Halux 1200

Digital Hot Restrike Exposure Unit

OWNER'S MANUAL

NOTE:

Due to the unique hot strike feature, the Halux-1200D must be supplied power by a 120V, 20 Amp dedicated circuit and constnt voltage between 115-125V.

HIX® CORPORATION

For Customer Service, Call 1-800-835-0606
or Visit www.hixcorp.com

CONTENTS

BEFORE warranty repair you MUST get Prior Authorization:

70280 RV H_110115

RECEIVING & INSTALLATION

NOTE: The HIX Halux 1200D is not compatible with the M&R Trilok pin registration system.

CAUTION: Before installing or operating this unit be sure to read these instructions thoroughly. Disconnect all electric power before performing maintenance on this unit. **Never** operate this equipment with the power supply cover removed. If you find that this should be necessary, contact a licensed electrician. Make sure the circuit for this unit is well grounded.

WARNING: ULTRA VIOLET LIGHT CAN CAUSE SKIN & EYE IRRATION OR BLINDNESS. TO PREVENT DAMAGE TO YOUR EYES AND SKIN, AVOID DIRECT EXPOSURE TO THE LAMP WHILE IT IS ON.

INSTALLATION

1. Carefully uncrate exposure unit from its shipping container.
2. Place exposure unit on a level surface close to the wall circuit to be used. Adjust leveling feet, if necessary, so the unit does not "rock" on the floor.

WARNING: When using an extension cord, use 12 ga.-3 conductor. Maximum length, 25' (7.62m).

3. Check unit over for any transportation damage and make sure all foreign objects, such as packing material, have been removed. Clean both sides of glass from any dust. (See page 8)
4. The vacuum hose is connected to the top frame by a small hose clamp prior to shipping. Make sure the hose connection is still in place and secure. If the hose seems loose or has come off during shipping, secure hose and tighten hose clamp screw with a small flat-head screwdriver.

INITIAL SETUP

The “hot Restrike” feature, eliminates warming times between exposure, saving electricity and extending bulb life. **Due** to this unique Hot Strike feature, the Halux-1200D must be supplied electrical power by a 120 volt, 20 amp dedicated circuit and constant voltage between 115-125 volts.

The Hot Restrike System provides the advantage of a simple extremely reliable system with no moving parts, however some consideration must be made to ensure consistent screen exposures.

From a “Cold” start (e.g. first screen to be exposed for the day) the lamp requires a 1 minute warm up cycle to bring the lamp to full intensity. Also if more than 90 seconds elapses between screen exposures, then the lamp should be cycled on for a minute to ensure full intensity of the lamp for consistent screen exposures.

To warm up the lamp before starting your first exposure, follow this procedure.

1. Plug in your unit to the proper voltage power source (120V or 230V) as indicated on the serial number I.D. tag. **NOTE: Adequate voltage is required for proper operation. A minimum of 115V on a 120V circuit is required. The 230V version requires a full 230 volts to operate properly. If voltage drops below required level unit will not re-light. Simply wait 2 minutes to cool and restart.**
2. Close the blanket lid and latch the lid shut with the rubber latch-hooks.
3. Turn the Main Power switch “ON”.
4. Turn the Vacuum switch “ON” and allow the blanket to pull down tight to the glass.
5. Set the timer on at least 1 minute and press the “Start” button. To change the time setting - see detailed instructions below.
6. The lamp will illuminate and quickly increase in intensity. When the time set on the timer reaches “0” the lamp will extinguish. Turn the vacuum switch off and release the blanket lid.
7. Within 90 seconds place the first emulsion coated screen frame into the unit, as detailed on the next page, and start an exposure.

OPERATION

DIGITAL TIMER

1. Turn Main Power “On”. Timer will illuminate.

2. To change time setting, press the ≪ button on the front of the timer face. Timer will display “Minutes” and “Seconds”.
3. To program the desired time (minutes and seconds), press the ≫ button; once for each digit. The counter will loop from 0-9. To change to the next digit, press the ≪ button and again press the button ≫ until the desired number is reached.
4. Once the new time is entered, press the “MD” button on the face of the timer to lock in this new setting. Failure to press the “MD” button will not “lock” in the new setting.
5. Press the “Start” button on the control panel. This will start the timer and turn the exposure lamp on.
6. Timer will count down and when time reaches zero, the exposure lamp will extinguish.
7. If at any time you want to extinguish the exposure lamp before time expires, you may do so by pressing the “RST” button on the face of the timer.

