



WORKHORSE PRODUCTS

PRECISION SCREEN PRINTING EQUIPMENT

Owner's Manual

Flashback



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Introduction



Congratulations on your purchase of the Flashback.

Check the crate for damages. DO NOT accept the crate if there are any damages caused by improper handling during shipping. Immediately report any damages to the carrier and contact Workhorse Products at, 800-778-8779.

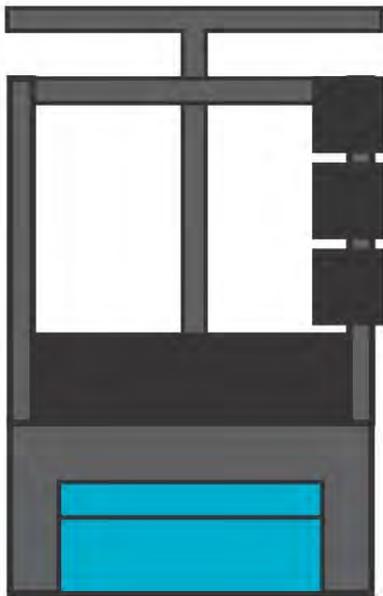
Be sure to inspect the crate contents IMMEDIATELY, while the carrier is still present. Even though our packaging has been designed to handle normal shipping conditions, we cannot foresee damages done by the carrier. We will not be responsible for damages that occur during transportation.

If there are damages immediately notify the driver, file a claim with the carrier and call Workhorse Products.

The Importance of the Owner's Manual:

The purpose of the Owner's Manual is to familiarize you with the parts and operations of the Flashback. There are step-by-step instructions to assemble the product, explanations of the product's key features, and additional information that will help with the maintenance of the product.

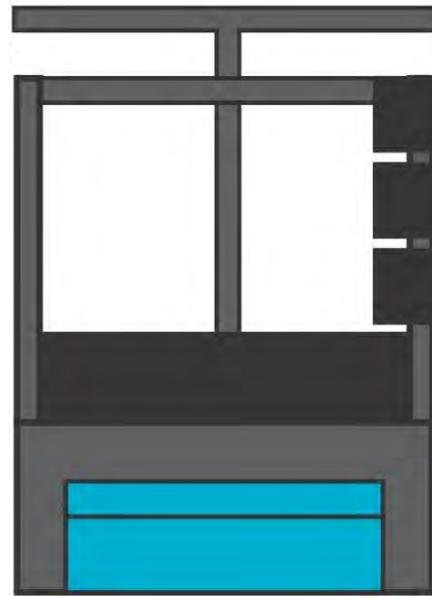
Specifications



XFB-1620

Head Size: 16" x 20"

Power Requirements: 220V, 50-60 Hz,
4400 Watts, 23 amps



SFB-2020

Head Size: 20" x 20"

Power Requirements: 220V, 50-60 Hz,
4400 Watts, 20 amps

Parts for Assembly



QTY	Part	Part Number
1	Flashback (Sabre or Freedom Express)	SFB-2020 or XFB-1620
2	1/4" Air Fitting	A-0032
1	Ball Valve	A-0051
1	3-Way Air Fitting	A-0014
1	9 Pin "Dummy Plug"	EA-0007
1	Black Airline	A-0055

Safety Procedures



WARNING!

RISK OF ELECTRICAL SHOCK! Turn ALL power to unit OFF before service.

All service should be done by or under the supervision of a trained technician.



1. For your safety, do not store or use gasoline or other flammable vapors and liquids in the vicinity (at least three feet) of this or any other appliance.
2. Vent lines to the outdoors must be installed by a qualified HVAC engineer on all air exhaust and gas line components equipped with a vent fitting.
3. Proper grounding (a ground rod at the equipment footing), according to NEC requirements, must be provided for during electrical connection by a **QUALIFIED ELECTRICIAN**.
4. Never alter the internal wiring of this machine.
5. Never place any item other than the stock to be cured or under the flash heaters.
6. Once in position lock wheels before using Flashback.
7. Keep all loose articles (including clothing, hair, jewelry, etc.) away from the moving and hot element tray.
8. Never leave the machine unattended when it is operating.
9. Do not perform maintenance on this machine until all power has been shut off at the flash **AND** at the incoming power circuit breaker. Also, disconnect the control cable leading to the machine.



THIS ELECTRIC FLASH CURE UNIT IS INTENDED SOLELY FOR THE PURPOSE OF CURING INK ON TO TEXTILE AND CUT GOODS. THIS FLASH IS NOT INTENDED FOR USE IN HEATING, CURING OR BAKING OF ANY OTHER MATERIALS WHATSOEVER. THIS FLASH IS INTENDED FOR IN-DOOR USE ONLY.

THE EXCLAMATION WITHIN AN EQUILATERAL TRIANGLE IS INTENDED TO ALERT THE USER OF IMPORTANT SAFETY PRECAUTIONS SHOP PERSONNEL SHOULD BE AWARE OF DURING OPERATION.

