110 seconds range, with luminous controls and enlarger-safelight outlets with a professional 500-watt capacity.

Color by Beseler Color Print Processing Drums

Here's the fast, simple, virtually foolproof way to process color prints with sparkling quality. Available in 8x10, 11x14 and 16x20 sizes, Color by Beseler drums use the smallest quantities of chemistry of any drums— 1½ oz. for the 8x10, 3 oz. for the 11x14 and 6 oz. for the 16x20—and that means economy. Fast to empty and easy to clean.

Motor Base Agitator

Hand rolling of print drums is fine for occasional use, but for maximum consistency and ease with higher volumes, add a motor base— especially important with prints larger than 8x10. Beseler's deluxe motor base offers the option of intermittent reversible agitation, recommended for film processing and for processor's drums not incorporating the unique Beseler elevated chemistry trough.

Color by Beseler Universal Calculator

If you print with a filter drawer enlarger and CP filters, here's the easy, economical way to determine the correct exposure and filter pack. Simply make a 4x5 test print through the calculator, read out the exact filter pack, filter factor and exposure time right on the print! No charts or calculations needed. Works with prints from negatives and prints from slides.

Color by Beseler Photographic Thermometer

The ultimate thermometer! Big 2¼" glowing dial, accurate to ± ½° in the most used range, fast response. Can be user-calibrated.

Color by Beseler Anti-Static Cloth

Negatives, slides, carriers, condensers...anything that collects dust can be cleaned and made dust repellent with this 10"x10" specially treated cloth.

Borderless Easels

Designed with special "finger-lift" notches for removing paper, the easels feature black anodized paper guides and two adjustable paper holders. The non-reflective, high-tech black finish is as functional as it is aesthetic.

LIMITED ONE YEAR WARRANTY

(Applicable in U.S.A. Outside U.S.A. contact local distributor)

Charles Beseler Company, Linden, New Jersey warrants its products (with the exception of lamps), to the original purchaser only, to be free from defects in materials and workmanship for a period of one (1) year from the date of purchase.

This Warranty does not apply to our products which show evidence of accidental damage, misuse or abuse by you. The Warranty also does not apply to our products which are defective or damaged by tampering or attempted repair by an unauthorized Beseler agent.

Beseler exclusively limits the Warranty to repair or replace (at Beseler's option) the defective part of its product. If you decide to send our product to our authorized repair outlet, you must insure the product and prepay all transportation expenses. Beseler will not be liable for damages caused in the course of shipping the product to you. You must allow at least six (6) weeks for correction of the defect.

ANY IMPLIED WARRANTIES OF FITNESS FOR USE, OR MERCHANTABILITY, THAT MAY BE CREATED BY OPERATION OF LAW ARE LIMITED TO THE ONE (1) YEAR WARRANTY PERIOD.

Some states do not allow limitations on how long an implied warranty lasts, so the above limitation may not apply to you.

NO LIABILITY IS ASSUMED FOR EXPENSES OR DAMAGES RESULTING FROM INTERRUPTION IN OPERATION OF EQUIPMENT, DAMAGE TO FILM OR PAPER, OR FOR INCIDENTAL, DIRECT OR CONSEQUENTIAL DAMAGES OF ANY NATURE.

Some states do not allow the exclusion or limitation of incidental or consequential damages, so the above limitation or exclusion may not apply to you.

In the event there is any defect in materials and workmanship of our product you may contact our Customer Service Department at Charles Beseler Company, 1600 Lower Road, Linden, N.J. 07036. This Warranty gives you specific legal rights, and you may also have other rights which vary from state to state. You may also have implied warranty rights. In the event of a problem with warranty service or performance, you may be able to go to a Small Claims Court, a State Court, or a Federal District Court.

IMPORTANT:

THIS WARRANTY SHALL NOT BE VALID AND BESELER SHALL NOT BE BOUND BY THIS WARRANTY IF OUR PRODUCT IS NOT OPERATED IN ACCORDANCE WITH BESELER'S WRITTEN INSTRUCTIONS.

You must prove the date of purchase by producing a sales receipt indicating that you are the original purchaser.