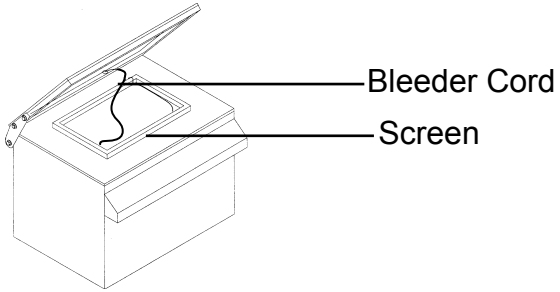
EXPOSING A SCREEN

Maximum screen sizes:

One 24" x 42" or Two 21" x 24"

NOTE: Put the screen in the center of the glass. Keep at least 2" from any edge of the glass to prevent damage to the vacuum blanket rubber.

1. Place your screen frame in the center of the glass, screen side down with your output image in place.
2. Place bleeder cord on top of and inside the frame and across the image. (See illustration below) **NOTE:** This cord facilitates quick blanket draw down and releasing of the vacuum after exposure and the vacuum has been turned off.



3. Close the blanket lid and latch the lid shut.
4. Turn the Main Power switch "ON".
5. Turn the Vacuum switch "ON" and allow the blanket to pull down tight to the screen and the glass.
6. Set the timer on the desired exposure time for the type of emulsion and screen you are going to expose. See "Determining Your Optimum Exposure Time" on page 6 or your filled in chart on page 7 if you have already determined your exposure time.
7. Press the "Start" button located to the right of the timer dial to begin the exposure.
8. At the end of the selected time, the lamp will extinguish.
9. Turn the vacuum switch off, release and open the lid and remove the screen frame. If another screen is to be exposed, do this within 90 seconds or a brief warm up of the lamp will be necessary as described in the "Initial Startup" instructions on page 3.

EXPOSING

DETERMINING YOUR OPTIMUM EXPOSURE TIME

BY EXPOSURE CALCULATOR (PREFERRED METHOD)

1. Follow normal operations explained above.
2. Place exposure calculator on screen following calculator's instructions.
3. Set timer to **double** the **estimated** exposure time.
4. Inspect your newly exposed screen according to calculator's instructions.
5. Multiply the previously set exposure time by number indicated on the exposure calculator.
6. This new number is the proper exposure for your emulsion type. Fill in the chart provided on page 7 of this manual as ready reference.

NOTE: This procedure should be followed for each new emulsion type, new mesh count or mesh type (i.e. yellow, blue, white). This procedure should also be followed periodically since the lamp intensity will lessen with age. **BY TRIAL**

1. Follow normal operations explained previously.
2. Inspect your newly exposed screen for proper exposure. **Underexposed:** results in weak to washed out image with poor emulsion adhesion and reduced resistance to printing inks and wash up solvents. **Overexposed:** results in loss of fine detail.
3. Once you have determined the proper exposure for your emulsion type fill in the chart provided on page 7 of this manual as a ready reference. This will save you time in the future.

NOTE: This procedure should be followed for each new emulsion type or new mesh count. This procedure should also be followed periodically as the lamp intensity will lessen with age.

EXPOSURE TIME CHART

Use and copy this chart for recording your shop's popular emulsions and exposure times.

OPTIMUM EXPOSING TIME CHART

DATE	MESH COUNT	EMULSION COLOR	EMULSION BRAND	COATING METHOD	EXPOSURE TIME

MAINTENANCE

VACUUM SWITCH ADJUSTMENT

If your machine is new or has been moved recently and your lamp fails to work on first operation, the safety vacuum switch may need some adjustment. After going through the following procedure and your lamp still fails to work, check the Trouble Shooting Charts.

