Autobag® 800™
User's Manual

ORGINAL INSTRUCTIONS

Part No. AB8-UM
Rev. A
29 April 2020

Automated PACKAGING SYSTEMS

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Automated PACKAGING SYSTEMS

CE

Declaration of Conformity

2006/42/EC Machinery Directive
2014/30/EU EMC Directive
2011/65/EU RoHS Directive

Business Name **Address of Manufacturer**	Automated Packaging Systems, Inc. 10175 Philipp Parkway, Streetsboro, Ohio 44241, USA
Name and Address of the person in Community Authorized to compile the Technical File	Jens Pfeiffer, Automated Packaging Systems GmbH & Co. KG Heinrich-Eberhardt-Straße 10 38304 Wolfenbüttel Germany
Description of product (Commercial Name)	Autobag® AB 850S Bagger Autobag® AB 800 Bagger
Function	Feeds bags from a roll or box to the bagging area where they are opened, sealed and separated.
Model **Starting Serial No**	AB8 Series AP00067613

Standards Used

EN ISO 12100:2010
EN 415-10:2014
EN 60204-1:2006/A1:2009/AC:2010
EN ISO 4414:2010
EN ISO 14120:2015
EN ISO 13849-1:2015
EN ISO 13849-2:2012
EN 55011:2009/A1:2010
EN 61000-4-2:2009
EN 61000-4-3:2006+A2:2010
EN 61000-4-4:2012

Declaration

I declare as the Manufacturer, the above information in relation to the supply / manufacture of this Product, is in conformity with the stated standards, and other related documents following the Provisions of the above Directives and their amendments.

Place and Date of Declaration	Streetsboro, Ohio, USA 2020-09-25
Person Empowered to Draw Up Declaration	Tim Darney Director of Engineering

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Revision History

Date	Rev.	Part Number	Document	Description / Affected Pages
Oct 2015	A	MAN-OP-001	Operator Manual	N/A
May 2016	1.1	AB-850s-OP	Operator Manual	All sections
Jun 2016	1.2	AB-850s-OP	Operator Manual	All sections
Oct 2016	1.3	AB-850s-OP	Operator Manual	All sections
March 2017	B	AB-850s-OP	Operator Manual	Section 6
July 2017	D	AB-800-OP	Operator Manual	New Part Number, Spare Parts
29 April 2020	A	AB8-UM	User's Manual	New Part number and Template

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SAFETY AND OVERVIEW

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Safety

Automated Packaging Systems believes that safety comes first and foremost. Understanding the safety concerns associated with Automated Packaging Systems machines will help the operator and maintenance technician understand the dangers associated with operating and maintaining the machine, and what specific steps can be taken to reduce the risk of injury to personnel or damage to equipment. Failure to understand or follow the procedures outlined in this manual may lead to loss of life or injury to personnel and/or damage to equipment.

When operating and/or maintaining this machine, the end user is responsible for complying with the all applicable Federal, State and Local installation and safety codes. Refer to the local Safety Manager or Supervisor for applicable regulations for the geographical region in which the machine is to be installed and operated in.

The Safety and Overview section will cover some risk reductions techniques however, the end user shall refer to their local Safety Department or Supervisor for local policies and procedures.

The Operation Module of this manual shall be read in its entirety prior to any actions being performed regarding the machine.

Only trained personnel shall operate and/or maintain this machine.

Engineering changes may have been completed following the publication date of this manual. Any departure from these procedures should be verified and approved with Automated Packaging Systems.

Warnings, Cautions, and Notes

Throughout this manual Warnings, Cautions and Notes will be utilized. They are used to emphasize important information, will call your attention to specific items that are associated with a possible safety hazard or will assist the operator/technician with their tasks.

Warning, Caution and Note symbols will only appear in this manual; you will not find these on the machine. Below is an example of the symbols and the definition associated with each type.

This is an example of a warning. Warnings will directly precede the item the warning applies to. Warnings are to be used when failure to follow instructions could lead to loss of life or serious injury. A Warning will only be used for personnel. Warnings will always precede cautions.

This is an example of a caution. Cautions will directly precede the item for which the caution applies to. Cautions are to be used when failure to follow instructions could lead to injury to personnel or damage to equipment. A caution may be used for personnel or equipment. Cautions will always precede notes.

NOTE

This is an example of a note. Notes are to be used to give more information, highlight essential procedures, conditions, or statements that may be helpful to the user. A note may either precede or follow the text of a procedure.

Machine safety labels

Machine safety labels will be located on the machine. They will indicate hazards and dangerous areas that may cause injury to personnel or damage to the equipment. Refer to Table 1-1.

LABEL	DESCRIPTION
	Indicates relevant information for use of the product is available in electronic form rather than, or in addition to, printed paper form.
	Do not operate this unit if the decal shown is visible on the unit. It indicates a guard or cover has been removed and must be remounted before operating the unit. Do not operate with the guard removed. The gears or belts are exposed.
	Avoid machinery damage. Read manual for proper service procedure.
	Hearing protection required in this area. Exposure to loud noises will lead to hearing loss.
	Avoid injury. It alerts the user to potential injury hazard.
	Avoid injury. The surface of the machine may become hot during operation and may remain hot after the power is removed.
	Avoid electrical shock or injury. A dangerous voltage and/or open electrical contacts are present. It alerts the user to dangerous voltage inside the unit that can cause electric shock. Only qualified service personnel should remove cover after performing Lockout/Tagout (LOTO) procedures.

TABLE 1-1. MACHINE LABELS

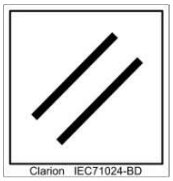
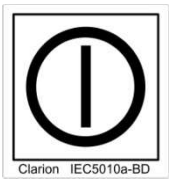
LABEL (Continued)	DESCRIPTION (Continued)
	The symbol identifies the protective earth ground to the unit.
	Reset decal. This decal denotes the bagger reset button.
	Start/Stop/Cycle decal. This decal denotes the bagger start/stop/cycle button.
	Air Guide decal. These decals denote the Air Guide adjustment.
	Air Pulse decal. These decals denote the Air Pulse adjustment.
	Air Blower decal. These decals denote the Air Blower adjustment.
	Bag Feed decal. These decals denote the AutoThread™ switch.

TABLE 1-1. MACHINE LABELS (CONTINUED)

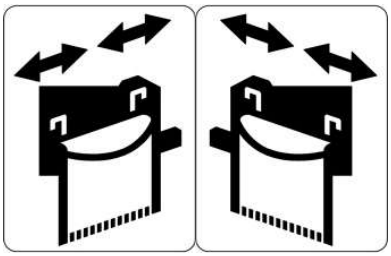
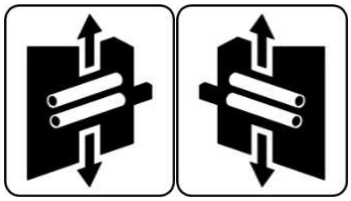
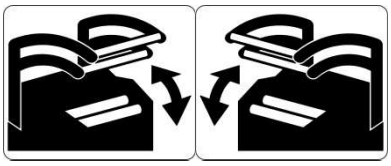
LABEL (Continued)	DESCRIPTION (Continued)
	Seal Flattener left and right decals. These decals denote the Seal Flattener adjustment
	Main Nip control, left and right decals. These decals denote the Nip Roll Locking Lever adjustment.
	Thread Control left and right decals. These decals denote the Tension Control Unit button).

TABLE 1-1. MACHINE LABELS (CONTINUED)

Residual risk

Residual risk is a term used to refer to a level of risk for a given hazard after applying safety/protective measures (risk reduction measures). No risk may be reduced to zero even with proper safety procedures in place.

In the Safety and Overview section, we cover risk reduction methods such as safety labels. However, there may be threats that remain after all efforts to identify and eliminate risk(s) have been made.

Some of the residual risk(s) that may remain after applying risk reduction methods are:

- Possible noise hazard. Wearing hearing protection is recommended and/or may be required. Safety labels applied to the machine indicate this risk.
- Possible pinch and/or crush injuries may occur when moving the machine, separating its parts, and joining its parts.
- Possible pinch and/or crush injuries may occur when fault-finding during live equipment troubleshooting.
- Possible electrical shock hazard is present in the E-BOX during troubleshooting when the machine is powered OFF and still plugged into an electrical outlet. Only qualified service personnel are permitted to remove protective equipment covers.
- Possible electrical shock hazard is present when troubleshooting with machine power ON, due to voltage inside the machine. Only qualified service personnel are permitted to remove protective equipment covers. Safety labels applied to the machine indicate this risk.
- Possible slip fall and trip hazard. A slip and fall hazard exists for excess bags and bag material that falls to the floor during operation. For trim equipped machines, a trip hazard exists for the trim net as it may touch the ground depending on machine height.
- Possible impact hazard or burn hazard. Only qualified service personnel are permitted to remove protective equipment covers. Safety labels applied to the machine indicate when covers have been removed and the machine should not be operated under normal conditions.

Conditions for intended use of machine

This Automated Packaging Systems machine has been designed to operate in specific operating and environmental conditions and for specific products. These conditions must be met for the machine to function correctly and operate safely. Failure to operate the machine in the conditions for intended use will be considered misuse of the machine.

⚠WARNING

Only personnel that have been properly trained shall operate or maintain the Automated Packaging Systems machine. Untrained personnel pose a safety risk to themselves and others that may lead to loss of life or equipment damage.

1. Prior to unpacking, operating, maintaining, troubleshooting or any interaction with the machine, read all instructions contained within this manual.
2. Use the Automated Packaging Systems machine for its intended use only.
3. Do not use the unit outdoors or in wet conditions unless specifically designed for these conditions.
4. Do not operate if under the influence of drugs or alcohol.
5. Keep hands, hair, jewelry, clothing and other loose items away from moving parts.
6. Do not package explosives, flammable materials, combustible liquids, or any product which may be determined as hazardous or unsafe.
7. Do not operate when any guards are removed or loose.
8. Machine must be electrically grounded to facility ground supply.

Precautions

Certain general precautions shall be taken when operating the Automated Packaging Systems machine and shall always be observed. Following these precautions will ensure the good working order of the machine and the safety of personnel.

1. Keep the work areas surrounding the machine clean.

2. Do not place or leave objects on top of the machine.

3. When relocating the unit, be sure to read all instructions first.

4. Forklifts and hoists shall not be used to lift machines. Machines may only be pushed into place or hand lifted into position in the case of accessory machines such as printers.

5. Any supporting surface used for this unit must be a level, non-slip, oil free, dry surface rated to support four times the weight of the unit, supply parts, and any optional or accompanying equipment.

6. Do not use extension cords to connect the machine to a power source. Machines shall be plugged in to dedicated, stand-alone power circuits.

7. Ensure power cords and air supply lines do not create a tripping hazard. Route them from above the unit whenever possible.

8. Do not position the unit near a heat source.

Misuse

⚠WARNING

Operation of this machine with any guard or cover removed will be considered misuse. Misuse of the machine may lead to loss of life or damaged to equipment.

Misuse of the machine presents a hazard to personnel and equipment. The following will be considered as misuse of the machine:

- Modifications that are not approved by Automated Packaging Systems
- Failure to follow all instructions contained within this manual
- Allowing untrained or unauthorized personnel to operate and/or maintain the machine
- Using the machine in hazardous environments. Do not use the machine in hazardous environments

Sound level test results

Sound level test results for the Autobag 800™ and Autobag 850™ were taken at a distance of 3.28 feet (1.0 meter) and a height of 5.25 feet (1.6 meters) using A-weighted and C-weighted meter readings.

Sound level testing was completed using typical machine settings. Adjusting machine settings may increase or decrease sound levels during operation.

⚠WARNING

Hearing protection is required for sound levels above 85 dB. Refer to your local Safety Office for hearing protection procedures.

MACHINE MODEL	A-WEIGHTED READINGS	C-WEIGHTED READINGS
Autobag 800	86.2 dB	85.6 dB
Autobag 850	87.2 dB	86.7 dB

TABLE 1-2. SOUND LEVEL TEST RESULTS

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INTRODUCTION

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General Description

The Autobag® 800™ series bagger is uniquely designed to provide enhanced packaging productivity for mail order fulfillment and ecommerce applications. Capable of running bags up to 22" wide, this system features a breakthrough bag opening technology that securely grips and holds the open bag in place. This creates a large, square opening (up to 11" x 11") that allows for easy loading of single or multi-line orders.

Next-bag-out printing is achieved with an advanced thermal transfer imprinter positioned directly over the next bag to be loaded. This ensures accuracy and efficiency in fulfillment applications that require frequent product and label changeovers and prevents product queuing.

State-of-the-art engineering has resulted in a system that is inherently safe. The Autobag 800 eliminates the need for bulky guarding or devices required for safe operation. This unobstructed access makes loading ergonomic and improves operator throughput.

When used with genuine Autobag pre-opened bags-on-a-roll, the Autobag 800 ushers in the next evolution of high-quality, reliable and flexible mail order fulfillment and ecommerce packaging, backed by the industry's most comprehensive engineering and field service network at Automated Packaging Systems.

Operating Environment

Do not operate machine in potentially explosive atmosphere.

The machine is intended for indoor use only.

The operating environment for this machine shall be free of dirt, dust and moisture. The end user is responsible for maintaining an environment free of combustibles and for maintaining fire suppression equipment.

Functional Operation

Figure 2-1 depicts the functional operation of the Autobag 850 machine.

FIGURE 2-1. FUNCTIONAL OPERATION

Item	Description
1	A box of bags is located at the rear of the unit, positioned on the box shelf.
2	The bags are threaded through the TCU unwind. The unwind may be mounted in vertical or raised configuration. Bag threading is the same for both configurations.
3	The bags leave the unwind and feed through the machine. If the machine is a Autobag 850 unit, the bags will feed under the printer located on top of the unit.
4	The bags enter the unit at the nip roller and exit at the front of the machine to be filled with product.
5	Machine settings and bag cycling are controlled using the HMI Interface and AutoTouch™ Control Screen. Bag cycling can also be controlled by optional palm or foot switches.
6	The operator fills the bag with product. Once filled, bags are sealed by the seal bar and detached.
7	The bag is then dropped from the machine by the load shelf.

TABLE 2-1. FUNCTIONAL OPERATION

Options

Factory installed options available for the Autobag 800 series bagger are listed in Table 2-2. Contact the Automated Packaging Systems application department for assistance with determining custom packaging requirements and special option configurations.

Option	Part Number	Description
Datamax H Class Printer	Contact Automated Packaging Systems	203, 300 DPI Print Head
Discharge Conveyor Left Right Rear	Contact Automated Packaging Systems	Take-away conveyor.
AutoView mounting Left or Right	Contact Automated Packaging Systems	Mounting for operator display
FootSwitch	Contact Automated Packaging Systems	For Single Cycle Operation
Palm Switch	Contact Automated Packaging Systems	For Single Cycle Operation
Load Shelves - for use with REAR conveyor	3-004969-12: 12" (30.5 cm) 3-004969-20: 20" (50.8 cm) 3-004969-25: 25" (63.5 cm) 3-004969-30: 30" (76.2 cm)	Part number matches fillable bag area.
Scanner Ready	Contact Automated Packaging Systems	Allows for a bar code scanner of vision system to see the print as it is being printed.

TABLE 2-2. OPTIONS FOR AUTOBAG 800 SERIES BAGGER

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OPERATION

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Operation

WARNING

The machine must be placed into service by an authorized Automated Packaging Systems Service Technician. Machine installation or connection to an energy supply prior to being placed into service may be hazardous to personnel and/or equipment.

The machine must have all covers installed during normal operation. Do not operate the machine without the covers installed.

NOTE

The warranty period may only be started by an authorized Automated Packaging Systems Service Technician.

After your machine has been placed into service by an Automated Packaging Systems Service Technician, operation of your machine may begin. This section covers operation fundamentals of the machine.

HMI Buttons

The HMI is equipped with the three (3) buttons on its frame, below the screen.

FIGURE 3-1. HMI FRAME BUTTONS

Item	Description
1	E-STOP (red)
2	Reset button (blue)
3	Start-Stop-Cycle button (white)

TABLE 3-1. AUTOTOUCH™ BUTTONS

1. E-STOP button. The red E-STOP button is a manually operated Emergency Stop button for the machine. Pushing the red E-STOP button IN, places the machine in an emergency stop condition. The air supply is exhausted (dumped) from the machine by an electronic valve. Power is removed from the drive motors, valve manifold and heat wire system. Pulling the red E-STOP switch OUT takes the machine out of Emergency Stop mode but requires an E-STOP reset to resume normal operation.
2. E-STOP RESET button. The blue E-STOP RESET button is used to reset the machine after an Emergency Stop is initiated. The button illuminates steadily when the machine is in an Emergency Stop condition. Pushing the button resets the machine and allows the machine to resume normal operation.

3. START/STOP button. The white START/STOP button is the button used in normal operation of the machine. The white button illuminates steady when action is required by the operator. Pressing the button starts a SINGLE or AUTO MODE cycling sequence (as selected by the operator). It is also used to initiate a HOMING sequence when required.

Emergency Stop (E-STOP)

There are three EMERGENCY STOP button locations on the machine.

FIGURE 3-2. THREE E-STOP LOCATIONS

Use the E-STOP button in emergency situations where an immediate shutdown of the machine is required. This is a safety feature for the user and should not be used to stop the machine between cycling operations. The START/STOP should be used for normal operations to stop the machine.

To put the machine in an E-STOP condition, use the following steps:

1. Press any of the three red E-STOP buttons in. The E-STOP ENGAGED popup display appears on the screen, indicating which of three buttons is engaged.

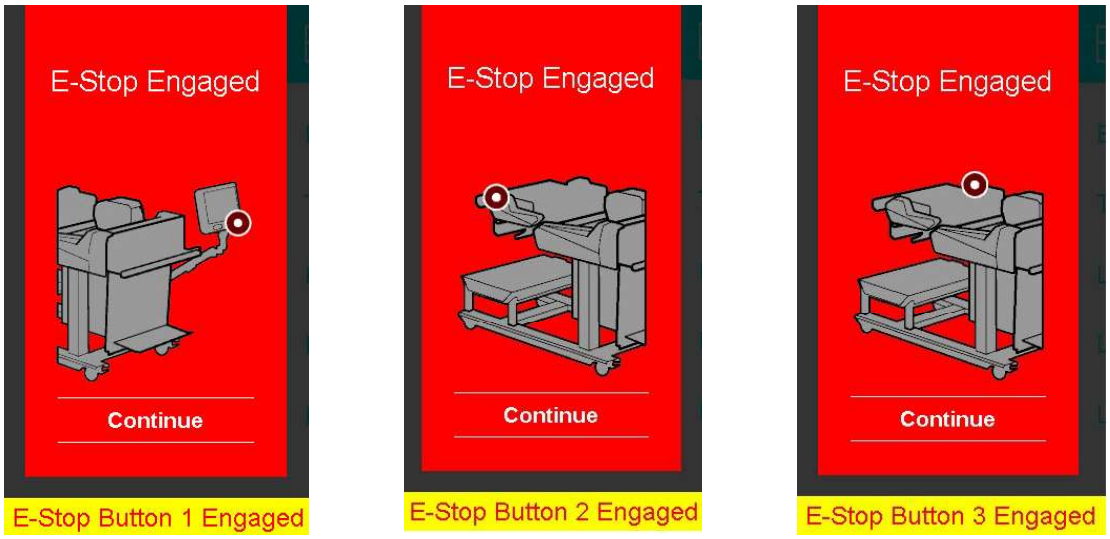


FIGURE 3-3. E-STOP ENGAGED

E-STOP condition with startup

The machine is automatically placed in an E-STOP condition each time it is powered up. This prevents unintentional movement of the machine during power up. A display on the HMI indicates that the E-STOP located on the HMI frame needs to be reset before operating the machine.

FIGURE 3-4. RESET E-STOP DISPLAY

To reset the E-STOP condition, use the following steps:

1. Pull out on the red E-STOP button.
2. Momentarily press the blue RESET button to reset the E-STOP condition.
3. The machine is now back in an operational state.

FIGURE 3-5. RESET E-STOP

Air Supply

The air supply for the machine may be exhausted (dumped) and locked out for LOTO procedures. To dump the air from the machine, use the following steps:

1. Turn the air supply red knob clockwise until the air can be heard exhausting and EXH can be read in the knob wind (Figure 3-6, Item 1).
2. If the machine is to be locked out for maintenance, place a LOTO device in the location provided in the dumped position (Figure 3-6, Item 2).

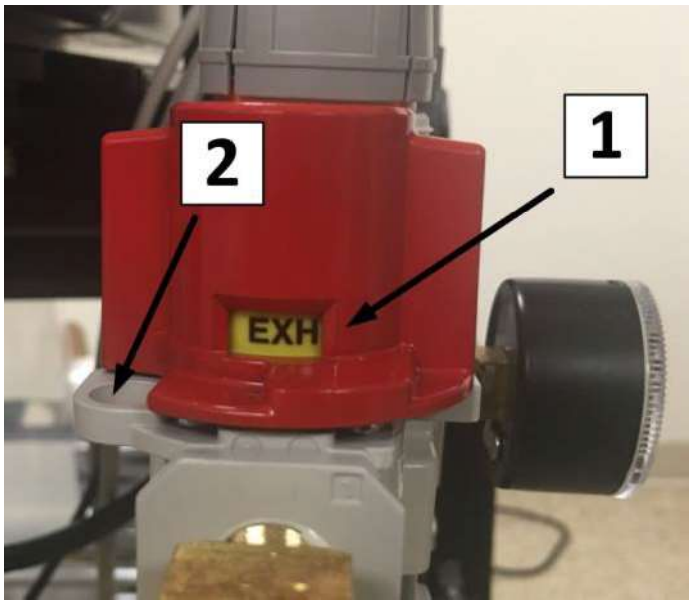


FIGURE 3-6. AIR LOCKOUT

Item	Description
1	Air valve in exhaust position
2	Lockout for pad lock

TABLE 3-2. AIR LOCKOUT

⚠ CAUTION

Air may remain trapped in the machine after exhausting the air supply.

The load shelf and accumulating funnels are designed to trap air to prevent product from being released during E-STOP situations. The load shelf and accumulating funnel door is locked in their last position when an E-STOP situation occurs. Refer to the Maintenance Module for procedures on how to remove air.

Adjusting Main Air Pressure

The air requirements for the Autobag 800 and 850 machines are 80 Psi nominal +/- 5 Psi (5.5 bar nominal +/- .35 bar). The machine enters an error condition if the air pressure exceeds the limits. To adjust the air pressure for the machine, use the following steps:

⚠ CAUTION

The machine gives a low pressure warning below 60 Psi (3.45 bar) and a high-pressure warning above 90 Psi (6.9 bar). The machine cannot be cycled until the air pressure warning has been corrected.

1. Pull up on the gray air adjustment knob located above the air gauge until the orange line can be seen at the bottom of the knob (Figure 3-7, item 1).

FIGURE 3-7. AIR ADJUSTMENT KNOB UP(1) AND DOWN(2) POSITIONS

2. Turn the knob CW to increase the air pressure. Turn the knob CCW to decrease the air pressure.
3. When the desired air pressure has been set, push the knob down until the orange line is no longer visible (Figure 3-7, item 2).

Adjusting Air Flow Controls

The Autobag 800 and 850 machines have two flow controls located on the right side of the machine when facing the loading area. The flow controls consist of the following:

- Air Pulse. Adjusts the amount of air blown into the bag in order to blow the bag open
- Air Blower. Adjusts the amount of air blown into the bag in order to keep it open during bagging

NOTE

Air flow adjustments can be made to the load shelf.

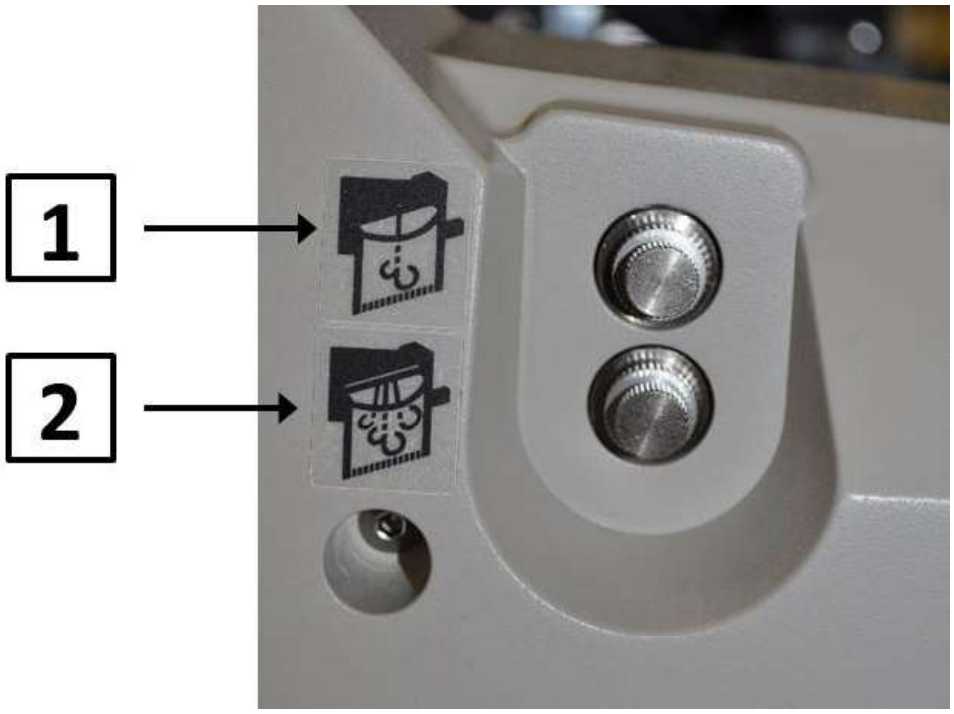


FIGURE 3-8. AIR ADJUSTMENTS

Item	Description
1	Air Pulse
2	Air Blower

TABLE 3-3. AIR ADJUSTMENTS

To adjust the flow controls, use the following steps:

1. To increase the adjustment, turn the knob counter-clockwise (CCW).
2. To decrease the adjustment, turn the knob clockwise (CW).

Main Power

WARNING

There is no physical lockout for electrical power located on the machine.

Refer to the Maintenance Module for correct power requirements.

The main power switch and cord for the Autobag 800 and 850 machines is located on the rear of the Main Electrical Box (E-BOX). If the machine is an Autobag 850 version, there is an additional power switch located on the front of the Printer E-BOX.

FIGURE 3-9. MAIN E-BOX POWER SWITCH

FIGURE 3-10. PRINTER E-BOX POWER SWITCH

NOTE

The printer E-BOX power switch should always remain on. Control of the printer E-BOX should be controlled by the main E-BOX power switch only. If the printer E-BOX is turned on after the main E-BOX, the machine does not communicate with the printer correctly and will require a power cycle.

To turn the machine ON or OFF, use the following steps:

1. Plug the machine power cord into an 110V to 240V VAC, 50/60Hz power source.
2. Depress the (I) side of the switch to turn the machine ON.
3. Depress the (O) side of the switch to turn the machine OFF.

Power Up Sequence

To power up the machine, use the following steps:

1. Turn the main power switch to ON (I).
2. Wait for the machine to boot up. Once the boot sequence is complete, the machine is in an E-STOP condition.
3. Reset the E-STOP condition.
4. The machine requires a homing sequence. Once the E-STOP is reset, the user is prompted to initiate the homing sequence by pressing The CONTINUE message on the display and the white START/STOP button of the display frame.
5. Once the homing sequence is completed, the machine is ready for use.

Homing Sequence

The Homing sequence is an automated function with every machine power up to ensure that moving parts of the bagger:

- are in startup positions
- are not obstructed and can move freely to minimum and maximum positions

The operator is prompted by the AutoTouch screen to initiate this sequence, each time the bagger is powered ON (I).

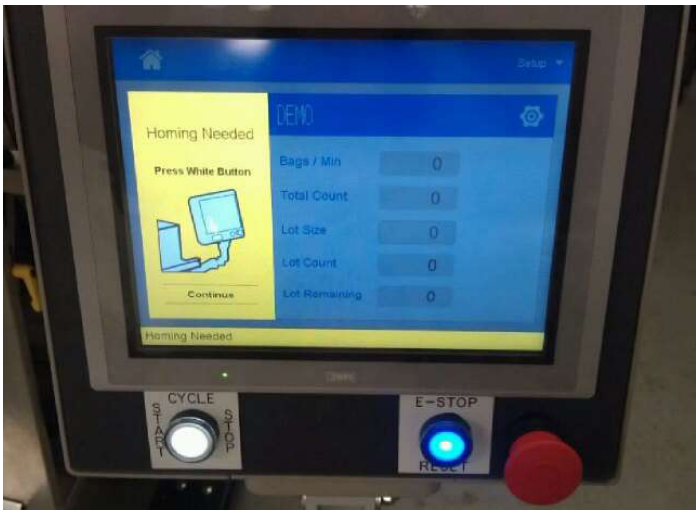


FIGURE 3-11. HOMING NEEDED

To perform the homing sequence, follow these steps:

1. Check for and remove any obstacles in the TCU and sealing areas.
2. Turn power on to the machine and wait for the boot sequence to complete
3. Once the HOME screen displays, a message indicates that HOMING NEEDED. Refer to Figure 3-4.
4. Tap the CONTINUE button on the screen, as directed, to continue with the next step.
5. Press the white, flashing Start/Stop Cycle button on the AutoTouch frame.
    a. The TCU dancer moves all the way up and down, and then stops at its home position, which is its ready-to-operate position.
    b. At the front of the bagger, in the seal area, the seal flattening pins move in and out to their minimum and maximum positions, and then stop at a ready-to-operate position, determined by the job loaded.

c. The guide rods move out and in to their maximum and minimum extensions, (from 11 inches to 1 inch; 27.94cm to 2.54cm), and then stop at a home position.

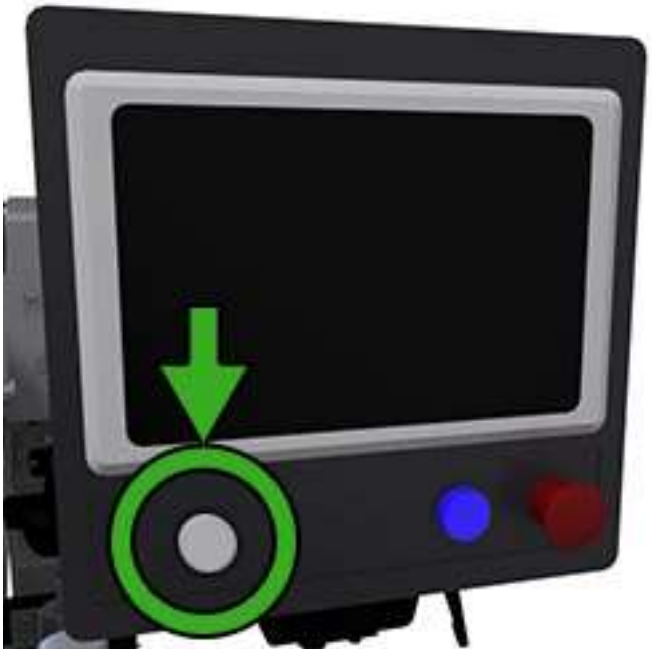


FIGURE 3-12. HOMING SEQUENCE

6. When homing is complete, the blue RESET button flashes. Reset the E-STOP condition by pulling out the Red E-STOP button and pressing the blue E-STOP RESET button.
7. Once the E-STOP conditions are reset, the white Start/Stop Cycle Button flashes, indicating the machine is ready for operation.

Machine Controls

The Autobag 800 and 850 machines have several controls located on the machine to allow for adjustment and operation, refer to Figure 3-13 for locations.