**IMPORTANT! KEEP THIS INFORMATION HANDY
FOR FUTURE REFERENCE**

KEEP YOUR SALES RECEIPT!

SERVICE INFORMATION:

(Applicable in U.S.A. Outside U.S.A. contact local distributor)

Should you need service for your BESELER photographic equipment after the warranty has expired, please follow these steps.

PACK the product in the original packaging material to protect it in transit.

ENCLOSE complete information showing your name and address, what is wrong with the equipment, and the return shipping address. Tape the information to the equipment to be sure it does not get thrown out with the packing material.

ADDRESS the package to BESELER SERVICE MANAGER, 1600 Lower Road, Linden, N.J. 07036.

PREPAY FREIGHT CHARGE AND INSURE the package against damage or loss in transit.

ESTIMATES. We will gladly provide estimates upon request. There is a flat estimate charge of $25.00 payable in advance. The estimate charge will be credited towards the cost off the repair. No work will be undertaken or billed until written approval of the estimate is received.

CHARGES. Your local Beseler dealer has a list of current price ranges to service Beseler photographic equipment. Any repair likely to exceed the maximum recommended service price will be estimated and held for your approval before work is begun.

PAYMENT. Your check for $25.00 must accompany your request for an estimate, alternatively, you may charge your VISA or MASTER CHARGE account. Repairs must be paid in full prior to return to owner. Personal checks or VISA/MASTER CHARGE accepted. (If you pay by VISA or MASTER CHARGE, please give the account number and expiration date.)

OBSOLETE EQUIPMENT. Beseler reserves the right to refuse to repair equipment that has been discontinued for five (5) years.

IN-WARRANTY SERVICE. There is no charge for service performed during the warranty period. PROOF OF PURCHASE is required for warranty service and must be enclosed with the return. Terms of the warranty are explained above.
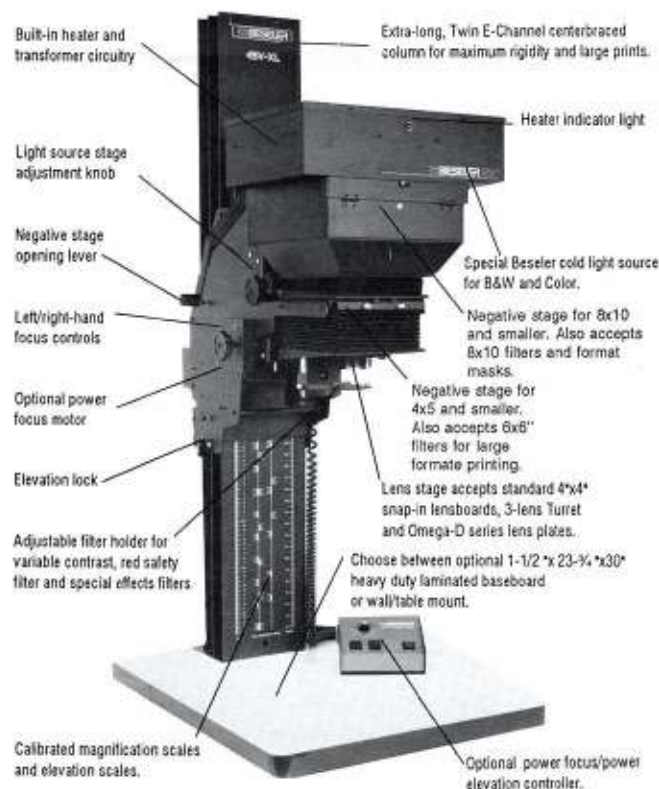
≡BESELER

