

WARRANTY

(Effective September 1, 2010)

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, 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.



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HIX Thermatrol Mug Oven

Mug Oven with Cooler

OWNER'S MANUAL



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or Visit www.hixcorp.com

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BEFORE warranty repair you MUST get Prior Authorization:

OPERATION

OVEN OPERATION

General Oven operation for applying sublimation transfers to mugs, cups and ceramic items. This information is for reference only and actual settings will vary depending on image quality, image size, size of mug or ceramic item, and quality of coating on item, ink and type of wrap being used. It is very important that your dryer electric source is supplied with the maximum voltage required; 240v \pm 5v.

Your dryer may not operate to full potential if running below 235v. Electric power does vary. Many power companies simply can not deliver consistent power at ratings also power supply consumed in your grid by other companies can cause intermittent and inconsistent power. Your power company or electrician can assess your particular power supply.

TYPICAL TEMPERATURE SETTING:

370°-410°F

BELT SPEED.

Is dependent on image size, quality of graphic and size type of ink, paper used and weight of object imaged. A general starting place is 11-13 minutes.

Typical Times with HIX Mug Wrap (Other wraps may take longer)

11 oz Mug.....10-13 minutes

15 oz Mug.....11-18 minutes

AIR SPEED

6-8 on dial.

OVEN SETUP AND SPACING:

Establish spacing by first using scrap or blank mugs with wrap and blank paper (bond paper will work). If your oven does not maintain consistent temperature (\pm 30°F) slow your oven down and/or increase spacing. Generally, running oven hotter will not help. In fact, items may get too hot and scorch the image closest to the heater. Begin with items spaced at least 2" apart and 2" from side of dryer. Thicker/larger/heavier items will require greater spacing.

APPLYING THE TRANSFER

With some wraps including the HIX tool-less "Snap" clasp wrap, you will be able to image virtually top to bottom and handle to handle. While full top to bottom and handle to handle imaging is possible it is not recommended until you have a firm understanding and experience with imaging mugs. To achieve consistent results and reduce waste keep your transfer width limited to 3/16" from the top rim and the bottom taper of the mug and at

MAINTENANCE

MAINTENANCE SCHEDULE

Every month:

Remove and clean or replace filters located on each side of control box.

Every 6 months:

1. Vacuum any lint/dust accumulation around air intake holes on both sides of oven and on fume hoods.
2. Check tension on the wire conveyor belt and tighten if necessary.

Every Year: (Disconnect power at main panel)

1. Remove top chain guard cover and lightly lubricate the conveyor drive chain; with SAE 20 weight oil. Replace after lubricating. **DO NOT leave off!**
2. Have a qualified electrician check all heater elements to specifications shown on wiring diagram.
3. Check brushes on conveyor drive motor.
4. Check/tighten all electrical connections on relays and contactor inside control box.
6. Check thermocouples with ohm meter disconnected from temperature control. Cold resistance should be between .5 to 2 ohms. Higher resistance readings indicate possible problems with the thermocouple and in this case it should be replaced.

OPERATING PRECAUTIONS

GENERAL OPERATING PRECAUTIONS

While the below information will not cover every operating situation, these guidelines should be understood and general common sense applied when operating the equipment. Failure to do so could cause a fire hazard, explosion hazard and possible serious personal injury or death.

Intended Use:

HIX electric conveyor ovens may be used to cure or dry a number of inks, substrates or products such as textiles, wood, plastic, glass or any other similar substrates. The oven process temperature is to be set within the safe temperature limitations of the ink or substrate. Research of the temperature limitation of the particular ink or substrate is solely the responsibility of the end user and not of HIX Corporation. HIX Corporation will not be responsible for any damages to product, oven, facilities or personnel caused by product being exposed to temperatures exceeding their limitations or operating the oven in any manner in which it was not intended.

Proper Venting:

Never block any of the air vents leading into or out of the control box. Likewise never block any of the air vents located in the sheet metal side covers along the lower frame rails. Blocking any of these vents can cause overheating of the unit and create a fire hazard. The top mounted exhaust on the oven shall be vented outside of the building. See instructions in this manual for additional information on proper venting of the exhaust.

Safe Operation:

Pay careful attention to the adjustable doors located on each end of the oven. Ensure that the door on the exit end of the oven is raised higher than that on the entrance end of the oven so there is no possibility that product may get accumulated or lodged inside the oven chamber and create a fire hazard.

Keep aerosol spray cans away from the oven. If they accidentally fall on the belt and enter the oven chamber they can overheat and explode inside the oven chamber causing a fire hazard and or personal injury.

Never introduce any flammable liquid into the oven to evaporate, such as solvents, including, but not limited to alcohol, MEK, acetone, toluene, etc. without consulting the specific application with HIX Corporation to determine what amount can be safely introduced into the oven without causing a dangerous situation. Failure to do so can cause fire, personal injury or death.

OPERATION

least a ¼" away from the handle you should see consistent quality. As you become more experienced there are tips and tricks that will make full wrap imaging more successful; not fool proof but more consistent results can be achieved with proper preparation of the transfer. Also quality mugs must be purchased, while a mug wrap helps to cover some imperfections in the mug itself, nothing can help a poorly made, wavy or irregular surface and/or coated mug.