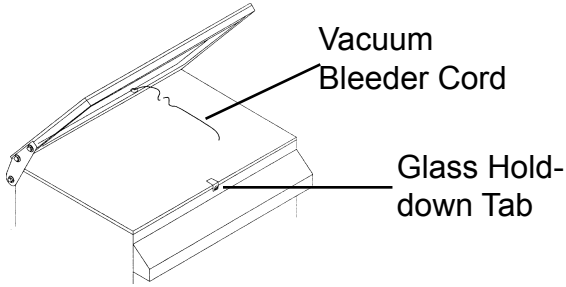
1. Pry off chrome cap on control panel to access the vacuum limit control.
2. Close and latch blanket lid with both rubber latches.
3. Turn on vacuum power switch and make sure the blanket pulls down tight against the glass before proceeding.
4. Locate the vacuum limit slotted control (see figure below).

5. Set the timer to 3 minutes and press the “Start” switch.
6. Insert a small flathead screw driver with a blade length of at least 3” through the hole in the control panel and into the vacuum control as shown above. With your small flathead screwdriver adjust the screw clockwise very slowly (**1/8 turn at a time**) just until the lamp comes on.
7. Shut off the vacuum. The lamp will extinguish immediately with vacuum off. If not, repeat step 6 until the lamp works with vacuum on and the lamp extinguishes with vacuum off. Reinstall chrome cap when finished.

MAINTENANCE

GLASS CLEANING

In order to maintain short exposure times and minimize pin holes in the emulsion, keep the unit's exposure glass clean. Dusting is usually sufficient. If more cleaning is required use a soft cloth moistened with alcohol. A dusty environment will require more cleaning.



1. Unscrew glass hold-down tab on the front of the unit as shown in illustration above.
2. Slide hold-down tab straight out.
3. Carefully lift front of glass from the gasket (leave back of glass resting on its gasket), clean underside, lay back down carefully and reinstall the hold-down tab and screw.

WARNING: Do not use metal objects, such as screwdriver to lift glass as they will chip or break the glass.

FAN FILTER SERVICING

WARNING: Unplug unit from outlet before cleaning filter.

NOTE: It is very important to periodically (once a month min.) clean or replace the fan filter. The filter prevents dust from entering the cabinet and gathering onto underside of the glass . Excessive dust deposits will cause "pinholes" to be exposed in the screen emulsion and will give poor results. This would also be a good time to clean both sides of the glass.

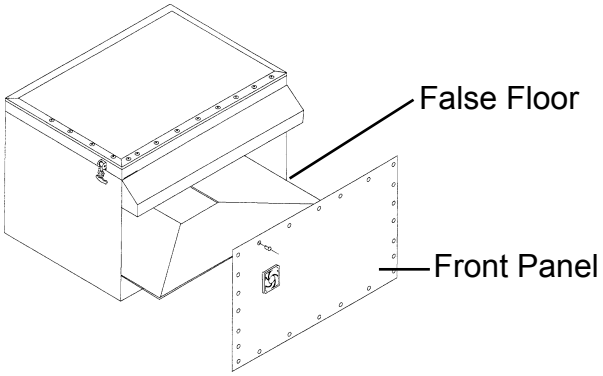
1. Pry off plastic guard.
2. Remove filter, wash with soap and water - **DO NOT USE SOLVENTS**. Pat filter dry with a paper towel. **NOTE:** If filter is deteriorated, replace it.
3. Reinstall filter and plastic fan guard.

MAINTENANCE

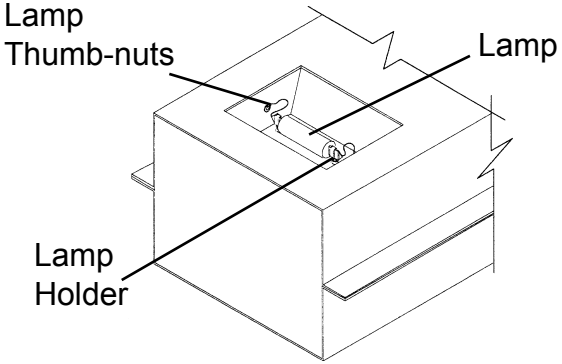
LAMP REPLACEMENT

When you notice your exposure times getting longer or if the lamp fails to operate, check the Troubleshooting Chart on pages 14-15. Follow the instructions below if you determine that you need to replace the lamp.