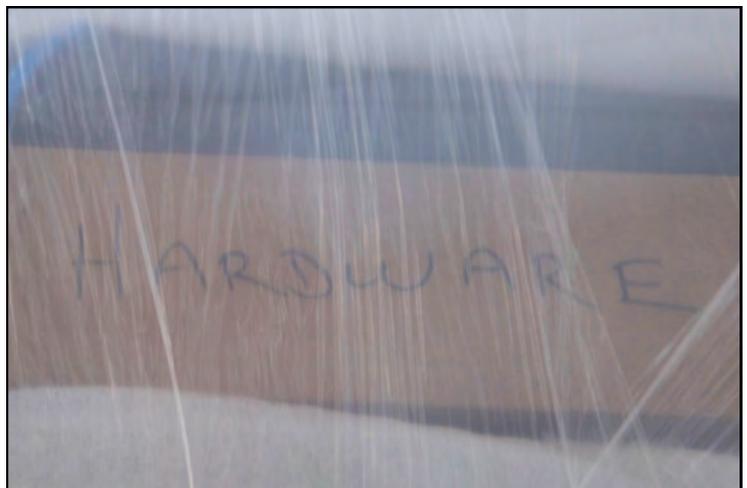
Step 1: Uncrating

1. The Flashback ships fully assembled. Remove the wooden outer shell and the wooden caps holding the legs in place. The flash is now accessible and can roll into place.



2. The box inside of the plastic wrapping contains:

- 2 x 1/4" Air Fittings
- 3-Way Air Fitting
- Black Airline
- 9 Pin "Dummy Plug"

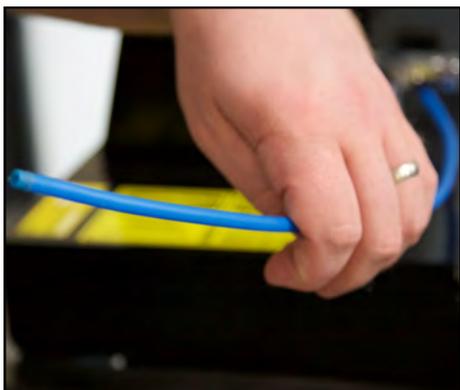


The Flashback's power cord is coiled and connected to the machine with wire ties. The operator is responsible for providing the male and female plug ends to create a matched set.

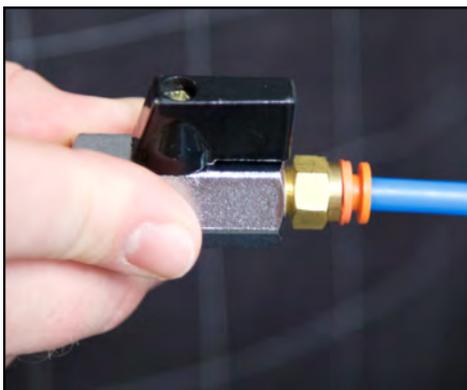
Step 2: Connecting the airline.

Parts needed:

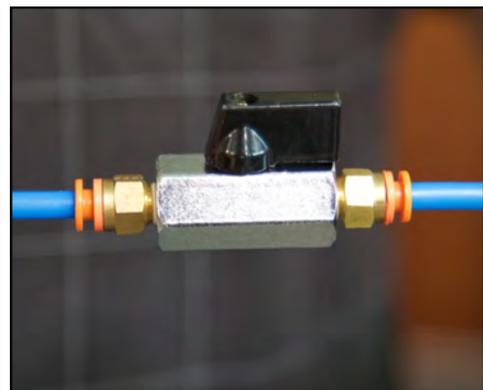
- Blue Airline
- 2 x 1/4" Air Fittings
- Ball Valve



1. Find the blue airline that is connected to the Flashback.



2. Attach a 1/4" air fitting to the left side of the ball valve and connect the blue airline from the Flashback to it.



3. Attach the other 1/4" air fitting to the right side of the ball valve and connect the blue airline from the press to it.



4. Run the blue airline under the Flashback and underneath the base of the press.



5. The blue airline will be connected to the three-way connector, which will be elaborated on in "Step 3: Connecting to the main air".

Step 3: Connecting to the main air.

Tools needed:

- 3/8" Socket Wrench

Parts needed:

- Flashback Blue Airline
- 3-Way Air Fitting

1. To connect to the air pipe the backside of the press needs to be opened. The backside is directly behind the side with the tablet.



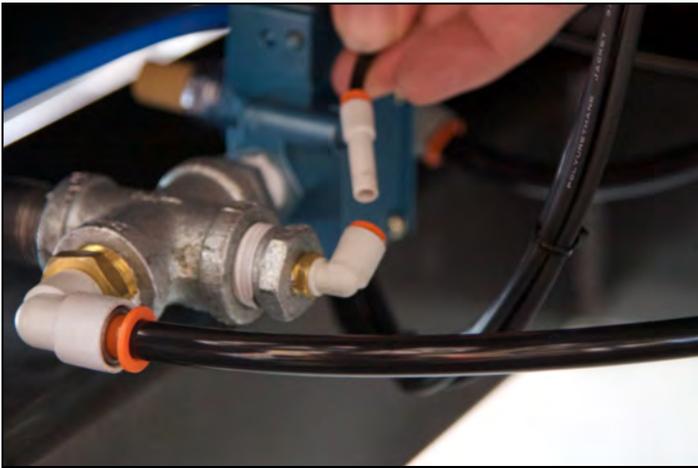
2. Loosen the bolts on the panel with a 3/8" socket wrench. Loosen and remove all six bolts.



3. Remove the panel.



Step 3 (Continued): Connecting to the main air.



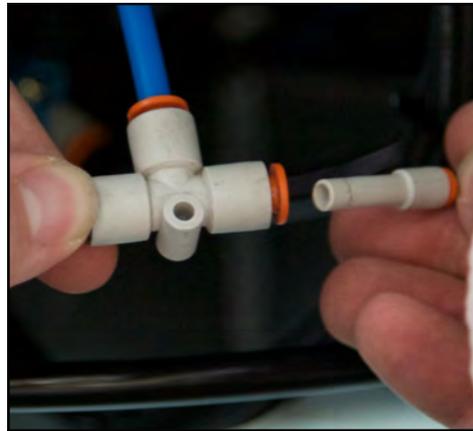
1. Remove the 5/32" adapter and black airline from the ninety-degree elbow fitting.



