

OPERATOR'S MANUAL

EVO PRO MODULAR DRYER

GAS CONVEYOR DRYER

HMI Touchscreen Controller



Standard 8' Dryer
with 5' In/Out Feed Extensions

*Shown with optional
4' In-feed Extension & two(2) - 4' Drones*

Standard 8' Dryer
with 5' In/Out Feed Extensions

*Shown with optional
4' In-feed Extension & one(1) - 4' Drone*

Standard 8' Dryer
with 5' In/Out Feed Extensions
Shown with optional 4' In-feed Extension

Standard 8' Dryer
with 5' In/Out Feed Extensions

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

HIX CORPORATION



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BEFORE warranty repair you MUST get Prior Authorization



RECEIVING & SETUP

NOTE This unit is designed for installation on noncombustible flooring only (no wood or carpet). Also maintain the following minimum distances to other structures: Back - 18 inches, Ends - 40 inches, Front - 48 inches, Exhaust Flue To Surface - 18 inches.

1. LEVELING PAD INSTALLATION

- Raise oven off floor by positioning a forklift at each end of the oven. Raise the oven only enough to allow access to the four casters (One on each corner). Keep the oven level during the lifting and lowering process.
- Remove casters from leg cross tubes.
- Assemble leveling pads with provided threaded rod and (2) jam nuts.
- Screw one leveling pad into each corner post.
- Lower oven almost to floor level. Check belt height above floor and adjust leveling pads as needed.

NOTICE: Belt height must be a minimum of 34" above floor. Attempting to adjust the leveling pads for lower than 34" belt height will cause interference between the floor and the burner box mounted under the oven.

- Lower forklift to allow machine leveling pads to rest on the floor. Check for clearance between the burner box and floor. There must be a minimum clearance of 1/2". Do not allow the burner box to rest on the floor. It is not designed to support the weight of the oven. Tighten all leveling pad jam nuts.

2. EXHAUST DUCT WORK

- Run duct from the exhaust stack on the oven to the outside of the building.

CAUTION: DO NOT operate this oven without ductwork in place. All gas ovens give off Carbon Dioxide and dangerous Carbon Monoxide fumes as a by-product of combustion. Operating any gas-fired equipment without proper ducting in place could result in serious risk to workers health or even death.

- All duct installation must be done in compliance with Federal, State and local codes for venting gas-fired equipment.

3. OPTIONAL 4' OVEN CHAMBER EXTENSION ASSEMBLY

1. Located in the new extension are the additional parts needed to extend the belt length and connect the new 4' extension to the existing heat chamber housing. Remove parts kit from the extension and set aside. Belt extension and bolts for attachment of two units are included in the parts kit.
2. On main unit, remove belt extension brackets, belt support tube brackets, fume hood (bolts inside) and top covers from both units. Remove and set aside for later re-installation.

Step #2



RECEIVING & SETUP

3. Remove heat chamber cap and door assembly from main unit.
4. Reinstall heat chamber cap and door assembly on extension output side using same bolts.
5. Slide units together using the leveling feet to match up the two inner bolt holes in the top center of the units. Once aligned, use the middle two upper bolts to start assembly of units with provided bolts. There are 4 bolts used around heat chamber opening, and 2 bolts used to connect unit on the bottom frame of units.
6. Once units are secured together and leveling feet are extended to secure unit. Replace inner chamber covers and secure with bolts. Replace top covers.
7. Plug in the electrical quick connects between extension and main oven unit. These are located underneath the chambers on the operator side of the units.
8. Replace sheet metal belt support tube brackets, extension brackets, and belt extension on output end of extension.
9. Replace fume hood on extension.
10. Reassemble belt with alligator clips to install belt extension to existing belt provided with main unit. Ensure that belt rib is facing down to fit into the groove on the conveyor drive pulleys. (see next section)

Step #3



Step #5



Step #7



4. CONVEYOR BELT

- Remove casters from the belt extension leg cross tubes if present.
- Assemble leveling pads with provided threaded rod and (2) jam nuts
- Screw one leveling pad into each extension leg.
- Unroll the conveyor belt from each end of the oven. Do not remove the belt from the oven.