WARNING: Unplug unit from electrical outlet. If lamp has been on, allow to cool for 10 minutes.



1. Remove all screws from unit's front panel. Cut wire tie around cord plug on fan and unplug fan. Carefully set panel aside. (See figure above.)
2. Remove black false floor by lifting floor up and out. Carefully set false floor aside.



3. Remove thumb nuts at each end of the lamp and then remove the wires from the lamp.
4. Remove 4 screws holding the (2) lamp hold-down clamps and remove the old lamp.

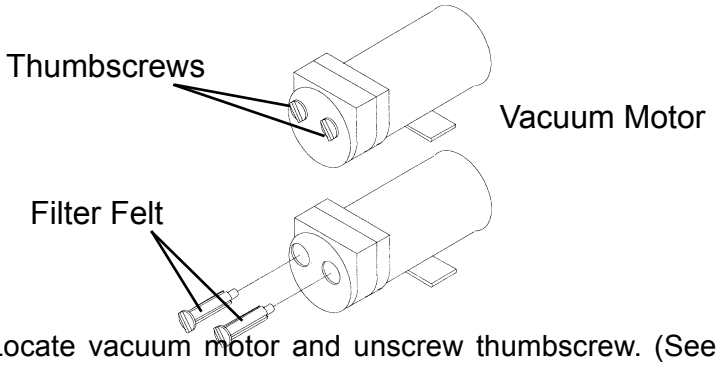
5. Install the correct replacement bulb. **CAUTION: Do not touch the lamp glass with your bare hands.** Because of the intense heat, impurities, such as finger prints and hand oils, can cause premature failure of the lamp. If you are uncertain if the glass has been touched wipe it off with a soft cloth moistened with alcohol.
6. Reassemble lamp wiring, lamp hold down clamps, false floor, fan wires, new wire tie, and front panel. Plug unit into electrical power. **NOTE:** Be sure all lamp electrical connections are tight.

VACUUM PUMP FILTER REPLACEMENT

WARNING: Unplug unit from electrical power and vent all air lines to remove all air pressure.

Yearly inspection of the vacuum pump filters will increase the performance and life of the pump. The first inspection can be handled at the time of the first lamp change, check the cleanliness of the filter.

1. Follow steps 1 and 2 in Lamp Replacement Maintenance.



2. Locate vacuum motor and unscrew thumbscrew. (See figure above)
3. Inspect filter felt material for dirt or debris. Wash with soap and water if necessary. Pat dry with a paper towel.

NOTE: If filter cannot be cleaned replace it by contacting the pump manufacturer for a service kit.

4. Reinstall filters on thumbscrew, slide into place, and tighten thumbscrews.

MAINTENANCE

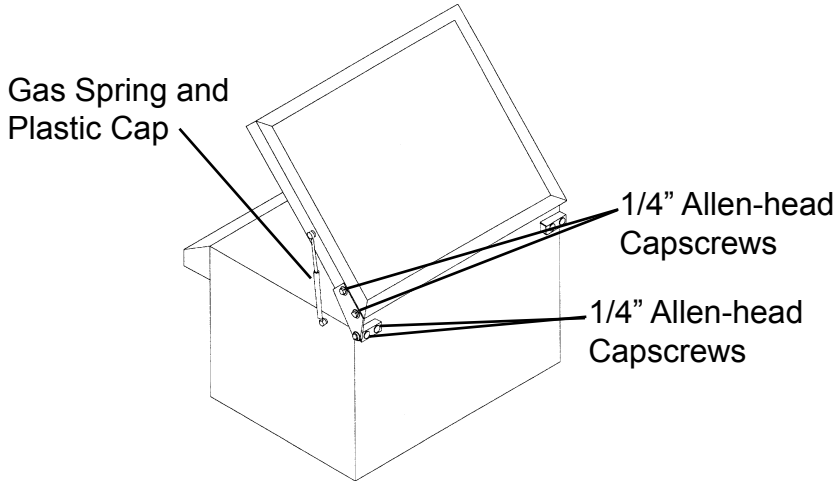
LID REALIGNMENT

NOTE: The light and vacuum are sealed under the lid by means of rubber gasket on the underside the lid frame. This rubber gasket may compress over time. If light is seen from the sides of the unit, or if the vacuum does not occur, the rubber gasket may be compressed or the lid is out of alignment. These problems can be alleviated by realigning the hinges.