2. Cut a 3" piece of blue airline from the airline that was provided. Insert the piece into the ninety-degree elbow fitting.



3. Attach the 3" piece to the left side of the three-way air fitting. Then attach the blue airline from the Flashback into the top of the three-way air fitting.



4. For the final side of the three-way air fitting, insert the 5/32" adapter and black airline that was removed in step 1.



5. The three-way connector is how the Flashback connects to the main air of the press. The left side is connected to the 3" piece. The top is connected to the Flashback and the right is connected to the original black airline.

When the airline is connected, place the panel back onto the base.

Step 4: Connecting the Dummy Plug.

Tools needed:

- 3/8" Socket Wrench
- Screw Driver

Parts needed:

- Dummy Plug

1. Open the front panel of the press with a 3/8" socket wrench. The front panel is located on the front side where the touch screen display is located.



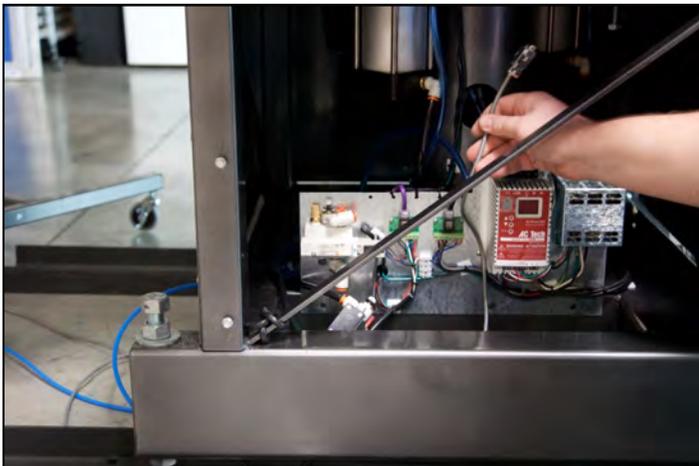
2. Locate the dummy plug, which is included with the Flashback.



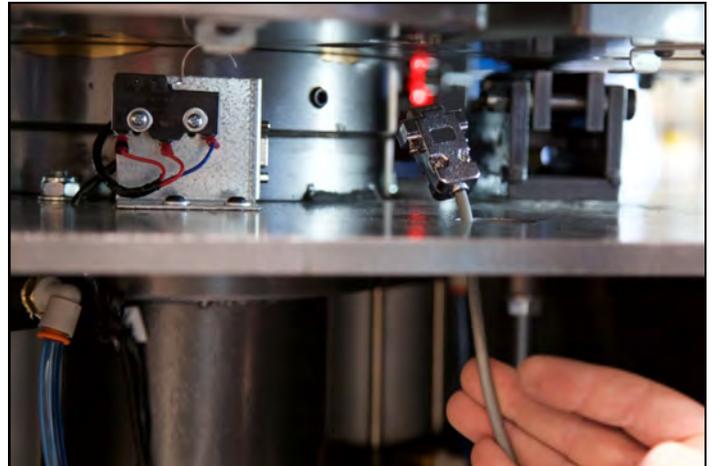
3. Plug the dummy plug into the adapter that is located underneath the back of the flash.



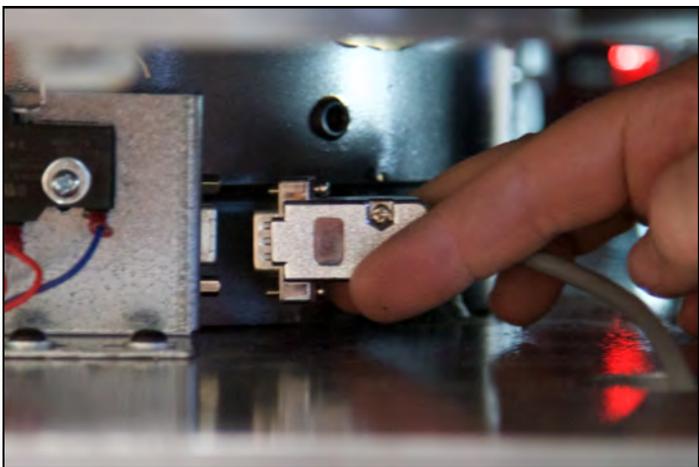
Step 4 (Continued): Connecting the Dummy Plug.



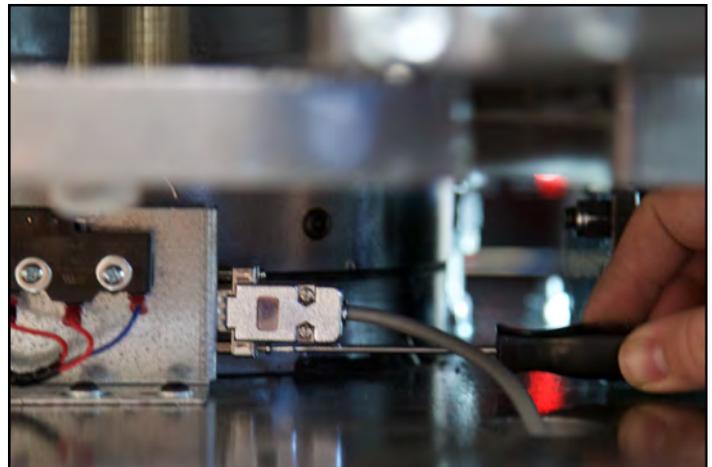
4. Run the grey dummy plug wire underneath the flash and underneath the base of the press.