RECEIVING & SETUP

- Pull the end of the conveyor belt around the end pulley and over the top of the frame extension on each end of the oven.
- Push or pull one end of the belt through the oven chamber. This may be easier if a couple of long rods or poles are first pushed through the oven and the belt is temporarily attached to the ends of the poles. This will allow the belt to be pulled through the oven chamber from one end.
- Loosen the end plate bolts and adjust the end plates in to their closest position. Refer to the Belt Tracking Adjustment section of this manual.
- Bring the ends of the belt together. Align the teeth of the alligator clips on each end of the belt and insert the provided splicing rod. Make certain the alligator clips stay together while inserting the rod. Do not force the rod and make certain the ends of the rod are flush with the ends of the alligator clip.
- Adjust the end plates back to their original positions. Align the punch marks on the top edge of the end plates with the punch marks on the frame extension. Tighten the end plate bolts.
- Run the belt and check for belt tracking. If necessary, adjust according to the instructions in the Belt Tracking Adjustment section of this manual. (page 7)

5. GAS HOOKUP

- GAS TYPE: Refer to the serial number I.D. plate to identify the proper gas type of "natural" or "propane". NOTE: The dryer is set up from the factory to run only on the gas type indicated on the I.D. tag.
- GAS PRESSURE: Refer to the serial number I.D. plate to identify proper inlet pressure. Normally 10.0" W.C. for natural gas or
- 12.0" W.C. or ("1/2 PSI / 34mbar) for propane gas.
- Compliance with all relevant Federal, State & Local building codes in the installation of gas service to the oven is the responsibility of the end user.

6. ELECTRICAL SERVICE

- Electrical service to the oven must be installed according to applicable State & Local building codes. Refer to the nameplate on the side of the control box just above the electrical service entrance for voltage, phase and rated full load amperage requirements.

7. GAS SERVICE

- Verify that the proper inlet gas pressure is supplied to the unit. Refer to the ratings decal on the side of the control box for this information.
- Ensure that the gas supply ball cock valve is "open" (See Photo #1).

Photo #1



RECEIVING & SETUP

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 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. All cover plates, enclosures, and guards must be in place at all times except during maintenance and servicing.

RECEIVING & SETUP

BELT TRACKING ADJUSTMENT

1. Make sure the oven is level (from side to side). Use a carpenter's level.
2. Slightly loosen the pulley adjustment end plates (leave snug yet allow the plates to move with the adjustment screws) shown in the diagram.
3. The belt has a label that shows the direction of travel and which side to mount face up. Verify the travel and face up direction label are correct and then connect belt with the supplied spline pin.
4. For ovens made prior to October 2007, verify that the two set screws on side B only (that is the side opposite of the belt drive motor side of oven) and on both ends of the oven are removed. (set screws are located in the flange bearing into the belt roller shaft) See figure 1
5. Adjust the adjustment screw until the punch marks on each side line up, these are located on the pulley adjustment plates and the top at the end of the dryer frame. These marks are used to set the belt tension and initial tracking adjustment settings. See figure 2
6. Bring the dryer up to your desired operating temperature, at low belt speed, until you reach temperature. The belt will track differently when hot than when cold.
7. Set the belt speed to maximum/high speed.
8. If the belt is moving to the left, tighten (1/2 turn-clockwise) the adjustment screw on that side. If tracking to the right, tighten the right side adjustment screw. Allow the belt to make at least 3 full revolutions before making further adjustments. If the belt is quickly moving to the side it can be adjusted every belt revolution. Check the position at the same location on the belt each time. The seam is a convenient place to make this check. Repeat this procedure until the belt is tracking straight. Do not tighten the adjustment screws more than 5 full revolutions. Do not over-tighten the belt or damage could occur that is not covered under warranty. Make smaller, (tighter or looser) adjustments for final tracking. As the belt ages with time/heat, further minor adjustment may be necessary.
9. Tighten the end plate bolts and verify the belt is still tracking correctly.

NOTE: Belt travel is always toward the belt drive motor, keeping the belt under tension. Do not attempt to reverse the motor rotation or belt travel direction as proper belt tracking will not be possible.