Charles Beseler Company
1600 Lower Road, Linden, N.J. 07036
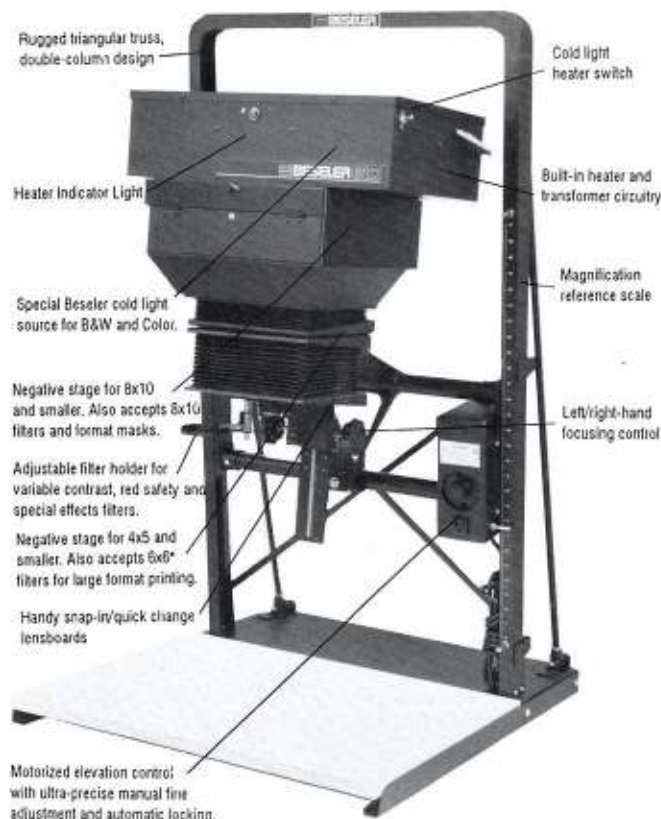
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BESELER 810 ENLARGING SYSTEMS

The Beseler 810V-XL and 810MXT enlarger series, have set a new and exciting frontier in creative darkroom photography. Both systems have the same durability and quality you have come to expect from the legendary Beseler 45 series professional enlargers. The real beauty of the 810 system is actually the 8"x10" Cold Light Source. The ingeniously designed 810 light source is completely manufactured by Beseler to fit the enduring 45M series and 45V-XL chassis, available as a complete 810 enlarger or as an 810 adapter for both 45 chassis. The 810 enlarging system retains all of the functions needed for smaller formats printing, without the need for any modifications. Equipped with special user changeable cold light lamps for improved even illumination when printing black and white and color materials. The 810 enlarging system is priced at a fraction of the cost of other 810 systems and requires only half the space. It's no surprise why serious darkroom enthusiasts have selected the Beseler 810 enlarging systems for their darkroom needs.

810V-XL ENLARGING SYSTEM

Built-in heater and transformer circuitry

Extra-long, Twin E-Channel centerbraced column for maximum rigidity and large prints.

Heater indicator light

Light source stage adjustment knob

Negative stage opening lever

Left/right-hand focus controls

Optional power focus motor

Elevation lock

Adjustable filter holder for variable contrast, red safety filter and special effects filters

Special Beseler cold light source for B&W and Color.

Negative stage for 8x10 and smaller. Also accepts 8x10 filters and format masks.

Negative stage for 4x5 and smaller. Also accepts 6x6" filters for large formate printing.

Lens stage accepts standard 4"x4" snap-in lensboards, 3-lens Turret and Omega-D series lens plates.

Choose between optional 1-1/2 "x 23-¾ "x30" heavy duty laminated baseboard or wall/table mount.

Calibrated magnification scales and elevation scales.

Optional power focus/power elevation controller.

810MXT ENLARGING SYSTEM

Rugged triangular truss, double-column design

Cold light heater switch

Heater Indicator Light

Built-in heater and transformer circuitry

Magnification reference scale

Special Beseler cold light source for B&W and Color.

Negative stage for 8x10 and smaller. Also accepts 8x10 filters and format masks.

Left/right-hand focusing control

Adjustable filter holder for variable contrast, red safety and special effects filters.

Negative stage for 4x5 and smaller. Also accepts 6x6" filters for large format printing.

Handy snap-in/quick change lensboards

Motorized elevation control with ultra-precise manual fine adjustment and automatic locking.