5. Put the wire through the hole located on the top part of the base.



6. Insert the dummy plug into the designated port, which is on top of the base.



7. Tighten the sides of the plug with a screw driver. If the dummy plug detaches it will prevent the press from indexing.

Step 5: Connecting the power cable.

Parts needed:

- Three-Wire Power Cable

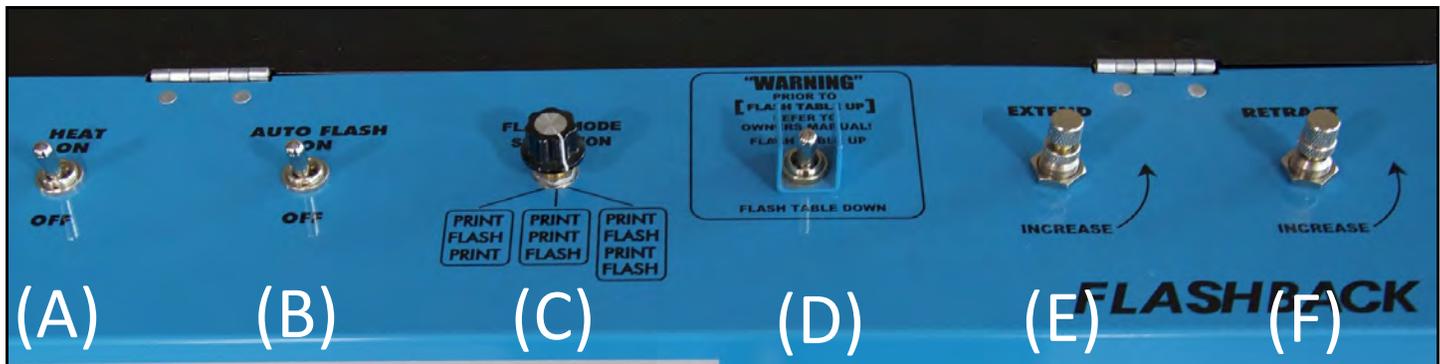
1. A three-wire power cable is provided with the Flashback, **but the plug ends are not provided. The operator is responsible for providing the plug ends.**



2. Do not run the power cable along the floor. There is enough provided cable to reach any of the print heads when the cable is connected from the ceiling above. Route the Flashback's power cable along the same print head it's being utilized on.

Congratulations! The Flashback is now fully assembled.

Controls



(A) Heat On/Off: Turns elements and blower motors on/off.

(B) Auto Flash On/Off: When “on” is selected, the Flashback will automatically extend and retract the element tray in sequence with the table’s rotation. When “off” is selected, the Flashback will remain retracted when the flash is unneeded.

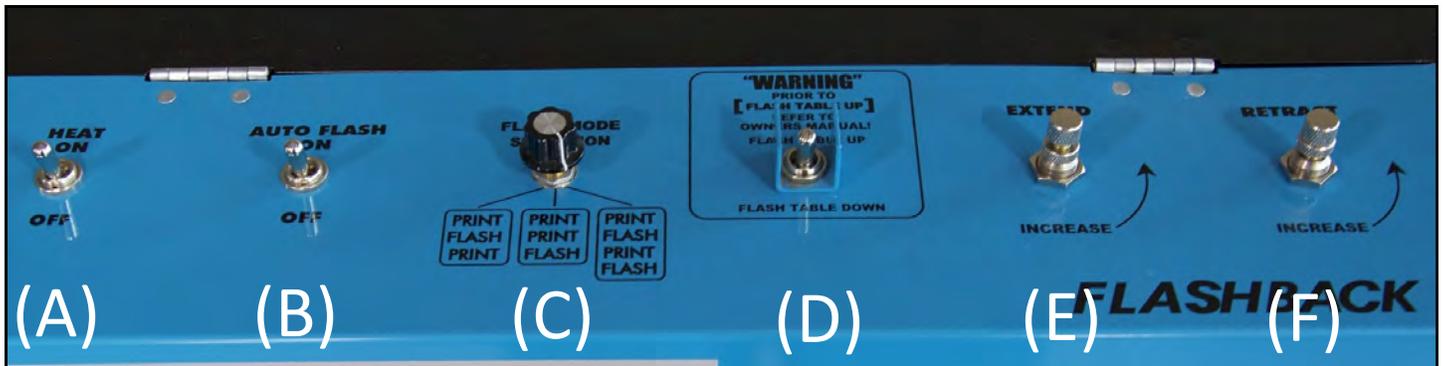
(C) Flash Mode Selection:

Print Flash Print— In this function the Flashback extends in double stroke mode only. If the press is set to single stroke the Flashback will not flash while in this mode. The Flashback will automatically extend and retract, and as the Flashback is retracting the press will flood. When the element tray returns to its home position the table will raise and make a second print stroke. When the sequence is finished, the Flashback will no longer extend and the table will turn immediately.

Print Print Flash— In this mode the print head will print two strokes and flash the image before the table turns. The press floods, and the table raises to make the print stroke and lowers. This sequence repeats to make the second print stroke. When the sequence completes, the Flashback automatically extends and retracts. Set the delay timer to approximately eight seconds to give the Flashback time to extend and retract before the table turn.

Print Flash Print Flash— In this mode the Flashback extends and retracts after every print stroke. With the print head set to single stroke the press floods, the table then rises to make the print strokes and lowers. After the sequence is completed, the Flashback automatically extends and retracts. During the Flashback’s retract phase the press will flood and wait for the Flashback to return to its idle position, then the table will rise to make the print stroke, and finally the table lowers. The press must be in “Automatic Mode” to double stroke. Set the delay timer to approximately eight seconds to give the Flashback time to extend and retract before the table turn.