Figure 1

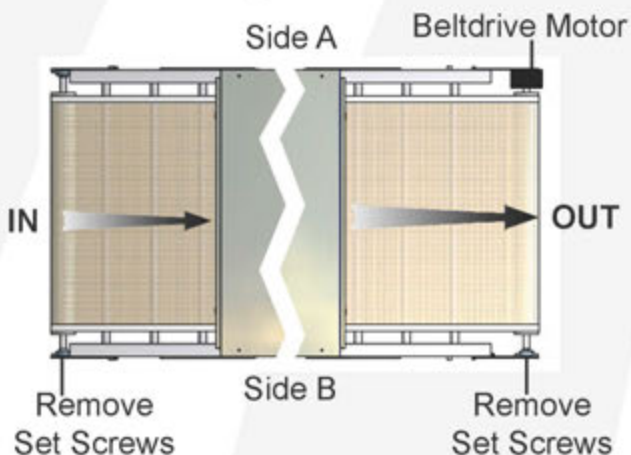
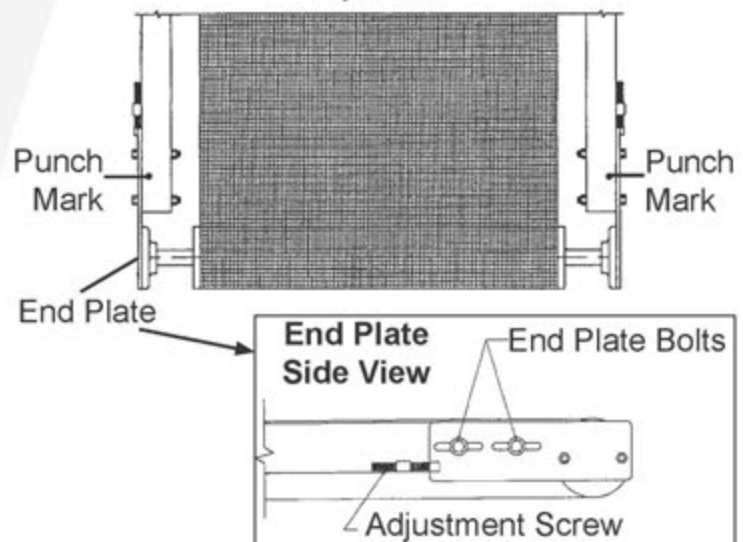


Figure 2

Top View

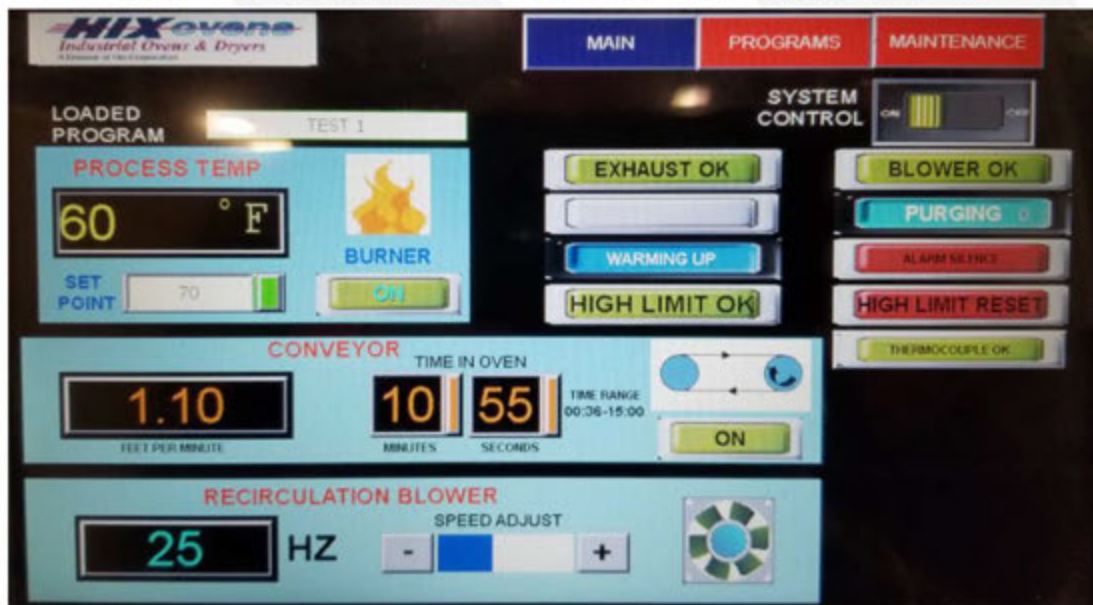


CONTROLLER/HMI INTERFACE

Main Power Switch located on top of the oven unit – turn to “ON” position.



HMI/Touchscreen control will come on, all systems will start running automatically.