TO USE YOUR WRAP

1. **TRIM TRANSFER:** Before applying the transfer trim the transfer so that there is no excess paper above or below the mug. Tip: Trim the top of the transfer with a straight edge; this will assist you in lining the transfer up with the top of the mug to help eliminate crooked transfers.
2. **APPLY TRANSFER:** Secure the ends of your transfer to the mug using heat tape. TIP: Fold one end of the heat tape to make for quick and easy removal of transfer.
3. **WRAP MUG:** Using HIX "Snap" clasp wrap, lay mug flat on the table, position mug in the center of wrap and bring ends of wrap together by pushing the male end of clasp through female closure until clasp locks in place. With the male end of the wrap in your right hand hold the bottom end of the clasp with the thumb and forefinger of your right hand hold the top end of the female end of the wrap with the thumb and forefinger of your left hand. Insert the tab through the clasp and then holding both ends of the wrap between your thumb and forefinger squeeze until clasp locks in place. TIP: Position any excess wrap towards the bottom of the mug this will allow the mug to sit more securely in the oven.
4. **PLACE IN OVEN:** Make sure oven is set at 400 degrees Fahrenheit. Place your wrapped mugs in the oven top down, this will allow heat to be trapped inside of the mug improving transfer quality. Space each mug at least 2 inches apart; 2" spacing allows for maximum airflow between mugs and more even heating of the entire mug.
5. **REMOVE AND COOL:** Remove mug from oven lay mug down on table holding the handle with one hand; with your thumb simply pull up on tab until wrap releases. By pulling heat tape from tabbed end immediately remove transfer with one swift motion. Wear heat protective gloves to handle the finished wraps and mugs. Place mug in room temperature water to cool mug and stop sublimation process.

CAUTION: Wrap will be hot use care when applying wrap to another mug. It is recommended to allow wrap to cool before using again.

OPERATION

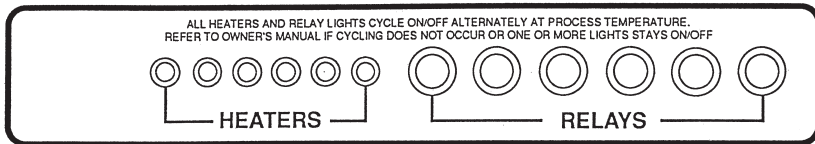
INCREASING THE LIFE OF YOUR WRAP:

The following actions will increase the life of your wrap and help to prevent premature failure.

- Space your mugs at least 2" apart in oven, this will allow for more even heating and airflow between mugs. Also this will prevent mugs from banging together reducing the life of your wrap.
- Do not drop or bang mugs with wraps together. This can cause small tears in your wrap leading to tearing of the wrap.
- Only use on items the wrap is rated for; the standard HMWII is designed for both 11oz and 15oz mugs. Use of these wraps for anything else may shorten the life of the wrap and could result in damage such as tearing. For unusually sized or shaped items please utilize a wrap custom made for your application.
- Sharp fingernails and rings can snare/tear a wrap.

If the above procedures are followed and care is taken when handling these wraps you should expect to get hundreds of cycles from your HMWII.

HEATER AND RELAY LIGHTS



1. Heater LED's: Cycle On When Heaters Are On

Small (1/8") light-emitting diodes (LED's) are driven by a current sensor (one for each heater in the dryer). They can, in conjunction with relay lights explained below, determine if heater(s) are burned out or if a relay is at fault.

2. Relay Lights: Cycle Off When Heaters Are On

Large (1/4") neon lights indicate proper opening and closing of each heater relay. When relay lights are "on", the relays are "open" and no power is applied to the heaters (Heater LED's Off). When relay lights are "off", the relays are "closed" and power is applied to the heaters (Heater LED's On). If one relay light stays "on" while the others are off, then that pole is stuck "open" and should be replaced. The heater LED's will still function as normal as they are "double switched".

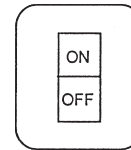
NOTE: If all relay lights operated normally yet one of the heater LED's will not come on, check the suspected heater with an amp clamp. Normal reading should be 9 - 12 amps depending on element size and voltage available. If readings indicate no current flowing, then the heater will require replacing.

OPERATION

DOOR ADJUSTMENT

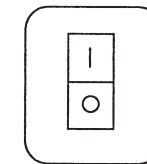
The dryer is equipped with adjustable doors located at each end of the oven chamber inside the fume hoods. The maximum opening is 6 inches (12" in the case of bottle dryers) and may be pulled down to belt level on standard dryers (6" minimum opening on bottle dryers). Always run the doors as far closed as safely possible (typically allow 1-1/2" above product height) to contain the oven heat and help eliminate problems caused by air drafts in the shop. Exercise caution when adjusting the door height when the oven is hot, use a rag or wear a glove to prevent burning your fingers.

ON/OFF POWER BREAKER



Turns all dryer power and control circuits on and off. Provides protection to contactor coil only. Dryer **MUST** be externally fused with appropriate size fuse or circuit breaker (FLA x 125% = fuse size). See the following sheet for fuse size to be used for each dryer.

IN/OUT (I/O) CIRCUIT BREAKERS



Provide protection for control and heater circuits only! **DO NOT** use for ON/OFF control! If a breaker trips, determine the cause before resuming operation.