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LENS PROJECTION SYSTEM

CAUTION!:

Read this instruction book before installing this 3.D equipment in projector.

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STEREOVISION 3-D "ABOVE-AND-BELOW" LENS PROJECTION SYSTEM

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STEREOVISION INT'L., INC. 3421 W. Burbank Blvd. Burbank, California 91505

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PROCEDURE

- 1. UNPACK AND INSPECT EQUIPMENT'
- 2. IN COLD WEATHER, ALLOW AT LEAST ONE HOUR FOR ITEMS TO REACH ROOM TEMPERATURE, (72°F OR WARMER).
- 3. IF YOU DO NOT HAVE A "COLD" LAMP SYSTEM, YOU MUST INSTALL COLD MIRRORS OR HEAT FILTERS IN LAMPHOUSE.
- 4. CAREFULLY INSTALL 3-D LENSES IN MACHINE.
- 5. THREAD-UP TEST FILM IN MACHINE.
- 6. TURN ON MACHINE, FOCUS AND ALIGN LENS.
- 7. ALIGN COLD MIRRORS FOR MAXIMUM BRIGHTNESS AND EVEN SCREEN ILLUMINATION.
- 8. TRIM FOCUS WEARING 3-D GLASSES.
- 9. MASK SCREEN AND PROJECTION PORTS.

INTRODUCTION

The patented StereoVision 3-D projection system is designed to allow easy and trouble-free projection of "ABOVE & BELOW" Type 3-D films.

The third-dimensional effect of these films is among the best ever achieved. By following the instructions in this manual, your theater will present to its patrons a very entertaining and comfortable to watch 3-D film.

> MAIN FRAME LINE (HARD BLACK LINE) SOFT DIVIDER BETWEEN STEREO PAIRS MAIN FRAME LINE (HARD BLACK LINE)

STEREO PAIR

There are two types of "ABOVE & BELOW" Type 3-D projection systems: The full width 2.35:1 type used to show "COMIN' AT YA", "WARHOL'S FRANKENSTEIN", "ATTACK OF THE GIANT GORILLA", "ARIGATO", "FANTASTIC INVASION OF PLANET EARTH", "DYNASTY", and "ROTTWEILER" — and the 1.85:1 type used to show such films as "PRISON GIRLS", "LOVE IN 3-D" and "WHAT THE BUTLER SAW" ("THE GROOVE ROOM"). Although these systems are similar, the spacing between the image centers is slightly different, thus the projection systems are not interchangeable.

This side toward operator

If the film which you are projecting is the 2.35:1 type, DO NOT CROP the left and right screen edges to achieve a 2:1 or 1.85:1 image! The 3-D effect will be adversely affected, cue marks may be impossible to see, and the image will be dim with poor 3-D.

BE SURE TO READ THIS INSTRUCTION MANUAL COMPLETELY BEFORE INSTALLING THE 3-D LENSES IN THE MACHINE.

BEFORE PROJECTING

Inspect all equipment immediately upon receipt to be sure it has not been damaged in transit. If the container appears damaged, notify the carrier promptly. Check packing list to ascertain that all items have arrived. The theater manager should sign the receipt and return one copy of it to StereoVision promptly.

<u>Do not install</u> the 3-D projection lenses in the projector before you have read this manual. <u>Expensive</u> damage can result from improper installation.

This 3-D lens system has a built-in polarizer filter module. Over-heating must be avoided. (See page 15, Special Precautions for High-Heat Projection.) Once these expensive polarizers have been damaged by excessive heat, they must be replaced and the theater will be charged for said damage.