1. Begin with the lid in the open position. Remove the plastic cap from the lid end of one of the gas springs. While holding the lid, pull end of gas spring straight out and off of the ball connector as you continue to manually hold the lid up.

CAUTION: It is important to do this operation with the lid up, failing to do so could cause injury due to the sudden release of pressure on the gas spring!

2. Gently lay lid back down onto the glass and turn on the vacuum switch.



3. Loosen 1/4” Allen-head capscrews on the side of the exposure unit (2 on each side). (See figure above)
4. Loosen 1/4” Allen-head capscrews from the back of exposure unit. (2 on each side).
5. The vacuum pull will self align the hinges.
6. With the vacuum still applied, retighten the 1/4” allen screws at the sides of the unit.

7. Retighten the 1/4” allen screws on the hinge bracket at the back of the unit.
8. Turn off the vacuum and allow it to stabilize.
9. Carefully lift the lid to the open position and push the end of the gas spring back onto the ball connector.
10. Check operation, repeat alignment procedure if necessary.
11. Replace the plastic gas spring end covers and recheck for proper operation.

BLANKET REPLACEMENT

NOTE: If the blanket fails to pull a vacuum, check the Troubleshooting Chart for possible causes. If you determine that your blanket has begun to leak, it needs to be replaced. New blanket replacement kit can be ordered from HIX Corporation by calling Customer Service at 800-835-0606. Refer to Customer Service sheet CS-170.

TROUBLESHOOTING

PROBLEM	POSSIBLE CAUSE	REMEDY
1. Lamp does not ignite and red light on main power switch is off.	1. **a.** No line power. **b.** Supply fuse or breaker blown. **c.** Unit main breaker is tripped. **d.** Main power switch is defective. **e.** Outlet is defective.	1. **a.** Check power source. **b.** Reset supply breaker or replace fuse. **c.** Reset unit's main breaker. **d.** Replace switch. **e.** Replace outlet.
2. Lamp does not ignite and red light on main power switch is on.	2. **a.** Vacuum is off. **b.** Vacuum blanket is not pulling down tightly. **c.** Vacuum switch is out of adjustment. **d.** Ignitor is bad. **e.** Lamp is burned out.	2. **a.** Turn vacuum on. **b.** Determine source of vacuum leak and repair. **c.** Adjust vacuum switch. **d.** Replace ignitor. **e.** Replace lamp.
3. Unit blows fuses or trips Main Power Circuit Breaker.	3. **a.** Check amperage of supply breakers or fuses. **b.** Shorted capacitor(s). Discolored or inflated. **c.** Shorted ballast.	3. **a.** Replace supply breakers or fuses with minimum rating of 20 amps. **b.** Replace capacitors. **c.** Replace ballast.

TROUBLESHOOTING

PROBLEM	POSSIBLE CAUSE	REMEDY
4. Lamp fails to remain ignited.	4. **a.** Lamp housing cooling fan failure. **b.** Obstruction of air input or output causing over heating, thus tripping the thermostat. **c.** Defective high limit thermostat.	4. **a.** Replace cooling fan. **b.** Remove obstruction, allow thermostat to cool, it will then reset itself. **c.**Replace thermostat.
5. Lamp ignites OK when cold, but will not HOT Restrike reliably.	5. Low voltage supply. Must be 115-120v on a 120v unit or 230-240v on a 230v unit. Voltage measured must be when unit is on and under load.	5. Have a electrician remedy the cause of low voltage supply to the unit.
6. Unit fails to turn off when the power switch is “OFF”.	6. Power switch is shorted.	6. Replace power switch.
7. Blanket won’t “pull” a vacuum.	7. Vacuum leak.	7 **a.** Check hose connections to vacuum pump and to blanket frame. **b.** Check gasket to glass seal, replace if necessary. **c.** Realign lid. **d.** Check vacuum pump.