FIGURE 3-13. MACHINE CONTROLS

Item	Description
1	HMI interface
2	Emergency Stop (E-STOP)
3	HMI adjustment handles

Item	Description
4	Bag-control adjustment knobs
5	Palm switch (optional)
6	Nip handles

TABLE 3-4. MACHINE CONTROLS

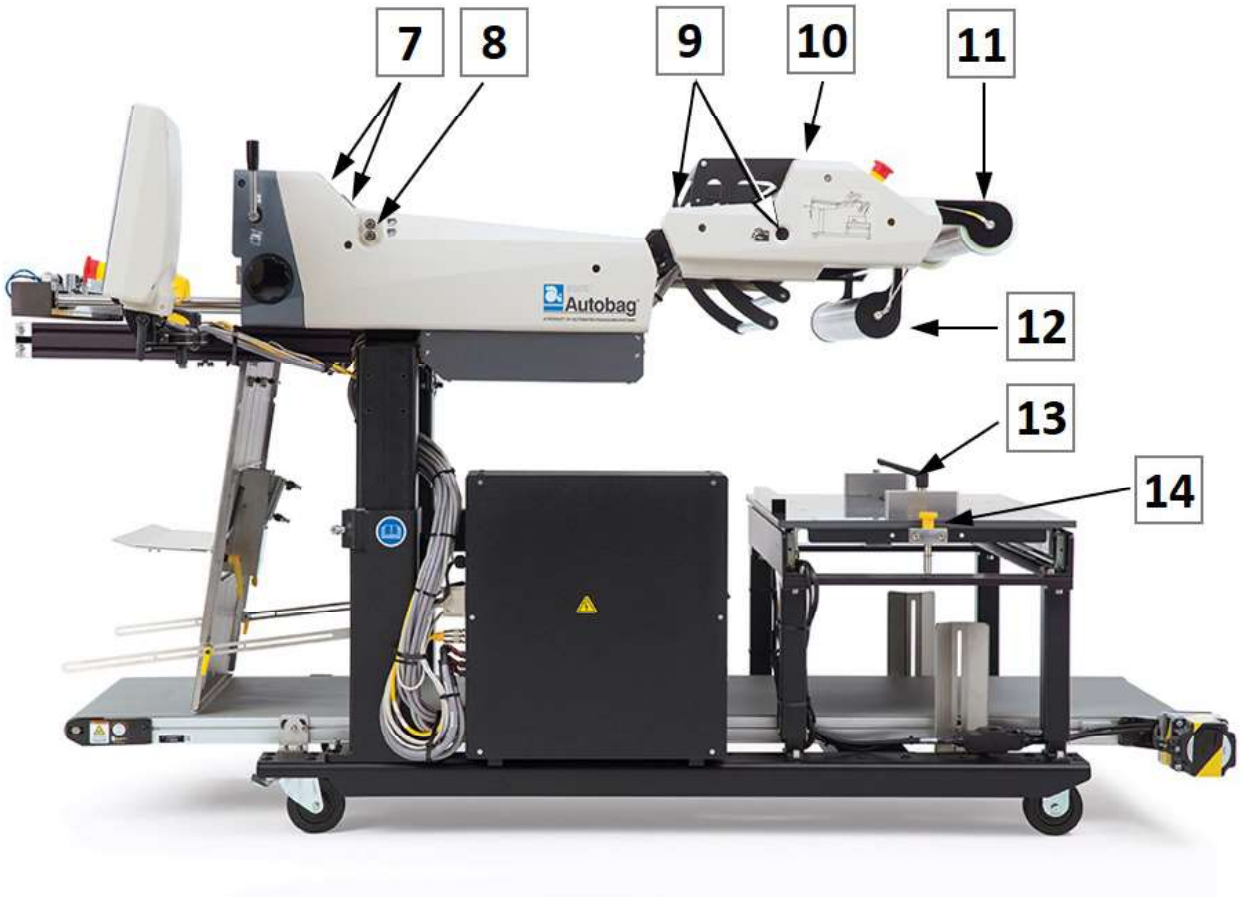


FIGURE 3-13. MACHINE CONTROLS (CONTINUED)

Item	Description
7	Material feed controls
8	Air flow adjustment knobs
9	TCU control buttons
10	TCU assembly

Item	Description
11	Upper material tube
12	Lower material tube
13	Box shelf locking handle
14	Bock shelf release knob

TABLE 3-4. MACHINE CONTROLS (CONTINUED)

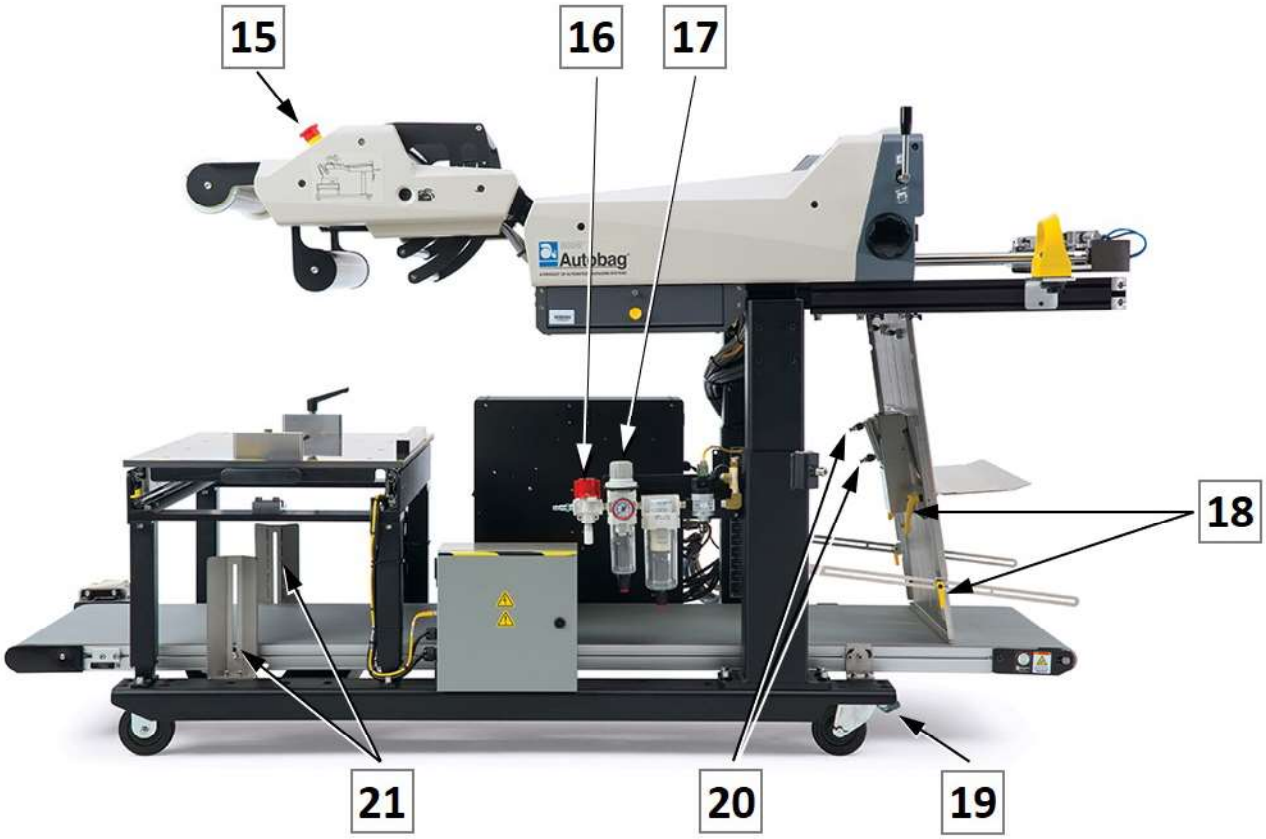


FIGURE 3-13. MACHINE CONTROLS (CONTINUED)

Item	Description
15	Rear E-STOP (right side)
16	Air Dump Valve
17	Air Pressure Adjustment
18	Product shelf adjustment handles

Item	Description
19	Wheel lock
20	Product shelf air flow controls
21	Conveyor angle adjustments

TABLE 3-4. MACHINE CONTROLS (CONTINUED)

Tension Control Unit (TCU)

The Tension Control Unit, or TCU, controls the tension in the bag web and is programmable. To program bag tension, enter a number from 0.000 to 3.000 to indicate the amount of bag web tension required for the job. For more information on settings, refer to JOB SETTINGS and JOB OPTIONS in this manual.

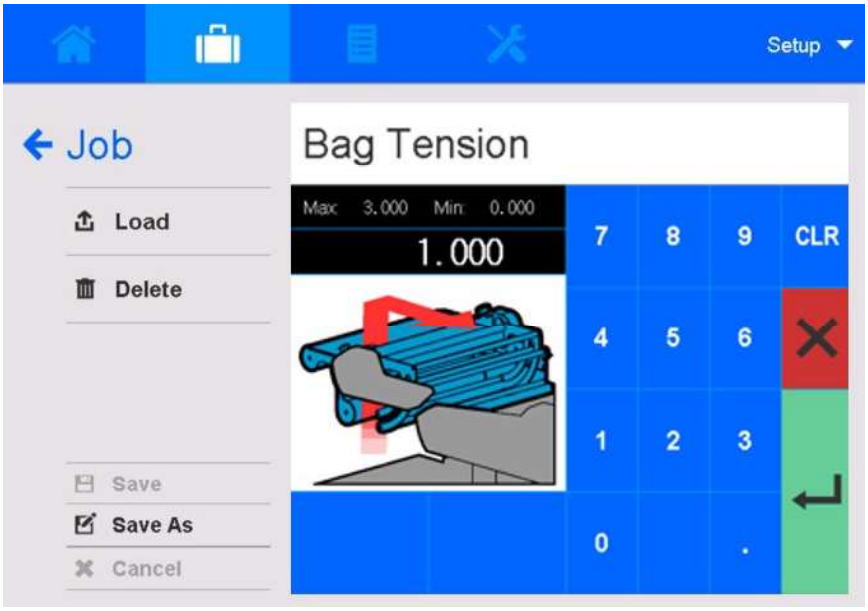


FIGURE 3-14. JOB SETTINGS EDIT BAG TENSION

Refer to Figure 3-14 to become familiar with the main components of the TCU, including the bag detector, dancer, and festoon rollers. As the machine cycles, the dancer moves up and down to pull the material (bag web) over the festoon rollers and through the machine.

There are three positions for the TCU dancer:

- Open: this is the up position for loading bags.
- Home: this is a mid-range position when the machine is ready to cycle.
- Down: when the dancer is completely down, there is no material present. A DANCER NOT TENSION ERROR appears on the display screen.

NOTE

When the dancer moves down, it detects material below the festoon bars. For safety, if it detects an obstacle above this area, it stops and then moves upward. There is an E-Stop for the TCU area of the bagger.

Open the TCU dancer to load material

There are two ways to bring the TCU dancer to its OPEN (up) position:

1. From the HOME screen:
   a. Tap the drop-down arrow next to ACTIONS to open the ACTIONS list.
   b. Tap THREAD to lift the dancer. Tap THREAD again to lower the dancer.
2. On the unit:
   a. Push the TCU Control button (Figure 3-15, item 1) located on either side of the machine to open the dancer.
   b. Push the control button again, to lower the dancer.

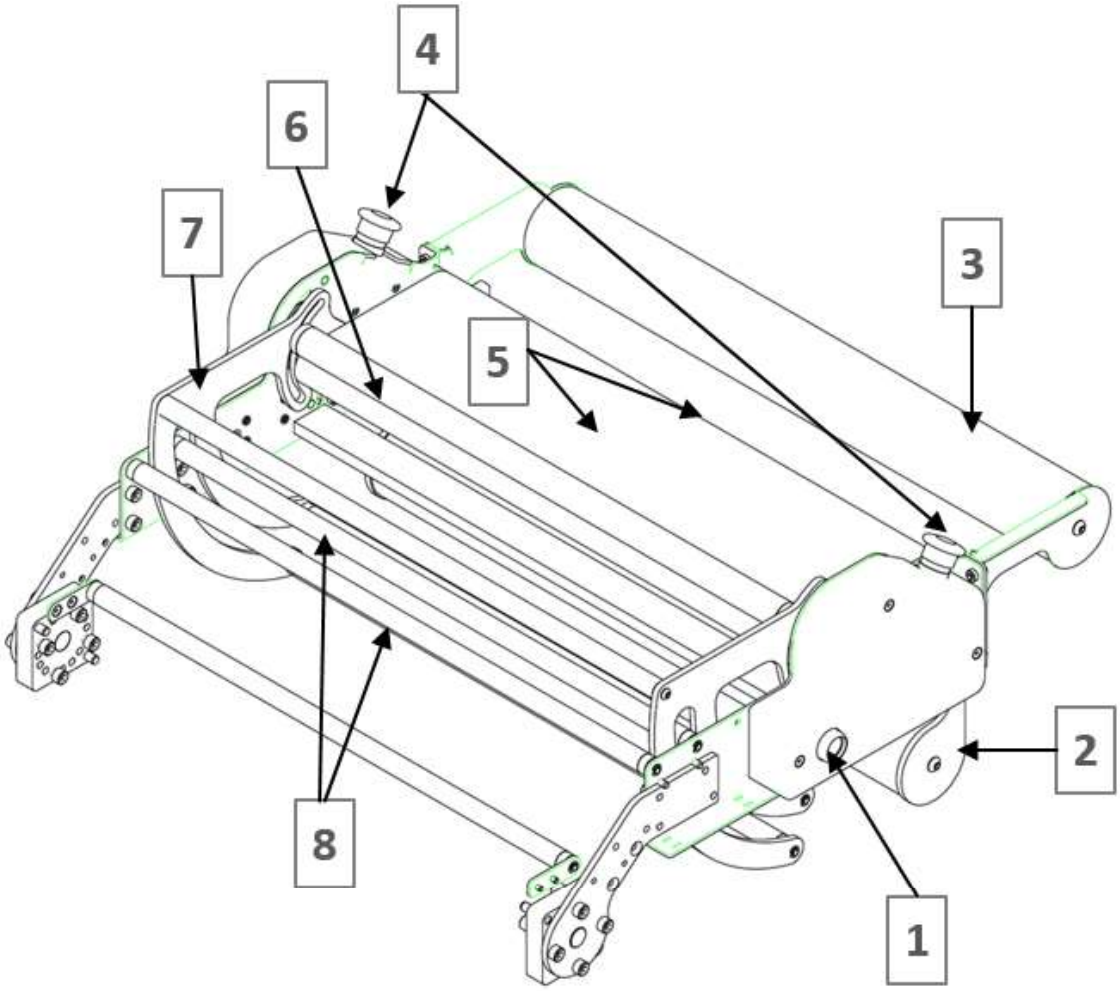


FIGURE 3-15. TENSION CONTROL UNIT (TCU)

Item	Description
1	TCU Control button, on both sides of TCU
2	Lower Bag Guide Tube
3	Upper Bag Guide Tube
4	E-STOPS, on both left and right sides of the TCU
5	TCU Threading Tray with Bag Detector
6	TCU Nip
7	Dancer
8	Festoon Rollers

TABLE 3-5. TENSION CONTROL UNIT (TCU) DETAILS

Adjustable Pass-Through

The Autobag 800 and 850 machines have an adjustable pass-through to allow for different bag widths. The pass-through is adjusted using the black knurled knob located on both sides of the machine. These knobs are hand cranked to set the stopping location for the Seal Flattener Pins.

NOTE

Minimum bag width is 10.0 in. (25.4cm); maximum bag width is 22.0 in. (55.88cm).

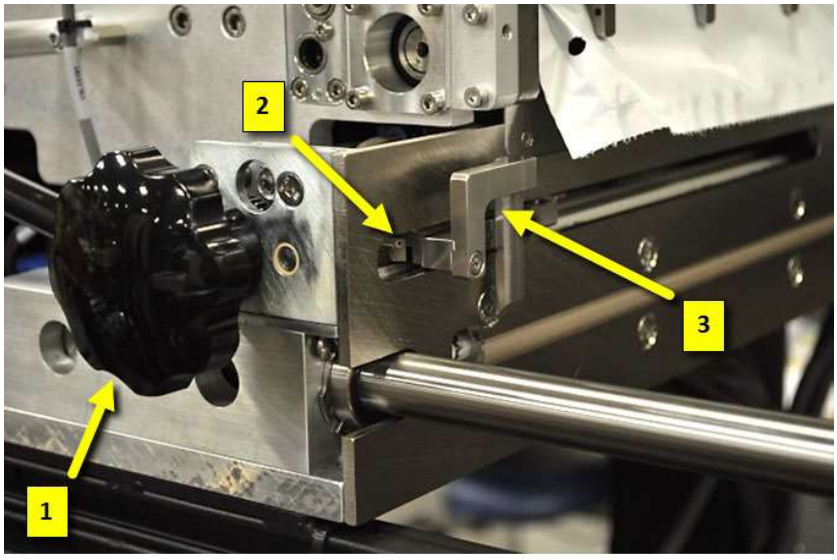


FIGURE 3-16. HAND CRANK AND SEAL FLATTENER PINS (PICTURED WITHOUT SIDE GUARDS)

Item	Description
1	Hand crank for adjusting pin seal flattening pins (at left and right side of unit)
2	Seal Flattener Pin Stop – prevents pins from travelling too far.
3	Seal Flattener Pin

TABLE 3-6. HAND CRANK AND SEAL FLATTERN PIN STOP DETAILS

To adjust the stopping location for the Seal Flattener Pins, use the following steps:

1. Position the pin-stop indicators ¼ to ½ inch *inside* the bag edge opening.
   a. To make the pass-through larger (moving pins out, adjust the handle CCW.
   b. To make the pass-through smaller (moving pins in), adjust the handle CW.

Load Shelf

The load shelf has a support shelf that is height adjustable to support different bag lengths. Correct adjustment of the support shelf aides in proper supporting of bags loaded with product. To adjust the support shelf, use the following steps:

1. Loosen both handles (Figure 3-13, Item 18) on the load shelf.
   a. Adjust the support shelf to the desired position. Ensure that electrical cabling and airlines are free and clear of obstructions.
   b. While holding the support shelf in the desired position, tighten the both handles on the back of the load shelf.

Adjusting HMI Position

The HMI Interface position can be adjusted for ease of use by the operator. The screen may be tilted or rotated for easier viewing and the mounting arm may be swiveled moving the screen in or out from the machine. Refer to Figure 3-17 for adjustment handles. To loosen the handles and change position:

1. Turn the handle CCW to loosen and move the position.
2. Turn the handle CW tighten and secure the position.
3. Lift up on the handle and turn CW or CCW to reposition the handle on the shaft for easier access.

FIGURE 3-17. HMI ADJUSTMENT HANDLES

Item	Description
1	HMI mount arm swivel handle
2	HMI screen swivel handle
3	HMI screen tilt handle

TABLE 3-7. HMI ADJUSTMENT HANDLES

Main Nip

The main nip can be opened and closed using the handles (Figure 3-13, Item 6) located on either side of the machine. Opening the nip allows for clearing jams, threading material, etc.

Main Nip Roll Locking Lever

The nip roll locking levers, located on the right and left sides of the machine, release the aluminum nip roll from the rubber drive roll. Only one lever is needed to lock or unlock the nip rollers.

There are two open (unlock) positions for the Nip Roll Locking Lever. To unlock the nip roll, follow these steps:

1. Rotate the lever down, towards the Seal area of the machine. The aluminum and rubber nip rollers should separate.
2. Or, rotate the lever up and over, towards the TCU area of the machine. The aluminum and rubber nip rollers should separate.

There is one closed (locked) position. To lock the nip roll, rotate the lever up, to a vertical position. The aluminum and rubber nip rollers should meet.

FIGURE 3-18. NIP LOCKING LEVER IN OPEN POSITION

AutoThread Switch

⚠WARNING

Keep long hair, jewelry, and loose clothing away from the bag web while threading.

⚠CAUTION

To ensure the bag does not damage the high voltage sensor, press the power switch to OFF (O) and remove the bag at the loading position. Press power switch to ON (I) and press REVERSE if required.

NOTE

Use the centering guides on the box stand, TCU area, and seal area to center the bag web.

FIGURE 3-19. AUTOTHREAD SWITCH

When the Autobag bag web is properly threaded continue with the following steps:

1. Depress the AutoThread switch (Figure 3-19) to activate the bag threading belts for the duration of time the switch is depressed. The AutoThread switch has two activation positions:
   a. FORWARD - Primarily used when feeding the bag web through the machine.

b. REVERSE - Should only be used for minor repositioning of the bag web.

2. Place the end of the bag web into the AutoThread belts and depress the AutoThread switch to the FORWARD position.
3. Continue feeding the bag web until the first bag appears in the loading and sealing area in front of the bagger.

Bag Positioning/Web Threading

Keep long hair, jewelry, and loose clothing away from the bag web while threading.

To ensure the bag does not damage the high voltage sensor, press the power switch to OFF (O) and remove the bag at the loading position. Press power switch to ON (I) and press REVERSE if required.

NOTE

Use the bag location decal mounted on the dancer arm to thread the bag web.

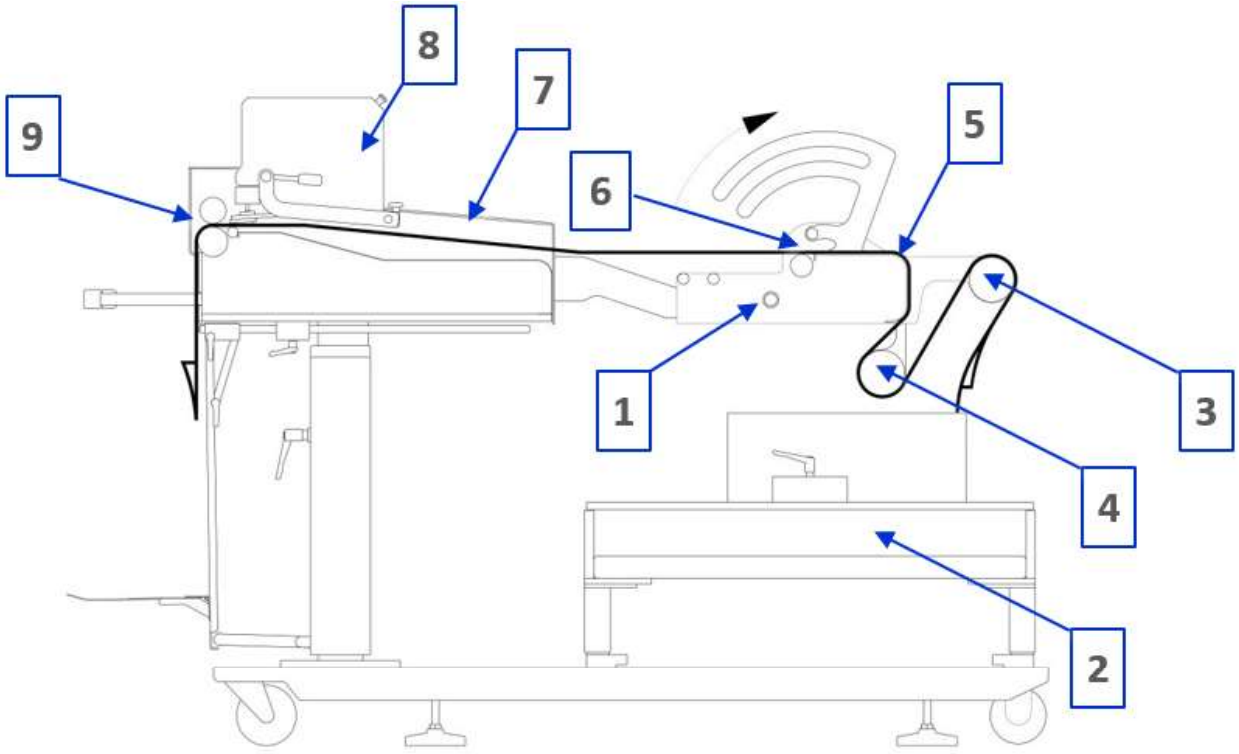


FIGURE 3-20. AUTOBAG ROLL THREADING

Item	Description
1	Tension Control Unit (TCU) Control Button (up/down)
2	Autobag Box Stand
3	Upper Tension Control Unit (TCU) Tube
4	Lower Tension Control Unit (TCU) Tube
5	TCU Threading Tray with Bag Sensor

Item	Description
6	Tension Control Unit (TCU) Nip
7	Bagger Threading Tray
8	Printer
9	Main Nip Mail Slot

TABLE 3-8. AUTOBAG ROLL THREADING

For threading Autobag 800 series bagger, use the following steps:

1. Press the power switch to ON (I) and follow start-up instructions for homing.
2. Press TCU Control button to open the Tension Control Unit (TCU).
3. Center the Autobag box of bags on the box stand, using the centering guides.
4. Thread bag web through the TCU.
   a. Bring bag web up and over the upper TCU tube. Use the spring-loaded guide collars to center bags. (The collars move independently. Place collars against the bag edges to prevent bags from wandering).
   b. Pull bag web down and under the lower TCU tube.

c. Pull bag web up and over the TCU threading tray. Use the centering guides on the back side of the TCU threading tray to center bags over the bag detector sensor.

d. Thread bag web through the open TCU nip and over the two festoon rollers (Figure 3-21, item 1).

5. Thread bag web under the third roller (item 2) leading to the main threading tray.

FIGURE 3-21. BAG WEB THREADING DETAIL

6. Pull bag web over the main threading tray (item 3), under the printer (not shown), and then slide it into the Main Nip mail slot (item 4). (Lower printer for easier threading).
7. Press the Thread switch forward to feed bag web through Main Nip (item 5). Use hand to gently guide bags forward. Feed until a bag comes out in the seal area, passed the lower rubber nip roller.
8. Hold bag in place in seal area and open Main Nip. (Hold bag to prevent it slipping backwards out of the Nip).
9. Center bag in the seal area (in the front of the machine). Use Seal Flattener Pin Stops as a guide for centering bag web.
10. Close the Main Nip.
11. Thread bag until bottom perforation lines up with bottom of Seal Flattener Pins.
12. Press TCU control button to close the TCU.
13. Adjust the stopping location for the Seal Flattener Pins with the hand crank. Position the pin stop indicators ¼ to ½ inch *inside* the side bag edges. Refer to Figure 3-16.
14. Cycle the bagger. Adjust centering guides at the TCU and seal area as needed.

Bag Web Centering

Centering material through the machine is key to proper operation of the bagger, especially when changing bag widths. Ensure that the bag web is centered in the following areas, every time the machine is threaded.

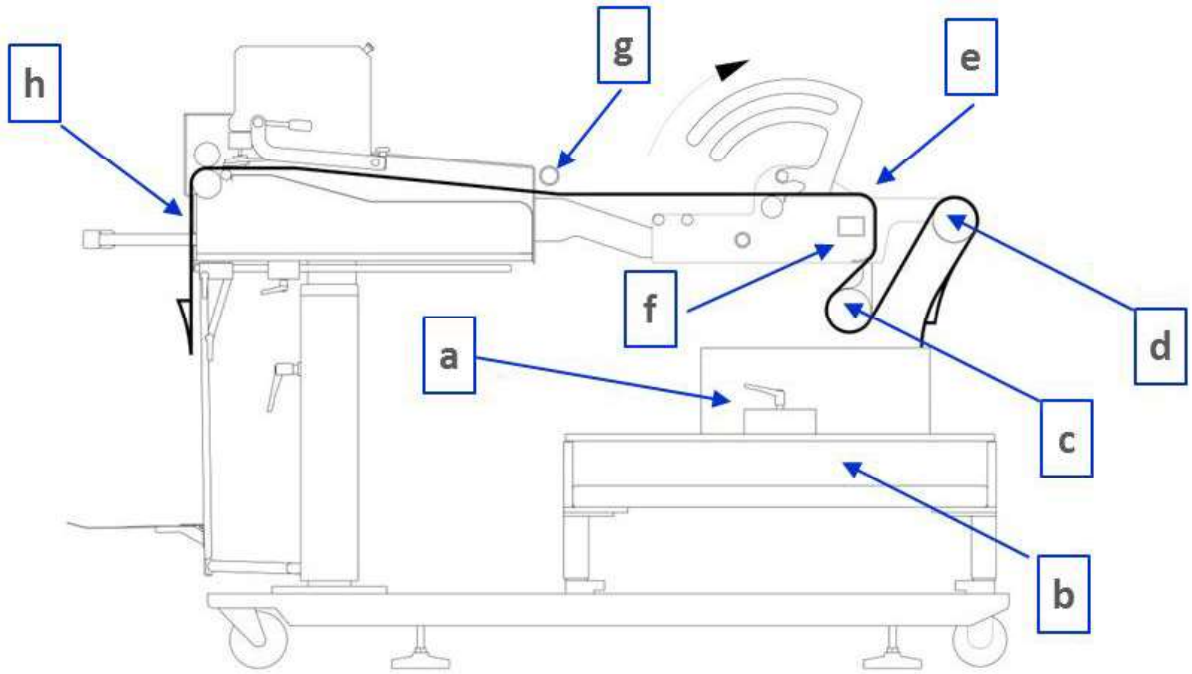


FIGURE 3-22. BAG WEB CENTERING – KEY AREAS

Item	Description
a	Box Centering Guides
b	Autobag Box Stand
c	Lower Tension Control Unit (TCU) Tube
d	Upper Tension Control Unit (TCU) Tube
e	Sliding Web Guide
f	Bag Out Detector
g	Web Guides
h	Main Nip Mail Slot

TABLE 3-9. BAG WEB CENTERING DETAILS

Operation Functions

The Autobag 800 and 850 machines have an HMI operating system that is divided into user levels. Operator 1, Operator 2 and Setup functions are covered in this section. Refer to the Maintenance Module for additional HMI screens that are for maintenance personal use only.

HMI Interface

The HMI interface consists of an AutoTouch Control screen, E-STOP button, E-STOP Reset Button and START/STOP Cycle Button.

E-STOP button

The red E-STOP stop actuates an emergency stop of the machine. When depressed, the button remains depressed and the E-STOP circuit removes air pressure from the machine placing it in a stopped mode. This may be actuated at any time during machine operation. To reset the button, it must be physically pulled out by the operator prior to resetting the machine.

NOTE

The E-STOP button should not be used to stop the machine. It should only be used in emergency situations.

E-STOP reset button

The blue E-STOP reset button is used to reset the machine after an E-STOP condition. The button illuminates blue when the machine needs to be reset. Press the button momentarily and release to reset the machine. The blue light goes out when the machine has been reset.

Start/Stop cycle button

The Start/Stop cycle button is used start and stop machine cycles as well as homing the machine during power up. The button illuminates white when action by the operator is needed.

NOTE

The machine may temporarily hold cycling until a condition is fixed (such as loading a label) but once the holding condition has been corrected, the machine continues the cycling sequence. If the Start/Stop cycle button

begins to flash when pressed, this means a machine condition is preventing it from cycling. Once the condition preventing cycling has been corrected the machine automatically cycles. To prevent the machine from automatically cycling, press the Start/Stop cycle button once and it stops blinking, which cancels the request to the machine to begin cycling.

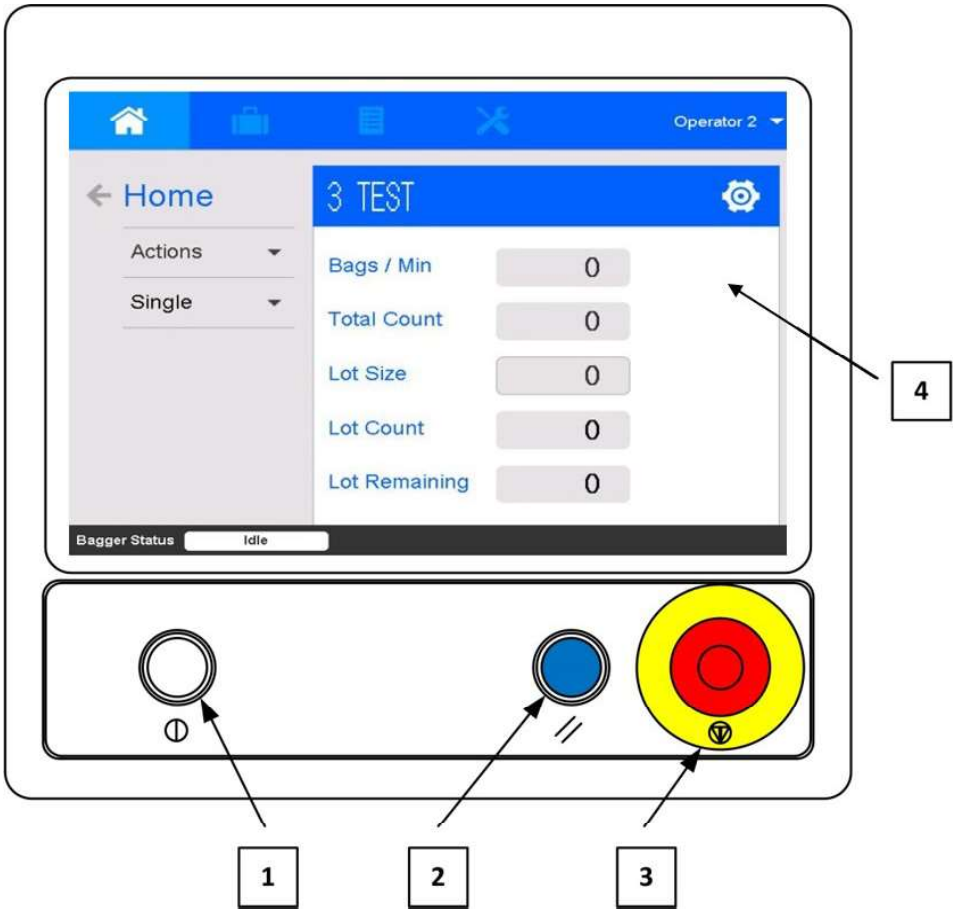


FIGURE 3-23. HMI INTERFACE

Item	Description
1	START/STOP Cycle Button
2	E-STOP Reset Button

Item	Description
3	E-STOP Button
4	AutoTouch Control screen

TABLE 3-10. HMI INTERFACE

AutoTouch Control screen

Upon machine power up, the AutoTouch control screen performs a boot sequence.

NOTE

No actions are required from the operator during the boot sequence.

Once the boot sequence is complete, the HOME screen opens and a message indicates that the homing sequence is needed. Follow the homing sequence steps described in this section.