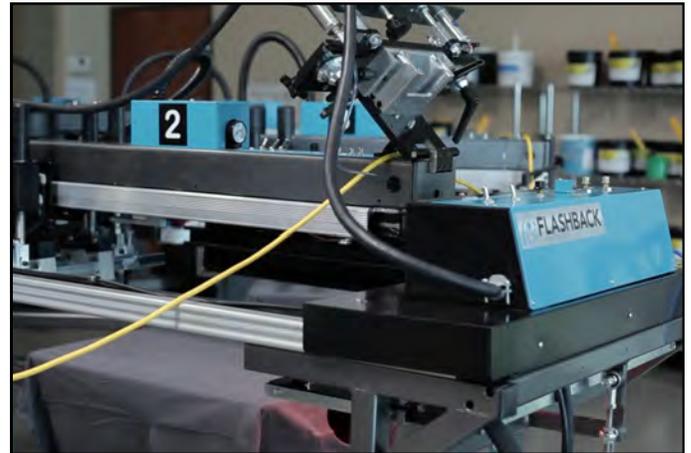
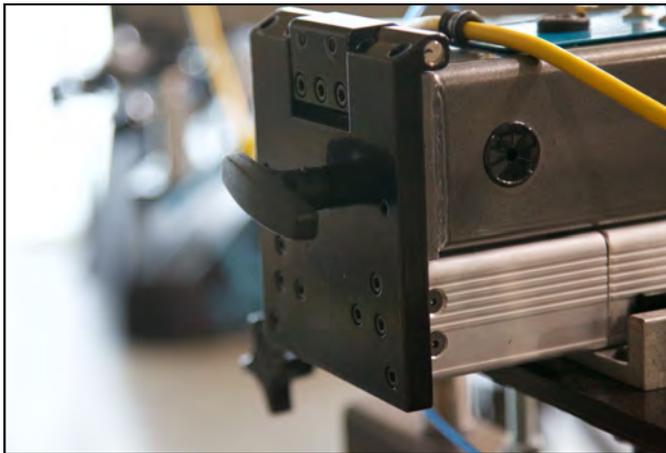
Controls (Continued)



(D) Flash Table Down/Flash Table Up: The Flashback can be configured for two different methods of flash curing.

In “Flash Table Down” the press prints, flashes and cools down in one position. The press will not raise the table while the Flashback’s element tray is extended.

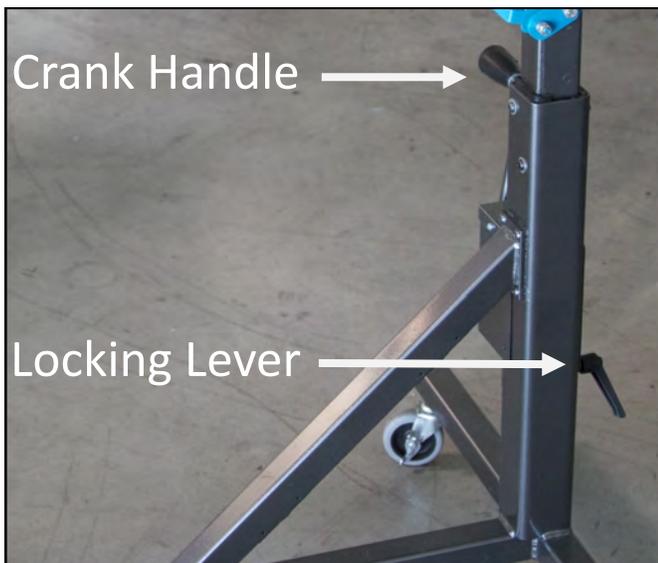
In “Flash Table Up” the table will raise when the Flashback is extended. The operator must be cautious when using this mode because it could potentially damage the heat lamps. Before operating in this mode, it’s required to loosen the T-Knob and rip the hinged front screen clamp up and out of the way. This provides access to roll the flash over the platen in it’s higher table up position.



(E) Extend: The extend control is a flow control to increase/decrease the air supply to the Flashback. This control allows the operator to adjust the speed of the flashback’s extend stroke. Turn the knob clockwise to decrease the speed, or turn the knob counter-clockwise to increase the speed.

(F) Retract: The retract control is a flow control to increase/decrease the air supply to the Flashback. This control allows the operator to adjust the speed of the Flashback’s retract stroke. Turn the knob clockwise to decrease the speed, or turn the knob counter-clockwise to increase the speed.

Adjustments



To adjust the flash height for table down unlock the locking lever, and then use the crank handle to adjust the height of the element tray. Once set to the desired position, tighten the locking lever.



The tilt adjustment is to raise or lower the front of the element tray. Adjust accordingly to guarantee the element tray is traveling on a level plane.