Sequence of operation after “Main Power Switch” is turned on:

1. Exhaust fan will start running – “**EXHAUST OK**” green button will illuminate.
2. Recirculation Air blower will start running – “**BLOWER OK**” green button will illuminate.
3. The “Purging Timer” **PURGING 53** will begin counting down from 60 seconds to Zero.
4. At the end of the purging cycle, the “**PURGE COMPLETE**” button will illuminate, power is supplied to the gas burner control, the “**BURNER ON**” button will turn quit blinking and turn solid “**ON**” and the “**FLAME GRAPHIC**” will animate. After another 30 seconds, the gas burner will ignite (you might faintly audibly hear the burner ignite) and you will see the “**PROCESS TEMP**” begin to raise to the “**SET POINT**” value entered on the HMI screen. During the initial warm up of the unit there is a “**WARMING UP**” button that will flash Orange. Once the **PROCESS TEMPERATURE** reaches the **SET POINT**, then this button will change condition to say “**TEMPERATURE OK**”.

OPERATION

TOWER LIGHT CONDITIONS



Green:

- All conditions and systems operating normally.
- Process temperature is within +/- 5°F of set point.

Yellow:

- Process Temperature is more than +/- 5°F from set point, but less than 10°F from setpoint.
- Filter Maintenance Required (warning of which filter that need serviced is indicated on HMI screen).

Red:

- Initial Startup of the unit during the "Purging Cycle".
- Process Temperature more than +/- 10°F from Setpoint
- Conveyor Belt control has been turned "OFF"
- Burner control turned is turned "OFF"
- Recirculation Blower control failure
- High Limit temperature control tripped
- Thermocouple Failure

Beeper Warning:

- Process Temperature more than +/- 10°F from Setpoint
- High Limit Tripped
- Belt Stopped
- Thermocouple Failure

OPERATION

SETTING OVEN TEMPERATURE

Press the "Set point" window with your finger and a numeric keypad will open on the display as shown below. Using the keypad, enter the desired temperature set point (between 250°F and 400°F), then press the "Enter" button on the keypad to lock in the desired temperature.



SETTING BELT SPEED

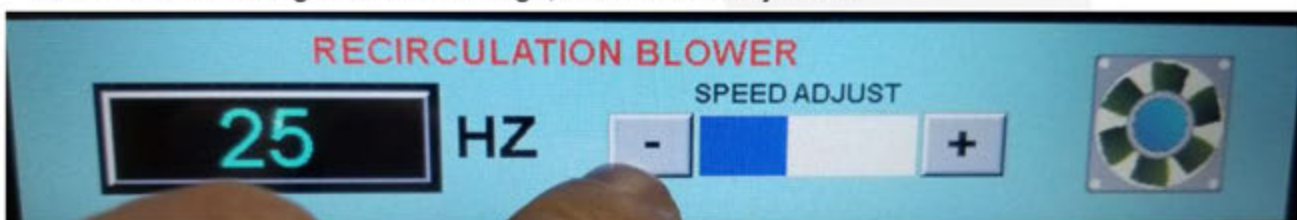
Press either the "Minutes" or "Seconds" window with your finger and a numeric keypad will open on the display. Enter the value desired then press the "Enter" key on the keypad to store the value and return to the "Home" screen.



Note: There is also a "read only" window to the left of the "Time in Oven" display that shows the belt speed in "Feet Per Minute". This is for reference only. You cannot enter or change the data/value from this FPM window.

SETTING RECIRCULATION AIR SPEED

Press either the "+" or "-" to increase or decrease the amount of heated airflow inside the oven chamber. Normally for best performance this should be left at the "Maximum" setting to heat the product up quickest. If for some reason you have light weight articles or paper, that might blow around at high airflow settings, this can be adjusted.



OPERATION

STARTUP IGNITION FAILURE FEATURE

The HMI also features a "Watchdog" feature that will alert the operator by sounding the alarm beeper if the gas burner does not ignite successfully at the initial power application or with a "RESTART" as part of the "Automatic Shutdown Feature" described on the previous page.

The way the Ignition Fail Feature works is by monitoring the rate of temperature rise inside the oven chamber after the purging cycle is complete and after electrical power and the gas supply is supplied to the gas burner to ignite it.

This feature monitors temperature rise in the first two minutes after the burner is turned on. If the temperature inside the oven chamber does not reach 125°F within two minutes after the burner was called to ignite, then it is assumed that the burner did not ignite properly. In this case the audible alarm beeper will sound, a flashing icon on the HMI saying "IGNITION FAIL" will illuminate and the gas control system will lock out, requiring a reset of the burner control system on the HMI.