FIGURE 3-24. HOME SCREEN

Item	Description
1	Home icon
2	Jobs icon
3	Configuration icon
4	Diagnostics icon
5	User Setup selection
6	Icon Menu bar
7	screen name
8	Job name
9	Job Settings icon (same as #2)
10	Previous screen icon

Item	Description
11	Actions drop-down menu
12	Single/Auto Mode Selection
13	Bagger status message
14	Bags/Min field
15	Total Count field
16	Lot Size field
17	Lot Count field
18	Lot Remaining field
19	Notification/Message bar

TABLE 3-11. HOME SCREEN DETAILS

1. HOME icon. Tap this icon to open the Home screen.
2. JOBS icon. Tap this icon to open the user to the Jobs menu.
3. CONFIGURATION icon. Tap this icon to open the Configuration menu. A user sign on level of SETUP or above is required.
4. DIAGNOSTICS icon. Tap this icon to open the Diagnostics menu. A user sign on level of SETUP or above is required.
5. USER SETUP selection. Tap this icon to select different user levels.
6. Icon Menu bar.
7. Screen Name.
8. Job Name. Shows the name of the active job.
9. JOB SETTINGS icon: same as item 2 Tap this icon to open the user to the Jobs menu
10. PREVIOUS SCREEN icon. When blue, tap this arrow icon to return to the previous screen. If gray, there are no previous screens.
11. ACTIONS menu. Use the drop-down menu to activate a selection of machine controls, such as: grippers, conveyor, feed, and thread.
12. MODE INDICATOR. Use drop-down menu to select among Single, Automatic, and Semi-Automatic cycling modes.
13. BAGGER STATUS message. Shows machine operating status
14. BAGS/MIN. Bags/Min is the number of bags being cycled per minute.
15. TOTAL COUNT. Shows the current total count. Tap the field to reset to zero.
16. LOT SIZE. Shows the current lot size set. Tap the field to enter a new value.
17. LOT COUNT. Shows the current lot count. Tap the field to reset to zero
18. LOT REMAINING. Shows the remaining count in the lot. Tap the field to reset to zero.
19. NOTIFICATION/MESSAGE bar. The notifications or error messages currently affecting the machine appear in this area until they have been cleared.

Notification message

If the machine has any notification or error messages, they appear in the NOTIFICATION/MESSAGE bar in the lower screen. This message bar is not interactive.

Notification and error messages automatically clear when the condition causing them is satisfied or cleared. Operator action may be required to clear the condition.

FIGURE 3-25. NOTIFICATION MESSAGE

Languages

NOTE

A user sign on level of SETUP or above is required for access to language settings.

To change the language for the machine, follow these steps:

1. Tap Configuration icon to open the Configuration menu.
2. Tap the LANGUAGE & UNITS tile.
3. Select the desired language from the drop-down list.

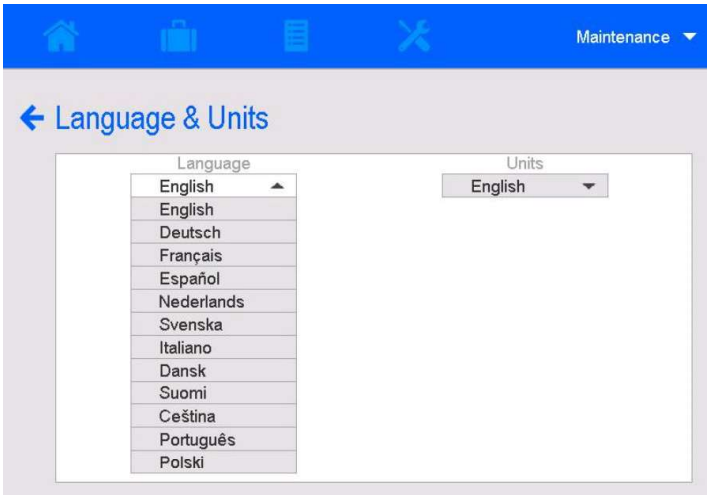


FIGURE 3-26. LANGUAGE ICON

Data entry and saving

Job fields that require data entry provide a numeric or alphabetic menu. Data entries may need to be saved prior to exiting the menu.

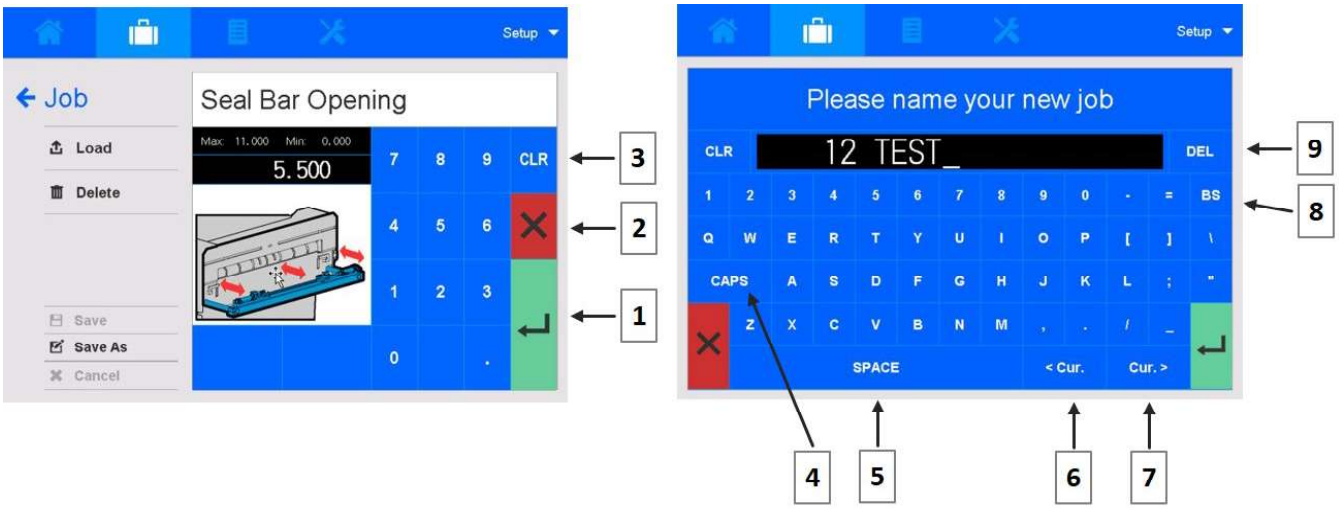


FIGURE 3-27. DATA ENTRY ICONS AND KEYS

Item	Description
1	SAVE/RETURN icon
2	Cancel/Exit icon
3	CLR (Clear) key
4	CAPS key
5	SPACE key

Item	Description
6	<CUR. (CURSOR BACK)
7	>CUR. (CURSOR FORWARD).
8	BS (BACKSPACE).
9	DEL (DELETE).

TABLE 3-12. DATA ENTRY DETAIL

For both numeric and alphabetic entry menus, follow these guidelines:

1. SAVE/RETURN. Tap the green ARROW icon to save data entries and return to a previous screen. For job settings and options, this produces a temporary save.

NOTE

Changes take effect immediately in the HMI. However, if changes are not saved, they are lost on power cycling. To save changes, refer to the SAVING A JOB instructions in this manual.

2. CANCEL/EXIT. Tap the red X icon to cancel data entry changes and return to a previous screen.
3. CLR (CLEAR). Tap the CLR key to clear all entries.

For alphabetic entry menus, follow these additional guidelines:

4. CAPS. Tap this key for entering capital letters.
5. SPACE. Tap this key to enter a blank space.
6. <CUR. (CURSOR BACK). Tap this key to move the cursor from right to left.

NOTE

Use cursor keys to select a data point to enter a new character; or to select a character to be deleted. The cursor position is indicated by an underline under a character or space

7. >CUR. (CURSOR FORWARD). Tap this key to move the cursor from left to right.
8. BS (BACKSPACE). Tap the BS key once, to delete the last entered character.
9. DEL (DELETE). This key works with the <CUR. (CURSOR BACK) and >CUR. (CURSOR FORWARD) keys. Once the cursor is placed under a character or space to be deleted, tap the DEL key to delete it.

User Levels

The Autobag 800 series has seven (7) user levels. The user levels are:

1. OPERATOR 1
2. OPERATOR 2
3. SETUP
4. MAINTENANCE
5. SERVICE
6. ENGINEERING 1
7. ENGINEERING 2

⚠ CAUTION

Service and Engineering levels are accessible by authorized Automated Packaging Systems Service Technicians only.

To access each level, a password is required for each level above the one currently selected. The current user level setting displays in the upper right corner of the icon menu bar. To select a different user level, use the following steps:

1. Tap the user level selection. A drop-down menu opens.

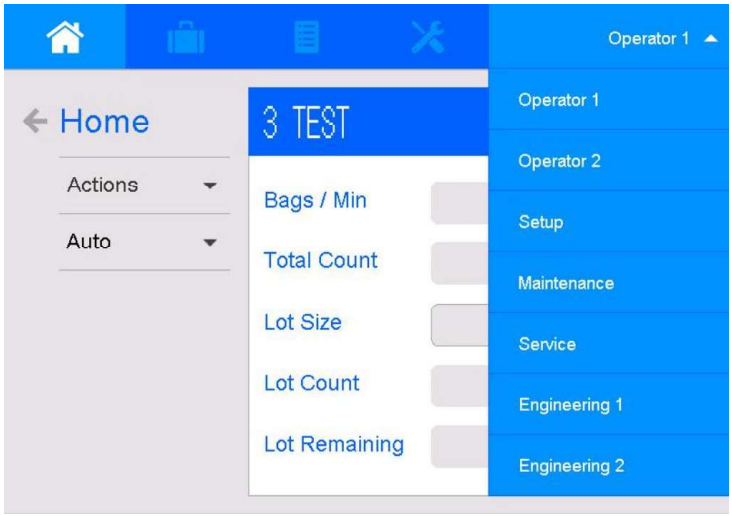


FIGURE 3-28. USER LEVEL SELECTION MENU

2. Tap on a username to select it. A password window opens.

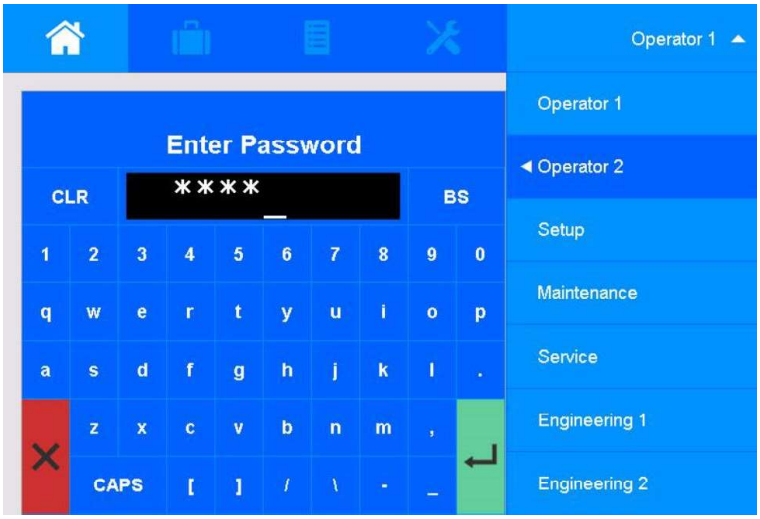


FIGURE 3-29. USER LEVEL SELECTION AND PASSWORD WINDOW

3. Enter the password for that user level.

NOTE

A password is not required when switching from a higher level user to a lower level user.

4. Tap the green SAVE/RETURN arrow to save changes and return to the previous screen.

User Level Passwords

User Name	Default Password
Operator 1	Refer to Maintenance Module
Operator 2	Refer to Maintenance Module
Setup	Refer to Maintenance Module
Maintenance	Refer to Maintenance Module
Service	Access not authorized
Engineering 1	Access not authorized
Engineering 2	Access not authorized

TABLE 3-13. USER LEVEL PASSWORDS

Operator 1 level

The Operator 1 level is the basic mode of operation. Operator 1 has limited access as follows:

- HOME screen only
- can operate the machine for the active job only
- can reset LOT COUNT and LOT REMAINING to zero
- cannot access ACTIONS or change operating MODES

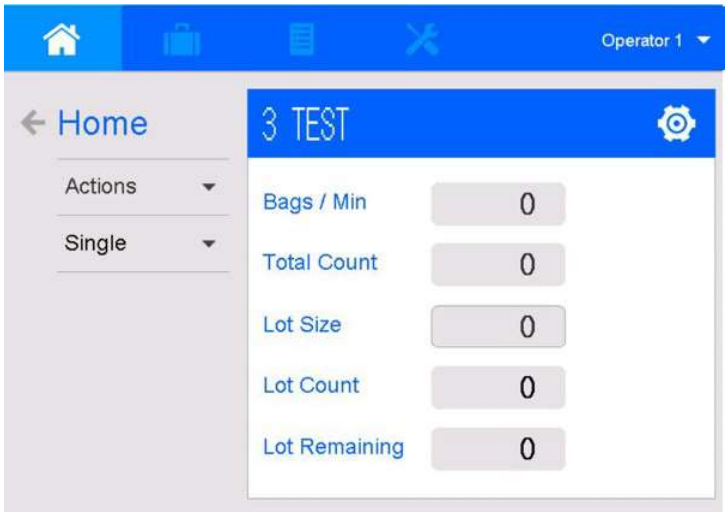


FIGURE 3-30. OPERATOR 1

Operator 2 level

The Operator 2 level has access to the HOME menu and the JOB menu.

1. HOME menu. Operator 2 can access the following items:
   - TOTAL COUNT, LOT COUNT and LOT REMAINING can be reset to zero.
   - LOT SIZE value can be reset
   - MODE menu can be used to select from SINGLE, AUTO, and SEMI AUTO operation
   - ACTIONS menu can be used to operate machine functions
2. JOB Menu. Operator 2 can access the following items:
   - LOAD available jobs from the LOAD menu

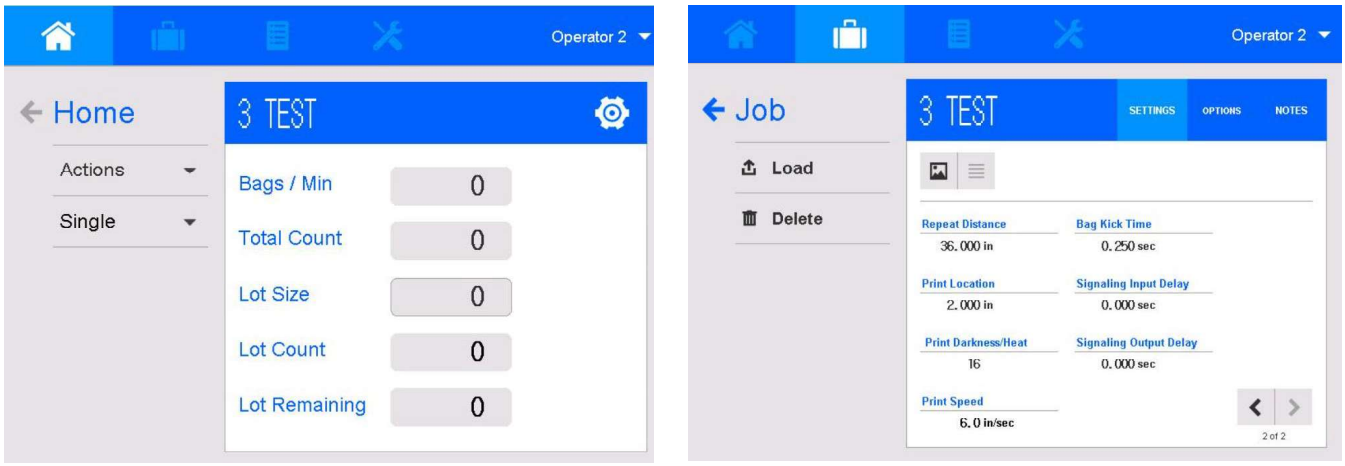


FIGURE 3-31. OPERATOR 2

Setup level

The Setup level is for authorized personnel access only. The user has access to the HOME, JOB, CONFIGURATION and DIAGNOSTICS menus.

1. HOME menu. The user has access to all features and menus.
2. JOB menu. The user has access to all features including: LOAD, SAVE and DELETE jobs; and to adjust SETTINGS and OPTIONS for each job.
3. CONFIGURATION menu. The user has access to the FIRMWARE, PRODUCTIVITY METRICS, CYCLE TIMES, PASSWORDS, LANGUAGE & UNITS, MACHINE OPTIONS & ACCESSORIES, and MACHINE SETUP DATA menus.
4. DIAGNOSTICS menu. The user has access to the INPUTS, MONITOR OUTPUTS, FORCE OUTPUTS, MACHINE TESTS, MONITOR HEAT, MONITOR ACCESS, and LOGS menus.

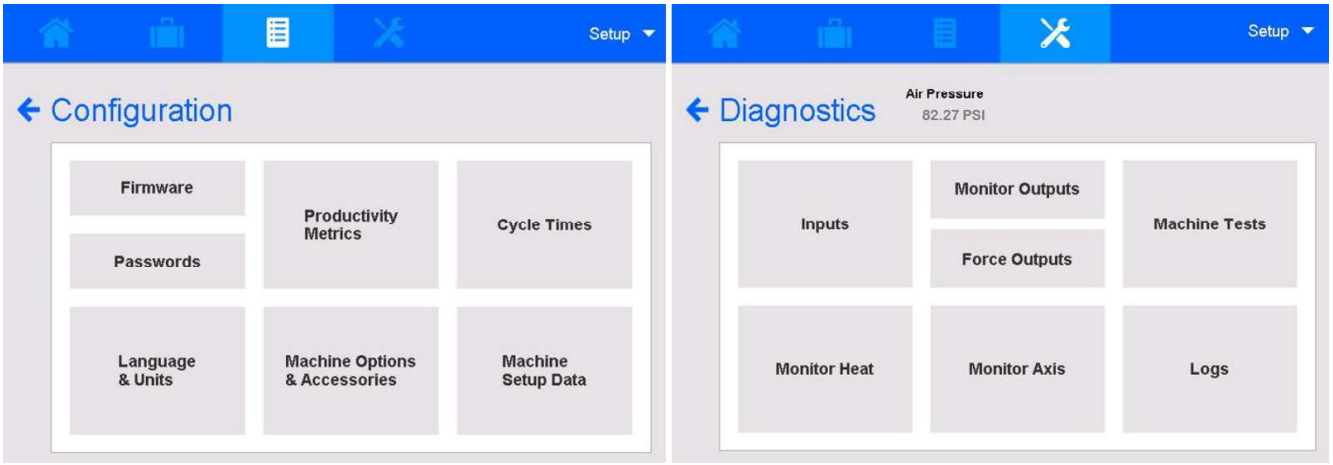


FIGURE 3-32. SETUP

Home menu

Use the HOME menu to monitor job productivity and machine operation. Access to submenus on the HOME screen is determined by user log-in level.

Job productivity summary

The HOME screen provides a summary of productivity for the active job. Depending on user log-in level, most productivity items may be reset or adjusted and include:

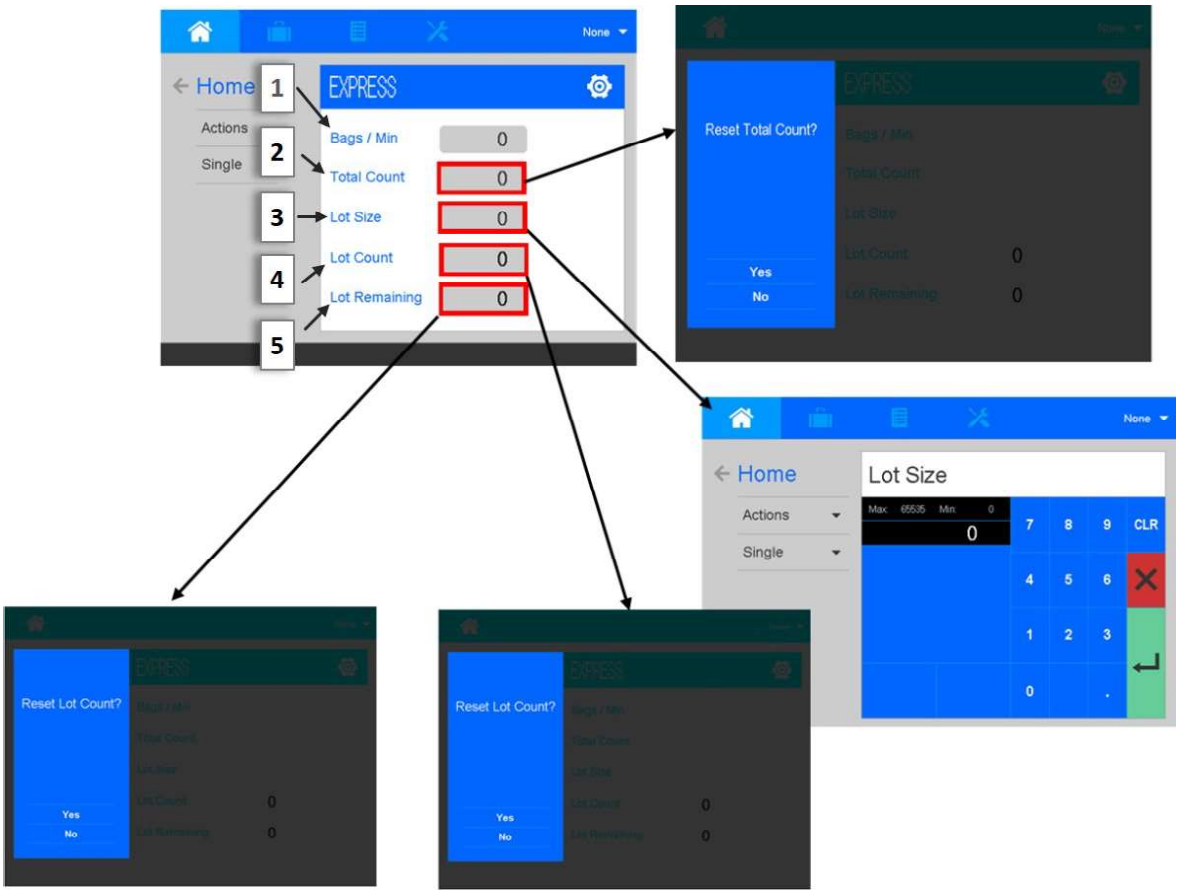


FIGURE 3-33. JOB PRODCUTIVITY

Item	Description
1	Bags/Min
2	Reset Total Count icon
3	Change Lot Size icon
4	Reset Lot Count icon
5	Reset Lot Remaining icon

TABLE 3-14. JOB PRODUCTIVITY

1. BAGS/MIN is the number of bags cycled per minute. This pace rate is determined by several settings entered for a job. No adjustments can be made on the HOME screen.
2. TOTAL COUNT is the total number of bags cycled in the current lot. Tap the field to reset the value to zero. Tap YES to confirm.
3. LOT SIZE is the number of bags required for the production run. To change the LOT SIZE:
   a. Tap the field to open the numbered keypad.
   b. Enter a new value and press the green Save/Return arrow.
4. LOT COUNT is the number of bags that have been cycled for the active job. Tap the field to reset the value to zero. Tap YES to confirm.
5. LOT REMAINING is the number of bags yet to be cycled to complete the active job. Tap the field to reset the value to zero. Tap YES to confirm.

Actions

Use the ACTIONS menu to control bagger components on demand.

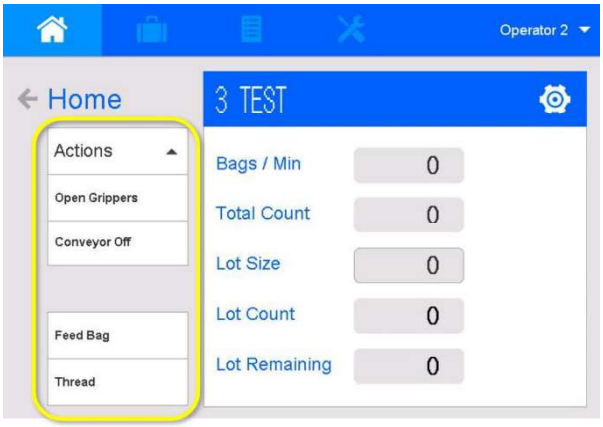


FIGURE 3-34. ACTIONS MENU ON HOME SCREEN

1. OPEN GRIPPERS. Tap to release a bag in the sealing and loading area.
2. CONVEYOR OFF/ON. Tap to start or stop the conveyor.
   - In SINGLE mode: The conveyor runs for a set period of time. If the bagger does not cycle during the set period of time, the conveyor idles.
   - In AUTO mode: the conveyor runs continuously.
   - In SEMI AUTO mode: the conveyor runs continuously, until signaled to stop.

NOTE

The CONVEYOR option is saved as part of a job. Using the ACTIONS menu on the HOME screen overrides the saved job option. Refer to JOB OPTIONS in this section.

3. FEED BAG. Tap once to advance the bag web to the next perforation. Use this control during bagger setup, and to align the bag web as needed.

NOTE

The FEED BAG action can also be initiated by pressing the black AutoThread™ buttons positioned on either side of the bagger.

FIGURE 3-35. AUTOTHREAD™ BUTTON LOCATIONS

4. THREAD. Tap once to move the Tension Control Unit (TCU) UP (open) or DOWN (closed). Use this control during bagger setup, and to align the bag web as needed. This function is the same as using either of the two TCU button controls on the left and right sides of the machine.

NOTE

The THREAD action can also be initiated by pressing the black TCU buttons positioned on either side of the bagger.

FIGURE 3-36. TCU BUTTON (LEFT SIDE)

To control bagger components listed in the ACTIONS menu, follow these steps:

1. Tap the down arrow to open the ACTIONS menu.
2. Tap an ACTION name to immediately initiate that action.
3. Tap the up arrow to close the ACTION menu.

Basic bagger setup

Complete the following steps before operating the bagger.

1. Ensure that the bagger is connected to a stable, grounded power source and a clean, dry air supply.
2. Ensure that the bag web and printer ribbon, (if using), are properly loaded and threaded.
3. Ensure that necessary interconnection cables are properly attached.

Once the bagger is properly set up, refer to the applicable mode of operation to begin operating.

Mode of Operation

The machine can be operated in SINGLE, AUTO (automatic), or SEMI AUTO mode and can be changed depending on the active user level. The MODE menu indicates the selected mode of operation with a checkmark.

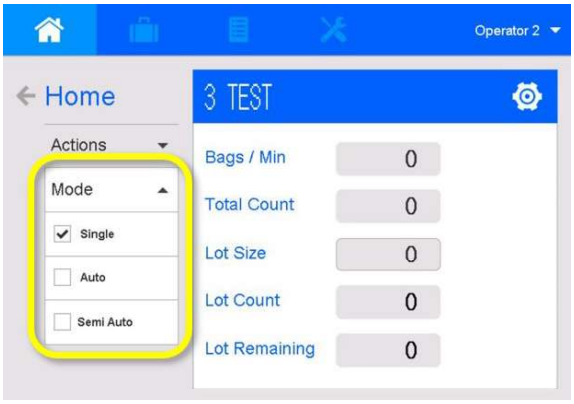


FIGURE 3-37. MODE OF OPERATION, WITH SINGLE MODE SELECTED

In SINGLE mode, only one bag is cycled.

In AUTO mode, the machine runs continuously until the LOT SIZE is reached.

In SEMI-AUTO mode, the bag cycling is controlled by an auxiliary device.

To change operating modes, use the following steps:

1. Tap the down arrow to open the menu.
2. Tap the check-box next to a mode name to select it.
3. Tap the up-arrow to close the menu.

Actuating devices

Bag cycling can be actuated using different devices, depending on the mode selected and the machine configuration. Actuating devices and required modes are described in Table 3-15.

Device	START/STOP Cycle button	Palm Switch	Footswitch
SINGLE	✔	✔	✔
AUTO	✔	✔	✔
SEMI-AUTO		✔	✔

TABLE 3-15. ACTUATING DEVICES

START/STOP Cycle button operation

In SINGLE mode, pressing the START/STOP Cycle button results in one bag cycle of the machine.

In AUTO mode, pressing the START/STOP Cycle button results in the machine running continuously for the duration of the set LOT SIZE. The white button stays illuminated during the bagging cycle.

Optical Palm Switch Operation

⚠WARNING

Palm switches are not considered a safety device.

The machine can be configured with single or dual Optical Palm Switches. The palm switches are actuated by placing the operator's hand(s) on the black sensor area of the switch(s). For a single palm switch configuration, one hand is needed to actuate a bag cycle. For dual palm switch configuration, both hands are needed to actuate a bag cycle.

NOTE

Palm switches require momentary actuation to activate a machine cycle. Holding the switches throughout the entire machine cycle is not required.

The palm switches have two LED status lights. The left light is green when the palm switch is active and ready to use. The right LED is red and turns green when it is activated by a hand placed on the palm switch.

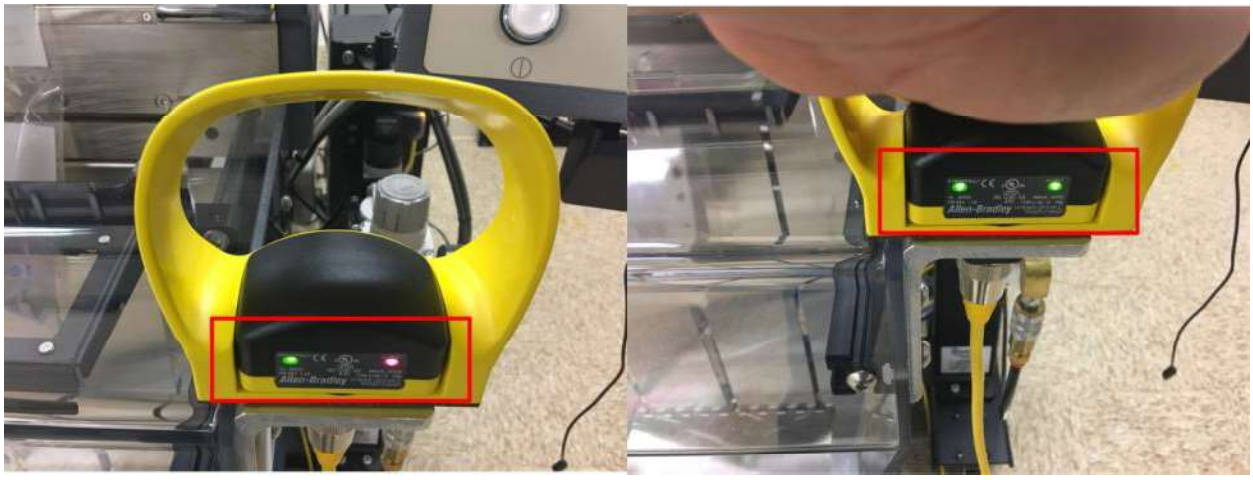


FIGURE 3-38. PALM SENSOR LEDS

Foot Switch Operation

Pressing the footswitch results in one bag cycle of the machine. The START/STOP button illuminates during the bag cycle.

Single Mode

Single mode operation results in one machine cycle which is initiated by the Operator using one of the following devices:

1. START/STOP Cycle Button
2. Optical Palm Switch
3. Footswitch

Operation

To begin SINGLE mode operation, use the following steps:

1. Press the power switch ON (I). Wait for the boot procedure and the HOME screen.
2. Address E-Stop reset conditions, as needed.
3. Follow instructions for homing the bagger.
4. Ensure that the bag web and print ribbon, (if using), are loaded and threaded properly.
5. Validate the active job selection. Or, load a different job.
6. From the JOB screens, confirm SETTINGS and OPTIONS for the job.

NOTE

For more information about jobs, refer to JOB SETTINGS and JOB OPTIONS in this manual.

7. From the HOME screen, select SINGLE mode operation.

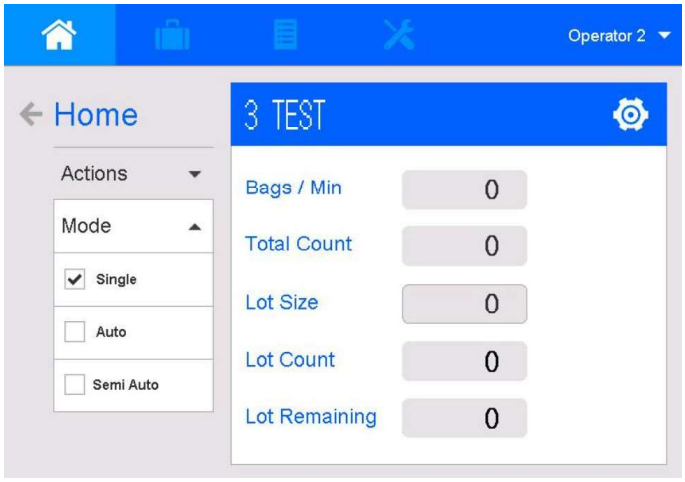


FIGURE 3-39. SINGLE MODE OF OPERATION

8. From the HOME screen, validate or reset productivity details for the job, as needed:

   a. TOTAL COUNT

      1) Tap to reset.

      2) RESET TOTAL COUNT? Tap YES to reset the value to zero and return to the HOME screen (Figure 3-38).

FIGURE 3-40. RESET TOTAL COUNT?

   b. LOT SIZE.

      1) Tap to enter a new value.

      2) When the keypad opens, use the numbered keys to enter a new amount.

3) Tap the green Save/Return arrow to set the value and return to the HOME screen.

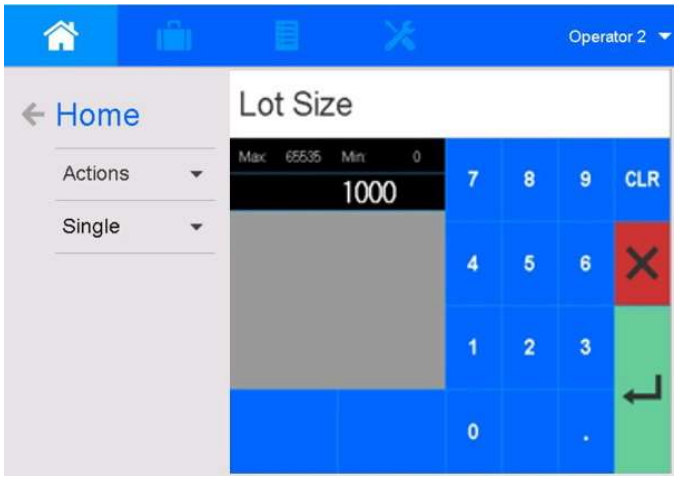


FIGURE 3-41. LOT SIZE KEYPAD

9. To start the bag cycle, press the START/STOP Cycle button. (Alternatively, use a footswitch or palm switch, if the machine is configured for either of these devices). The unit cycles one bag.