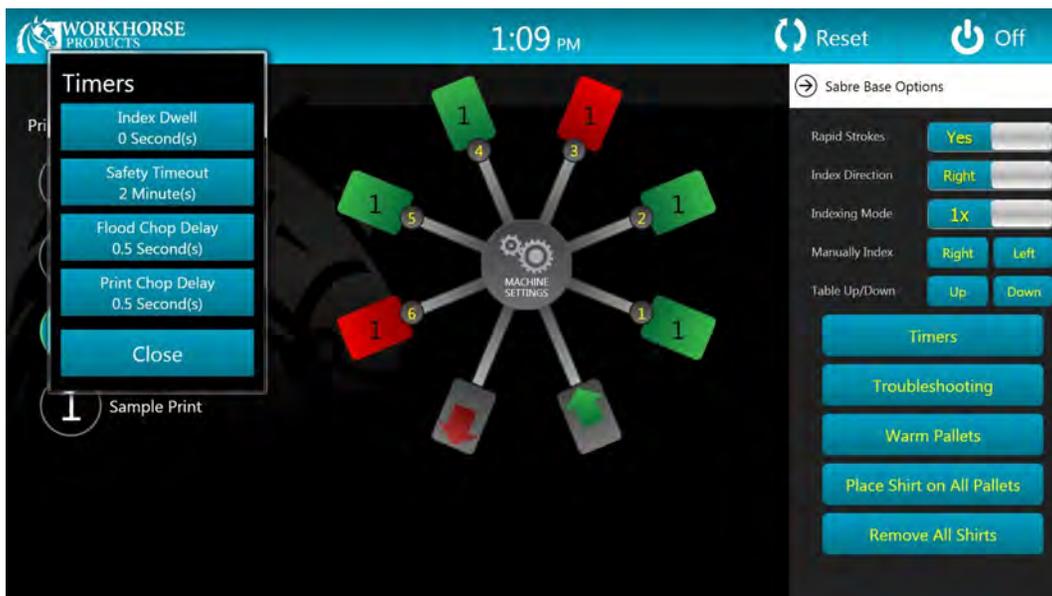


For table down operations, once the element tray is set to the proper height and the tray is traveling on a level plane, the flash is ready to operate.

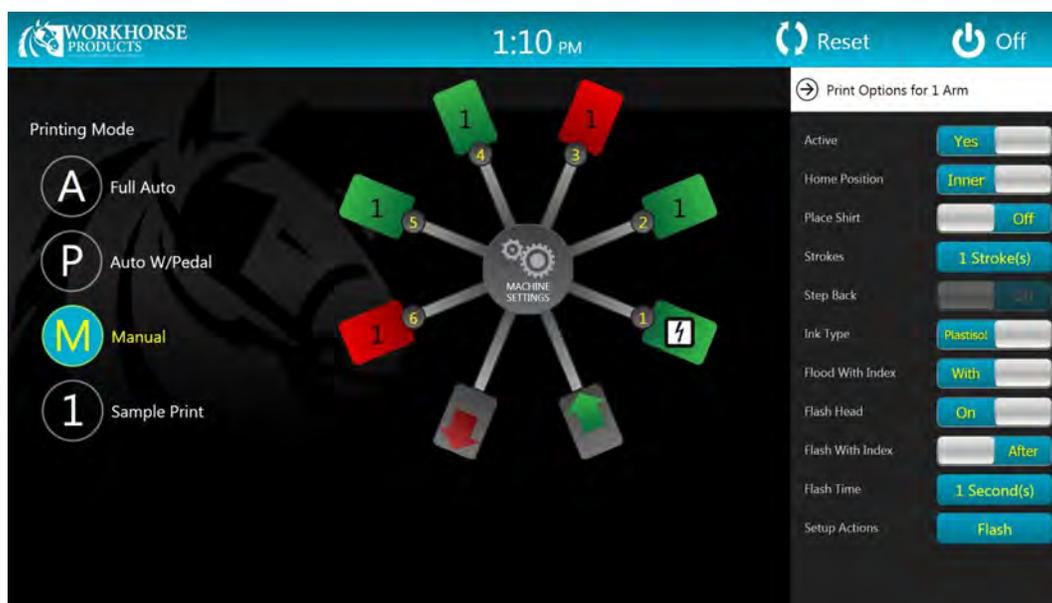


Table up position creates the opportunity to flash for quicker productions. To change from table down to table up, remove the front screen clamp and adjust the height of the flash with the teal handle located directly underneath the base.

Touchscreen Controls



To control the Flashback in the table down position press the “Machine Settings” button located in the middle of the graphic of the press. The flash time is controlled by the index dwell time, which is controlled by the “Timers” button . Within the “Timers” menu the time can be adjusted to hold the tables from indexing long enough for the elementary tray to retract.



To control the Flashback in the table up position, press on the print station where the flash is located and set “Flash Head” into the “on” position. Then set “Flash With Index” to “After” and set the “Flash Time” to the time required for the element tray to retract. If the time is too short the tables will drop before the flash stroke is completed.