By following these instructions carefully, this damage can be avoided:

Do not project through the 3-D lenses without being certain that your lamphouse has either transparent "cold" reflectors of dichroic heat filters installed. In cases where the theaters have reported that they do not already have "cold" reflectors or heat filters, StereoVision has sent them with the lenses. IF YOU ARE NOT SURE whether your lamphouse mirrors are the "cold" type, you can check by shining a light source behind it (such as a flashlight). "Cold" reflectors are transparent and when a light is shined through them, they will appear reddish purple.* For Xenon lamphousings that have horizontal metal mirrors, the only way to know if the system is "cold" is to hold your hand in front of the 1.85 flat lens while the projector is operating without film. If the system is "cold" the light beam will feel very warm but will not be too hot to withstand the palm of your hand. If the system is "hot", you will have to install one of our 5" diameter dichroic heat filters, supplied with the kit. If you are installing "cold" reflectors in an arc lamphouse, they must be aligned for maximum, even illumination. Follow these instructions:

- A. Remove your regular reflectors and replace with the "cold" transparent type.
- B. Install the 3-D lenses in the machine. Thread up the 3-D test film.
- C. Project onto your screen, and adjust the position of the reflectors and carbons to achieve the maximum and most even screen illumination. The reflectors in most lamphouses have a left/right tilt, as well as a <u>backward/forward</u> positioning screw. Try all positions to achieve maximum brightness. Wearing the 3-D glasses and alternately looking through each eye, each image should be equally bright. <u>CAUTION</u>: Do not project light through the 3-D lenses unless there is film in the projector. Raw light will damage the polarizer filter module.
- D. Now thread up the 3-D feature print in the machine.
- NOTE: Many Xenon lamphouses such as ORC, CINEMECCANICA, ZEISS IKON and STRONG have built-in dichroic "cold" filters. Converted MAGNARC Xenons should have "cold" transparent reflectors. If you are supplied with "cold" dichroic heat filters with your 3-D lens kit, they are to be installed in place of the glass or draft filters such as found in Magnarc lamphouses or in the "neck" of the lamphouse near the douser lever. You may secure them with tape if there is no slot or notch. (See page 13.)
 - * All ORC Xenon lamphousings are "cold" system. Most horizontal Xenon lamphousings made after 1978 are cold system.

INSTALLATION AND ALIGNMENT

To install the 3-D lenses: Be sure that the side marked "THIS SIDE TOWARD OPERATOR" is toward you, then fit the lenses into the machine just like you do with your standard flat (1.85:1) lenses.

- Carefully slide the lenses into the lens mount. (Use 4" adapter collars if required.) (See page 5.)
 With your 3-D test film threaded up, turn on the lamphouse and projector and slide the lens back and forth until you reach approximate focus on the screen. <u>Do not wear 3-D glasses yet</u>.
- B. Now rotate the lens slightly to correct the left and right frame edges or the alignment cross lines are superimposed. In order to see the left or right <u>frame edge or sound track</u>, remove the aperture matte and draw back the screen masking. You can also see the sound track.

When the lens is rotated until the left or right frame edge is a solid black line (not a double image) or the sound track is overlaid on itself, lock the lens in place.

ALTERNATE METHOD (Illustration page 4.)

C. After installing the special aperture matte supplied with your lens kit, you may wish to double check the focus by using the ALTERNATE METHOD on page 4.

The special aperture matte has been filed to a height of .730" plus. Do not project with a regular .715" 'Scope matte as this will cause shading and loss of image size. Also, be sure that the matte is .825" plus width.

- D. Now put on your 3-D glasses. Be sure that they are clean.
- E. If possible, adjust the side screen masking so that it just cuts into the image area slightly on the left and right. Then adjust the top or bottom masking very slowly until the splices are not visible from scene to scene. (See page 10 for screen masking suggestions.) It is necessary to crop into the top or bottom to eliminate the flashing caused by the splices and to maximize the 3-D effect.
- F. You should now <u>final focus</u> the image. <u>Always</u> focus while wearing your 3-D glasses. You may attach a pair of 3-D glasses (minus the bows) onto your observation ports for greater convenience when focusing. Critically sharp focus is ESSENTIAL with 3-D films. Use of a small binocular or opera glass is highly recommended. When doing so, focus on the image grain without wearing 3-D glasses.
- NOTE: IF THE FILM GATE TOUCHES THE BACK OF THE 3-D LENS WHEN BEING OPENED FOR THREADING, IT MAY BE NECESSARY TO INSTALL A WIRE STOP TO AVOID DAMAGING THE LENS OR DISTURBING THE FOCUS. IT IS PERMISSABLE TO SLIDE THE LENS FOR-WARD ON CERTAIN SHORT LENSES IN ORDER TO OPEN THE GATE. AN APPROPRIATE LENS STOP RING WITH LOCATING PIN SHOULD BE INSTALLED ON THE LENS BARREL.