Auto (Automatic) Mode

Auto mode operation results in a continuous cycle of operation. The duration of the cycle is determined by the job LOT SIZE. Auto mode operation is initiated by pressing the START/STOP Cycle button.

When operating in Automatic Mode, a blue popup message appears on the HMI screen when the LOT SIZE is reached. Press continue to continue with another lot.

FIGURE 3-42. LOT SIZE COUNT REACHED

Operation

To begin AUTO mode operation, use the following steps:

1. Press the power switch ON (I). Wait for the boot procedure and the HOME screen.
2. Address E-Stop reset conditions, as needed.
3. Follow instructions for homing the bagger.
4. Ensure that the bag web and print ribbon, (if using), are loaded and threaded properly.
5. Validate the active job selection; or load a different job.
6. From the JOB screens, confirm SETTINGS and OPTIONS for the job.

NOTE

For more information about jobs, refer to JOB SETTINGS and JOB OPTIONS in this manual.

7. From the HOME screen, select AUTO mode operation.

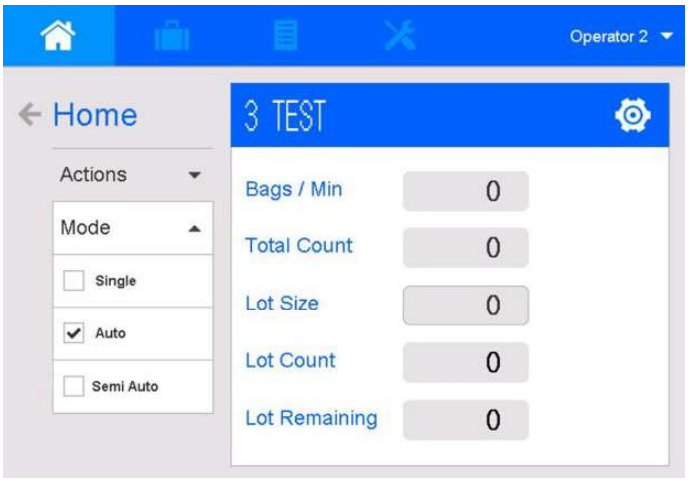


FIGURE 3-43. AUTO MODE OF OPERATION

8. From the HOME screen, validate or reset productivity details for the job, as needed:
   a. TOTAL COUNT
      1) Tap to reset.
      2) RESET TOTAL COUNT? Tap YES to reset the value to zero and return to the HOME screen.

FIGURE 3-44. RESET TOTAL COUNT?

b. LOT SIZE.

1) Tap to enter a new value.

2) When the keypad opens, use the numbered keys to enter a new amount.

3) Tap the green Save/Return arrow to set the value and return to the HOME screen.

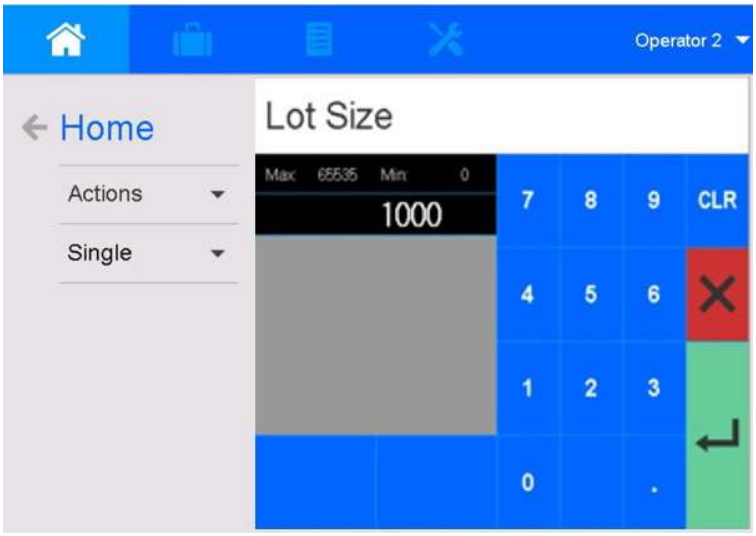


FIGURE 3-45. LOT SIZE KEYPAD

9. To start the bag cycle, press the START/STOP Cycle button. (Alternatively, use a footswitch, if the machine is configured for either of these devices). The unit cycles continuously until the LOT SIZE is reached.

NOTE

To stop the AUTO cycle before the LOT SIZE is reached, press the START/STOP Cycle button.

Semi Auto (Automatic) Mode

This mode is used for custom applications when the bagger is used with external (auxiliary) INPUT/OUTPUT devices, such as a COUNTER and AUTOLINK, for signaling to the device.

Operation

1. From the HOME screen, select SEMI AUTO mode operation.

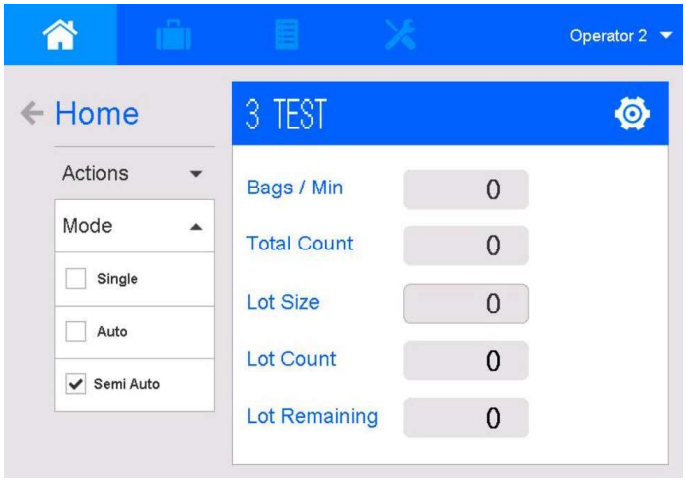


FIGURE 3-46. SEMI AUTO MODE

2. To START operation, an Operator uses a footswitch or palm switch to signal the bagger and the auxiliary device to start. The machine runs continuously, (as in auto mode).
3. To STOP operation, an Operator uses a footswitch or palm switch to signal the bagger and the auxiliary device to stop.

JOB menu

The JOB menu is where jobs are managed. The JOB menu contains sub menus that are available to users based on the active user level.

NOTE

The default job cannot be deleted. The default job settings can be changed but changes cannot be saved. Changes made to the default job revert to the default settings at power up.

Changes made to job settings take effect immediately. If changes are not saved, they are lost if a different job is loaded or power to the machine is cycled.

Unsaved jobs

An orange banner job title indicates that job settings have been changed but not saved. Unsaved job changes are lost when power is cycled or a different job is loaded.

Job names must meet the following requirements:

1. Must not be empty.
2. Must contain only English characters and numbers.
3. Must not contain any of the following characters: **[ ] / \' , ; |**
4. Must not contain more than 1 character.

To save an unsaved job, use the following steps:

1. In the orange job title block, select the shortcut icon for the Jobs menu or select the JOBS icon from the top of the screen.

FIGURE 3-47. UNSAVED JOB

2. To save changes to the current job loaded, select SAVE.
3. To save the job as a new job, select SAVE AS.
   a. Name the new job.
   b. Select the green check mark to save or the red X to cancel.

Save job changes

To save changes to the currently loaded job, use the following steps:

1. Select the JOB menu.
2. Tap the SAVE.

Save a new job

To save changes as a new job, use the following steps:

1. Select the JOB menu.
2. Make changes to an existing job as required.

3. Tap SAVE AS. The PLEASE NAME YOUR NEW JOB window opens.
    a. Enter a job name.
    b. Tap the green SAVE/RETURN arrow icon.
4. A confirmation popup asks SAVE JOB AS (name)?
    a. Select YES to save the job.
    b. Select NO to exit without saving the job.

Load Job

To load a previously saved job, use the following steps:

1. Select the JOB menu.
2. Tap LOAD. The LOAD JOB window opens.
3. Select a job to load.
4. Tap LOAD.
5. A confirmation popup asks LOAD THE JOB (name)?
    a. Select YES to load the job.
    b. Select NO to exit without loading the job.

Delete Job

To delete a saved job, use the following steps:

1. Select the JOB menu.
2. Tap DELETE. The DELETE JOB window opens.
3. Select a job to delete.
4. Tap DELETE.
5. A confirmation popup asks DELETE THE JOB (name)?
    a. Select YES to delete the job.
    b. Select NO to exit without deleting the job.

NOTE

A currently loaded job cannot be deleted. To delete a job, the user must first load a different job, and then select a non-loaded job from the list of saved jobs, to delete it.

Job menu overview

The operator uses JOB menus to:

- Edit and save job SETTINGS
- Enable or disable machine OPTIONS, if installed on the machine
- LOAD or DELETE jobs, and SAVE new jobs

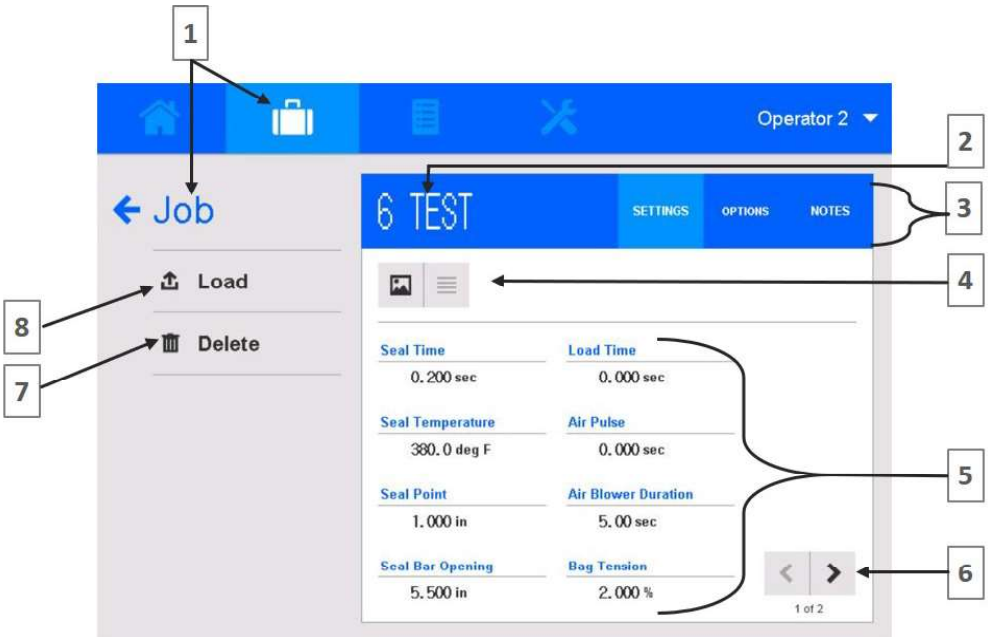


FIGURE 3-48. JOB SCREEN OVERVIEW

Item	Item Name	Description
1	Screen Name and Button	Highlighted button corresponds to the active screen name. Press button to open this screen from any other screen.
2	Job Name	NAME of job in LOAD.
3	Job Screen Tabs	A highlighted button indicates the active tab on the Job screen. SETTINGS – access to edit values for duration, temperature, percentages, or quality OPTIONS – access to enable or disable bagger components. NOTES – feature not in use at this time.
4	Picture/List Buttons	Press buttons to switch between Picture and List formats.
5	Individual Settings	A summary of settings for the active job.
6	Previous/Next Page	Press to navigate within pages of the Job Screen.
7	Delete	Press to DELETE job.
8	Load	Press to display the setting value, setting value unit (seconds, distance), and the setting location on the machine.

TABLE 3-16. JOB SCREEN OVERVIEW

Settings

Every saved job consists of a group of settings which control the bagger operation. Optimal settings are determined by several factors, including the material used and the product being loaded. Available job settings are defined below. To change settings, refer to SETTINGS EDIT in this section.

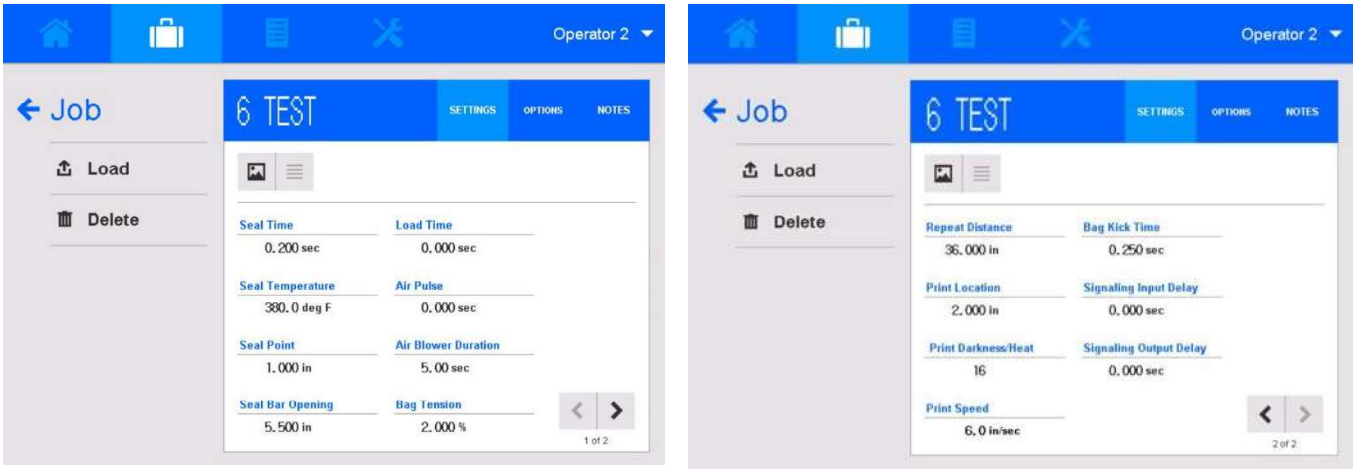


FIGURE 3-49. JOB SETTING IN LIST FORMAT

1. SEAL TIME. From 0 to 3 seconds. This controls how long the seal bar remains closed while sealing.
2. SEAL TEMPERATURE. From 32 to 450°F (0-232°C). Seal temperature can be adjusted for environmental conditions or bag materials.
3. SEAL POINT. From 0.25 to 4 inches (0.635 to 12.7cm). This controls the point at which the bag is sealed relative to the opening of the bag ±0.0625 inches or ±1.59 mm. A common seal point, (and the default setting), is 2.25 inches/2.54 cm. The minimum seal point is 2.0 inches/5.08 cm. Readjust as necessary.

NOTE

On Autobag 850 machines (with the printer), changing the seal point affects the print cycle. If the seal point is changed, the repeat distance may need to be changed to a larger value if the repeat distance is set close to the bags limit.

4. SEAL BAR OPENING. From 0 to 11 inches (0 to 27.94cm). Also called the pass-through area. This is the distance that the Seal Bar travels away from the bagger to pull open the bag. The size of the pass-through area is determined by the size of the bag and the size of the product being loaded into

the bag. To create a square opening use the 2:1 rule, where the seal bar opening is half the value of the distance between pin settings.

5. LOAD TIME. From 0 to 600 seconds. This controls the amount of time the seal bar waits for one bag to be loaded. If a bag is not filled within the allotted load time, the bagger idles.
6. AIR PULSE From 0 to 5 seconds. Shoes the number of seconds the air pulse is activated to initiate the opening of each bag.

NOTE

The Autobag 800 series bagger does not require the air pulse or air blower to properly open a bag or maintain the bag opening.

If the Air Pulse value is set too high, the bag may flutter open and closed, interfering with bag opening.

7. AIR BLOWER DURATION displays the amount of time (in seconds) that the air blower is activated to maintain the bag opening and keep the bag straight and away from the machine.

NOTE

The Autobag 800 series bagger is designed to use EITHER the grippers OR the air blower (but NOT both) for properly opening bags and maintaining the bag opening.

8. BAG TENSION. From 0 to 3. If bags are ripping at the perforation, reduce tension. If bags are difficult to track through the machine, increase tension.
9. REPEAT DISTANCE. From 2 to 36.25 inches (5.08 to 92.08 cm). This controls the distance the machine feeds out a bag if a perforation is missed. Repeat distance must be set equal to or greater than the current bag length, which is measured on the material web from perforation to perforation.
10. PRINT LOCATION. From 1.5 to 36.25 (3.81cm to 92.1cm). This controls the location of the printed label on the bag relative to the print mark or perforation of the material in use. PRINT LOCATION varies depending on the size of the label and bag being used.

NOTE

Software prevents labels from being printed past the bag perforation. In cases where the print location setting would place the label past the perforation, it automatically defaults to 5/16" (8mm) from the perforation.

Printing location Max/Min indicators vary, depending on the type of label and bag size in use.

11. PRINT DARKNESS/HEAT. From 0-30. Controls the darkness of the printed label with 0 being the lightest and 30 being the darkest. The optimal range is between 16-22.
12. PRINT SPEED. From 2 to 12 inches/seconds (5.08 to 30.48cm/sec). Controls the speed that the bag is indexed when a label is being printed on the bag. A PRINT SPEED of 6 to 8 inches/second (15.2 to 20.32cm/sec) is recommended.

NOTE

For more information about Printer setup, refer to Printer Settings in this section.

13. BAG KICK TIME. Sets the time delay in seconds of the bag kicker prior to its operation.
14. SIGNALING INPUT DELAY. If using signaling, this displays a set hesitation time during loading (from 0 to 3 seconds).
15. SIGNALING OUTPUT DELAY. If using signaling, this displays a set hesitation time after loading (from 0 to 3 seconds).

Advanced

Advanced settings are available to Maintenance users and above. Refer to the Maintenance Module.

Picture or List Format

The operator may choose to view JOB SETTINGS and OPTIONS in picture or list format. Refer to Figure 3-51. To access either format, follow the instructions below.

To access PICTURE format from the HOME screen, choose one of these options:

- Press the SETTINGS icon, , to view job details in picture format. Picture format shows machine locations, by zones, that are affected by job settings.
- Press the JOB menu icon, , to access all job settings in list format.

FIGURE 3-50. HOME SCREEN

Switch between picture or list format

Press the PICTURE button (Figure 3-51, item 1) or LIST button (item 2) on the JOB screens to switch between picture and list format.

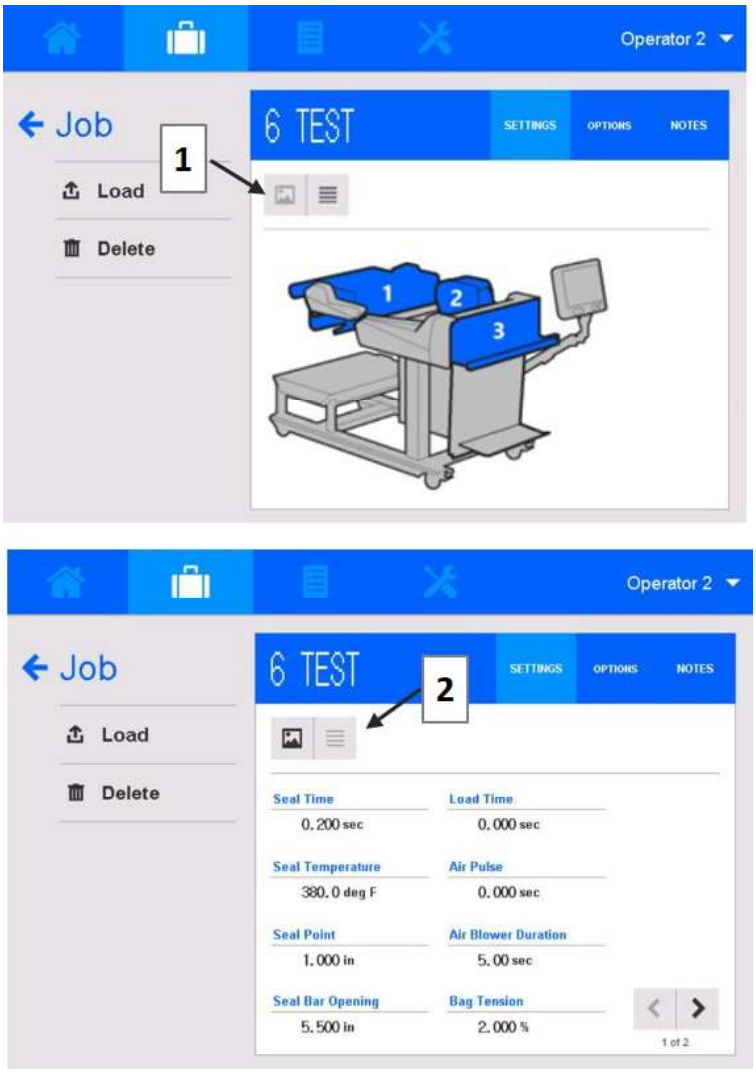


FIGURE 3-51. JOB SETTINGS AS PICTURE OR LIST FORMAT

Picture format

In picture format, JOB SETTINGS are displayed in zones 1, 2, and 3. Tap a zone to access the job settings pertaining to that area (zone) of the machine.

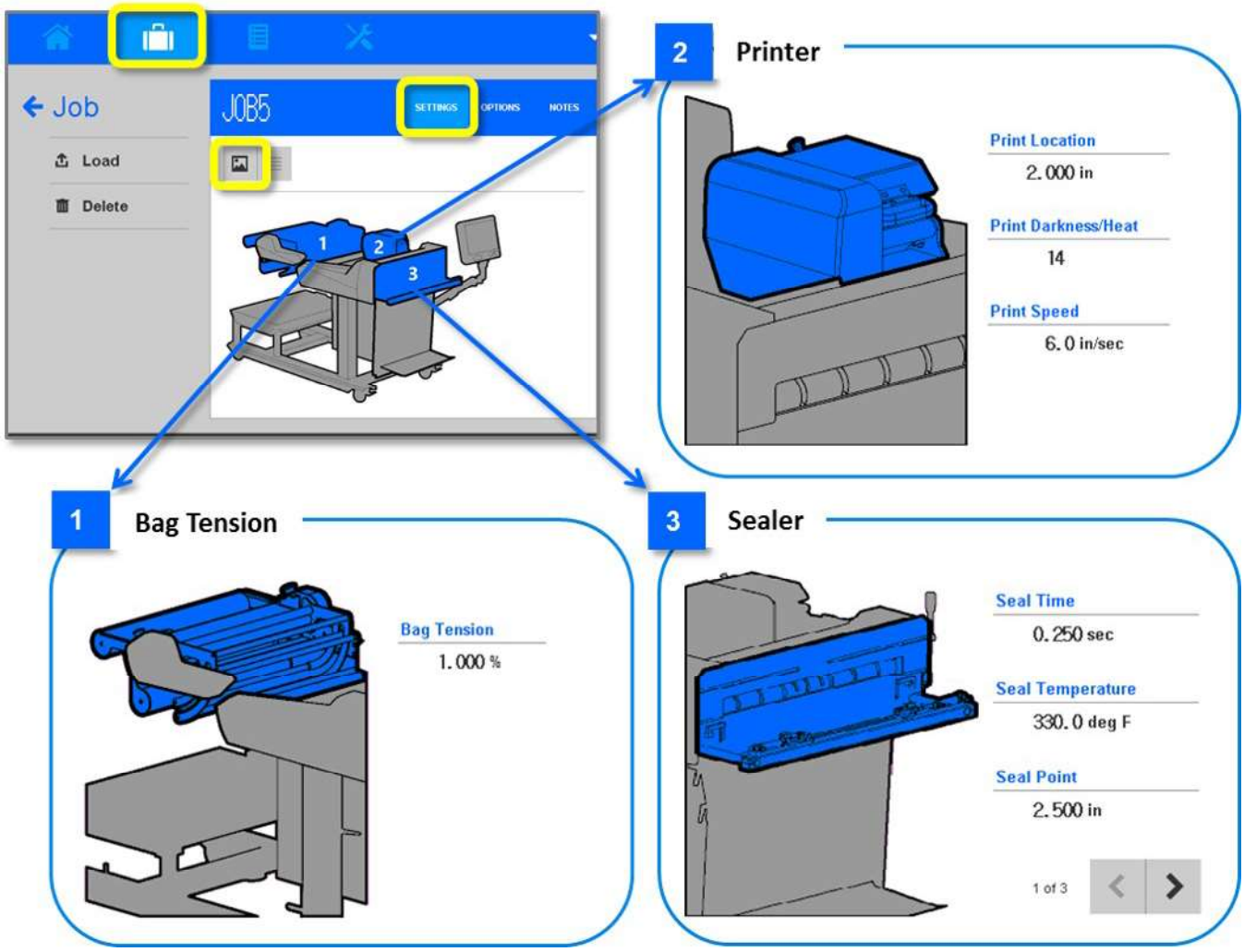


FIGURE 3-52. JOB SETTINGS ZONES IN PICTURE FORMAT

Settings edit overview

NOTE

Editing JOB SETTINGS requires a login level of SETUP or higher.

Use the JOB edit screen to change settings for saved jobs or to enter settings for new jobs.

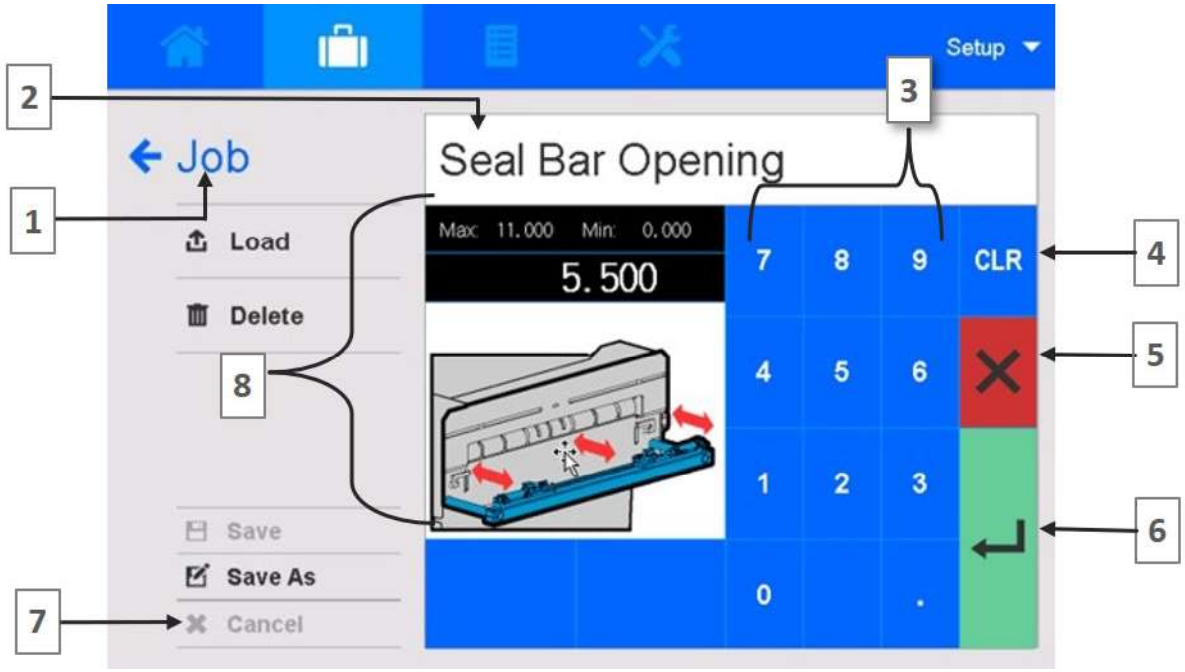


FIGURE 3-53. JOB SETTINGS EDIT WINDOW

Item	Item Name	Description
1	Screen Name	NAME of open SCREEN.
2	Setting Name	Name of Selected job SETTING.
3	Numbered Softkeys	Press numbers to CHANGE value.
4	CLR	Press to CLEAR value and enter a new value.
5,7	X and X Cancel	Press to CANCEL the edit and return to the Job screen.
6	Save/Return Arrow	Press to SAVE the edit and RETURN to the Job screen.
8	Job Settings Display	Displays the setting value, unit (seconds, inches, percentage, etc.), and location on the machine.

TABLE 3-17. JOB SETTINGS EDIT DETAIL

Settings edit

To set or change job setting values, use the following steps.

1. From the JOB SETTINGS menu, tap on a setting to open an edit window.

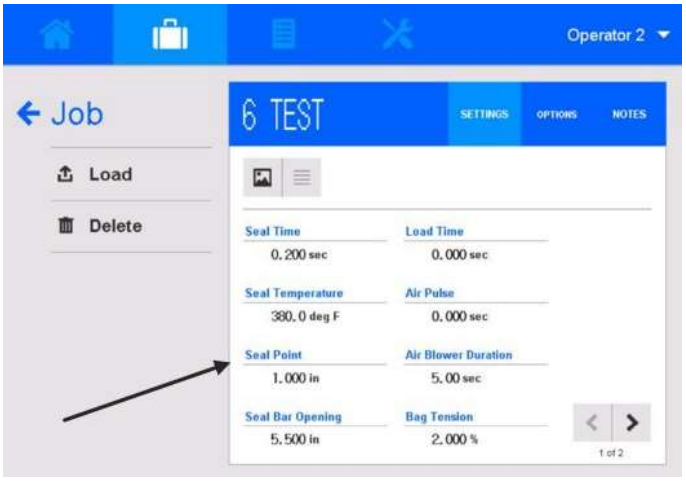


FIGURE 3-54. JOB SCREEN AND EDIT JOB SCREEN

2. Press the numbered softkeys to change the value.
3. To save the change:
   a. tap the green SAVE/RETURN arrow (Figure 3-55, item 1).
   b. when prompted to confirm the change, tap YES.

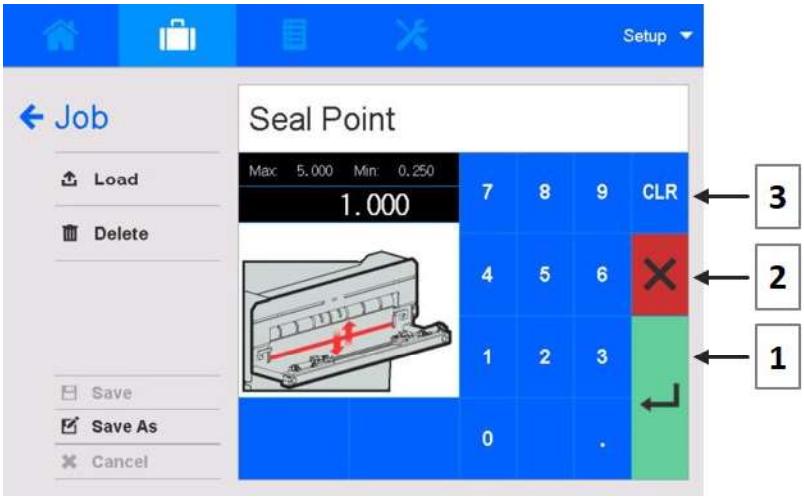


FIGURE 3-55. EDIT SEAL POINT VALUES

Item	Description
1	SAVE/RETURN Arrow
2	CANCEL button
3	CLEAR button.

TABLE 3-18. EDIT BUTTON DETAILS

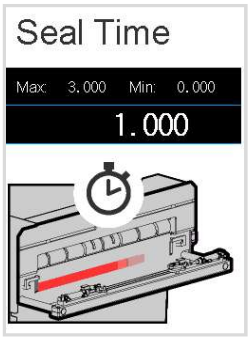
4. To cancel the change:
   a. tap the red X button (Figure 3-55, item 2).
   b. when prompted to confirm the change, tap YES.
5. To clear the change, and enter a different value:
   a. tap the blue CLR button (Figure 3-55, item 3).
   b. when prompted to confirm the change, tap YES.
   c. enter a new value and save.

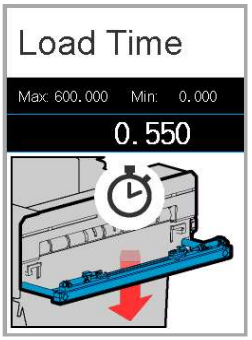
NOTE

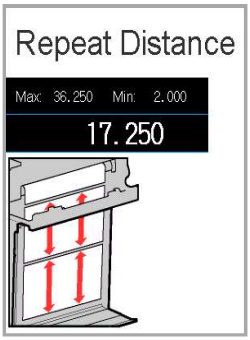
On the JOB screen, verify that the new value is set.

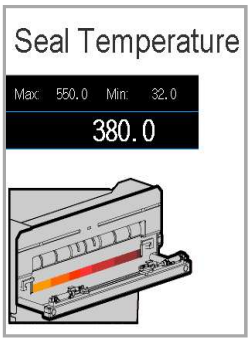
Settings edit menu

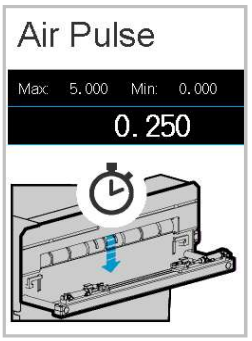
The EDIT JOB screens display the setting value, unit of measure, and location on the machine. Where applicable, maximum and minimum (Max/Min) values are indicated.