This is what the icon will look like if you get an Ignition Failure:

If this happens press the "ON" button under the Burner and Ignition fail icon to turn the burner "OFF" then press again to turn it back "ON" to reset the burner control system and begin another purging cycle & attempt to relight the gas burner. See below:



An "Ignition Fail" indication is common if the oven has sat for quite a while unused or in the new installation of an oven as there may be air in the gas line that needs to be purged before the burner can properly ignite.

There is an additional "Watchdog" feature that also monitors the burner as it is just starting up. If for some reason the burner does ignite but doesn't maintain a steady flame and oven temperature above 125°F for 3 minutes during start up, it is also assumed that the burner did not ignite successfully. The HMI will also sound the beeper and flash the "IGNITION FAIL" icon on the screen. If this happens, turn the burner "OFF" and back "ON" as detailed above.

OPERATION

ALARM SILENCE BUTTON



ALARM SILENCE

The Alarm Silence button can be pressed to temporarily silence the audible “beeper” alarm should a condition occur that would cause the beeper to sound (see list of conditions that would cause this on page 2 under the “Beeper Warning” list).

THERMOCOUPLE OK



THERMOCOUPLE OK

This indicator on the Main Screen indicates that the thermocouple / temperature sensor for the main temperature control is functioning properly. If the thermocouple fails, then this indicator will turn to “RED” and flash “THERMOCOUPLE BAD!!!”.

If this happens, the gas burner will shut down, the Tower Light will turn “RED” and the audible beeper will sound.

The oven will not be able to heat until the thermocouple is replaced. This is something that should be done about every 4 years as a point of maintenance to prevent this from happening.

TEMPERATURE HIGH LIMIT



HIGH LIMIT OK **HIGH LIMIT RESET**

There is a redundant protective system in the unit that prevents the unit from severe over heating. If for some reason the primary temperature control system fails and the oven temperature exceeds 420°F, then the “High Limit” control activates and shuts the gas burner off.

The Green “HIGH LIMIT OK” button will turn “RED” and display “HIGH LIMIT”

The Tower Light will turn to RED and the Audible Alarm will sound.

This indicates some sort of serious malfunction in the control system and HIX Technical Service department should be contacted to determine the cause of failure and a remedy.

Once the temperature has reduced below 420°F, the “HIGH LIMIT RESET” button can be pressed to reset the high limit control.

OPERATION

AUTOMATIC SHUTDOWN FEATURE

The HMI features an automatic shutdown features which can be used to safely shut the oven unit down unattended. The features turns the gas burner off when activated and leaves the conveyor belt, exhaust and recirculation airflow systems all running until the oven temperature drops to 200°F. Once the oven cools down to 200°F or below, the remaining systems shut off.

To activate this feature, press the **SHUTDOWN** button located at the lower right hand corner of the HMI screen. When this button is pressed, the gas burner will immediately shut off, the Red tower light and the audible beeper alarm will sound. To silence the audible beeper, press the **ALARM SILENCE** button.

Within a few seconds the **SHUTDOWN** button icon will change to **SHUTTING DOWN** and the oven temperature will start dropping as the gas burner has been shut off. Once the internal oven temperature drops below 200°F the conveyor belt, exhaust and recirculation systems will all shut down, but the HMI screen will go to a "Black Screen" and only the button will appear to say **RESTART**.

Later in the day or the next morning, you can press the **RESTART** button and the oven control system will resume to the last set temperature, belt speed and recirculation airflow settings.

OPERATION & PROGRAMS

PROGRAMS

PROGRAMS

The HMI can store "RECIPES" of Temperature Setpoint, Conveyor Belt Speed and Recirculation Airflow settings. By pressing the "PROGRAMS" button on the HMI main screen, you will be taken to the screen shown below:

SELECTED PROGRAM	BLOWER SPEED Hz	OVEN TIME	TEMPERATURE SET POINT
RECIPE 1	15	0 0	100
RECIPE 2	15	0 0	100
RECIPE 3	15	0 0	100
RECIPE 4	15	0 0	100
RECIPE 5	15	0 0	100
RECIPE 6	15	0 0	100
RECIPE 7	15	0 0	100
RECIPE 8	15	0 0	100
RECIPE 9	15	0 0	100
RECIPE 10	15	0 0	100
RECIPE 11	15	0 0	100
RECIPE 12	15	0 0	100
RECIPE 13	15	0 0	100
RECIPE 14	15	0 0	100
CUSTOM	15	0 0	100

Select the Recipe you wish to edit in the list and it will highlight in Green as "RECIPE1" shows above. Then press the "EDIT SELECTED PROGRAM" button.