AN ALTERNATE METHOD

TO ROTATE 3-D LENS TO CORRECT POSITION

(USE IF AN ALIGNMENT FILM IS NOT AVAILABLE)

- 1. Withdraw aperture matte half-way, so that the image of the edge of matte is now projected sharply on the screen.
- 2. Loosen lens mount lock and rotate 3-D lens slightly so that the aperture matte shadow becomes a single, solid, sharp image, without a double grey edge.

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- 3. Lock the lens mount lock.
- 4. Push the aperture matte into its regular position.
- 5. Continue with other instructions per this manual.

SHADOW OF APERTURE MATTE LED HALF-WAY OUT

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See page 3, paragraph A.

SPECIAL INFORMATION REGARDING 4" ADAPTER COLLARS

On projectors requiring 4" lens mount adapter collars, it may be necessary to apply a layer of tape on the 3-D lens barrel so that the lens fits into the projector snugly. If the lens is not snug in the projector, it may not be perpendicular to the film, resulting in unequal sharpness of the 3-D images.

After the lens has been locked into position, it is advisable to grasp the protruding portion and see if it is tightly in place. It should not move up or down or sideways as this may affect the equal sharpness of the 3-D images.

MODIFICATION OF PROJECTOR MATTE APERTURE SIZE

(Above & Below 3-D)



WHILE WEARING YOUR 3-D GLASSES:

CAREFULLY POSITION ON THE CARDBOARD STRIPS WHILE PROJECTING THE 3-D FILM. MOVE THE STRIPS ONLY UNTIL THE EXTRA IMAGE ABOVE AND BELOW THE SCREEN ARE MASKED OFF – AVOID MASKING INTO THE PICTURE. CHECK BY VIEWING WITH ONE EYE AT A TIME WHILE WEARING THERE SHOULD BE NO DARKENING OF EDGE OF IMAGE ON THE SCREEN. IF THERE IS, THE CARDBOARD HAS BEEN MOVED TOO FAR INTO THE LIGHT PATH. THIS WILL SPOIL YOUR 3-D!

METHOD NO. 1

POSITION THE TOP MASKING WHILE LOOKING THROUGH YOUR RIGHT EYE (WEARING 3-D GLASSES)

WIDE DUCT TAPE

HEAVY CARDBOARD STRIP TAPED TO OUTSIDE OF BOOTH WALL SECURELY. (USE LARGE PUSH-PINS.) IF EXTERIOR OF WINDOW IS NOT ACCESSIBLE TAPE THE MASKING STRIPS TO INSIDE OF WINDOW'

MASKING SHOULD BE AS FAR FROM LENS AS POSSIBLE FOR BEST RESULTS.

POSITION THE BOTTOM MASKING WHILE LOOKING THROUGH YOUR LEFT EYE (WEARING 3-D GLASSES)

METHOD NO. 2 (PREFERRED)

HEAVY CARDBOARD OR THIN SHEET METAL BENT FORWARD AS SHOWN. THE FARTHER THE MASKING IS FROM THE LENS, THE BETTER.

USE THE GUSSETS TO STIFFEN THE ANGLED MASKING MATERIAL.

BE SURE TO FASTEN ALL MASKING SECURELY – USE FRESH DUCT TAPE OR PINS.

ADJUST VERY CAREFULLY!

PLACE WHITE PAPER OR CARD HERE FOR TEST.