WARRANTY

(Effective October 30, 2015)

HIX will automatically register the equipment on the date it was shipped to you or your distributor. If the equipment was not purchased directly from HIX, but through a distributor (either domestic or foreign), please keep a copy of their sales invoice showing the serial number and date it was sold/shipped to you with this warranty. In this case, we will use the distributor's invoice date as the beginning warranty date. **STAPLE A COPY OF YOUR RECEIPT TO THIS WARRANTY** and keep in a safe place to provide verification of your warranty should a problem occur. Thank you.

Please fill in the following information and attach a copy of your receipt for your records.

Date Purchased:_____ From: _____

Model #:_____ Serial #: _____

This warranty applies to equipment manufactured by the HIX Corporation (HIX), Pittsburg, Kansas, U.S.A. HIX warrants to the original purchaser, its Ovens and Dryers, Heat Transfer Presses, Mug Presses, Mug Glazer, Retensionable Screen Frames, Textile Printers, Spot Heaters, and Exposure Units against defects in workmanship and material, except for wear and tear for a period of "One Year" from the date of purchase. HIX warrants its Accessories, Reten Splines/Hardware/Tool Kit, and Shuttle for a period of 90 days from the date of purchase. Thermatrol and doughXpress products are covered under separate warranty.

In the event of a defect, HIX, at its option, will repair, replace or substitute the defective item at no cost during this period subject to the limitations of insurance and shipping costs stated below.

In the case of heat transfer presses (except the Hobby Lite), HIX warrants the heat casting for the "Life" of the machine for the original purchaser. If a part becomes obsolete at the time for repair, and/or cannot be reasonably substituted for, HIX will credit, at half the then current list price or last recorded price, only that part toward a new machine or any product HIX offers. This credit offer shall be the sole responsibility of the HIX Corporation in the event of an obsolete part.

This warranty does not cover belts, rail tape, pads, mug wraps, canvas, rubber blankets, bulbs, glass, rod ends, turn buckles on printers or damages due to accident, misuse/abuse, alterations or damage due to neglect, shipping or lack of proper lubrication or maintenance. HIX shall not be responsible for repairs or alterations made by any person without the prior written authorization by HIX. This warranty is the sole and exclusive warranty of HIX and no person, agent, distributor, or dealer of HIX is authorized to change, amend or modify the terms set forth herein, in whole or in part.

In the case of a problem with the equipment identified herein, HIX Corporation should be contacted during regular business hours to discuss the problem and verify an existing warranty. HIX personnel will assist the customer to correct any problems which can be corrected through operation or maintenance instructions, simple mechanical adjustments, or replacement of parts. In the event the problem cannot be corrected by phone, and upon the issuance of a return authorization by HIX, the equipment shall be returned to HIX or an authorized service representative. All insurance, packaging and shipment/freight costs are solely the responsibility of the customer, and not that of HIX, and HIX shall not be responsible for improper packaging, handling or damage in transit. Contact HIX customer service for complete return authorization information. Correct shipping boxes are available from HIX.

This expressed warranty is given in lieu of any and all other warranties, whether expressed or implied, including but not limited to those of merchantability and fitness for a particular purpose, and constitutes the only warranty made by HIX Corporation.

In no event shall HIX's liability for breach of warranty extend beyond the obligation to repair or replace the nonconforming goods. HIX shall not be liable for any other damages, either incidental or consequential, or the action as brought in contract, negligence or otherwise.

This warranty gives you specific legal rights and you may also have other rights which vary from state to state.

HIX® CORPORATION

Design and Manufacturers of Graphic Imaging, Commercial Food, Industrial and Custom Drying Equipment

1201 E. 27th Terrace • Pittsburg, KS 66762 • U.S.A.
Web site: www.hixcorp.com • Phone: (800) 835-0606 • Fax: 620-231-1598
E-Mail: customerservice@hixcorp.com • E-Mail: sales@hixcorp.com