KEY FEATURES

- Full-Featured enlarger, far more compact than other 810 enlargers.
- Fraction of the cost of other 810 enlargers.
- Available as a complete enlarger, or as an adapter to any Beseler 45 series enlarger.
- Beseler Cold Light Source for black and white and color materials.
- Built-in heater and transformer circuitry.
- 45 series negative stage and carrier can be used for small film formats.
- Supplied with glass and glassless negative carriers, Small Light Source Adapter for 4"x5" heads, and spring loaded 8"x10" negative stage for carrier access.
- Uses standard Beseler 45 series accessories.
- Ideal for enlarging proof sheets from roll film.
- Improved even illumination.
- User changeable Cold Light Lamps.

#8560 **810V-XL Enlarger**

Complete with 45V-XL chassis, 810 head, Small Light Source Adapter, Glass and glassless negative carrier. Requires use of either Baseboard (Cat. #8561) or Wall Mount (Cat. #8562).

#8352 **810MXT Enlarger**

Complete with 45MXT chassis, 810 head, Small Light Source Adapter, Glass and glassless negative carrier. Requires use of either Baseboard (Cat. #8232) or Wall Mount (Cat. #8239).

#8350 **810 Light Source Adapter**

810 head, with easy to assembly instructions and all parts required to fit any Beseler 45M Series enlarger. Includes Small Light Source Adapter, Glass and glassless negative carrier.

#8645 **Beseler 240mm-HD f/9 APO Enlarger Lens**

Ideal choice for 8"x10" enlarging. Yields magnification range of approximately 1:1-3:1 on the baseboard. Fits lensboard (Cat. #8037).

ADJUS-TABLE
#8540   Enlarging table with adjustable baseboard supports.

NEGATIVE CARRIER
(Glassless Rotating Type)

#8304	For 35mm film (24x36mm)
#8302	For 35mm film full format (25x37mm)
#8305	For 35mm mounted slides (2"x2")
#8334	For 2¼"x1 5/8" (6x4.5cm)
#8312	For 2¼"x2¼" (6x6cm)
#8328	For 2¼"x2¾" (6x7cm)
#8314	For 2¼"x3¼" (6x9cm)
#8390	For 3¼"x4" Polaroid Film Pack
#8322	For 4"x5" Cut Film

Special Negative Carriers

#8342   Universal Glass Negative Carrier for use in 4"x5" Series (for all films up to 4"x5") Replaces #8341

#8343   Anti-Newton Ring Universal Glass Negative Carrier for use in 4"x5" Series (for all film up to 4"x5")

Beseler Negatrans®
Another Beseler exclusive, the Negatrans keeps negative handling to a minimum. Individual negatives or complete rolls are transported through the Negatrans carrier without finger marking or scratching. Nothing touches the image area of the negative due to a patented drive mechanism.

#8081	Negatrans Carrier 35mm
#8082	Negatrans Carrier 2¼"x2¾" and 2¼"x2¼"
#8092	"645" adapter for 2¼" Negatrans

Beseler Negaflat®
The Beseler Negaflat carrier safely grips the edges of your negative, pulls it taut and holds it taut and flat under " controlled tension". The negative can't curl or buckle. No glass, no Newton rings, no fingerprints.

#8340   Negaflat Carrier for 4"x5" negatives (cut or film pack) for 45 enlargers

THREE-LENS TURRET/LENSBOARDS

#8225   Three lens turret holds 3 lenses (from 35mm to 150mm) for easier, faster lens changing.

Lens Adapter for Turret

Converts 39mm male thread to:
(female thread length)
#8370	Lens Adapter 39mmx6.5mm
#8371	Lens Adapter 39mmx11mm
#8372	Lens Adapter 42mmx12mm
#8373	Lens Adapter 50mmx21mm

Lensboards with Pilot Light

#8021   Flat lensboard 39mm opening, counterbore on face.
#8023   Flat lensboard 39mm opening counterbore on rear

#8022	Lensboard 39mm opening 5/8" recess.
#8029	Lensboard 39mm opening 5/8" extension.
#8032	Flat lensboard 42mm opening.
#8037	Flat lensboard 50mm opening.
#8020	Blank, 5/8" recess, requires boring by customer.

Lensboard Without Pilot Light
#8016   Blank, flat lensboard, requires boring by customer.

3¼" Extension Cone
#8038   For 39mm mount lenses. Used for image reduction, small print.