CAUTION! YOU SHOULD SEE A FULL IMAGE ON THE SCREEN WHEN LOOKING WITH EITHER EYE (WHILE WEARING IF YOU DO NOT SEE A FULL IMAGE EACH TIME WITH EITHER EYE, THE CARDBOARD STRIPS HAVE BEEN POSITIONED TOO CLOSE TO THE CENTER LINE OF THE PROJECTION LENS. SLOWLY MOVE THE STRIPS UNTIL THE IMAGE ON THE SCREEN IS NO LONGER SHADED. BOTTOM MASKING ON SCREEN IS HIGHLY RECOMMENDED. (SEE PAGE 7)

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PROJECTION PORT MASKING FOR "ABOVE & BELOW" TYPE 3-D PROJECTION 7.

("Frankenstein", "Fantastic Invastion", "Dynasty Kung Fu")

DIM "GHOST" IMAGE------

EXISTING SCREEN MASKING

BEFORE INSTALLING

PROJECTION PORT

MASKING

PORT

AFTER PORT WINDOW MASKING IS INSTALLED

PORT

SHARP BLACK EDGE ON SCREEN, FULL IMAGE WHEN VIEWED WITH EITHER EYE WEARING 3-D GLASSES. NO GHOST IMAGE. PROJECTION PORT MASKING SHOULD BE AS FAR FROM LENS AS POSSIBLE. BOTTOM MASKING MAY BE NEEDED TO AVOID ANY ADDITIONAL "GHOSTING". (See page 10) (Add bottom masking on screen for 2.5:1 ratio.) StereoVision A/B 6/81

SPECIAL INFORMATION REGARDING SIMPLEX SUPER AND SIMPLEX E-7 PROJECTOR

The above projectors often are equipped with sliding lens mount <u>shrouds</u> between the projection lens carriage and the film gate. This device was intended to prevent accidental fires in case of a film jam with old style inflamable nitrate film. Later model projectors do not have this device.

REMOVE THIS SECTION

PROJECTOR GATE

The above shroud may interfere with some short focal length 3-D projection lenses by keeping the lens from sliding back far enough to come into focus.

If you find this to be the case, you must remove the shrouds from the projectors. Three screws hold the the shroud assembly in place. The bottom screw may be difficult to remove because of its location; an offset screw driver may be needed. If the screws are frozen and do not come loose with normal torque, apply a few drops of acetone, carbon tetrachloride or lacquer thinner. Film cement may also be used if the other solvents are not available. Then tap the screw head lightly with a steel drift punch and a metal hammer. Before sliding out the shroud assembly, grasp it in the collapsed condition to avoid loosing the springs. Use masking tape to hold the assembly in the collapsed condition. Most theaters leave the shroud assembly off permanently as it is not necessary for operation of the projector. All films are now released in safety base film.

THE 3-D PROJECTION SCREEN

Full color 3-D must be projected onto a SILVER screen. NO other type screen will work properly.

Repeat: Good 3-D requires a bright picture. Because all <u>full color</u> 3-D systems use the polarizing system, considerable light will be lost in the projection optics and by the 3-D viewers which are worn by the audience. Unless your theater is able to boost its projector lamp illumination by at <u>least</u> 25% over normal, the screen brightness can be increased by 30% if you mask your screen so it is only 25% smaller, a slightly smaller screen image than usual. Larger theaters should restrict their seating to the main floor. In some areas, 3-D screens can be rented. Phone StereoVision for details.

Silver screens are made by several manufacturers and can be purchased from your local theater supply house or through StereoVision. We recommend buying the highest grain type (3:1). Un-perforated screens will show a brighter picture. It is up to the theater which type to install. It is possible to install the screen on a temporary frame in front of your present screen. In order to achieve the brightest picture, use the smallest screen size that will be acceptable. The 3-D effect is much better and exciting if the image is extra bright. It is much more preferrable to have a bright, hi-quality 3-D picture on a slightly smaller screen than a large, dim picture which will have poor 3-D quality.