That will take you to the screen below:

PROGRAM EDIT

PROGRAM NAME: RECIPE 1

BLOWER SPEED Hz: 15

OVEN TIME: 0 Min, 0 Sec

TEMPERATURE SET POINT: 100 Degrees

SAVE PROGRAM PARAMETERS

EXIT RETURN TO PROGRAMS SCREEN

On this screen you can edit the "PROGRAM NAME", BLOWER SPEED, OVEN TIME and TEMPERATURE SET POINT, by touching anywhere in the bottom row of windows and then entering the data/value desired.

Once you have entered the data, press the green "SAVE PROGRAM PARAMETERS" button and then the yellow "EXIT RETURN TO PROGRAMS SCREEN".

OPERATION & PROGRAMS

Once you have returned to the “Programs” screen, simply select the Recipe/Program desired and then press the “**LOAD PROGRAM**” button and all the values in that program will be transferred to the main screen and the oven will adjust to the new values as stored in that Recipe/Program.



Next press the “**MAIN**” button and that will take you back to the HMI Main/Home screen.

MAINTENANCE

MAINTENANCE BUTTON

MAINTENANCE

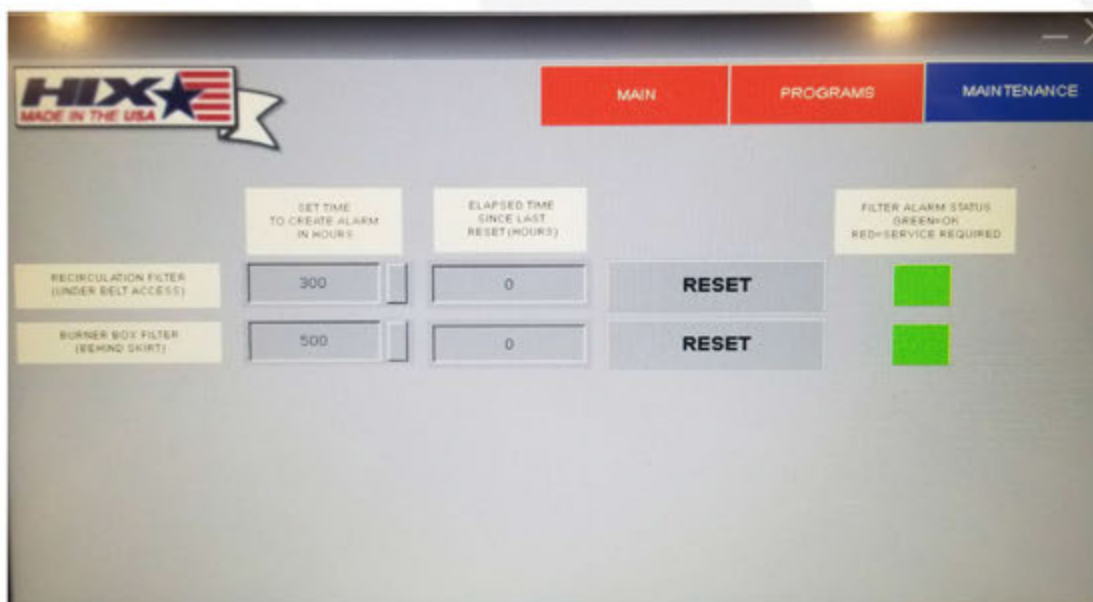
The HMI unit has a set of two timers that log the number of running hours on the oven.

At periodic intervals, a warning button will illuminate on the HMI screen instructing to change or service one of two filters on the unit. The Tower Light will also change from "Green" to "Yellow" to alert the operator to look at the HMI screen to view which filter needs maintenance. When a filter needs serviced, the HMI will display one of the buttons shown below.



When one of these warnings appear, at the top right corner of the "Home" screen on the HMI display, you will see a "Maintenance" button. Pressing this button will take you to this screen below, where you can "reset" the timer once you have performed maintenance on the filter.

You can also arbitrarily change the number of hours between reminders based on the shop ambient conditions (lint/dust etc.) in the "SET TIME TO CREATE ALARM IN HOURS" column shown below.



MAINTENANCE

EVERY WEEK:

1. Check or clean the combustion (1) and recirculation air filters (1). For high volume operations or where high amounts of dirt or lint are in the air, daily cleaning may be necessary.