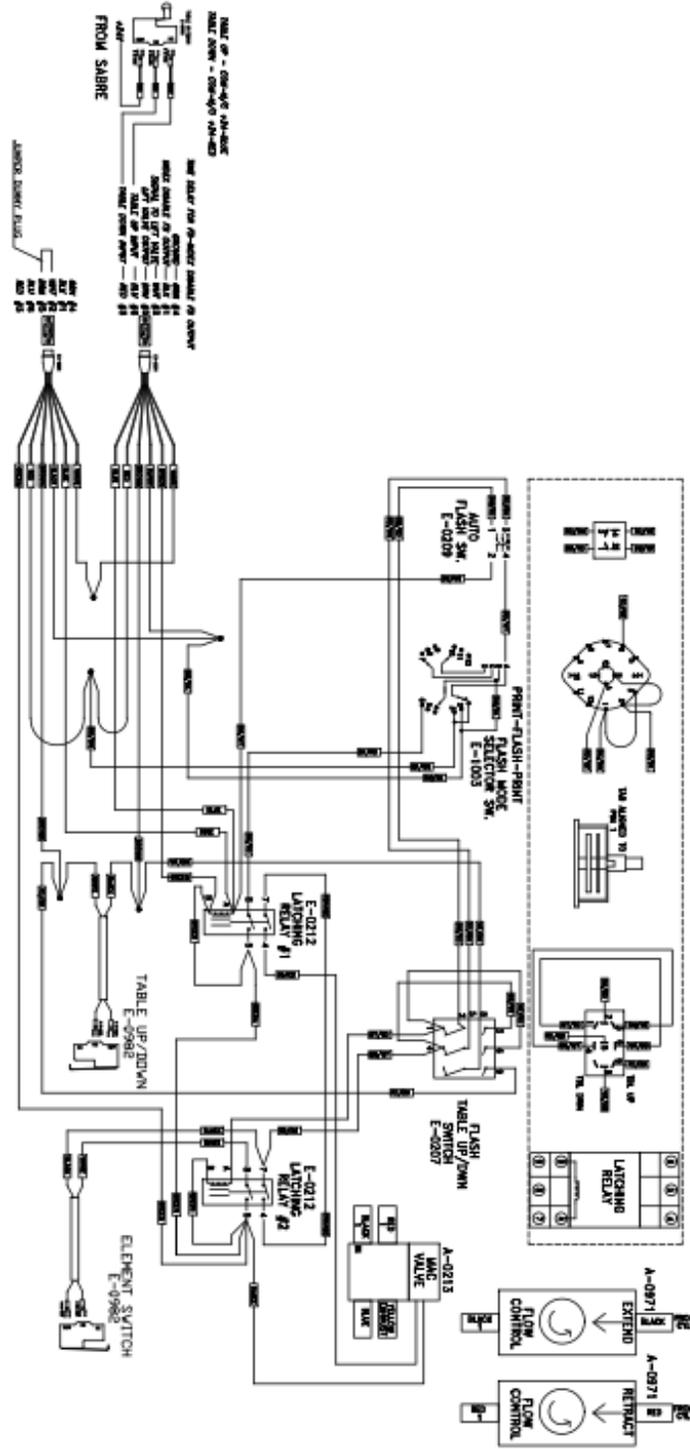
Parts List



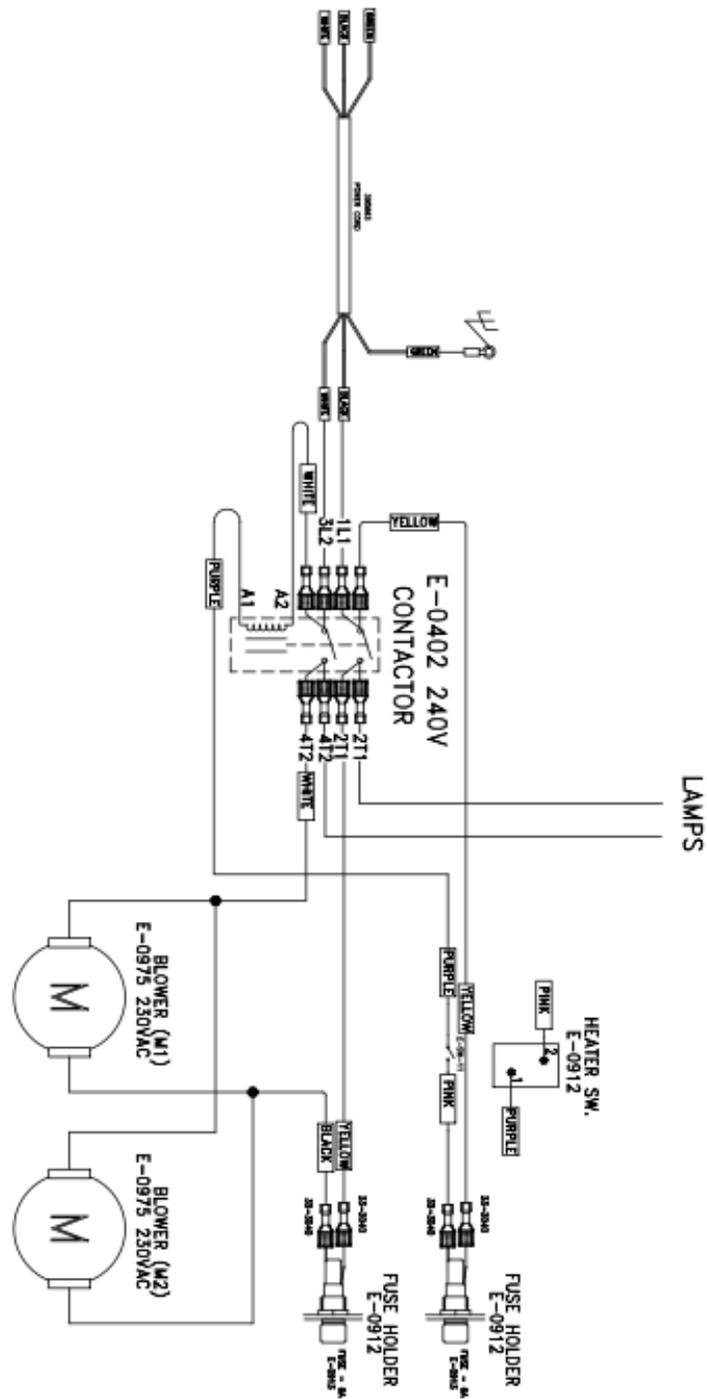
390675	000	SELECTOR SWITCH ASSY FLASHBACK	1 EA
390711-2	A	HARNESS ELEMENT PWR CABLE SAB FB	1 EA
390712	A	HARNESS DB9F CABLE FLASHBACK	1 EA
EA-0005	B	CABLE, MALE 9-PIN F/B CONT. BOX	1 EA
35-11-006	000	ADJ LEVER 3/8-24 BLK PLASTIC STEEL	2 EA
35-11-012	000	LEVER 5/16-18 X 1" STUD	1 EA
58-1230	000	CASTER, 3" BRAKE 3/8-16 X 1" STEM	4 EA
A-0030	A	1/4 MUFFLER P-28 MF4	1 EA
A-0032	B	CONNECTOR, 1/4 TUBE X 1/4 MALE TUBE	4 EA
A-0037	B	CONNECTOR, 1/4 TUBE X 1/4 NPT FEMAL	1 EA
A-0057	B	AIR LINE 1/4 BLUE POLYETHYLENE	2 FT
A-0213	A	VALVE, FLASHBACK 45A	1 EA
A-0971	B	SPEED CONTROL 1/4	2 EA
E-0106	A	SP/ST TOGGLE SW.	1 EA
E-0207	A	TOGGLE SWITCH 3P/DT W/TABS	1 EA
E-0209	A	DP/ST TOGGLE SWITCH	1 EA
E-0212	A	LATCHING RELAY 24VDC 10A	2 EA
E-0213	A	BASE LATCHING RELAY	2 EA
E-0402	A	2 POLE CONTACTOR, 40 AMP, 208/240V	1 EA
E-0912	A	FUSE HLDR PNL MNT	2 EA
E-0913	A	FUSE, 6A TIME DELAY MDL-6	2 EA
M11192	000	S CAP - VINYL	4 EA
K-0010	A	3/4 DELAY TIME KNOB	1 EA
E-0982	A	SNAP ACTION SWITCH	1 EA
F-0216	A	WASHER, NYLON, 3/8 ID x 5/8 OD	4 EA
I-0162	F	WHEEL #1, FB RILEY SCREW (REV E)	4 EA
I-0225	D	CABLE CHANNEL, JAV FLASHBACK	1 EA
I-0229-1	A	SHIELD, 1 BULB (SAB F/B)	2 EA
I-0233	F	INSULATION (ALL F/B) RADX (REV.	2 EA
I-0234	C	INSULATION, TOP FLASH BACK	2 EA
I-0236-1	A	INSULATION, RIGHT, SABRE FLASHBACK	2 EA
I-0251	C	BUS BAR FLASHBACK	2 EA
56-3000	000	KNOB FLTD RND 1.25OD 1/4-20X1/2STUD	1 EA
A-0015	B	1/4 T X 1/8 PIPE 90 ELB-COMPACT!!	2 EA
A-0054	B	AIR LINE 1/4 RED POLYETHYLENE	6 FT
A-0055	B	AIR LINE 1/4 BLACK POLYETHYLENE	9 FT
A-0093	A	BAND CYLINDER, 34" TOLOMATIC	1 EA
E-0975	000	LOW PROFILE BLOWER, 230V	2 EA
E-0982	A	SNAP ACTION SWITCH	1 EA
20-02-025	000	FITTING MALE 1/4 HOSE X 1/8 NPT	2 EA
A-0014	B	UNION, 1/4" TUBE TEE	1 EA
A-0051	B	VALVE, BALL, FLSHBK	1 EA
A-0055	B	AIR LINE 1/4 BLACK POLYETHYLENE	20 FT
EA-0007	B	PLUG, DUMMY 9 PIN FB MALE (BLACK)	1 EA
T-2024	A	CABLE COUNTERWEIGHT, SAB FLASHBACK	1 EA
34-20970	C	Quartz Element Single, 230V 1160W	4 EA