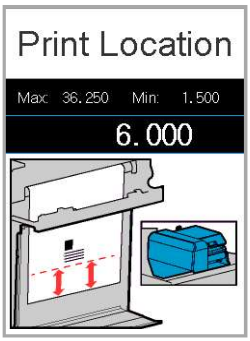


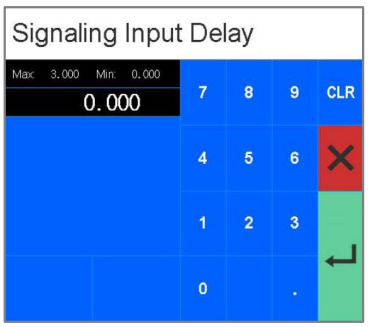


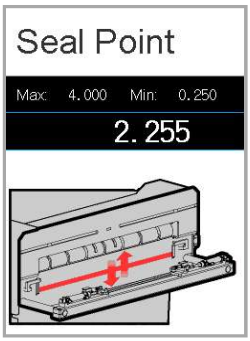


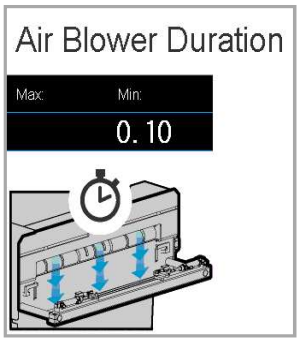


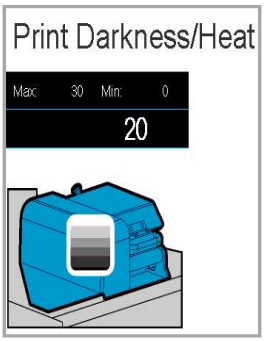


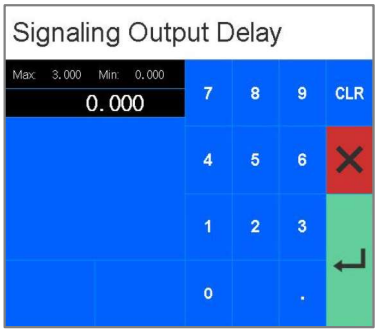


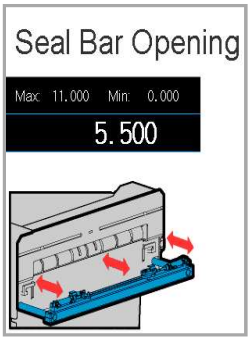


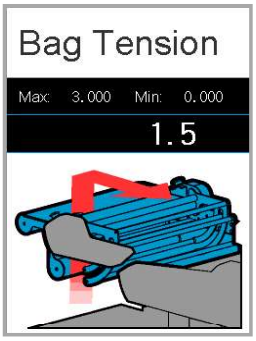












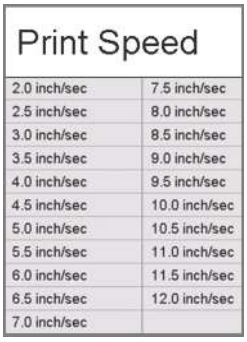


TABLE 3-19. JOB SETTINGS DISPLAY

Options menu

The JOB OPTIONS menu is used to turn machine components ON or OFF for the selected job. To change option settings, refer to OPTIONS EDIT in this section.

NOTE

Editing JOB OPTIONS requires a login level of SETUP or higher.

To access job OPTONS (Figure 3-56), tap the JOB menu icon (item 1). Next, tap the OPTIONS menu icon (item 2). Notice that there are two pages of options (item 3). Each option name has a checkbox (item 4) to its left. A checkmark indicates that an option is enabled.

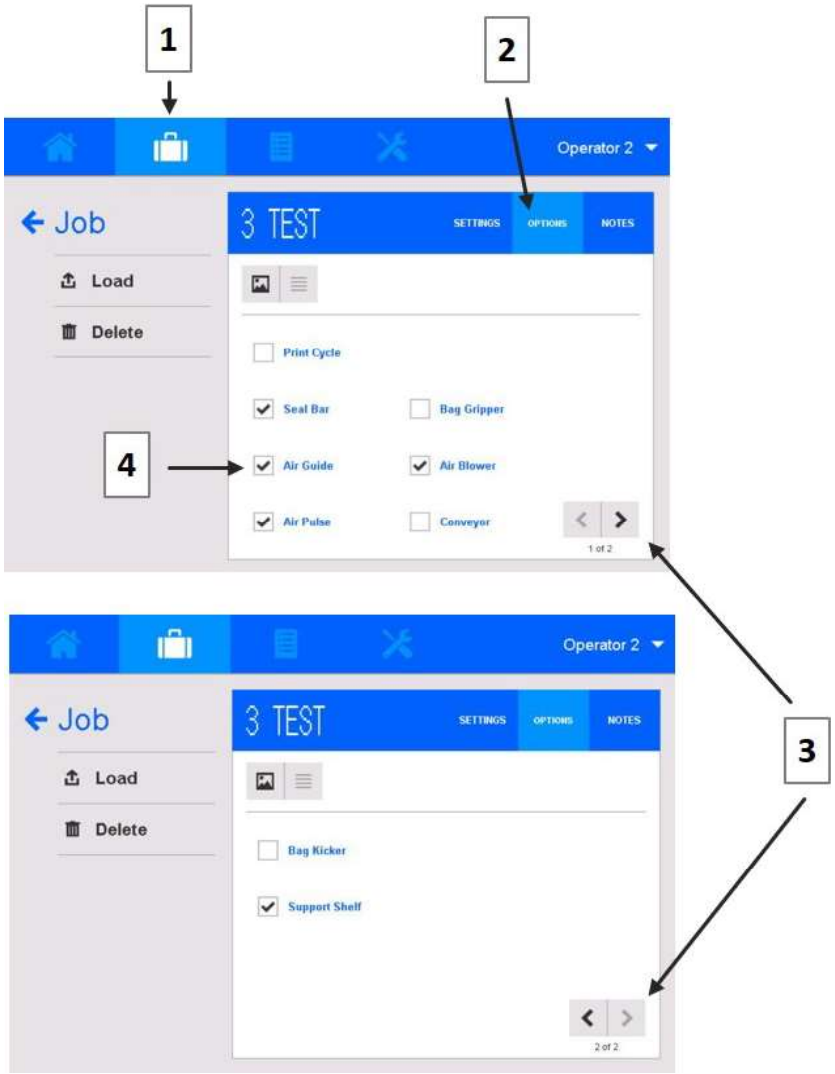


FIGURE 3-56. OPTIONS MENU

Item	Description
1	JOB icon
2	OPTIONS tab
3	NEXT-PREVIOUS page icons
4	OPTION checkbox

TABLE 3-20. OPTIONS MENU DETAILS

1. PRINT CYCLE. Turns the print cycle ON or OFF. Turn this OFF if printing is not required.
2. SEAL BAR: Turns the seal bar ON or OFF. Turn this OFF if sealing of bags is not required. Refer to JOB SETTINGS in this section to adjust SEAL BAR temperatures.
3. AIR GUIDE. Turns the air guide ON or OFF. Turn this OFF if guiding of bags during indexing is not required.
4. AIR PULSE. Turns the air pulse ON or OFF. Turn ON to aid in opening bags. Turn OFF if opening of bags is not required during cycling. Refer to Job Settings in this section to adjust air pulse duration.
5. SEAL FLATTENER. Turns the seal flattener ON or OFF. When ON, the seal flattener holds or pulls bag flat for sealing. Turn this OFF if the seal flattener is not required.
6. BAG GRIPPER. Turns the bag grippers ON or OFF. When ON, the bag grippers secure the bag while it is opened by the machine. This control also can be accessed from the HOME screen ACTIONS menu.

NOTE

Two options (BAG GRIPPER and CONVEYOR) can be accessed from the HOME screen ACTIONS menu. Using the ACTIONS menu controls temporarily overrides the OPTIONS setting for the active job.

7. AIR BLOWER. Turns the air blower ON or OFF. When ON, the air blower provides a steady flow of air to prevent bags from resting against or sticking to the machine. Refer to JOB SETTINGS in this section to adjust air blower duration. If the air blower is not required, turn this OFF.
8. CONVEYOR. Turns the conveyor ON or OFF. Carries loaded bags away from the bagger. Turn conveyor OFF if this option is not needed. This control also can be accessed from the HOME screen ACTIONS menu.
9. BAG KICKER. Turns the bag kicker ON or OFF. When turned ON, the bag kicker knocks loaded bags away from the bagger and onto a conveyor, if a conveyor is in use. Turn bag kicker OFF if this action is not needed.

10. SUPPORT SHELF. Turns the support shelf ON or OFF. When turned ON, the support shelf temporarily supports heavily loaded bags. Use when loading larger product on the horizontal load unit. If this option is not needed, turn the support shelf OFF and choose an OFF position between:
    a. Off Position Raised
    b. Off Position Dropped

Switch between picture or list format

Tap the PICTURE or LIST icon on the JOB OPTON menu to switch between picture and list format.

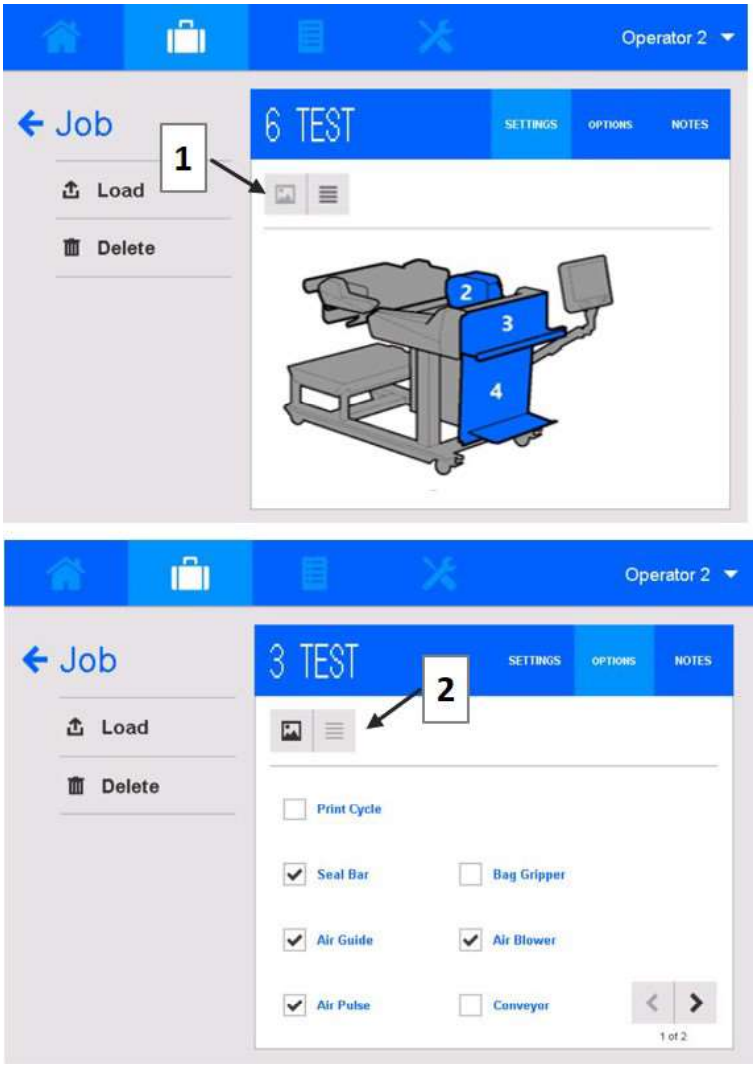


FIGURE 3-57. OPTIONS TAB AS PICTURE OR LIST FORMAT

Options in picture format

In picture format, JOB OPTIONS are shown in zones 2, 3, and 4. Tap a zone number to access the job options in that zone.

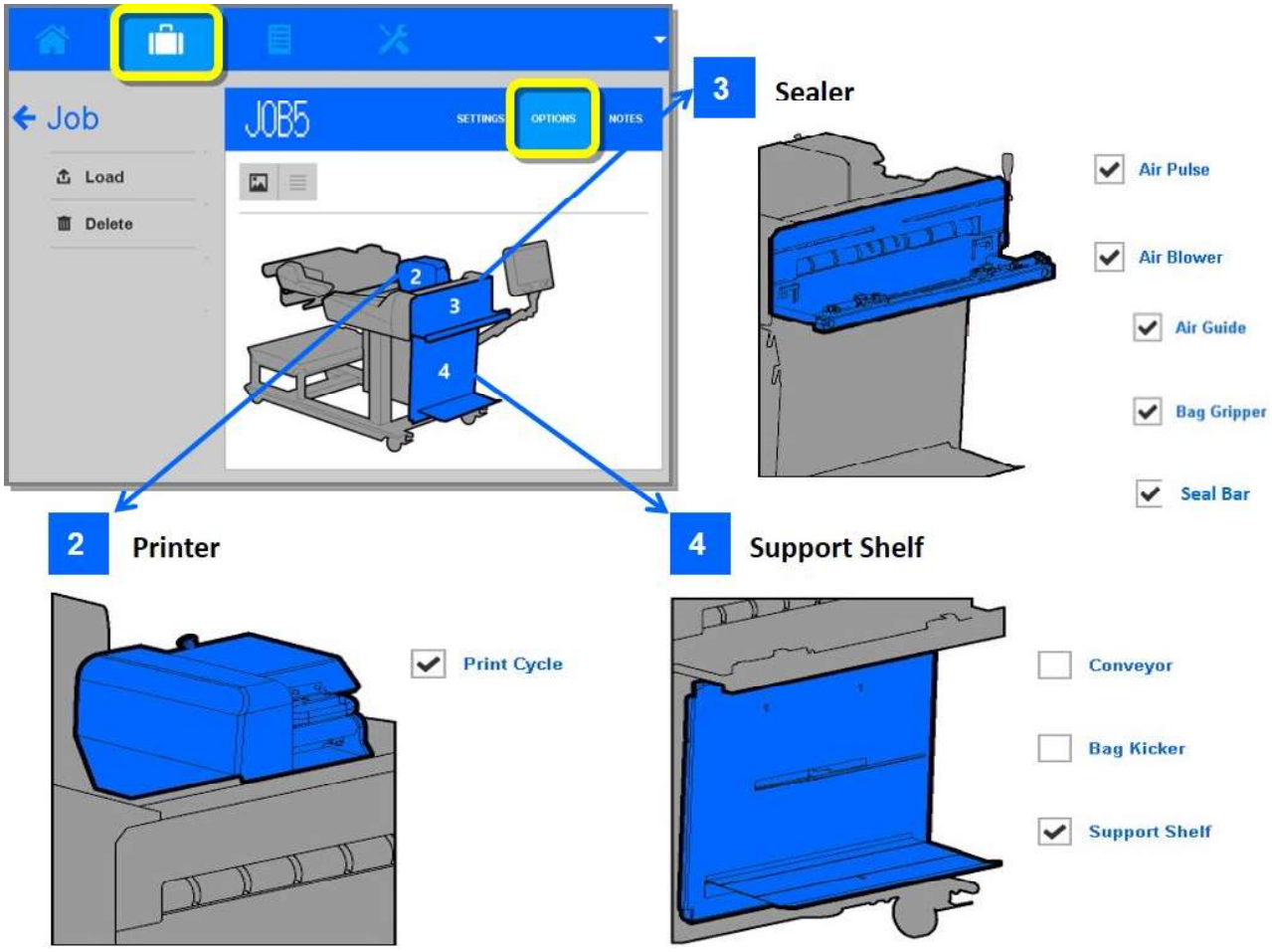


FIGURE 3-58. JOB OPTIONS IN PICTURE FORMAT

Options edit

Follow the instructions below to enable (turn ON) or disable (turn OFF) options for the selected job. A full list of options is shown in Table 3-21.

1. From the **Job Options screen**, tap on an option to open an edit window.

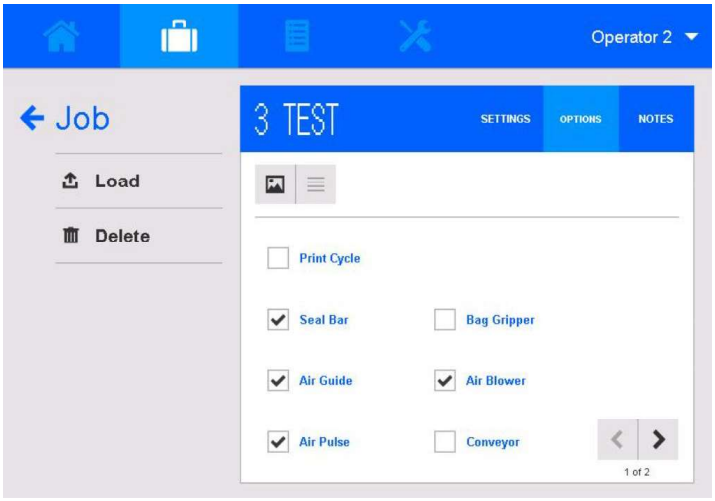


FIGURE 3-59. JOB OPTIONS SCREEN AND EDIT JOB OPTIONS SCREEN

2. Tap the ON checkbox to enable the option (Figure 3-60, item 1).

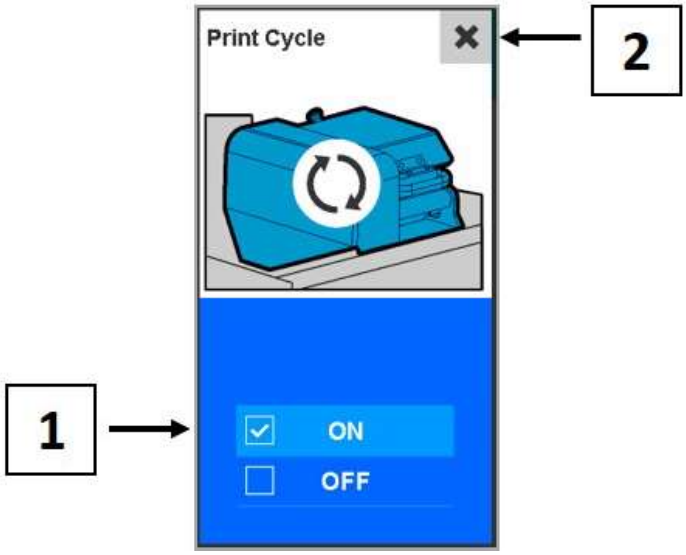


FIGURE 3-60. PRINT CYCLE EDIT WINDOW

3. Tap the X button (item 2) in the upper left corner to close the edit window. The change is saved until the next power cycle of the machine, when it reverts to the previously saved setting.
4. Verify the change was made.

Save or discard edits

To save changes to the JOB long term, use the following steps.

1. Tap the SAVE button. A validation window opens.
2. Tap YES. The change is saved, even after power cycling the machine, until future edits are made to the job.

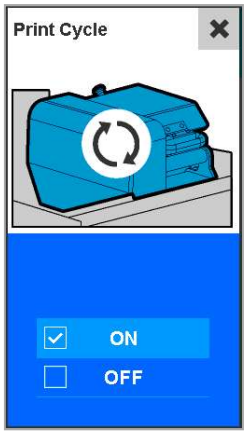
To discard changes that were temporarily saved, use the following steps.

1. Tap the CANCEL button. A validation window opens.
2. Tap YES. The setting reverts to the previously saved setting.

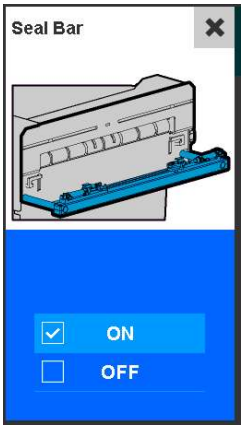
NOTE

To save changes to the job as a new (different) job, follow instructions for a JOB SAVE AS in this manual.

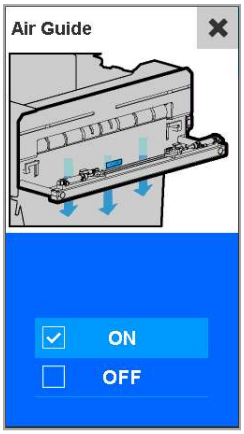
Options edit windows



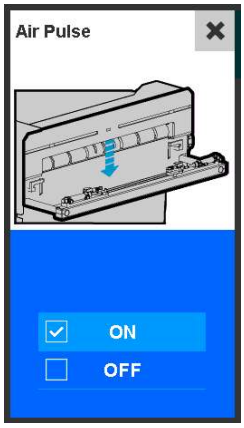
Turns printer ON and OFF.



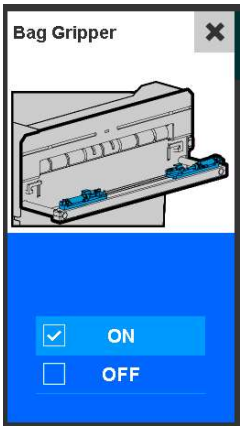
On = moves
Off = stationary



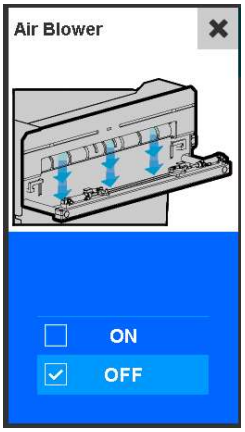
Guides Autobag® when indexing



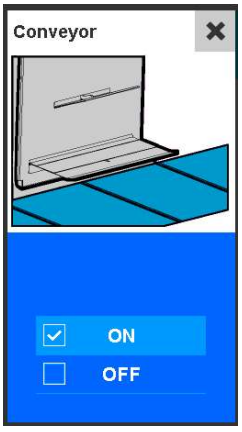
See Job Settings



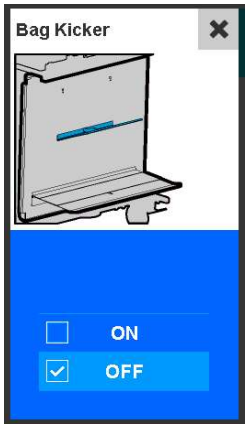
Also on **Action** menu



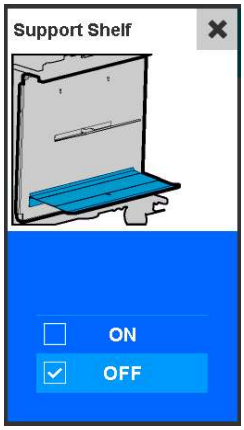
See **Job Settings**



Also on **Action** menu



Bumps filled bag off shelf



On = raises to support load
Off = remains lowered

TABLE 3-21. BAGGER OPTIONS EDIT WINDOWS

Advanced

Advanced settings are available to Maintenance users and above. Refer to the Maintenance Module.

Autobag 850 Printer

The Autobag 850 machines are configured with a DATAMAX H class printer. The printer control panel for the Autobag 850 is located on the back of the main E-BOX. The control panel allows for access of the printer menus.

NOTE

The Autobag 850 Printer information pertains to the DATAMAX H class printer only.

The printer maintains a print position consistency of 1/8" (3.2mm) during printing operations.

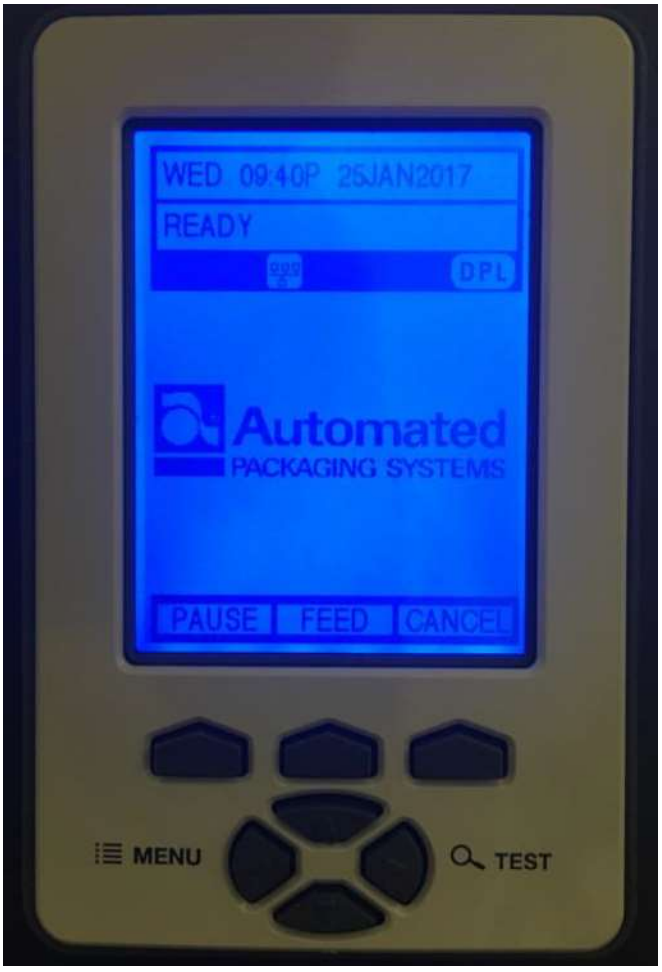


FIGURE 3-61. PRINTER CONTROL PANEL

Print roll errors

When the machine experiences a print roll error, use the following steps:

1. Correct the condition causing the error.
2. Clear the error messages on the HMI screen.
3. Prior to resuming cycling, manually thread one bag out using the thread rocker switches or the FEEDBAG icon on the HOME screen.

NOTE

Failure to thread out one bag after a printer error causes the bag web to unthread from the machine when the printer backs up to print a label.

Printer Test Menu

The (Quick) Test Menu function contains resident format selections that are printed at selected heat and speed settings. Use full width media to capture the entire format; otherwise, adjust the printer and set the label width.

To enter the Test menu, press the TEST button.

NOTE

When in Test Mode, the printer is offline, halting the processing of new data.

Print Quality Label

The Print Quality Label function serves as an overall quality indicator. Consisting of compliant fence and ladder bar codes, assorted font sizes, and fill patterns, this format can be used to ensure conformance as well as aesthetics.

Ribbon Test Label

The Ribbon Test Label function serves as a transfer function indicator for printers equipped with the thermal transfer option. Consisting of a fence-oriented bar code, this format can be used to ensure component functions and ribbon path alignment.

Test Label

The Test Label function serves as an indicator of print head functionality. The format consists of patterns that exercise all thermal elements.

Validation Label

The Validation Label function serves as an overall quality indicator. Consisting of compliant fence and ladder bar codes, assorted font sizes, and black fill patterns, this format can be used to ensure conformance as well as aesthetics.

Print Configuration

The Configuration Label function provides current database information.

NOTE

Bulleted items indicate host changes not yet saved.

Print Last Label

The Print Last Label function reprints the most recent format output by the printer.

NOTE

If a job was cancelled prior to completion, or if power was removed since the last print job and the current label request, the word VOID is printed.

User-Defined Label

The User-Defined label function allows a template to be populated by variable data (via the printer control panel of a USB QUERTY keyboard). The template is a stored label format, where fields delimited by the "&" become variable. The printer prompts the user to enter this variable field data.

For example, the stored label format could contain the data "19131423443&ENTER NAME". Afterward, when recalled from memory, the printer display indicates the variable field ENTER NAME.

NOTE

Variable data can be any part of the DPL format - font ID, positioning, etc.
No error checking is performed.

Load Labels for Printing

For the imprinter to function properly, label files must be loaded into the Autobag 850 as follows:

1. Look for the READY status. The imprinter display status line, shown in Figure 3-62, displays READY when the unit is waiting for a label to be loaded.
2. Connect the computer containing the label software to a connector on the back of bagger unit. Available ports and connectors are shown in shown in Figure 3-90. When the computer is connected and booted up, download a label file. For more information on label printing software refer to AutoLabel 14.0 Software documentation.

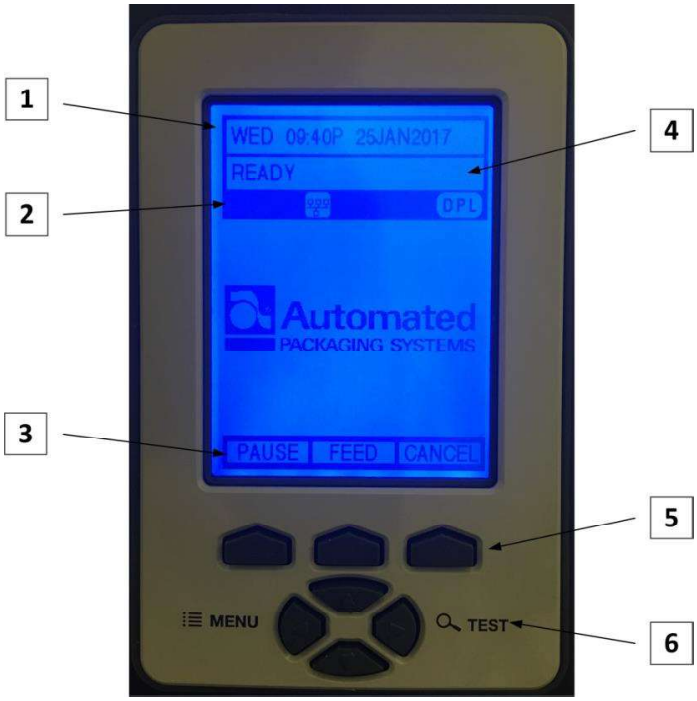


FIGURE 3-62. PRINTER DISPLAY STATUS LINE

Item	Description
1	Time and Date
2	Current Condition Line
3	Soft Key Labels

Item	Description
4	Printer Status Line
5	Soft Keys
6	Menu, Test and Navigation keys

TABLE 3-22. PRINTER DISPLAY STATUS LINE

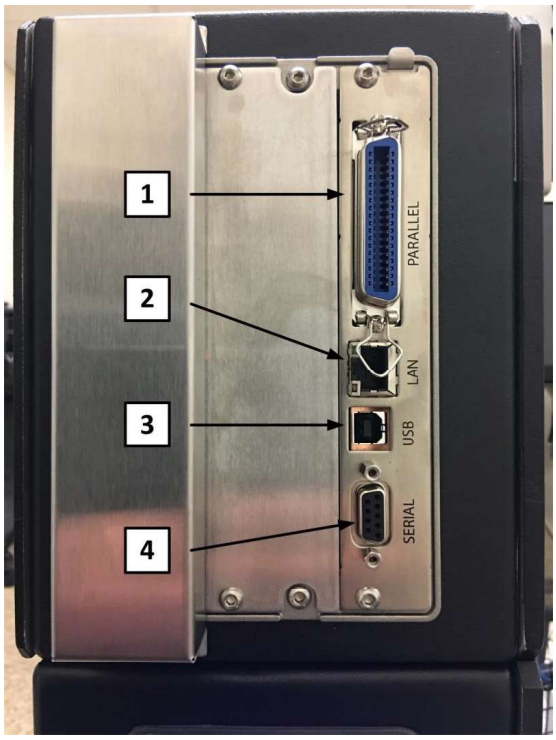


FIGURE 3-63. PRINTER E-BOX CONNECTIONS

Item	Description
1	Parallel Port Connector
2	LAN Port Connector

Item	Description
3	USB Port Connector
4	Serial Port Connector

TABLE 3-23. PRINTER E-BOX CONNECTIONS

3. When the label file is loaded, the imprinter display status line shows the message: WAITING FOR SIGNAL. When the bagger unit signals the imprinter, it prints the label each time the unit is cycled.

NOTE

To cancel a batch of uncompleted labels or delete a complete batch number, press the CANCEL soft key and then press YES on the Cancel Batch screen. Once the batch is cancelled, press the PAUSE soft key to return to READY status for new label.

If a label batch quantity job is not completed, it is not necessary to cancel that batch to start a different batch job.

During operation, the TIME AND DATE status line alternately flashes with a label count amount status message.

Printer communications

Menu Item	Details
Serial Port A	Controls the RS-232 communications settings for Serial Port A, where:
• BAUD RATE	Sets the serial communication rate, where:
-1200 BPS	-
-2400 BPS	-
-4800 BPS	-
-9600 BPS	-
-19200 BPS	is the serial speed in Bits Per Second (BPS).
-28800 BPS	-
-38400 BPS	-
-57600 BPS	-
-115000 BPS	-
• PROTOCOL	Sets the data flow control method (handshaking), where:
-Both	Uses XON/XOFF and CTS/DTR.
-Software	Uses XON/XOFF.
-Hardware	Uses CTS/DTR.
-None	Disables flow control.
• PARITY	Sets word parity, where:
-None	Uses parity.
-Odd	Uses Odd parity.
-Even	Uses Even parity.
• DATA BITS	Sets Word length, where:
-(7-8)	Is the number of bits in the word.
• STOP BITS	Sets the stop bit count, where:
-(1-2)	Is the number of stop bits.
Serial Port C	Controls the settings for the optional Applicator Interface COM C (J4) port, where the settings are the same as those given for SERIAL PORT A. The Maximum baud for Serial Port C is 38.4K BPS

TABLE 3-24. PRINTER COMMUNICATIONS

Menu Item	Details
Serial Port D	Controls the settings for the optional Applicator Interface COM D (J3) port, where the settings are the same as those given for SERIAL PORT A. The Maximum baud for Serial Port C is 38.4K BPS.
Parallel Port A	**Controls the communications settings for Parallel Port A, where:**
• PORT DIRECTION	Allows printer data to be returned to the host, where:
-Uni-directional	Returns no data (one-way communication).
-Bi-directional	Returns data (compliant back-channel operation).
NIC Adapter	Controls the communications settings for the network interface, where:
• QUICK SETUP	Only available when equipped with DMXNetII or DMXrfNetII.
	Selects settings to configure basic Wired or Wi-Fi operations, where:
-Wired DCHP	Selects the Wired operation, where:
*No	Exits the menu item without changing the current settings.
*Yes	Returns the NIC Adapter to defaults, then sets Wired Discovery to Enable and Wireless to Disable.
• WLAN UNSECURED	Selects Wi-Fi operation, where:
-No	Exits the menu item without changing the current settings.
-Yes	Returns the NIC Adapter default values, then sets Discovery to Enable, SSID to Any, and WLAN network type to Infrastructure.
• WLAN ADHOC	Selects the DMXrfNetII default parameters, where:
-No	Exits the menu item without changing the current settings.
-Yes	Restores Wi-Fi defaults and initiates infrastructure mode with an SSID of Any. All existing access point associations are deleted and then established with the closest available. (Useful when moving the printer to a geographically distant location).
• SET FACTORY DEFAULTS	Returns the factory-programmed values, where:
-No	Exits the menu item without changing the current settings.
-Yes	Restores the default settings.
• WLAN	Controls the communications settings for the DMXrfNetII card, where:
-Mode	Selects between Wired or Wi-Fi operation, where:
*Enabled	Enables the Wi-Fi interface.
*Disabled	Enables the wired interface.
-BSS Address	Specifies the static IP address of the Wi-Fi bridge module. If DHCP is Enabled, this parameter is ignored.
*000.000.000.000	Is the address in standard octet format.