EVERY MONTH:

1. Inspect belt tracking and adjust tension if necessary as outlined in this manual.

EVERY 6 MONTHS:

1. Vacuum any lint/dust accumulation around air intake holes on both sides of oven.
2. Remove top panels and vacuum any lint/dust accumulation from around plenum covers and inner frame work.
3. Remove plenum access panels and vacuum any lint/dust accumulation inside the upper plenum and between the nozzles.

EVERY YEAR (DISCONNECT POWER AT MAIN PANEL):

1. Remove top chain guard cover and lightly lubricate the conveyor drive chain; with SAE 30 weight oil. Replace after lubricating. DO NOT leave cover off!
2. Check brushes on conveyor drive motor.
3. Check/tighten all electrical connections on relays and connections inside control box.
4. Check thermocouple 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. Following these basic guidelines can help you be more successful with each and every print!

Flame Ignition / Safety Control and Burner Troubleshooting

SEQUENCE OF OPERATION

On a call for heat and at initial startup in the morning (after the initial 60 second purge on the HMI and 30 second inter-purge time = 90 seconds total), the ignition control's diagnostic "FLASH LED" (**SHOWN IN THE LOWER LEFT HAND CORNER OF THE CONTROL PICTURE BELOW**) will flash rapidly **GREEN** while the ignition control begins sparking. After successful ignition, the LED will light **GREEN** and remain lit as long as a flame is detected. If the burner fails to light, the control will wait for the inter-purge time, then spark again. During this time, the diagnostic LED will flash **GREEN** at a rate of twice per second.

If the burner does not light after three trials for ignition, the ignition control will lock out, and the diagnostic LED will flash **RED**. If this happens, remove power from the control (turn the burner button switch on the HMI OFF), then try again (turn the burner switch on the HMI back ON).

The number of **RED** LED flashes indicates the type of failure that occurred (see table below). If the burner lights, but loses flame, the ignition control will attempt to relight immediately without a purge.

Trial for ignition	4 seconds
Interpurge time	30 seconds

Number of RED Flashes	Problem
1	No flame detected during trial for ignition
2	Flame sense fail
3	Gas valve relay failure
4	Multiple flame loss
7	Bad electrical ground to burner or input voltage error from flame rod wire to sense terminal



TROUBLESHOOTING

iHEAT Diagnostic Lights

The iHEAT control provides 5 diagnostic lights that display the status of the iHEAT system and aid in diagnosing possible system component problems during the repair process. The lights and their functions are:

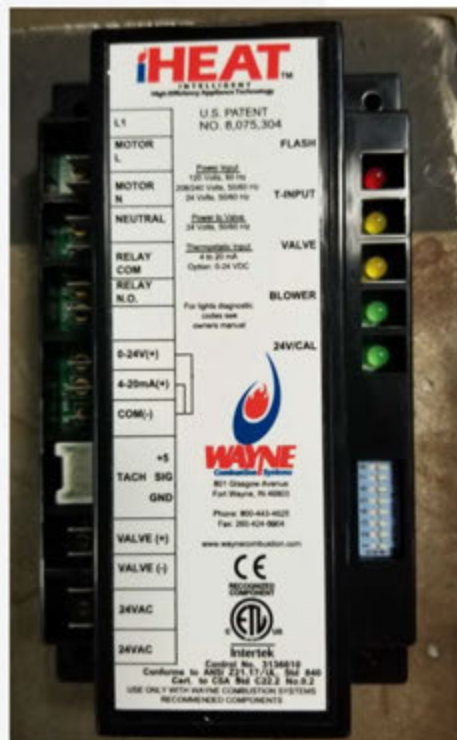
Flash – Flashing light indicates the control is functioning properly.

T-input – Each time the appliance is turned on, the control verifies an input signal from the thermostat. A solid light indicates the thermostat signal was verified upon start-up. A flashing light indicates a problem with the thermostat signal.

Valve – The control contains a set of contacts used to provide power to the ignition control. The Valve light indicates the position of the relay contacts; illuminated when the contacts are closed, and off when the contacts are open. A flashing light indicates that the board's on/off feature has turned the valve off. The valve contacts will open when an abnormal condition is sensed: combustion air blower RPM out of spec, either the line voltage or the 24 volt inputs to the iHEAT control are absent, the iHEAT control is in calibration mode, or the thermostat signal is absent upon start up.