SCREEN PAINTING

If it is decided to paint the screen with silver 3-D screen paint, be sure to follow these rules:

1. The shinier the finish, the better the 3-D:

IT IS IMPORTANT TO KNOW THAT 3-D SCREENS ARE USUALLY SUPERIOR FOR NON-3-D PICTURES AND RESULT IN A BRIGHTER AND <u>BETTER</u> PICTURE THAN A WHITE SCREEN. THE <u>SAVINGS</u> IN LOWER ELECTRIC BILLS, LESS CARBONS USED AND LONGER XENON LAMP LIFE WHEN PROJECTING NON-3-D FILMS CAN <u>PAY</u> FOR THE COST OF IN-STALLING A 3-D SILVER SCREEN!

- 2. It may be possible to turn your screen around and paint the back of it. Be sure the surface is very smooth and that it is clean and dust-free. The screen should never have been previously painted. Any lack of smoothness from a previous re-paint will show streaks after being painted silver and projected upon.
- 3. An experienced painter should paint the screen to a semi-glossy finish, NOT a matte, dull finish. An airless spray gun is recommended. Three coats are generally necessary. Try to engage a professional <u>spray</u> painter — such as an experienced auto painter. Be sure that ample lights are brought in so the painter can see the surface clearly while painting.

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SPECIAL SCREEN MASKING REQUIRED TO SHOW ULTRA WIDE-SCREEN 3-D

(2.35:1)

ORIGINAL 1.85 SCREEN MASKING

TO OBTAIN A 2.35:1 SCREEN RATIO

Bottom masking may be black fireproof crepe paper or duvatene cloth draped over a turn-buckle taught wire or flat black card board sheet laid along bottom of screen, or art boards painted with ultra flat Krylon spray paint. Stack along bottom edge of screen.

We recommend black flock rayon velvet for screen masking.

FIRE-PROOF CREPE PAPER

- 1. SET YOUR MASKING FOR 1.85 "FLAT" PICTURE.
- 2. MASK THE BOTTOM EDGE SO THAT RATIO BECOMES 2.35:1. (See Screen Masking Instructions.)
- 3. TILT PROJECTOR UP SO THAT TOP OF PICTURE CUTS INTO TOP MASKING AT LEAST 1".
- 4. THEN, WHILE PICTURE IS RUNNING, MASK THE BOTTOM OF THE SCREEN SO THAT MASKING CUTS INTO PICTURE AT LEAST 1". THE BOTTOM MASKING CAN BE STRETCH-ING A WIRE TIGHTLY ACROSS THE SCREEN, USING A TURN-BUCKLE, THEN DRAPE ANY DARK COLORED MATERIAL OVER WIRE (FIRE-PROOFED CREPE PAPER WILL DO.) 30 x 40 FLAT BLACK POSTER BOARDS CAN BE LAID ALONG BOTTOM EDGE OF SCREEN.
- 5. EXCESS IMAGES FALLING ____ VALANCE OR STAGE CAREFULLY ATTACH COARD-BOARD STRIPS OVER PROJECTION PORTS AS SHOWN PAGE 6.
- 6. USE SPECIAL APERTURE PLATES WHEN PROVIDED WITH STEREOVISION EQUIPMENT. OR FILE _____OWN TO .825 WIDE BY .730" HIGH. IF NOT AVAILABLE, LEAVE THE PLATES OUT OF THE PROJECTOR AND MASK OFF THE SOUND TRACK IMAGE AT PROJECTION PORTS WITH THE CARDBOARD STRIP.

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GETTING THE MOST PICTURE BRIGHTNESS

In order to achieve the most light and the brightest picture, we offer the following suggestions:

- 1. Use the smallest screen size acceptable.
- 2. Keep the house lights to absolute legal minimum. The darker the theater, the less the patrons will be distracted and the brighter the picture will be.
- 3. Boost the rectifier or generator current to the maximum that the projector lamp or carbons can safely accept. Use the thickest carbons possible and boost current.
- 4. Remove the projector port glass whenever possible (6% gain in light).
- 5. Trim carbons often. Burn only high grade carbons for 3-D. "Economy" or cheap carbons can splatter and damage the "cold" mirrors and cause expensive replacement.
- 6. If possible, tilt the screen slightly toward the audience. The 3-D screen is like a mirror and reflects light very directionally.
- 7. Avoid seating patrons in high balconies or in seats off to the extreme side in front. The best 3-D effect is on the main floor middle or toward the rear of auditorium.