TABLE 3-24. PRINTER COMMUNICATIONS (CONTINUED)

Menu Item	Details
NIC Adapter (Continued)	Controls the communications settings for the network interface, where:
-Signal readings	Displays the WLAN signal and noise ratios.
• IP ADDRESS	Specifies the static IP Address, where:
-192.168.010.026	Is the address in standard octet format.
• SUBNET MASK	Specifies the static Subnet Mask Address, where:
-255.255.255.000	Is the address in standard octet format.
• GATEWAY	Specifies the network Gateway Address, where:
-192.168.010.026	Is the address in standard octet format.
• SNMPTRAP DESTINATION	Specifies the SNMP Trap Address, where:
-000.000.000.000	Is the address in standard octet format where SNMP traps is sent when SNMP service is installed on your receiver. When zeroed, no traps are sent.
• IP DISCOVERY	Controls IP Address discovery, where:
-Enabled	Broadcasts over the network at startup to receive addresses from the responsible server. Manual modifications to IP Address, Subnet Mask, or Gateway are not allowed. If no server is found, the specified static value is used. Server assigned IP Address takes precedence over any static address stored in the interface.
-Disabled	Uses the stored static IP, Subnet Mask, and / or Gateway Address.
• SNMP	Allows management protocols, where:
-Enabled	Sends messages to SNMP-compliant devices.
-Disabled	Sends no messages.
• ADVANCED	Sets advanced networking functions and parameters, where:
-Telnet	Sets Telnet protocol to transfer data, where:
*Enabled	Allows Telnet.
*Disabled	Disables Telnet.
-FTP	Sets File Transfer Protocol to transfer data, where:
*Enabled	Allows FTP.
*Disabled	Disables FTP.
-MTU	Sets Maximum Transmission Unit packet size, where:
*(512 - 65515)	Is the packet size, in bytes.
-Gratuitous APRP	Sets the Address Resolution Protocol notification rate, where:

TABLE 3-24. PRINTER COMMUNICATIONS (CONTINUED)

Menu Item	Details
*(0 - 2048)	Is the time, in minutes.
-Port Number	Sets the network communications port, where:
*(1 - 65535)	Is the port number.
NIC Adapter (Continued)	Controls the communications settings for the network interface, where:
-TCP KEEPALIVE	Allows monitoring of an open connection to detect any disconnects not properly closed, including reset access points and unplugged printers, where:
*Enabled	Keeps monitoring active.
*Disabled	Closes such a disconnection after 2.5 minutes.
-Duplex Capability	Sets the communication capability for the Wired network, where:
*Auto-Negotiate	Automatically selects the best type.
*100BASET HALF	Selects 100Mbit/s half duplex (in both directions, one way at a time) operations.
*100BASET FULL	Selects 100Mbit/s full duplex (in both directions, simultaneously) operations.
*10BASET HALF	Selects 10Mbit/s half duplex (in both directions, one way at a time) operations.
*10BASET FULL	Selects 10Mbit/s full duplex (in both directions, simultaneously) operations.
-Advertise Capability	Transmits the printer's communication capability for the Wired network, where:
*Automatic	Advertises the Duplex Capability set value.
*All Capabilities	Advertises all possible values for Duplex Capability.
-Network Report	Allows viewing or printing of the network status report, where:
*View	Displays the report.
*Print	Prints the report.
-Set factory defaults	Returns the factory-programmed values, where:
*Yes	Restores the default settings.
	A reset occurs and all settings are restored except Custom Adjustments and Calibrations.
*No	Exits without changing the current settings.
Host Settings	Sets host communication parameters, where:
• Host Timeout	Sets the period that an interface port can be idle before timeout occurs, where:
-(1 - 60 Sec)	Is the time (in seconds) when downloads timeout, and that must elapse before alternate port or alternate parser processing can occur.
• Control Codes	Allows changes to the software command interpretation controls, where:

TABLE 3-24. PRINTER COMMUNICATIONS (CONTINUED)

Menu Item	Details
-Standard Codes	Sets these interpretation codes: Hex 01 = SOH command; Hex 02 = STX command; Count-By = ^; Hex 1B = ESC; Hex 0x0D = Carriage Return.
-Alternate Codes	Sets these interpretation codes: Hex 5E = SOH command; Hex 7E = STX command; Count-By = @; Hex 1B = ESC; Hex 0x0D = Carriage Return.
-Alternate Codes 2	Sets these interpretation codes: Hex 5E = SOH command; Hex 7E = STX command; Count-By = @; Hex 1B = ESC; Hex 0x7C = Carriage Return.
Host Settings *(continued)*	**Sets host communication parameters, where:**
-Custom Codes	Sets interaction codes, where:
*Standard Codes	Are the codes according to your definition.
*SOH 01 *STX 02 *CR 0D *CNTBY 5E	Standard codes serve as default placeholders.
• Feedback Characters	Allows the return of printer codes, where:
-Enabled	Sends the host a Hex 1E (RS) after each label and a Hex 1F (US) after each batch successfully prints.
-Disabled	Sends no feedback characters.
• ESC Sequences	Sets handling for data containing invalid ESC sequences, where:
-Enabled	Processes commands normally.
-Disabled	Ignores ESC control codes during processing (as some systems send "banners" to the printer).
• Heat Command	Determines how host Heat commands are handled, where:
-Enabled	Processes software commands normally.
-Disabled	Controls Heat via the menu setting.
• Speed Commands	Determines host Print, Feed, Reverse, and Slew commands are handled, where:
-Enabled	Processes software commands normally.
-Disabled	Controls speeds via the menu setting.
• TOF Sensing Commands	Determines how host Gap, continuous, and Reflective commands are handled, where:
-Enabled	Processes software commands normally.
-Disabled	Controls the Sensor Type via the menu setting.
• Symbol Set Command	Determines how host Single and Double Symbol Set commands are handled, where:
-Enabled	Processes software commands normally.

TABLE 3-24. PRINTER COMMUNICATIONS (CONTINUED)

Menu Item	Details
-Disabled	Controls Symbol Set selection via the menu setting.
• CNTRL- Codes (DATA)	Determines how host Control Codes are handled, where:
-Enabled	Processes the commands normally.
-Disabled	Controls the setting via the menu.
• STX-V SW Settings	Determines how a host option enable command is handled, where:
-Enabled	Processes Software commands normally.
-Disabled	Controls the setting via the menu.
Host Settings	**Sets host communication parameters, where:**
• Max Length Command	Determines how a host Maximum Label length (<STX>M) command in handled, where:
-Enabled	Processes software commands normally.
-Disabled	Controls the setting via the menu.
• Option Feedback	Allows feedback characters from an optional device to be returned to the host device, in the format of <A;B;C;D;E;F> [CR], where:
*A	Is the device type: *R = RFID *S = Linear Scanner.
*B	Is the status: *C = entire label complete *F = faulted (failed) label *U = Unknown.
*C	Is the number of expected reads, given in two characters.
*D	Is the number of good reads, given in two characters.
*E	Is the internal Job and Sub Job identifier, given in four characters.
*F	Is the data read, delimited with semicolons (;) if multiple reads.
-Disabled	Reports no data.
-Scanner	Reports Linear Scanner data.
-RFID Hex	Reports RFID data in hexadecimal format.
-RFID ASCII	Reports RFID data in ASCII format.
• Process SOH (Data)	Determines the response to an Immediate Command (e.g. Get Status, Module Storage, etc.), where:
-Disabled	Processes software commands normally.
-Enabled	Interrupts operations upon SOH receipt to process the command.

TABLE 3-24. PRINTER COMMUNICATIONS (CONTINUED)

Notification messages

Popup messages appear on the HMI screen when errors or notifications in the machine occur.

Resetting notification messages

To reset or clear a notification message that comes up on the screen, use the following steps:

1. Clear the condition that caused the notification.

NOTE

Indexing a bag prior to clearing the popup message may be required. This prevents the machine from unintentional unthreading.

2. Select the green check mark in the popup notification or press the START/STOP button to clear the popup notification.
3. The machine is now ready to begin cycling again.

Popup Messages

The following popup messages may appear during machine operation:

NOTE

Some popup messages may have the same image but the displayed message and possible cause is different.

Make a note of displayed message when contacting Technical Support to aid in troubleshooting.

Popup message image	Displayed message	Possible Cause
	Flashing blue button Reset E-STOP	Machine is in an E-STOP condition and must be reset prior to continuing.
	E-STOP button 1 engaged	The E-STOP button has been activated and must be reset prior to continuing.

TABLE 3-25. POPUP MESSAGES

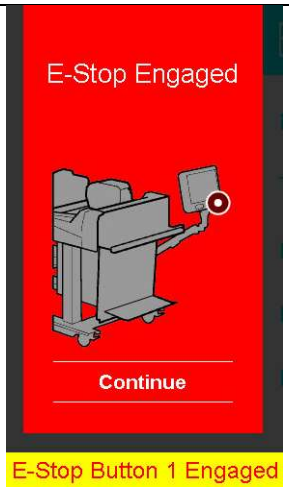
Popup message image	Displayed message	Possible Cause
	Emergency Stop. Press E-STOP Reset or Continue	The machine is currently in an E-STOP condition.
	E-STOP Button 1 Engaged	E-STOP Button 1 is Engaged
	E-STOP Button 2 Engaged	E-STOP Button 2 is Engaged. Check TCU.

TABLE 3-25. POPUP MESSAGES (CONTINUED)

Popup message image	Displayed message	Possible Cause
	E-STOP Button 3 Engaged	E-STOP Button 3 is Engaged. Check bag web.
	Homing Needed Press White Button.	The machine requires a homing sequence prior to continuing.
	Lot Size Count Reached	The current lot has reached the set lot size number.

TABLE 3-25. POPUP MESSAGES (CONTINUED)

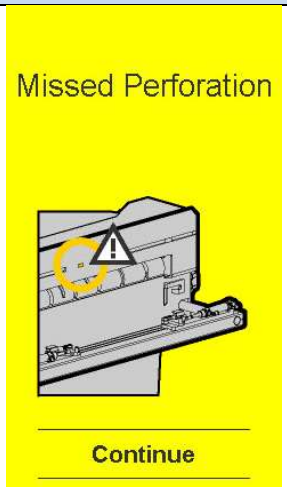
Popup message image	Displayed message	Possible Cause
	Missed Perforation	The machine has missed the number of allowed perforations.
	Out of Bags	The machine has detected that it is out of bags.
	Seal Bar Opening Error	The machine has detected that the seal bar has not opened

TABLE 3-25. POPUP MESSAGES (CONTINUED)

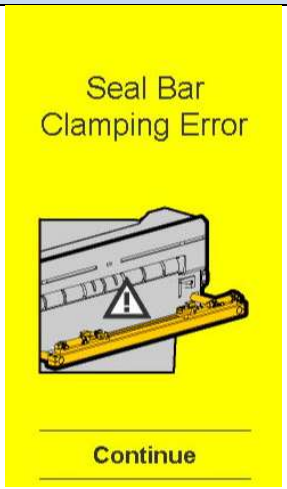
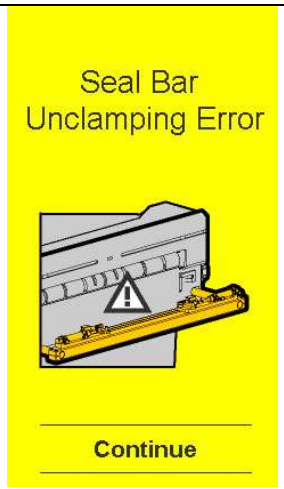
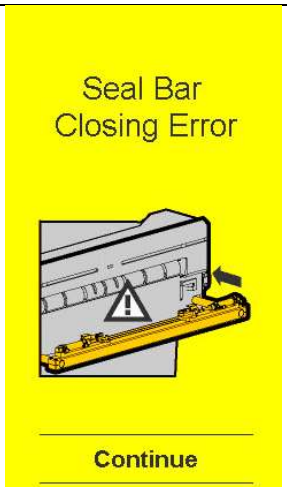
Popup message image	Displayed message	Possible Cause
	Seal Bar Clamping Error	The machine has detected a seal bar clamping error during the open cycle
	Seal Bar Unclamping Error	The machine has detected a seal bar unclamping error during the close cycle
	Seal Bar Closing Error	The machine has detected a seal bar error during the close cycle

TABLE 3-25. POPUP MESSAGES (CONTINUED)

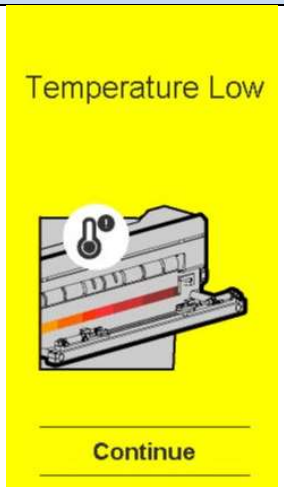
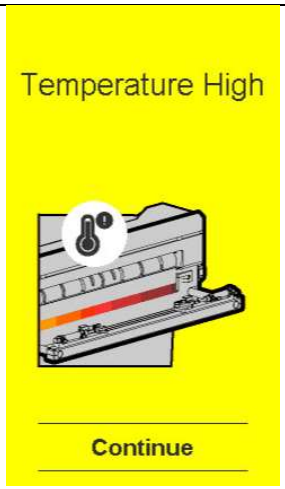
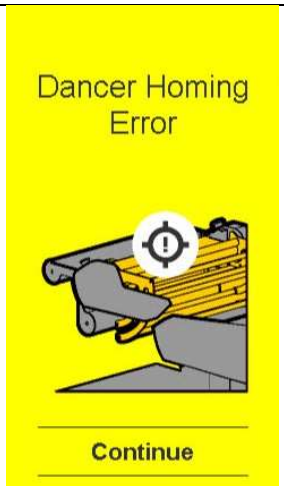
Popup message image	Displayed message	Possible Cause
	Temperature Low	The heat wire system failed to reach the target setpoint temperature.
	Temperature High	The heat wire system exceeds the target setpoint temperature.
	Dancer Homing Error	The machine has detected an error in the dancer position.

TABLE 3-25. POPUP MESSAGES (CONTINUED)

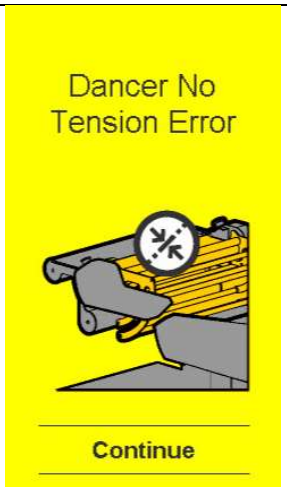
Popup message image	Displayed message	Possible Cause
	Dancer Web Break Error	The machine has detected a break in the bag web.
	Dancer No Tension Error	The machine has detected a dancer bottomed out error.
	High Air Pressure Error	The air pressure in the machine has exceeded 100psi (6.9 bar).

TABLE 3-25. POPUP MESSAGES (CONTINUED)

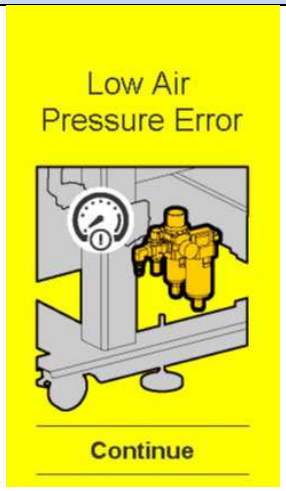
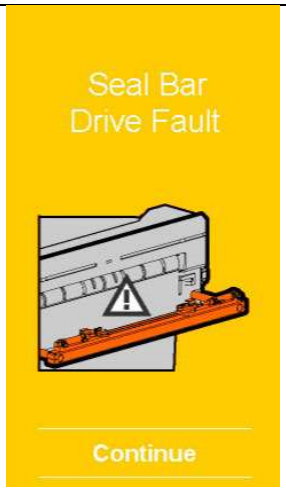
Popup message image	Displayed message	Possible Cause
	Low Air Pressure Error	The air pressure in the machine has dropped below 50 psi (3.45 bar)
	Seal Bar Drive Fault	The machine has detected a problem with the seal bar drive system. The seal bar cannot reach the desired position
	Main Nip Drive Fault	The machine has detected a problem with the drive system.

TABLE 3-25. POPUP MESSAGES (CONTINUED)

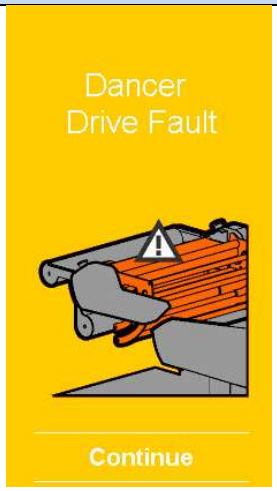
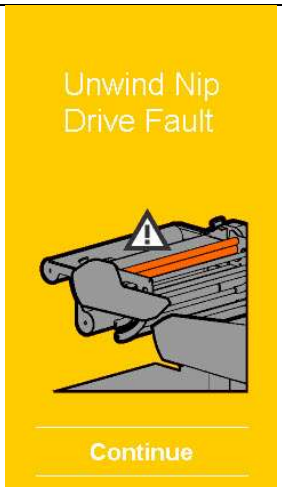
Popup message image	Displayed message	Possible Cause
	Dancer Drive Fault	The machine has detected a problem with the dancer drive system.
	Unwind Nip Drive Fault	The machine has detected a problem with the unwind nip drive system.
	Waiting for Label	850 machine only. The machine is idle, waiting for signal that label is ready.

TABLE 3-25. POPUP MESSAGES (CONTINUED)

Popup message image	Displayed message	Possible Cause
	Printer Not Configured Error	850 machine only. Printer not configured.
	Printer Label Error	850 machine only. Print label error has been detected by the machine.
	Printer Update Error	850 machine only.

TABLE 3-25. POPUP MESSAGES (CONTINUED)

Popup message image	Displayed message	Possible Cause
	Printer Out of Ribbon Error	850 machine only. The printer has detected an out of ribbon condition.

TABLE 3-25. POP-UP MESSAGES (CONTINUED)

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MAINTENANCE

To contact us via mail, telephone or e-mail:

ADDRESS:

Automated Packaging Systems
10175 Philipp Parkway
Streetsboro, OH 44241

WORLD HEADQUARTERS:

Toll Free: 1 (800) 527-0733
Local: (330) 342-2000
Fax: (330) 342-2400

E-MAIL:

customerservice@autobag.com
info@autobag.com

WEBSITE:

www.autobag.com

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Electrostatic discharge

Electrostatic Discharge or ESD is the release of static electricity between two objects, such as a person's hand and a circuit card. This release of energy is due to a difference in potential between the two items with one having a higher potential (positive) and the other having a lower potential (negative or ground).

Static electrical charges can occur in a variety of environmental conditions and are affected by factors such as, but not limited to:

- Humidity
- Temperature
- Flooring
- Clothing
- Packaging materials

ESD events are not always felt by the individual and therefore go unnoticed until a problem with the equipment occurs. ESD can cause permanent damage to equipment, especially circuit card assemblies. Items that are susceptible to ESD damage are known as Electrostatic Discharge Sensitive (ESDS). To reduce the number of events that occur, an individual must follow an ESD plan.

NOTE

Always follow local ESD procedures. Use the procedures contained within this manual in the absence of established local procedures.

ESD symbols

ESD symbols point out areas or items that are ESD sensitive. Some of the symbols used can be found in Figure 4-1.

FIGURE 4-1. EXAMPLE ESD SYMBOLS

Preventing ESD

ESD events can be prevented by avoiding the buildup of static electricity. Use the following steps to prevent the buildup of static electrical charges:

1. Ensure that individuals handling ESDS items are properly grounded. Use ground and wrist straps when handling ESDS items.

2. Ensure equipment is properly grounded prior to performing any maintenance actions.

3. Handle all electrical equipment as if it's ESDS. Never handle ESDS items without grounding straps on the individual and the item.

4. Use ESD protective packaging when transporting or storing ESDS items.

5. Use ESD workstations (permanent or portable) when handling ESDS items.

NOTE

Following the procedures listed above will not eliminate all ESD events but can greatly reduce the number that occur.

Lockout/Tagout (LOTO)

The process of properly securing electrical, pneumatic, hydraulic and other forms of energy sources to equipment prior to servicing or maintenance is known as Lockout/Tagout (LOTO). LOTO procedures ensure that the equipment has been properly powered down and secured using a LOTO device so that it may not be operated while service or maintenance is being performed on the equipment.

LOTO procedures are a safety program governed by Occupational Safety and Health Standards (OSHA) and National Fire Prevention Association (NFPA) regulations. Information contained within this section is not meant to replace OSHA or NFPA regulations and is only to serve as a quick reference guide.

Only authorized employees/technicians are allowed to place LOTO devices on equipment for servicing or maintenance. These LOTO devices may only be removed by the employee/technician that placed them on the equipment and must never be bypassed.

Lockout/Tagout procedures are a controlled safety program and must be coordinated through the local LOTO Program Manager. LOTO devices are controlled items and must be checked out and back in through the Program Manager.

Lockout/Tagout procedures and employees

Employees that are involved in LOTO procedures must have a minimum level of training and be familiar with all the regulations involved in locking out/tagging out equipment. Only employees that have been trained in these regulations may install and remove LOTO devices.

Lockout/Tagout devices

LOTO devices must meet the following criteria:

1. Durable and substantial. Locks should be sufficient enough that they may only be removed with the use of tools or bolt cutters. Tags must be non-releasable, with a minimum unlocking strength of 50 pounds.

2. Standardized (Color, shape, size, etc.).

3. LOTO devices must be legible and clearly identify who placed them. They must also state "do not start, open, or operate".

Lockout/Tagout procedures

Lockout procedures vary from location to location. The following is a summary of sequences that are required by OSHA to Lockout/Tagout equipment.

NOTE

Local procedures take precedence over procedures contained within this section. Please refer to local procedures prior to performing these steps.

1. Preparation for shutdown.

   a. The authorized employee/technician shall notify the appropriate personnel (operators, supervisors, etc.) that the machine being serviced is to be tagged out, shutdown and the reason for shutdown.

2. Identify the energy source(s).

   a. The employee/technician shall identify all the energy hazards for the machine. More than one hazardous energy source and/or disconnecting means may be involved.

3. Isolate the energy source(s).

   a. If the machine is operating, it shall be shutdown using normal shutdown procedures.

   b. Using the appropriate energy isolation device (switch, circuit breaker, valve, etc.), manipulate the isolation device so that the machine is isolated from the energy source(s).

4. Lock and tag the energy sources(s).

   a. Place a LOTO device (lock or tag) on the energy isolation device to prevent the device from being manipulated and warn other employees that the machine has been locked out.

   b. A physical lock is the primary and preferred means to lockout the energy source(s) for the machine being serviced. If a physical lockout of the energy source cannot be achieved, a tag may be utilized. The tag must be legible, easy to understand, made of sturdy material and securely fastened. A tag is to be treated the same as an individual lock.

   c. Ensure that all stored energy (capacitors, air pressure, springs, hydraulic pressure, etc.) are properly dissipated or restrained (grounding, bleeding down, blocking, etc.).

5. Prove that the equipment isolation is effective.

    a. Attempt to operate the machine using normal operating procedures to ensure that it is in a non-operating status. Return the controls to their neutral or OFF position after verifying the isolation of the equipment.

Once these 5 steps have been accomplished, the machine is now locked out.

Lockout/Tagout procedures involving more than one person

Some maintenance actions may require more than one employee to perform service and/or maintenance on the equipment at the same time. Each employee will place their own LOTO device on the energy isolation device they are performing maintenance on. When an energy isolation device cannot accept more than one LOTO device, a multiple LOTO device will be used. Refer to Figure 4-2 for an example of a multiple LOTO device.

FIGURE 4-2. MULTIPLE LOTO DEVICE

LOTO devices must be removed by the employee that placed them on the equipment before it may be returned to normal operating condition.

LOTO devices and machines

Typical machines use an electrical power cord and pneumatic air as energy sources to operate the equipment. Some equipment may have accessories that are hydraulically actuated but are self-contained units that do not require outside hydraulic energy to operate.

Power cord LOTO devices

A typical LOTO device for securing a power cord will attach to the end of the cord and will not allow it to be connected to a power source. Refer to Figure 4-3 for an example of a power cord LOTO device. These devices will vary from location to location.

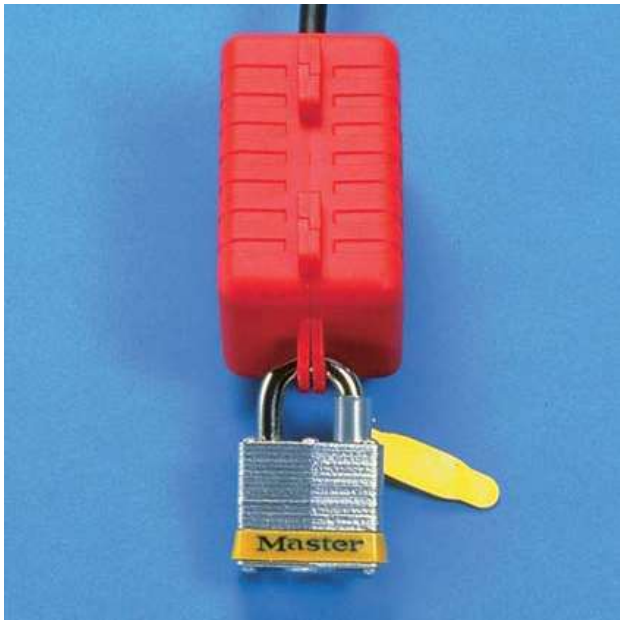


FIGURE 4-3. POWER CORD LOTO DEVICE EXAMPLE

Air supply LOTO devices

Securing the air supply on a machine requires the air supply valve to be closed. Once the valve is closed, there is a provision for a lock to be attached to the shutoff valve to prevent it from being actuated. Refer to Figure 4-4.

FIGURE 4-4. AIR VALVE LOTO PROVISION

Trapped air after LOTO

The load shelf is designed to trap air to prevent product from being released during E-STOP situations. The load shelf locked in its last position when an E-STOP situation occurs. To remove air from the assembly, use the following steps:

1. Ensure the air supply LOTO device is actuated and secured.

2. Locate the blue and black 6mm air lines going into the load shelf assembly.

3. Push in on the air lines (Figure 4-5, Item 1) and hold while pressing in on the fitting connector ring (Figure 4-5, Item 2).

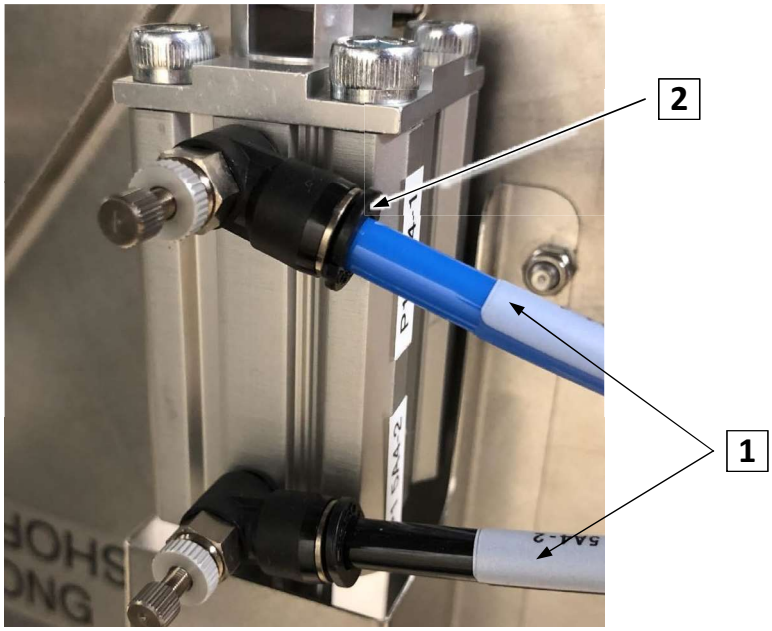


FIGURE 4-5. FITTING CONNECTORS

4. Remove the air line from the fitting. A small amount of air will release when removing the air line.

⚠ CAUTION

Remove both the blue and black air lines in order to completely remove all the trapped air in the assembly.

5. Reconnect both the blue and black air lines prior to resuming normal operation.

Removing Lockout/ Tagout devices

Only the employee that placed the equipment in a Locked out/Tagged out condition may restore it to full operating condition. Prior to removing LOTO devices installed on equipment, the following actions must occur:

1. Verify work is complete and that all nonessential items (tools, rags, etc.) have been removed.

2. Verify employees are clear of the area or safely positioned.

3. Place the operating controls in the neutral or OFF position.

The removal of some LOTO devices may require re-energization of the equipment before safe removal.

4. Remove the LOTO devices. Reenergize the equipment using normal operating conditions. Verify the equipment is operating normally.

Notify the appropriate personnel that the equipment has been returned to normal operating condition and is ready for use.

Setting up the bagger

Information contained within this section covers how to setup the bagger.

Perform LOTO procedures prior to any machine setup.

This equipment is not intended for use in residential environments and may not provide adequate protection to radio reception in such environments.