Blower – The Blower light illuminates when the combustion blower is operating properly. A non-illuminated Blower light indicates: a bad electrical connection between the combustion blower and the iHEAT control, a bad motor on the combustion blower, or an absence of the line voltage or 24 volt inputs to the iHEAT control.

24V/CAL – This light serves two purposes. During the normal run mode, illumination of this light indicates that 24 volts AC is present at the 24 Vac connection to the iHEAT control. During the combustion air blower calibration, this light indicates status of the calibration process. A flashing light indicates calibration is occurring; a solid light indicates the calibration process is completed.



TROUBLESHOOTING

Symptom	Lights					Possible Corrections
	Flash	T-Input	Valve	Blower	24V/Cal	
Appliance runs but iHEAT system does not run; combustion motor does not turn on, no heat to appliance.	Off	Off	Off	Off	Off	1. Check to make sure burner switch is on.
						2. With burner switch on, check for 120 volts across L1 and Neutral terminals; repair if necessary.
						3. With burner switch on, check for 24 volts across 24Vac terminals; repair if necessary.
	Flash	Flash	Off or Flash	Off	On	1. Indicates signal from t-stat is absent or not in proper range. Check wiring connections at COM(-) and 0-24V(+) or 4-20mA(+) terminals.
						2. Check t-stat for proper output.
	Flash	On	Off or Flash	Flash	On	1. Check wiring connections at MOTOR L and MOTOR N terminals.
						2. Check wiring connections at the three TACH terminals.
						3. Replace motor/blower.
	Flash	Off	Off	Off	Off	Check dipswitches for proper position.
	Flash	Off	Off	On	Flash	System is in calibration mode. Refer to Calibrating the Blower section.

TROUBLESHOOTING

Symptom	Lights					Possible Corrections
	Flash	T-Input	Valve	Blower	24V/Cal	
Appliance runs but iHEAT system does not run; combustion motor turns on, no heat to appliance	Flash	On	On	On	On	1. Check wiring connections at RELAY COM and RELAY N.O. terminals.
						2. Check wiring connections on ignition control. Verify 24 Vac input to ignition control and 24 Vac at valve terminals on ignition control during call for heat.
						3. Check wiring connections at VALVE (+) and VALVE(-) terminals on iHEAT control. Check wiring connections on white solenoid coil of gas valve.
						4. Check for proper connection of black rectifier plug on gas valve.
						5. Verify gas flow during ignition trial. If gas flows but ignition does not occur, correct ignition problem. If gas does not flow during ignition trial, diagnose problem with gas valve.
Appliance runs, temperature well over t-stat set point, will not control appliance temperature	Flash	On	On	On	On	1. Check wiring connections at 4-20 mA(+) and COM(-) terminals making sure + and - connections from the control enclosure are in the corresponding + and - connections at the iHEAT control.
						2. With the burner in the full fire condition, check the inlet gas pressure using the appropriate pressure tap on the gas valve. Check the adjustment of the modulating gas valve's high pressure setting. Refer to System Set-up, Modulating Gas Valve section.

NOTES

This image shows a blank sheet of white paper with horizontal ruling lines. Two broad, light-gray diagonal bands cross the page from the top-left towards the bottom-right. The bands are parallel to each other and intersect the horizontal lines. There is no handwriting or printed text on the page.

NOTES

This image shows a blank sheet of white paper with horizontal grey ruling lines. Two broad, light-grey diagonal bands cross the page from the bottom-left towards the top-right, creating a stylized background pattern. The bands are parallel to each other and intersect the horizontal lines at an angle.

WARRANTY

BEFORE warranty repair you MUST get Prior Authorization: Call 1-800-835-0606 Warranty will be voided otherwise.

(Effective 9/1/2021)

HIX® Corporation (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, 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 PROOF OF PURCHASE 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 Graphics equipment manufactured by the HIX® Corporation (HIX), Pittsburg, Kansas, U.S.A. HIX warrants to the original purchaser, its Heat Transfer Machines, Ovens and Dryers, Printers, Spotheaters 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 Accessories for a period of 90 days from the date of purchase. 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 warranty period subject to the limitations of insurance and shipping costs stated below (excludes labor).

In the case of heat transfer presses (except the Hobby Lite® and Large Format presses), 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 in the event of an obsolete part.

This warranty does not cover belts, rail tape, pads, mug wraps, canvas, rubber blankets, bulbs, glass. Warranty does not cover 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 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.

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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