THE IMPORTANCE OF SCREEN MASKING

For good 3-D it is essential that the projection screen have <u>black</u> masking <u>on all four sides</u>, bordering the screen at a 2.35:1 wide-screen ratio. If the bottom masking on your screen is not adjustable, it may be necessary to install an auxiliary masking strip. One way to do this is to use a wire and turnbuckle with approval masking material draped over the wire. (See Illustration on page 10.)

MASKING OFF EXCESS IMAGES

If extra images appear above or below the screen, they must be masked off by means of cardboard strips attached at the projection ports, as far from the lens as possible, preferably outside the booth wall. (See illustration on page 6.)

RECOMMENDED ILLUMINATION FOR GOOD 3-D

CARBON ARC LAMPHOUSE – SUCH AS MAGNARC, BRENKERT STRONG (APPROXIMATELY ONE AMP PER 4 SQUARE FEET OF SCREEN AREA.)

MAX. SCREEN WIDTH	AMPS REQUIRED
23 Ft.	50
27 Ft.	70
32 Ft.	90
37 Ft.	125
42 Ft.	150

<u>XENON LAMPHOUSE</u> – SUCH AS CHRISTIE, XENOLITE, ORC AND OTHER HORIZONTAL LAMP XENON HOUSINGS (APPROXIMATELY 40 WATTS REQUIRED FOR EACH SQUARE FOOT OF SCREEN AREA.)

MAX. SCREEN WIDTH	WATTS REQUIRED
15 Ft.	1000
22 Ft.	1600
26 Ft.	2000
32 Ft.	2500
38 Ft.	3000
45 Ft.	4000

FOR OLDER STYLE VERTICAL XENON LAMPHOUSINGS, INCREASE WATTS REQUIRED BY 30%.

INSTRUCTIONS FOR INSTALLING DICHROIC HEAT FILTERS

<u>NOTE</u>: If your projector lamp housing does not have a "cold" light system, dichroic heat filters must be used to avoid damage to the polarizer elements in 3-D projection systems. An alternative to dichroic heat filters is "cold" mirrors, (transparent glass reflectors such as Balcold, Tufcold, Tippo Fretto, Balzer, etc.) If your lamphouse does not have either "cold" mirrors or dichroic heat filters, we will supply them.

It is essential that the dichroic heat filters be installed <u>BEFORE</u> installing the 3-D projection lenses. SERIOUS DAMAGE CAN RESULT to the polarizing elements in the lenses otherwise.

- 1. The dichroic heat filters should be installed in the position usually occupied by the (U.V.) draft filters, near the end of the lamphouse, nearest the projector head. If there is no slot, the filter can be fastened in place by a wire or by three metal clips. It is sometimes possible to tape the filters into the filter area. Be certain that the filter is facing in the correct position as marked on the label.
- 2. The dichroic filter will be most effective when positioned where the beam of light is at least 3" in diameter.
- 3. In cold weather or cool morning start-up be careful to avoid thermal shock. If the filters are cold and you are running very high amperage or wattage, turn power on "low" for a few minutes to warm the filter and avoid thermal shock.
- 4. To clean the filters, use mineral solvent, lighter fluid or original lens cleaner. Avoid touching the dichroic filter with your finger tips, and remove all finger prints as soon as possible, using the above solvents.

FILM

LAMPHOUSE

POSITION OF HEAT FILTER

SPLICING

If it ever becomes necessary to splice the film, it is extremely important that the splices be done on the CORRECT FRAME LINE ONLY.

HARD FRAME-LINE. SPLICE HERE ONLY.

SOFT DIVIDER DO NOT SPLICE HERE.

HARD FRAME-LINE. SPLICE HERE ONLY.

If a splice is not made on the correct frame line, the picture will be out of frame by two perforations, and <u>REVERSE</u> 3-D will result on the rest of that reel! Background objects on the screen will appear to be in front of the foreground objects. Immediately re-frame with your projector framing knob. Later, correct the incorrect splice.