Technical specifications

Specification	Description
Weight	660 lbs. (299 kg) Autobag 800 base configuration; 810 lbs. (367 kg) Autobag 800 with takeaway conveyor. 700 lbs. (318 kg) Autobag 850s base configuration; 850 lbs. (386 kg) Autobag 850s with takeaway conveyor.
Length (max)	72.2 in. (183.4cm.)
Width	35 in. (88.9 cm.)
Height	43.5 to 55.5 in. (110.5 to 140.9cm.)
Product pass-through	1 in. (2.5cm) to 11.0 in. (27.9cm)
Label Sizes	Up to 4 in. wide to 20 in. (22.9 to 30.5cm) for Autobag 850
Packaging Box size	24 to 30 in. (61 to 76cm) width X 9 to 12 in. (22.9cm to 30.5cm) length X 10 to 12 in. (25.4 to 30.5cm) depth
Bag size	Autobag 800S 10 X 22 in. (25.4 X 25.4cm) to 10 X 36 in. (55.9 X 91.4cm); Autobag 850S 10 X 10 in. (25.4 X 25.4cm) to 22 X 36 in. (55.9 X 91.4cm)
Bag thickness	1.09 to 4.0 mil
Shelf sizes	3-004969-12: 12 in. (30.5 cm) 3-004969-20: 20 in: (50.8 cm) 3-004969-25: 25 in. (63.5 cm) 3-004969-30: 30 in. (76.2 cm)
Seal point	2 to 2.5 in. (5.1 to 5.7cm)
Product weight capacity	Up to 10 lbs. (4.5 kg.) with load shelf
Printer Resolution	203, 300 and 406 DPI for Autobag 850
Power supply (electrical)	Universal Input: 110V to 240V VAC, 50/60 Hz Power Consumption: 1800 Watts (VA) max
Compressed air (dry and filtered)	5 SCFM, 80 psi (140 l/min ANR, 5.5 bar) of clean, dry air per ISO 8573-1:2010 Class 1.4.2
Cycle rate	Cycle rates vary based on machine settings and loading variables.
Operating environment	50°F to 110°F (10°C to 43°C)
Electromagnetic Compatibility (EMC) Classification	Class A Group 1

TABLE 4-1. TECHNICAL SPECIFICATIONS

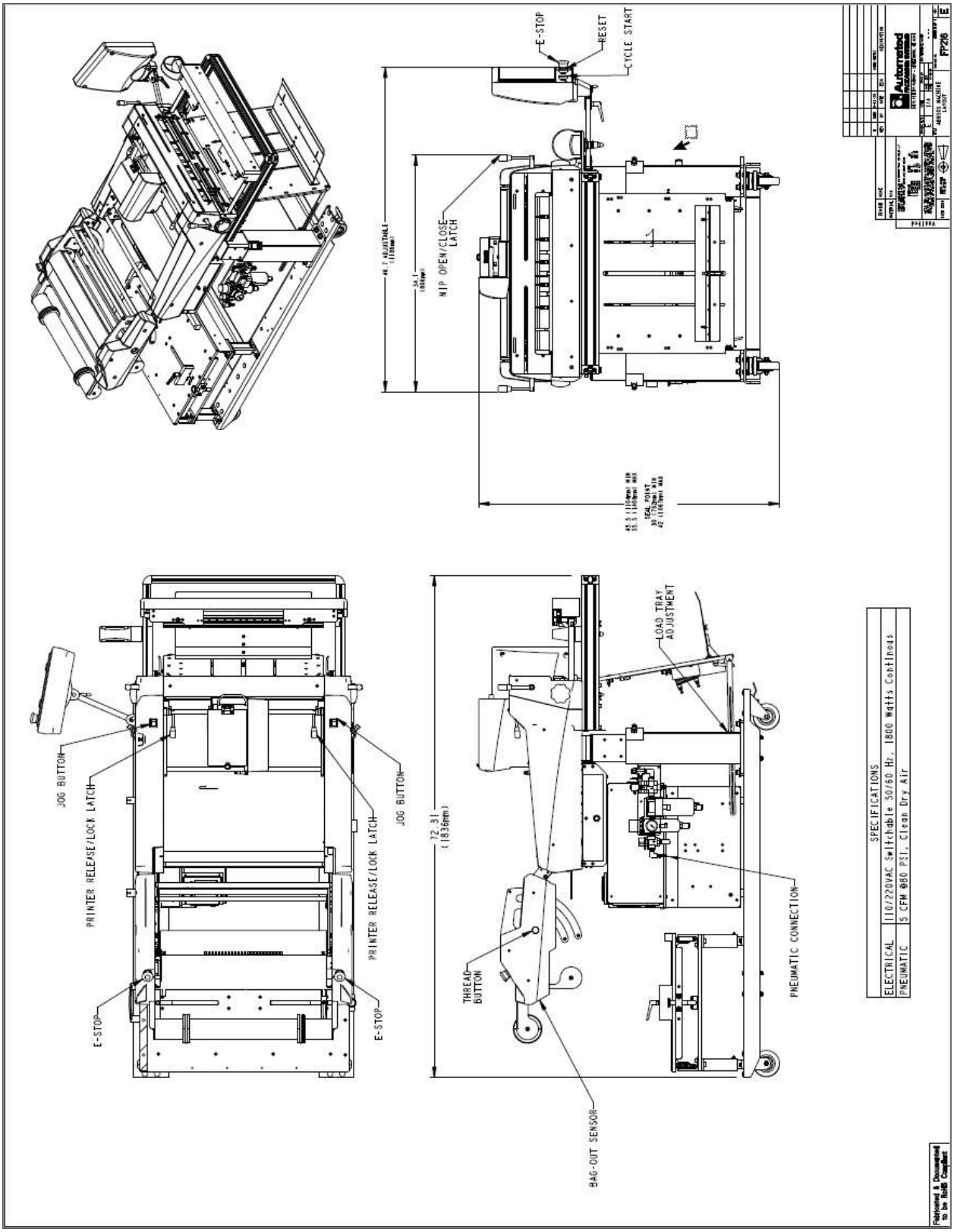


FIGURE 4-6. FP 216 AUTOBAG 850

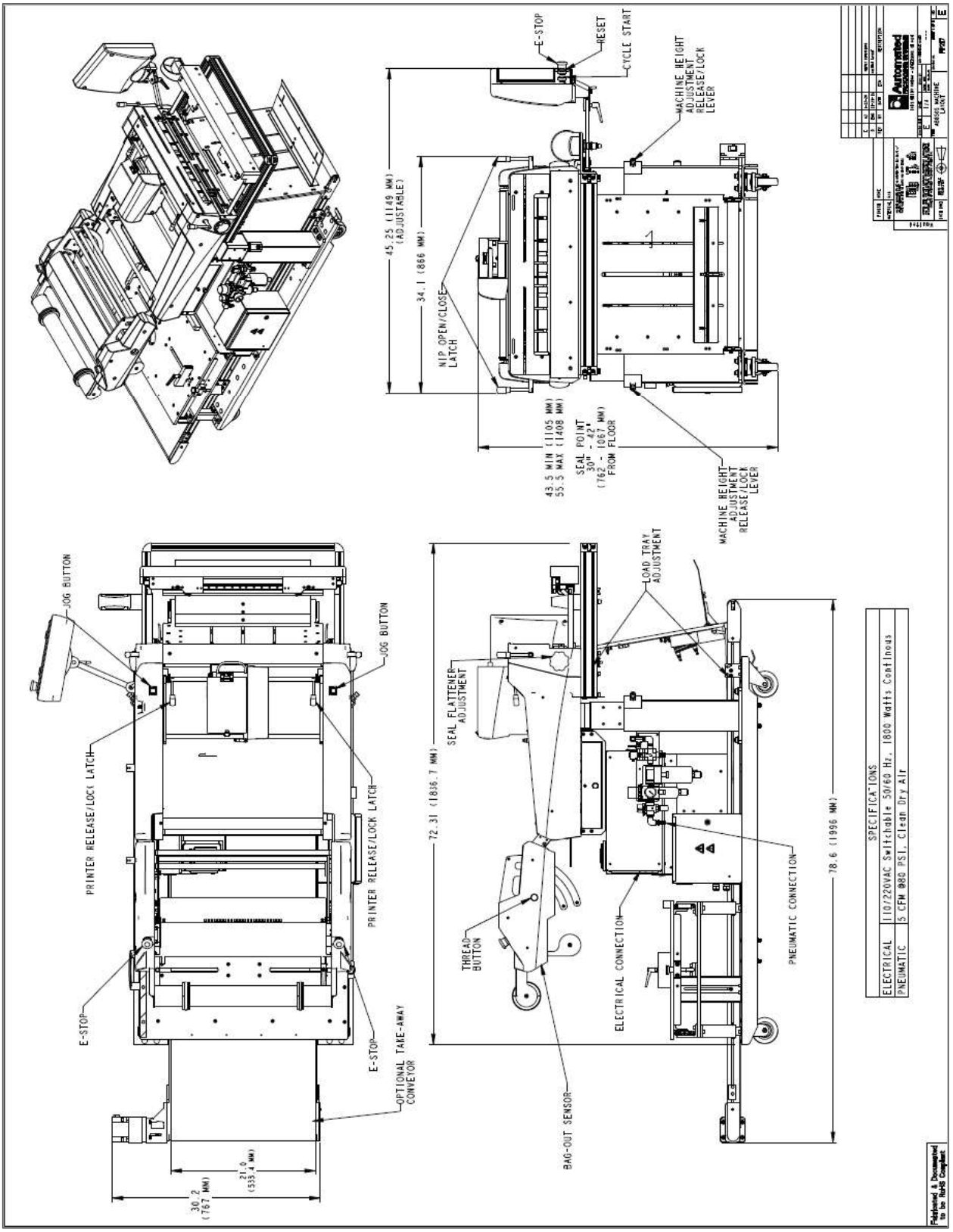


FIGURE 4-7. FP217 AUTOBAG 850 WITH REAR TAKEAWAY CONVEYOR

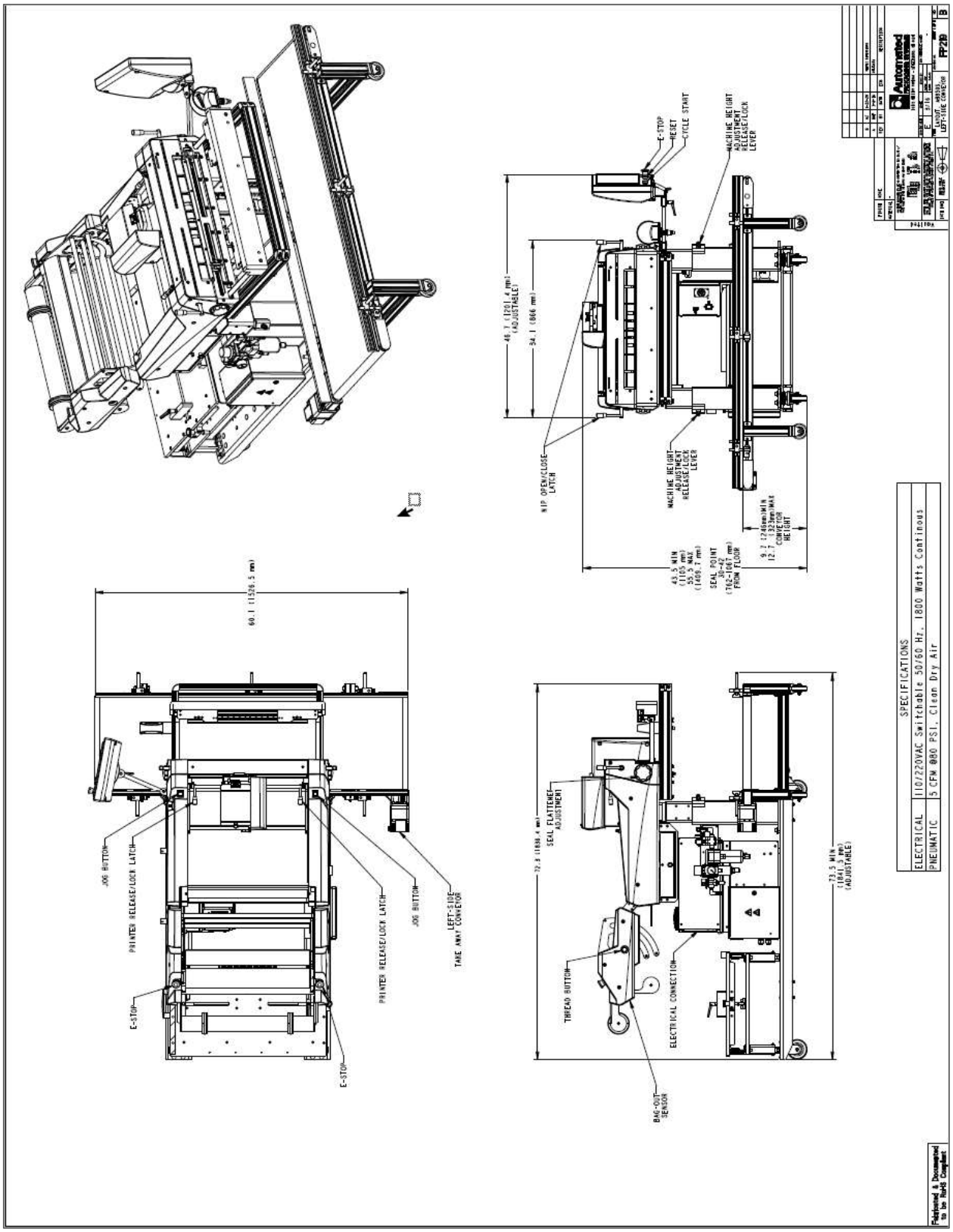


FIGURE 4-8. FP219 AUTOBAG 850 WITH LEFT SIDE CONVEYOR

Electrical supply

The Autobag 800 and 850 machines allow for universal power input of 110VAC to 240VAC, 50/60Hz, 20A with 1000W (VA) max.

Do not use extension cords to connect the machine to a power source. Machines shall be plugged in to dedicated, stand-alone power circuits.

Ensure power cords do not create a tripping hazard. Route them from above the unit whenever possible and secure them from moving.

Machine ground supply terminal must be connected to facility ground supply. Ensure facility electrical supply is safe and meets machine requirements.

Air supply

⚠WARNING

Ensure supply lines do not create a tripping hazard. Route them from above the unit whenever possible.

Ensure that the airline is tied into the bagger after the pneumatic emergency stop dump valve.

⚠CAUTION

Dry, filtered air is required for proper operation of the printer.

NOTE

A minimum of 3/8" (10mm) supply line tubing is required to supply 5 CFM (8.5 m^3/h) for machine operation.

Accessories

Autobag 800 and 850 machines must be configured for any accessory or option that is installed or removed on them.

NOTE

Connecting or disconnecting accessories while the machine is powered up will cause the machine to enter an error loop that is difficult to recover from.

To connect an accessory to the machine:

1. Turn the machine OFF.
2. Connect the accessory.
3. Turn the machine ON.
4. Enable the accessory in the MACHINE OPTIONS & ACCESSORIES.

To disconnect an accessory to the machine:

1. Disable the accessory in the MACHINE OPTIONS & ACCESSORIES.
2. Turn the machine OFF.
3. Disconnect the accessory.

Signaling tie in

Accessories that utilize signaling to trigger the Autobag 800 and 850 machines require a tie-in to the machine. The machine is equipped with a signaling tie in 15 pin connector (J212021) for a printer and a 9-pin connector (J24051) for auxiliary equipment. Both connectors are located on the back of the E-BOX (Figure 4-8).

⚠ CAUTION

The +24VDC current is limited to 260mA. Output current is limited to sink or source +/- 21mA.

The pin out of signaling connector J22021, is listed in Table 4-2.

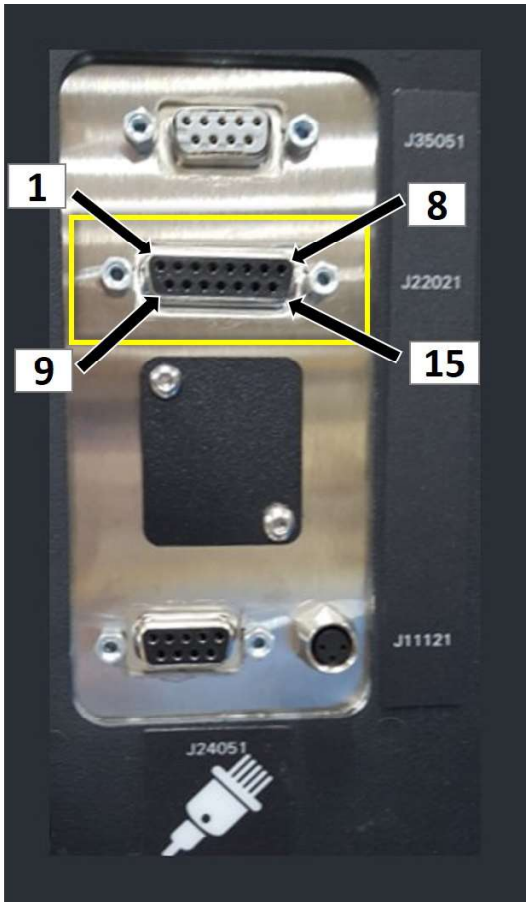


FIGURE 4-9. SIGNALING CONNECTOR J22021, PRINTER 1/0

Pin	Description
1	Ground
2	+5VDC
3	Start of print
4	Feed label
5	Toggle pause
6	Reprint
7	Service
8	Ground

Pin	Description
9	Ribbon low
10	Service
11	End of print
12	Media out
13	Ribbon out
14	Data ready
15	Ready to image

TABLE 4-2. SIGNALING CONNECTOR J22021 PIN OUTS

The pin out of signaling connector J24051, is listed in Table 4-3.

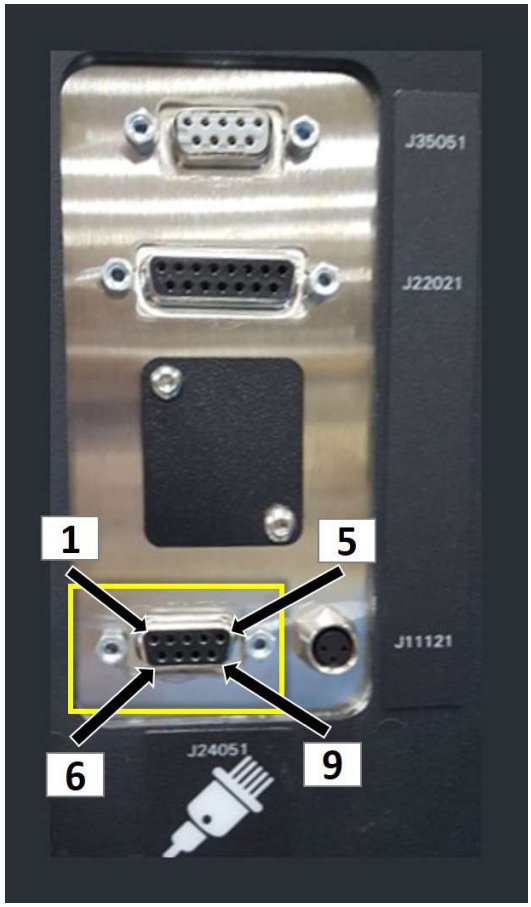


FIGURE 4-10. SIGNALING CONNECTOR J24051

Pin	Description
1	Inhibit cycle input
2	Bagger hold output
3	Aux input 2
4	Bagger Aux output 2
5	Aux input 1

PIN	Description
6	Ground
7	Bagger error output
8	Bagger ready to load
9	+24VDC

TABLE 4-3. SIGNALING CONNECTOR J22021 PIN OUTS

Setup User menus

The maintenance level mode of operation is to be used by authorized maintenance personnel only. The user has access to the Home, Jobs, Configuration and Diagnostics menus.

1. Home menu. The user has full access and can select ACTIONS and change the mode of operation from SINGLE to AUTO to SEMI-AUTO. TOTAL COUNT, LOT SIZE and LOT COUNT may be changed at this user level as well.

2. JOB menu. The user has full access and can SAVE JOB, SAVE JOB AS, LOAD jobs or DELETE jobs. The user can also adjust SETTINGS and OPTIONS for each job.

3. CONFIGURATION menus. The user has limited access to these submenus, including FIRMWARE, PRODUCTIVITY METRICS, and CYCLE TIMES.

4. DIAGNOSTICS menu. The user has full access to all submenus except LOGS. For LOGS, the user may view but not reset any logs, and cannot view the Engineering tab.

Setup User Password

Username	Default Password
Operator 1	1111
Operator 2	2222
Setup	3333
Maintenance	Access not authorized
Service	Access not authorized
Engineering 1	Access not authorized
Engineering 2	Access not authorized

TABLE 4-4. USER LEVEL PASSWORD

Setup User Configuration menus

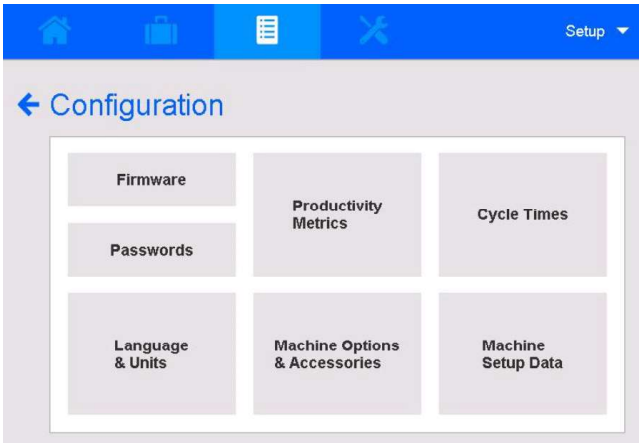


FIGURE 4-11. CONFIGURATION MENUS

Several but not all Configuration menus are available to the Setup level sign on. The accessible menus include FIRMWARE, PRODUCTIVITY METRICS, and CYCLE TIMES.

Firmware

⚠ CAUTION

Contact Technical Support for procedures on updating machine firmware.

Among other data, this menu identifies the Application and HMI version software installed in the machine.

FIGURE 4-12. FIRMWARE VERSIONS

Productivity Metrics

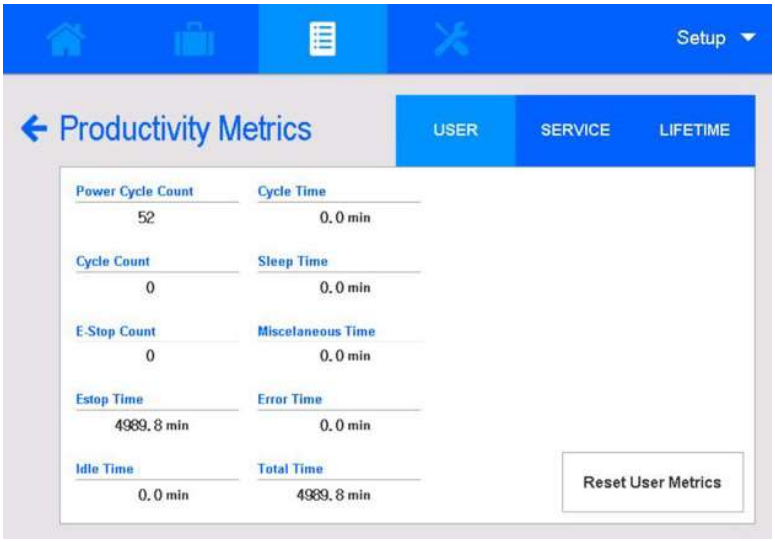


FIGURE 4-13. PRODUCTIVITY METRICS

This menu offers time-lapse feedback on a set of machine productivity metrics repeated over three tabs: USER, SERVICE and LIFETIME.

1. LIFETIME TAB. This is a view-only menu and displays metrics over the life of the machine.

2. SERVICE TAB. This tab is reserved for service personnel to gauge metrics between service visits.

3. USER tab. This tab is for Setup Users to gauge productivity metrics of one user, one shift, or one week, and so on. The user determines when to reset the metrics to zero and begin the next study. The following metrics can be tracked between resets:

- Power Cycle Count. Number of times the machine was powered on.
- Cycle count. Number of machine cycles completed.
- E-STOP count. Number of times an E-STOP engaged.
- E-STOP time. Total minutes the machine was in an E-STOP state.
- Idle Time. Total minutes the machine was in an idle state.
- Cycle Time. Total minutes the machine was cycling.
- Sleep Time. Total minutes the machine was in a sleeping state.
- Miscellaneous Time. Total minutes the machine was not in a state identified by the other metrics.
- Error Time. Total minutes the machine was in an error state.

To reset productivity metrics to zero, tap the RESET USER METRICS button. At the prompt, tap YES.

Cycle Times

This menu offers real-time feedback on machine cycle times measured in milliseconds for printing, advancing the bag web, opening bags, filling bags, and sealing bags. The menu also indicates the number of bags cycled per minute.

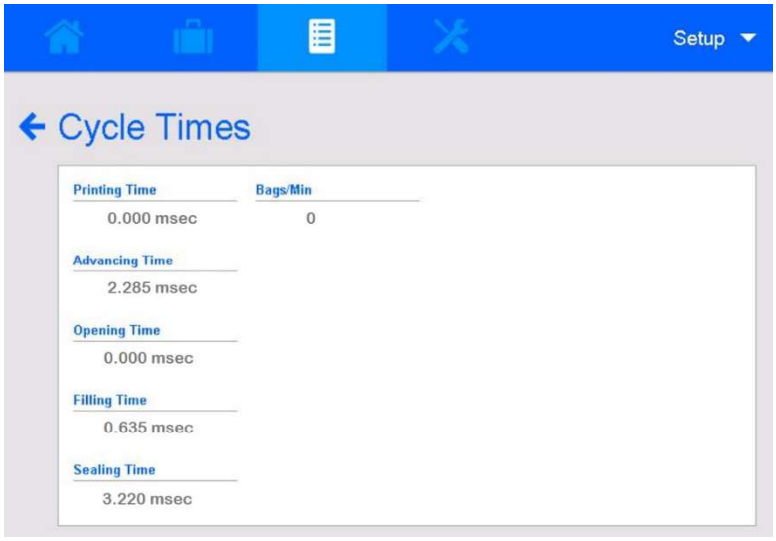


FIGURE 4-14. CYCLE TIMES MENU

Setup User Diagnostics menus

This is a series of menus that display real-time feedback on the state of machine functions, power output, seal bar heat settings and more. These menus can be used during troubleshooting to determine if machine conditions are in normal operating ranges.

The Setup user has access to four of seven menus:

1. Inputs
2. Monitor Outputs
3. Monitory Heat
4. Monitor Axis

The three remaining menus, FORCE OUTPUTS, MACHINE TESTS and LOGS; are reserved for use by authorized service personnel.

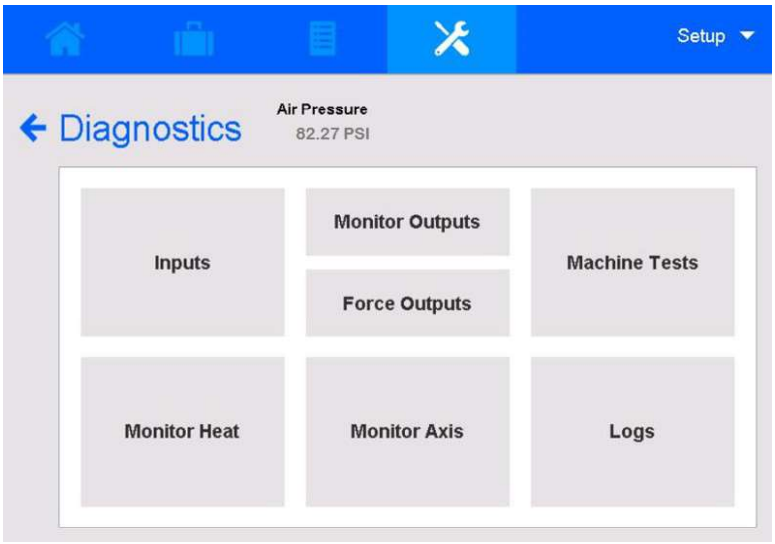
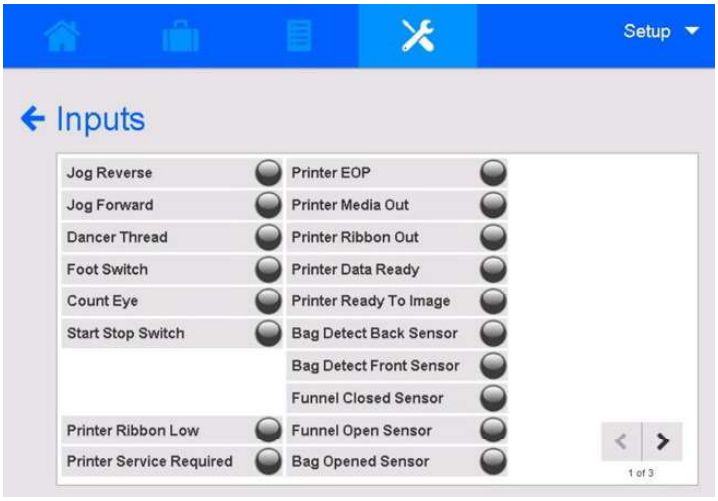
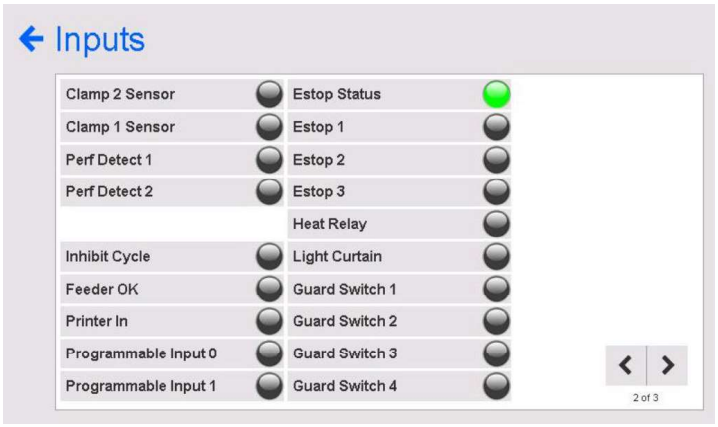


FIGURE 4-15. DIAGNOSTICS

Inputs

The Inputs menu allows for monitoring input signals from 41 hardware and accessory items. Access the menus to become familiar with the contents. A color-coded button to right of each menu item indicates the item's status. Refer to Table 4-5.





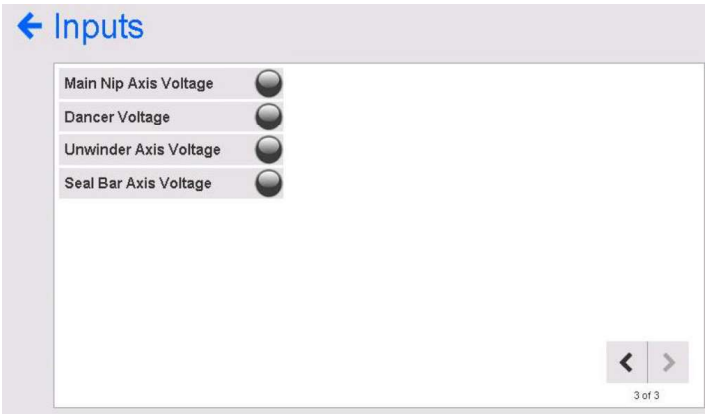


FIGURE 4-16. DIAGNOSTIC INPUTS, PAGES 1-3

Monitor Outputs

The Monitor Output menu allows for monitoring output signals from 43 hardware and accessory items. Access the menus to become familiar with the contents. A color-coded button to right of each menu item indicates the item's status. Refer to Table 4-5.

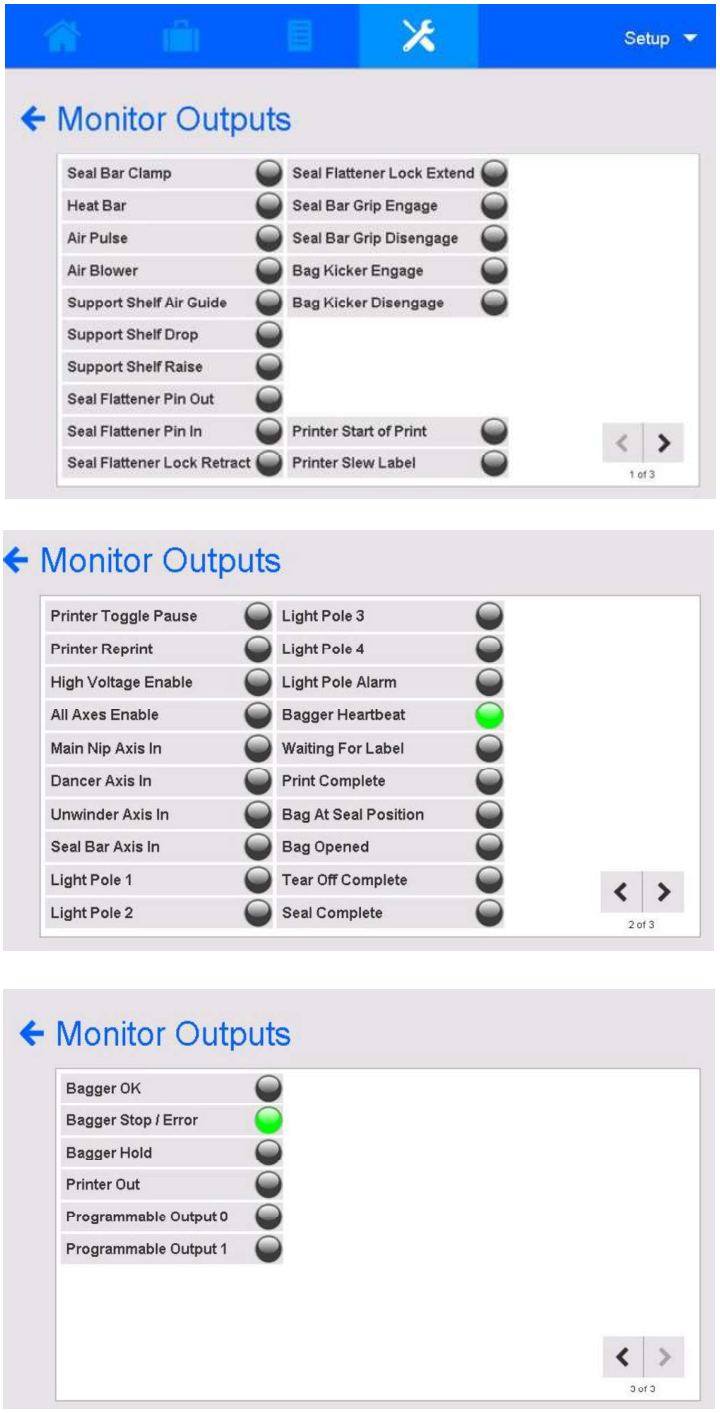


FIGURE 4-17. D DIAGNOSTIC OUTPUTS, PAGES 1-3

Diagnostics status codes for inputs and outputs

A color-coded button to right of each menu item for INPUTS and OUTPUTS (Figure 4-14) indicates the item's status.

Color Code	Status	Description
Gray	Off	The item is not engaged
Yellow	Idle	The item varies from range or needs attention
Green	Active	The item is engaged
Red	Error/Fault	The item is signaling an error or fault

TABLE 4-5. INPUT-OUTPUT STATUS CODES

Monitor Heat

The Monitor Heat menu allows for monitoring the two heat wires in the sealer assembly, referred to as channel 1 and channel 2. The menu monitors six (6) values for each channel.

⚠ CAUTION

The heat wire is capable of temperatures up to 500°F (260°C) and wire currents of up to 25 amps.

While the machine is at idle, the heat wire maintains a temperature of 130°F (54.4°C). During cycling operations, the machine remains at the set target temperature.

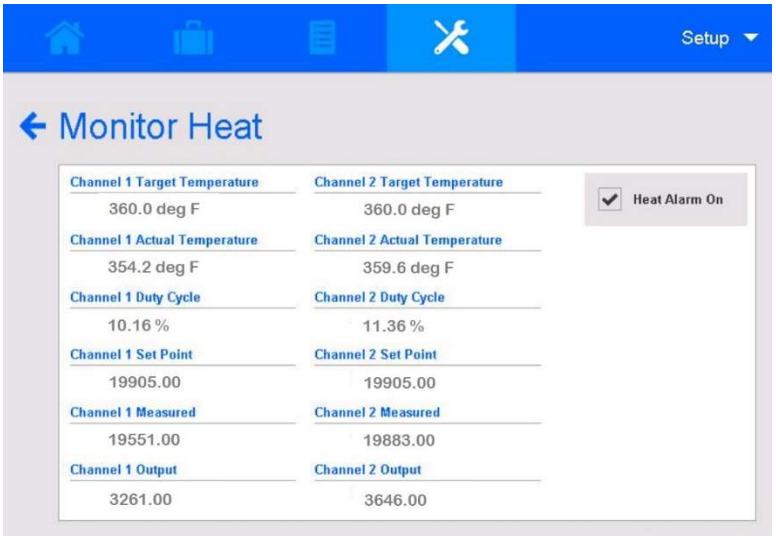


FIGURE 4-18. DIAGNOSTICS, MONITOR HEAT MENU

1. CHANNEL 1 and 2, TARGET TEMPERATURE. Current target temperature for the heat wire in degrees. The target temperature for the heat wire is set in JOB SETTINGS, SEAL TEMPERATURE.