Jam Nuts (10-packs only)
#8095-1039mm for all Leica mount lenses.

LIGHT SOURCES
45M Condenser Lamphouse
Includes two oversized 6½" optical glass condensers which work with the Beseler "cone-of-light" principle to maximize illumination on any size negative up to 4"x5". Contains filter drawer, built-in heat absorbing glass and high output lamp.

#8121	45M Condenser Lamphouse (120V)
#8123	45M Condenser Lamphouse (230V)

Beseler/Minolta 45A Enlarger Light Source
The Beseler/Minolta 45A is the first automatic self-setting light source of its type. The user friendly microprocessor based controller features a built-in automatic analyzer with five programmable memories, the ability to expose individual red, green and blue channels separately, and an automatic ring-around mode, thus making the 45A a truly complete system.

OTHER ACCESSORIES FOR 810MXT SYSTEM
#8077	Heat Absorbing Glass (replacement for 45M condenser lamphouse).
#8040	Red Safety Filter (replacement).
#8163	Light Integrator.
#8177	Audible/Repeating Enlarging Timer.

ADAPTER SPECIFICATIONS:

Height on fully extended chassis:
45V-XL-61 1/2"(1562mm)
45MX and 45MCRX-53" (1346mm)
45M00I and 45MXT-58" (1473)
Shipping Dimensions:
17 ¾" x 16 ¾"x 21 1/2" (451mm x 425mm x 546mm)

Lamp: Cold Light Fluorescent Grid
Super Deluxe Cool White 3500K
Electrical Requirements*
#8350-120v, 60Hz.2A

LENSBOARD SELECTION GUIDE

Most current enlarging lenses are designed with a 39mm (Leica) mounting thread. These fit through the standard Beseler lensboards and are secured with a jam nut which is either supplied by the lens manufacturer or available as catalog #8095.

Measure the mounting thread of the lens and refer to the first chart for 39mm mount lenses and to the second chart for all others. As lens manufacturers are constantly making changes, it is essential that you measure the actual lens before using these charts as a guide.

Standard 39mm Mount Lens:
Focal Length	Lensboard
35-40mm	8022
50-60mm	8021
63-90mm	8023
105-135mm	8029

Other Lenses	Lensboard
Old Style	8032 or 8037
Schneider & Vivitar 100mm,135mm & 150mm Lenses	
Rodenstock 120 WA & 150mm Rodagon	8037
Schneider 150mm APO-HM	8016
Other Lenses not listed, 50mm or longer	8016

Lens Turret Mounting Guide
Most enlarging lenses are equipped with a 39mm (Leica) mounting thread which will screw directly onto the three openings on the lensplate. If your lens does not have a 39mm thread or if the distance from the mounting face to the rear of the lens is greater than 13mm, or the outer diameter of the lens is greater than 54mm, then an adapter or spacer is required.

Currently, the following lenses require an adapter:
Beseler	
Beseler HD 135mm	8373
Nikon	
EI-Nikkon 40mm	8370
EI-Nikkon 63mm	8371
Rodenstock	
Rodagon-G 50mm	8370
*APO-Rodagon 90mm	8371
Rodagon 135mm	8371
Rodagon 150mm	8373
Schneider	
WA-Componon 40mm	8370
WA-Componon 60mm	8371
*WA-Componon 80mm	8370 +8371
Apo-Componon HM 90mm	8371
Componon-S 100mm	8371
Componon-S 135mm	8373
Componon-S 150mm	8373

*NOTE: These lenses require removal of the rear lens cell group before the adapter can be attached and because of their design do not permit illuminated lens aperture. Reassemble lens after mounting adapter. Contact the lens manufacturer if you have difficulty with this procedure.

Currently the following lenses cannot be mounted on the Turret and must be used with a flat lensboard:
Rodenstock	
Rodagon-WA 120mm	8037
Schneider	
Apo-Componon HM 150mm	8016

Certain older style lenses may require adapters from the following manufacturers:
Nikon 15mm EI Extension Ring	
	(M39 to M39)
Schneider	*00* (M25) to Leica (M39)
	0 (M32.5) to Leica (M39)

Others may not be suitable for use on the Turret.

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