If it is suspected that this may have happened, wear your 3-D glasses upside down and if the 3-D suddenly looks better, the splice has been made on the soft dividing line between the upper and lower image. The splice must be re-done.

If you are using a cement type splice, it is advisable to follow the usual splicing procedure. Then, after the cement has dried, blacken any transparent scraped splice area with India ink or black lacquer applied with a fine brush or thin wooden pick. With tape splicers, the blackening will not be necessary.

REMEMBER! INCORRECT SPLICING CAN SPOIL THE SHOW!!

HANDY TIP: It may be necessary to use a small magnifier to clearly see the hard frame line.

CLEANING THE LENS SURFACE

The 3-D lens system should not need cleaning during the normal operating run. If examination indicates that a haze has built up on the rear lens surfaces, it can be removed as follows:

- 1. First try tissue slightly dampened with lens cleaner or glass cleaning solution.
- 2. Then try tissue dampened with alcohol or solvent.
- 3. Then try "Q" Tip dampened slightly with acetone.

<u>DO NOT DISASSEMBLE THE 3-D LENS</u>! Special alignment instruments are required to re-assemble the lens, and it will be impossible to re-align the system without sending it back to our factory.

The large front optical surface should not need cleaning, but if dust has accumulated, use an air syringe or <u>clean</u>, dry artists's camel hair brush. A small amount of dust will not effect the image quality in any way.

SPECIAL PRECAUTIONS FOR HIGH-HEAT PROJECTION

(In Addition to "Cold Mirrors" or Dichroic Heat Filters)

If the projector lamphouse is projecting an abnormally high amount of heat, (over 125 Amps are or over 2500 Watts Xenon), it is strongly advised to ventilate the 3-D lens assembly by installing a ventilation blower of some kind. A vacuum cleaner set on <u>blower</u> position is ideal when position at the front of the lens and directed into the lens opening. The blower should be operated at all times, even between reels and during intermissions.

Remember: NEVER PROJECT THROUGH THE 3-D LENSES UNLESS THERE IS FILM IN THE MACHINE.

IMPORTANT:

Direct air blast into lens opening.

Support hose here

TROUBLE SHOOTING

StereoVision 3-D projection equipment is very easy to use, and is easily installable on all standard 35mm or 35-70mm projectors. If the correct instillation procedure has been followed, excellent 3-D should result.

If, however, you are having trouble, consult the following list:

PROBLEM

Main subject matter in picture is "double" when viewed with 3-D glasses.

Grey shading above or below image when viewed without 3-D glasses.

Fuzzy masking line when viewed with 3-D glasses, with one or both eyes.

Splices flashing between scenes.

Pronounced "ghost" image on all subjects in picture.

Very slight "ghost" image on light subjects or facial close-ups.

Reversed 3-D even when projector is correctly threaded in frame or images not vertically matched.

Left eye does not see same brightness as right eyes.

Streaks on screen.

Extra image on ceiling of auditorium or on stage.

Black specks on picture.

Image through one eye is dim.

CORRECTION

Polarizer may be burned-out or screen may not be a silver 3-D screen.

Correct with framing knob as necessary. Be sure aperture plate has been filed to .730".

Screen masking should be brought further into image, or projection port masking in too far.

Screen masking not far enough into picture, or slight re-framing required.

- 1. Screen may not be a silver 3-D screen OR
- 2. Polarizers may be burned-out OR
- 3. 3-D glasses are not worn level, or defective

This is normal with all 3-D systems and cannot be totally eliminated. Sometimes caused by a defective pair of 3-D glasses.

- 1. Incorrect splice. (See page 11.) OR
- 2. Polarizer module upside down. Turn 3-D lens over.

Correct by adjusting tilt in lamphouse reflector mirror.

Screen not painted properly. Do not re-paint unless a semi-glossy silver finish can be obtained.