For more information and support see our website <http://support.workhorseproducts.com/store/>

Wiring Diagram



Wiring Diagram



Limited Warranty



Although every effort has been made to provide accurate specifications, Workhorse Products does not assume any liability for damages, whether consequential or incidental, that may result from the use or misuse of the indicated specifications. Workhorse Products requires the use of a licensed industrial electrician for the installation of electrical service to equipment requiring electrical power.

Workhorse Products reserves the right to alter specifications in the manufacture of its products. It is understood and agreed that Seller's liability for any equipment whether liability in contract, in tort, under any warranty, in negligence, in strict liability or otherwise shall not exceed the return of the amount of the purchase price paid by Buyer. Notwithstanding the foregoing provision, under no circumstances shall Seller be liable for special, indirect or consequential damages. The price stated for the equipment is a consideration in limiting Seller's liability. No action regardless of form, arising out of the transactions under this Agreement may be brought by Buyer more than one (1) year after the cause of action has occurred. Our warranty is specified is exclusive and no other warranty, whether written or oral, is expressed or implied. Workhorse Products specifically disclaims the implied warranties of merchantability and fitness for a particular purpose. Equipment manufactured or sold by Workhorse Products is warranted against defects in workmanship and materials for a period of one year from receipt by customer. All warranties initiate from date of shipment to original customer. Replacement parts are covered for the term of the equipment warranty period. Parts not under warranty are covered for thirty (30) days from receipt by customer. Any part found by Workhorse Products to be defective in material or workmanship within the stated warranty period will be replaced or repaired at Workhorse's option without charge.

AFTER OBTAINING AN RMA# SEND RETURNED FREIGHT PREPAID TO 3730 E. Southern Avenue, PHOENIX, AZ 85040 USA.

Written authorization must be obtained from Workhorse before any part will be accepted. Replacement parts are sent out freight collect.

Parts sent out prior to receiving defective require a credit card hold for cost plus freight. Upon return of defective part, if it is deemed that the part was not damaged by customer but failed, the cost of the replacement part will be refunded.

This warranty does not extend to expendable parts such as filters, fuses, elements and brushes. Workhorse does not warrant failure of parts or components resulting from misuse or lack of proper maintenance. Installation, inspection, and

Registration Form	
Company Name: _____	Contact Name: _____
Address: _____	Phone Number: _____
_____	Fax Number: _____
City: _____	Email : _____
State: _____	Cell Number: _____
Country: _____	Serial Number: _____
Zip Code: _____	Date Recivied: _____
Model Number: _____	
Date Purchased _____	

Please Fax Registration Form for warranty to take place