Apply cardboard strips securely outside of projection booth wall, but <u>not</u> into main image area! Wearing 3-D glasses, observe with left and right eye alternately. Full picture should be seen on screen with either eye.

Clean the film. Vitafilm is recommended.

Re-align lamphouse mirror horizontally.

TROUBLE SHOOTING (Cont.)

PROBLEM

Cloudy image on screen.

Excessive horizontal displacement of main subject matter in picture.

CORRECTION

Check lens surfaces for oily film. Clean.

Check rotation position of 3-D projection lens.

IF YOU CANNOT CORRECT THE PROBLEM, CONSULT YOUR SUPERVISOR OR PHONE STEREO-VISION TECHNICAL PERSONNEL AT:

(213) 841-1127 / (213) 788-5302

STEREOVISION POLARIZED 3-D VIEWERS

(For highest grade, full-color 3-D motion pictures)

Type SS II

To be used for "HOUSE OF WAX", "COMIN' AT YA", "DIAL M", "WARHOL'S FRANKENSTEIN", "CAPITOL HILL", "KAHUNA", "STARLETS", "STEWARDESSES", "ROTTWIELER", Etc.

PRICES AND SPECIFICATIONS:

These are the highest grade 3-D glasses for clear, comfortable viewing. They will fit over prescription glasses.

High-grade, accurately aligned polarized lenses.

Precision molded high-grade black plastic folding frames with rounded edges. (Sunglasses style.) The polarizing lenses are sealed into the frames. Individually packed in vinyl bags. Can be recycled if properly inspected, cleaned, sterilized and packaged.

List Price: \$1.50 each.

Net Price: 50q each, packed in cartons of 500. (16 lbs. per carton.)

NOTICE

TO ALL PROJECTIONISTS SHOWING "PARASITE"

The frame line separating the paired right eye and left eye 3-D images is the same as frame line separating standard movies.

Mis-splicing will cause the 3-D to reverse. If you will look carefully at the track side of film you may see tiny triangular pips that mark off the full frames. Be sure that all splices are made on these marks. If a reel is not marked in this manner, it is best to put the film in a frame/footage counter or synchronizer and wind down to a scene change and set the film frame then wind back to where you want to make a splice.

If you are using the platter system and are not sure of some of the splices between reels the best way to insure that 3-D is maintained is to listen for splices that go through the projector then look out your port at the screen wearing 3-D glasses. If the normal "good" 3-D effect is lost you are out of 3-D sync by 1/2 frame so turning your reframing knob up or down by 1/2 frame will put you back in sync. Mark the place where splice occurred and re-splice later.

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STEREOVISION, BURBANK (213) 841-1127

- (213) 762-1410
- (213) 788-5302



The STEREOFLEX "HI-LITE" 3-D projection units will project all of the following films (contact us for matching alignment test films):

35MM 3-D RELEASE PRINTS:

ABOVE/BELOW TYPES

OPTICAL CENTER SPACING

- "COMIN' AT YA" A/B TYPE .370-.375
- "PARASITE" A/B TYPE .375 (STEREOVISION "ROTTWEILER" WIDE SCREEN) "REVENGE OF THE 13" (SHOGUN MAIDENS) "ST. CHARLES WINNERS" (SHORT) "MAGNIFICENT GUARDSMEN" "NEW DIMENSIONS OF OLDSMOBILE" (SHORT) "3-D ON PARADE" (SHORT) "DYNASTY" "THE WILD RIDE" (SHORT)

"WARHOL'S FRANKENSTEIN" A/B TYPE .380 "FANTASTIC INVASION" (THE BUBBLE) "HORNY GORILLA" (A*P*E*) "SEA DREAM" (SHORT)

"LOVE IN 3-D" A/B TYPE .383 "TICKLED PINK" ("WHAT THE BUTLER SAW") "GROOVE ROOM" "NORTH AND SOUTH CHIVALRY"

A/B TYPE .387

A/B TYPE .390

"PRISON GIRLS"

"TIGER MAN"

"FRIDAY THE 13th - PART III" "SEEIN' IS BELEIVIN"

A/B TYPE .404