2. CHANNEL 1 and 2, ACTUAL TEMPERATURE. Shows the actual current temperature of the heat wire in degrees.

3. CHANNEL 1 and 2, DUTY CYCLE. Shows the duty cycle of the heat wire in percent. Duty cycle is the percentage of ON time being used to power the wire. It varies from 2 to 98 percent depending on the state of the wire.

4. CHANNEL 1 and 2, SET POINT. This value represents the set measured resistance of the heat wire to achieve the targeted temperature.

5. CHANNEL 1 AND 2, MEASURED. This value represents the actual measured resistance of the heat wire to achieve the targeted temperature.

6. CHANNEL 1 and 2, OUTPUT. This value represents the output of the PID loop and varies depending on the MEASURED and TARGET RESISTENCE values.

7. HEAT ALARM. This indicator can be enabled and disabled in SERVICE mode. When enabled, (checked), a popup message occurs to notify the operator when the seal bar temperature is not within the set range for proper sealing. When disabled, (unchecked), the popup notification does not occur.

Monitor Axis

The Monitor Axis menu allows for monitoring output signals from 4 hardware items in 4 categories. Access the menu to become familiar with the contents.

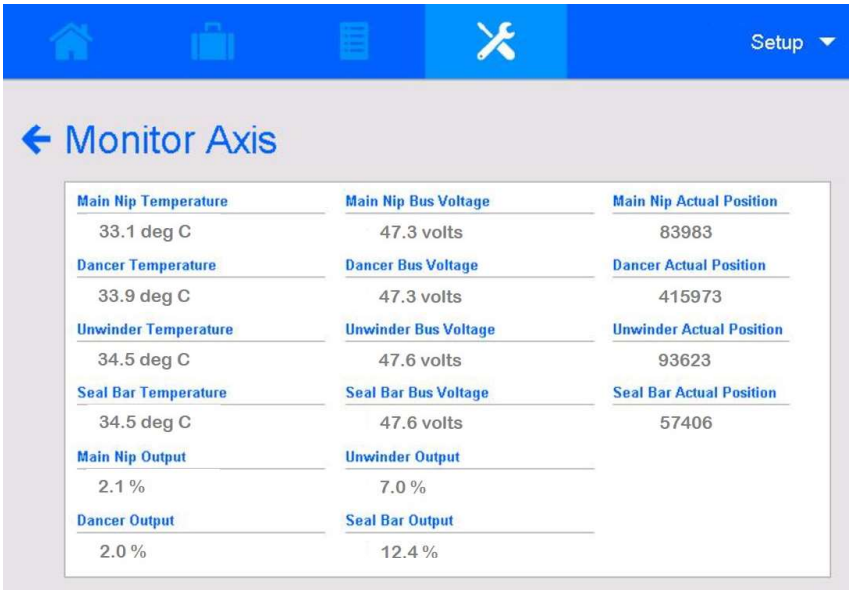


FIGURE 4-19. MONITOR ACCESS

Monitor Access Items	Detail
• Main Nip Temperature • Dancer Temperature • Unwinder Temperature • Seal Bar Temperature	Unit of Measure: degrees Celsius All Temperatures are in degrees Celsius as measured by the Atlas Drives in the E-Box of the bagger. Maximum Temperature is 75.0 Celsius. If the temperature exceeds the maximum, the drive goes into an Overtemperature Fault.
• Main Nip Output • Dancer Output • Unwinder Output • Seal Bar Output	Unit of Measure: 0 to 100% of Maximum Current 25.0 Amps Peak Current that the drive can supply to the motors. The drive output is limited to the motor's maximum rated peak current of 8.6 Amps.
• Main Nip Bus Voltage • Dancer Bus Voltage • Unwinder Bus Voltage • Seal Bar Bus Voltage	Indicates the actual voltage (VDC) measured by the Atlas drive, ideally around 48.0 volts. Voltage below 38.0 VDC will generate an undervoltage fault. Voltage above 60.0 VDC will generate an overvoltage fault. There is some fluctuation of +- 0.5 VDC in the voltage displayed.
• Main Nip Actual Position • Dancer Actual Position • Unwinder Actual Position • Seal Bar Actual Position	Positions are in units of counts, from -- 2147483648 to 2147483647. Positions are used for motion control of the motors.

TABLE 4-6. MONITOR ACCESS DETAIS

Maintenance

When performing any maintenance on the machine, disassemble the machine only as far as required to complete the task.

⚠WARNING

Prior to performing any maintenance, all Lockout/Tagout (LOTO) procedures must be followed to remove electrical power and air supply from the machine.

Only authorized and qualified maintenance technicians are permitted to perform maintenance and repairs on this machine.

Ensure that all safety guards and covers are reinstalled prior to placing a machine back into service.

Ensure that the heater bar is cooled to room temperature before cleaning the machine.

Do not store or spill isopropyl alcohol on or near the machine. Failure to follow this warning may result in a fire.

⚠CAUTION

Do not use steel wool to clean aluminum rollers, sealer bar, high voltage detector arm or any other parts of the machine.

Use the mildest method possible for scheduled maintenance and cleaning.

Do not exceed 30Psi when cleaning the machine.

NOTE

Unless otherwise stated all screws, bolts and nuts are tightened hand tight. Torque requirements are called out in the maintenance steps if required

Maintaining a well operating machine requires periodic maintenance to be performed by the end user. Cleaning, adjusting, replacing and repairing systems on the machine ensures minimal down time and longer intervals between work stoppages due to machine errors.

These maintenance tasks may only be performed by the end users qualified maintenance technician or by an Automated Packaging Systems service technician. Failure to have a qualified maintenance technician perform these tasks will be considered misuse of the machine.

Preparation for Maintenance

Prior to performing any maintenance, ensure that the following procedures have been performed first.

1. Disconnect bag supply and run all bags out of machine including the unwinder.
2. Turn the power switch to OFF (O).
3. Perform LOTO procedures.
4. Follow all ESD procedures.

Required tool kit

Recommended tools (Table 4-7) and metric taps (Table 4-8) for performing machine maintenance.

Tool	Size
Allen Keys, ball end, long	1.5-10 mm
Allen Keys, ball end, long stubby	1.5-10 mm
T-handles, long	2-6 mm
Drive socket set, 1/4-inch	5-13 mm
Combination wrenches	7-13 mm
Combination wrenches, midget	4-11 mm
Combination wrenches, midget	12-13 mm
Wrench, adjustable, 10-inch	254 mm
Metric scale (ruler), 6-inch	150 mm
Snap ring pliers, inside and outside	Standard
Key for E-BOX	N/A

TABLE 4-7. TOOL KIT LIST

Tap Size	Metric Drill Size	Correct Drill SAE	SAE Fractional	SAE Clearance	Metric Clearance
M3 X 0.75	2.25	No. 43	*****	1/8	3.15
M4 X 0.75	3.25	No. 30	1/8	5/32	4.0
M5 X 0.90	4.1	No. 20	11/64	13/64	5.2
M6 X 1.25	4.75	3/16	*****	1/4	6.4
M8 X 1.25	6.75	H	17/64	21/64	8.3
M10 X 1.50	8.5	11/32	*****	13/32	10.3

TABLE 4-8. METRIC TAPS

Scheduled Maintenance

Scheduled maintenance requirements for the Autobag 800 and 850 machines are to be performed periodically to keep the machine operating at optimal conditions.

Daily Maintenance

The Autobag 800 and 850 machine requires daily maintenance to operate at peak performance. This includes daily maintenance that should be performed at the beginning of each day/shift.

NOTE

A day generally consists of one 8 to 12-hour shift. If the machine is operated for multiple shifts in a single twenty-four-hour period, each shift should perform the daily tasks prior to and at the end of each shift.

1. Check Teflon™ sheet for dark or burn spots. Replace Teflon sheet if necessary.
2. Check air supply filters for fluids and drain if necessary.
3. Check grippers for wobble-free and secure movement. Tighten if necessary.
4. Check seal flattener fingers and pins for smooth movement.
5. Clean TCU material sensor using a clean, lint free cloth.
6. Clean print roller surface, (Autobag 850), using a clean, lint free cloth dampened with 90% Isopropyl Alcohol.
7. Clean print head, (Autobag 850), using a clean, lint free cloth dampened with 90% Isopropyl Alcohol.
8. Check for proper sealing on bags. Adjust as needed.

NOTE

Different bag materials may create more buildup on the rollers than other materials. Observe level of buildup by bag material and adjust cleaning schedule as required.

Weekly Maintenance

The following tasks must be performed weekly (once every 7 days).

1. Clean TCU and nip rollers.

a. Clean aluminum rollers with lint free cloth and 90% Isopropyl rubbing alcohol. If needed, clean with Scotch Brite™ #7447 or 7448 pads and 90% Isopropyl rubbing alcohol.

b. Clean rubber rollers with lint free cloth and 90% Isopropyl rubbing alcohol.

NOTE

Different bag materials require more frequent cleaning. Observe level of buildup based on materials used and change cleaning frequency as required.

2. Wipe down entire machine with clean, dry, lint free cloth.

3. Wipe down HMI interface screen with a damp, clean, lint free cloth.

4. Wipe down seal bar guides with clean, lint free cloth.

5. Inspect seal rubber and Teflon tape on seal rubber. Replace if indented, cracked, peeling, cut or degraded in any way that affects proper sealing.

Monthly Maintenance

The following tasks must be performed monthly (once every 30 days).

1. Inspect High Voltage Sensor finger and grounding finger. Clean as required.

2. Check airlines for leaks and cracks. Ensure cables and airlines are not rubbing.

3. Check connector cables and wires for cracks, cuts or loose connections.

4. Inspect inlet air filter and coalesce filter. Replacement is recommended every 6 months or as needed.

5. Remove top center tray and blow clean with compressed air.

6. Remove seal plate and blow clean with compressed air.

7. Remove E-BOX and Printer E-BOX (if installed) cover. Blow E-BOX and fans clean with compressed air.

Teflon® Sheet

Adjustment

There is no adjustment needed for the Teflon® sheet. When the sheet is exhausted, it must be replaced by an authorized Maintenance Technician.

Removal

Once the Teflon® sheet is exhausted, an authorized Maintenance Technician should replace the sheet. This replacement is performed with the heater bar extended out. The heater bar extends out only when the sealer bar contacts the gripper plate. Therefore, it is necessary to place the machine in E-STOP to begin.

⚠WARNING

Allow the heater bar has cooled down completely before beginning Teflon® sheet replacement.

NOTE

When replacing the Teflon® sheet, check the sealer bar and the inside of the gripper plate for plastic buildup and clean if required.

To replace the Teflon® sheet, follow these steps:

1. Place machine in E-STOP.
2. Allow the sealer area to cool down completely.
3. Lower the temperature setting on the AutoTouch™ Control Screen.

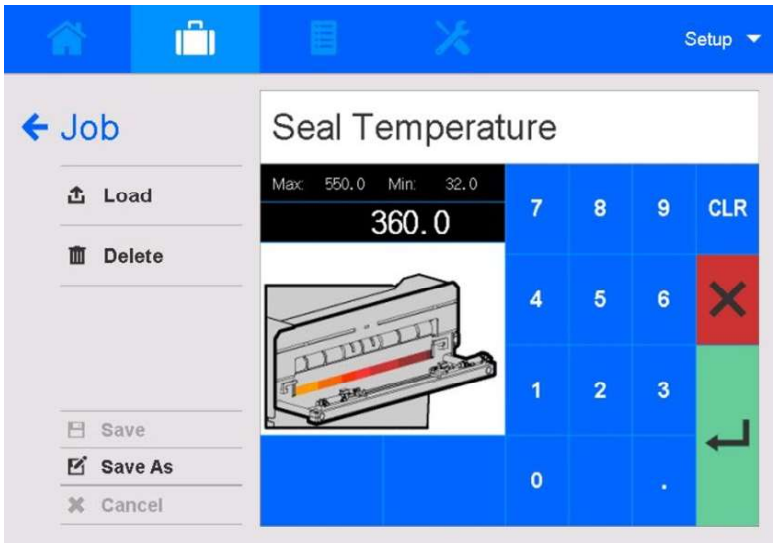


FIGURE 4-20. SEAL TEMPERATURE SETTING

4. Check the for the Actual Temperature of the Heater Bars on the **Monitor Heat** display to confirm the seal area is cool before continuing.

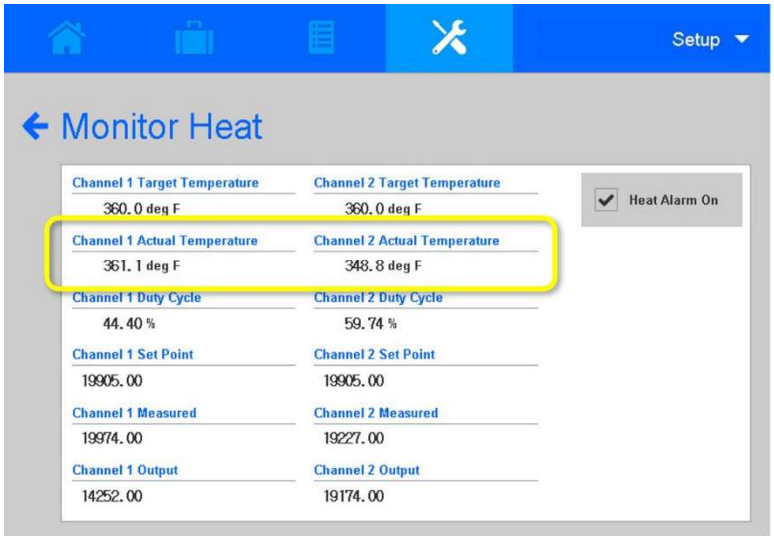


FIGURE 4-21. MONITOR HEAT SCREEN

5. Remove the gripper plate.

6. The heater bar extends out for access to the Teflon® sheet. Remove the worn sheet from the heater bar.

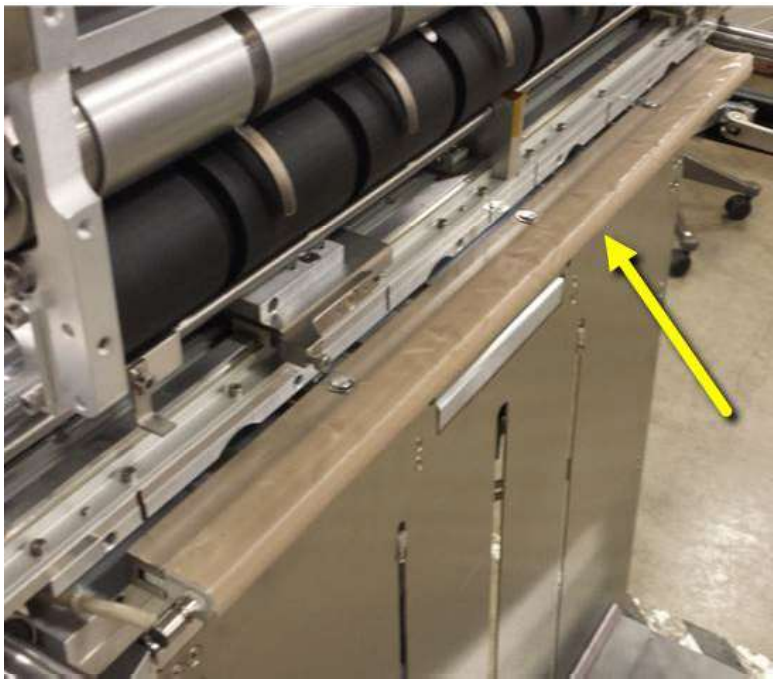


FIGURE 4-22. HEATER BAR EXTENDED, TEFLON® SHEET IN PLACE

Cleaning

The sealer Teflon® sheet does not require cleaning. If sealer sheet Teflon® is burned, replace it.

Installation

1. Apply the new Teflon® sheet. It adheres directly to the channel on the bar.

Do NOT use cylinders to push in heater bar. Push heater bar into place by hand.

2. Push the heater bar in by hand.
3. Remount the gripper plate.
4. Cycle the machine to test for smooth operation.

Sealer Rubber Teflon® Tape replacement

The Teflon® tape is designated to help protect the sealer rubber and must be replaced when it becomes burnt, worn, wrinkled, or loose. Teflon® tape should be replaced by an authorized Maintenance Technician.

Allow sealer area to cool down completely before beginning the replacement.

Inlet Air and Coalescer Filter

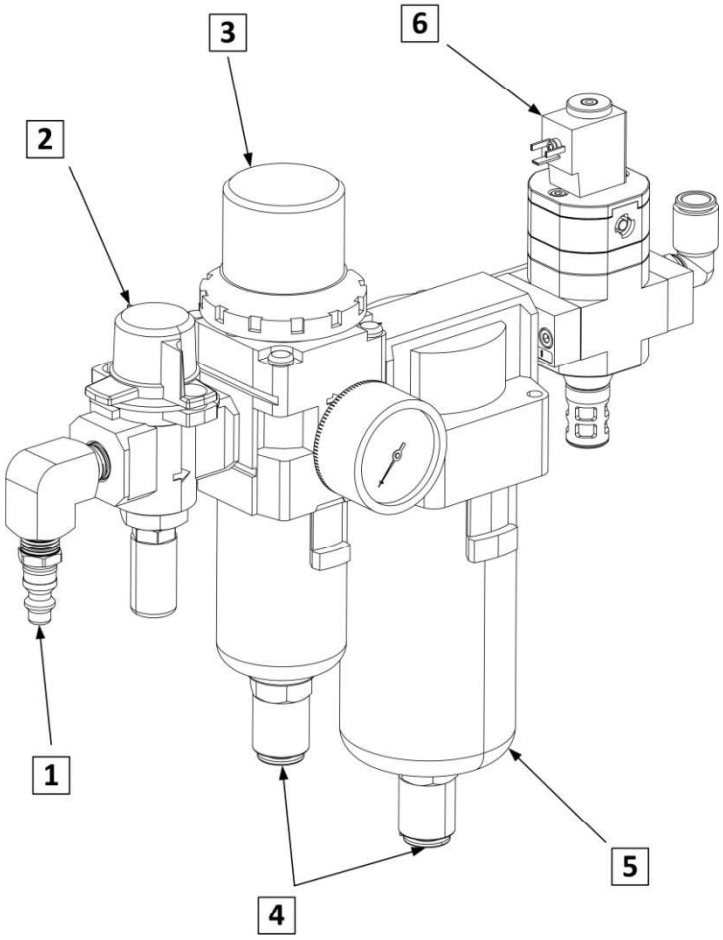


FIGURE 4-23. FRL ASSEMBLY

Item	Description
1	Inlet
2	LOTO
3	Air Pressure Adjustment Knob

Item	Description
4	Drain Ports
5	Coalescer Filter
6	Electrical Dump Valve

TABLE 4-9. FRL ASSEMBLY

Adjustment

No adjustment required.

Removal

1. Press the gray spring lock (Figure 4-22, Item 5) on the bowl downwards.

2. Turn the bowl clockwise ¼ turn. A slight upward pressure on the bowl may be required.

3. Remove the bowl and remove the filter.

Cleaning

Clean using a lint free cloth and 90% Isopropyl rubbing alcohol.

Installation

1. Position new filter in the bowl and attach bowl by turning counter-clockwise until the gray spring lock connects (Item 5).

Safety Circuit Testing

E-STOP Indicators

There are three EMERGENCY STOP button locations on the machine.

- If the EMERGENCY STOP is pushed in, a RED message window indicates that an E-STOP is engaged, and a graphic on the bagger display indicates which E-STOP location is engaged.
- A YELLOW message in the bagger status bar also indicates which E-STOP location is engaged.

FIGURE 4-24. EMERGENCY STOP CONDITIONS

E-STOP Monthly Test

To test that the safety circuit is operating correctly, use the following procedure the proper functioning of each E-STOP button, one at a time:

1. Press any Emergency Stop push button.

2. Confirm that the corresponding E-STOP message and location appears on the HMI display. Refer to Figure 4-23.

3. Press the blue E-STOP RESET button.

4. Repeat steps 1 through 3 for the remaining E-STOP buttons.

5. If the machine does not enter the E-STOP conditions as described the safety circuit test has failed. Place the machine in a non-use status.

6. Contact local maintenance personnel for troubleshooting. If local maintenance personnel are not available, contact Automated Packaging Systems technical support. Refer to Technical Support section.

E-STOP Relay

The Autobag 800 and 850 machines use a single input (SI) safety relay and a dual input (DI) safety relay. The dual input relay is used when a remote E-STOP cannot be reached by the operator.

440R-S12R2 – Single Input (SI) Dual Channel Safety Relay

- The unit is enabled once power is supplied to the machine and the safety circuits are closed.
- The **PWR/Fault LED** is green. Safety outputs are activated by a valid reset operation.
- The **Output LED** is lit. At demand of the safety function or in case of any fault, the safety outputs are de-energized within the specified response time.

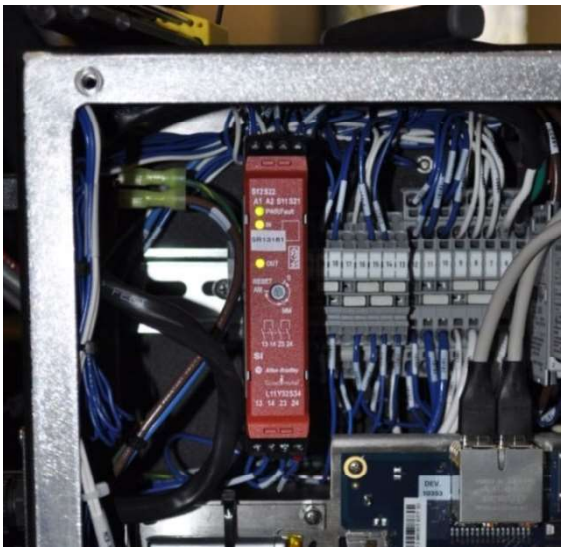


FIGURE 4-25. SAFETY RELAY LED'S

Reset in Case of Fault

Recoverable fault: Unit can be enabled by removing the fault and cycling all safety inputs.

Non-recoverable faults: Malfunction of the unit itself. Cycling power can reset the unit.

If not, the unit should be replaced before machine operation is allowed.

If the unit is faulted the **PWR/Fault LED** will be red.

Safety Inputs

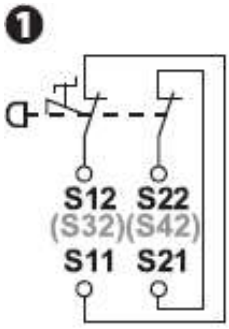


FIGURE 4-26. SAFETY RELAY SINGLE INPUT

One string of safety devices can be monitored per unit. Cross-fault monitoring is automatically enabled for 2-channel safety inputs in 4-wire connection. Cross faults of the safety inputs are monitored as recoverable faults. Fault reset is required.

Reset

Automated Packaging Systems utilize a manual monitored (MM) reset mode. The signal from the reset push button passes through a normally closed contact of the E-STOP contactor. This way it monitors the contacts of the E-STOP contactor to ensure they are not welded shut. A valid start/reset can only occur if the Emergency Stop push button circuit is closed. The Start/Reset circuit closes to connect terminals (A1-S34).

Manual monitored reset – In manual monitored reset mode a signal change of the reset circuit is required. The unit functions once the configured logic is TRUE and the reset circuit is closed and opened again between 250ms and 3 seconds. A reset fault occurs if the safety inputs remain opened while the reset circuit is closed.

440R-S12R2 Replacement and Configuration

The following procedure sets the function of the device. The device must be installed in the machine to complete the procedures.

NOTE

This initializing procedure is done when a safety relay is replaced.

Safety relay testing shall be performed monthly by an authorized Maintenance Technician.

Replace the Existing Relay

1. Power OFF the machine and disconnect the power cord.

2. Remove cover from the Main E-BOX.

3. Remove Safety Relay (Figure 4-26) from DIN rail: Use a screwdriver to gently release the black plastic clip at the bottom of the relay; insert screwdriver into clip and press down with no more than a 15-degree angle.

FIGURE 4-27. SAFETY RELAY BLACK CLIP FOR DIN RAIL

4. Label the 4 black connectors on the existing relay, eg: 1, 2, 3, 4. (Use these labels for a reference when inserting connectors to the new safety relay).

5. Remove the top two connectors from the existing relay and attach them to the corresponding position on the new relay.

6. Remove the bottom two connectors from the existing relay and attach them to the corresponding position on the new relay.

7. Attach the new safety relay to the DIN rail.

8. Use a screwdriver to rotate the RESET dial to 0 (zero).

9. Reconnect the power cord.

PWR/FAULT	Status and diagnostics
IN	Status of safety input
OUT	Status of safety output

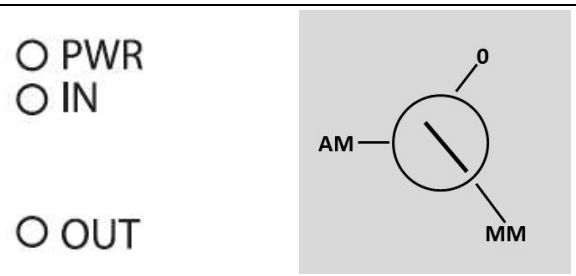


FIGURE 4-28. SINGLE INPUT DIAGNOSTICS, MM POSITION

Configure the Safety Relay:

1. Power ON. The PWRFault LED blinks red.

2. Use a screwdriver to rotate the RESET dial to MM.

3. Wait for The PWRFault LED to be steady green and the IN LED to blink green.

4. Power OFF to set the configuration.

5. Power ON. The machine starts up in E-STOP.

6. Press the blue RESET button on the HMI.

7. Check that the safety relay has been properly configured: all three LED's should stay steady green. (The LEDs are PWRFault, IN, and OUT).

Safety Relay Testing of 440R-S12R2

Normal Operation Verification

The 440R-S12R2 Worksheet provides checklists for testing both the Normal Operation and the Abnormal Operation of the safety relay. Checklists steps 1-9 at the top of the form (Figure 4-28) are used for normal operation verification.

1. Operators should perform a weekly check for normal operation verification, steps 1-9 only as indicated in the 440R-S12R2 Single Input Testing Worksheet.

2. A Qualified Maintenance Technician should perform a monthly test using the entire checklist for testing both normal operation and abnormal operation verification.

440R-S12R2 – Single Input - Testing Worksheet

EMERGENCY STOP/SAFETY RELAY VERIFICATION SND VALIDATION CHECKLIST					
GENERAL MACHINERY INFORMATION					
MACHINE NAME/MODEL NUMBER					
MACHINE SERIAL NUMBER					
CUSTOMER NAME					
TEST DATE					
TESTER'S NAME					
SCHEMATIC DRAWING NUMBER					
SAFETY RELAY MODEL NUMBER					
SAFETY WIRING AND RELAY CONFIGURATION VERIFICATION					
TEST STEP	VERIFICATION		PASS/FAIL		
1	VISUALLY INSPECT THE SAFETY RELAY CIRCUIT IS WIRED AS DOCUMENTED IN THE SCHEMATICS				
2	VISUALLY INSPECT THE SAFETY RELAY ROTARY SWITCH SETTINGS ARE CORRECT AS DOCUMENTED				
NORMAL OPERATION VERIFICATION THE SAFETY RELAY SYSTEM PROPERLY RESPONDS TO ALL NORMAL ESTOP AND RESET COMMANDS					
TEST STEP	TEST PROCEDURE	PASS/FAIL	SAFETY RELAY LED STATUS		
			PWR/FAULT	IN	OUT
3	Turn the bagger Off/On switch to On		GREEN	GREEN	BLINK GREEN
4	Press the blue ESTOP RESET pushbutton.		GREEN	GREEN	GREEN
5	Press any Emergency Stop push button		GREEN	OFF	OFF
6	Press the blue ESTOP RESET pushbutton.		GREEN	OFF	OFF
7	Reset the Emergency Stop push button by turning the red mushroom head to the right.		GREEN	GREEN	BLINK GREEN
8	Press the blue ESTOP RESET pushbutton.		GREEN	GREEN	GREEN
9	Repeat steps 3 thru 7 for all Emergency Stop push buttons.				
ABNORMAL OPERATION VERIFICATION THE SAFETY RELAY SYSTEM PROPERLY RESPONDS TO ALL FORESEEABLE FAULTS WITH CORRESPONDING DIAGNOSTICS					
10	Remove wire from safety relay terminal S11. This simulates a break in the Estop wiring.		GREEN	OFF	OFF
11	Momentarily jumper +24VDC from safety relay terminal A1 to S11.		RED	OFF	OFF
12	Momentarily jumper 0VDC from safety relay terminal A2 to S11		RED	OFF	OFF
TEST STEP	NOTES				
3	If IN LED is lit, all Emergency Stop push buttons and guard switches are closed				
4	Output contactor and Dump valve turn on, power to valve pack, Estop Reset push button illuminated				
5	Output contactor and Dump valve, power to valve pack, Estop Reset push button all turn off				
6	Pressing the Estop Reset push button should have no effect.				
7	IN LED changes to green indicating ESTOP circuit is closed				
8	Output contactor and Dump valve turn on, power to valve pack, Estop Reset push button illuminated				
10	Output contactor and Dump valve, power to valve pack, Estop Reset push button all turn off. Reconnect wire to S11 and cycle power to the bagger to reset the safety relay				
11	This simulates a short circuit to 24VDC in the Estop string. Cycle power to the bagger to reset the safety relay				
12	This simulates a short circuit to 0VDC in the Estop string. Cycle power to the bagger to reset the safety relay				

FIGURE 4-29. 440R-S12R2 TESTING WORKSHEET

440R-D22R2 – Dual Input (DI) Safety Relay

Functional Description

The unit is enabled once supply is powered up and the safety circuits are closed.

The **PWR/Fault** LED is green. Safety outputs are activated by a valid reset operation.

The output LED is lit. At demand of the safety function or in case of any fault, the safety outputs are de-energized within the specified response time.

Reset in Case of Fault

Recoverable fault: Unit can be enabled by removing the fault and cycling all safety inputs.

Non-recoverable faults: Malfunction of the unit itself. Cycling power can reset the unit.

If not, the unit should be replaced before machine operation is allowed.

If the unit is faulted the **PWR/Fault** LED will be red.

Safety Inputs

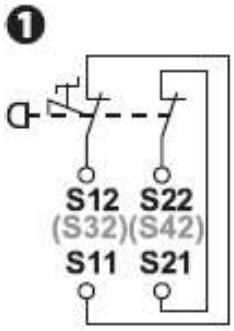


FIGURE 4-30. DUAL INPUT SAFETY RELAY

Two safety devices can be monitored per unit. Cross-fault monitoring is automatically enabled for 2-channel safety inputs in 4-wire connection. Refer to Figure 4-29. Cross faults of the safety inputs are monitored as recoverable faults. Fault reset is required.

NOTE

Safety relay testing shall be performed monthly by an authorized Maintenance Technician.

Reset

We utilize a manual monitored reset mode. The signal from the reset push button passes through a normally closed contact of the E-STOP contactor. This way we monitor the contacts of the Estop contactor to ensure they are not welded shut. A valid start/reset can only occur if the Emergency Stop push button circuit is closed and the light curtains are not blocked. The Start/Reset circuit closes to connect terminals (A1-S34).

Manual monitored reset – In manual monitored reset mode a signal change of the reset circuit is required. Unit will function once the configured logic is TRUE and the reset circuit is closed and opened again between 250ms and 3 seconds. A reset fault occurs if the safety inputs remain opened while the reset circuit is closed.

Configuration

The following procedure sets the function of the device.

Start configuration/overwrite: with power off, turn rotary switch to position **0 (zero)** and unit is powered up. Apply power to the safety relay. **1 PWR/Fault** LED will flash red.

3. Set configuration: turn rotary switch to position 2. Refer to Figure 4-30.
4. IN 1 LED blinks new setting. Position is set when PWR LED is solid green.
5. Lock in configuration by cycling unit power.
6. Record unit setting on the face of device.

Diagnostics

PWR/FAULT	Status and Diagnostics
IN1	Status of safety input IN1
IN2	Status of safety input IN2
LOGIC IN	Status of dynamic input
OUT	Status of safety output

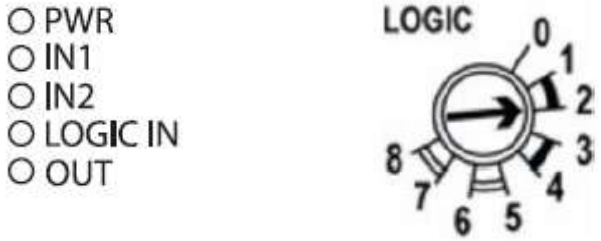


FIGURE 4-31. SAFETY RELAY RESET DUAL INPUTDIAGNOSTICS

Safety Relay Testing of 440R-D22R2

Normal Operation Verification

The 440R-D22R2 Worksheet provides checklists for testing both the Normal Operation and the Abnormal Operation of the safety relay. Checklists steps 1-9 at the top of the form are used for normal operation verification. Refer to Figure 4-28.

1. Operators should perform a weekly check for normal operation verification, steps 1-9 only.
2. A Qualified Maintenance Technician should perform a monthly test using the entire checklist for testing both normal operation and abnormal operation verification.

Unscheduled Maintenance

Unscheduled maintenance tasks are performed due to poor machine performance or machine errors. They may include adjustment, removal, cleaning and installation. These tasks must be performed by an authorized Maintenance Technician.

Covers

The Autobag 800 and 850 machines use molded covers for the machine.

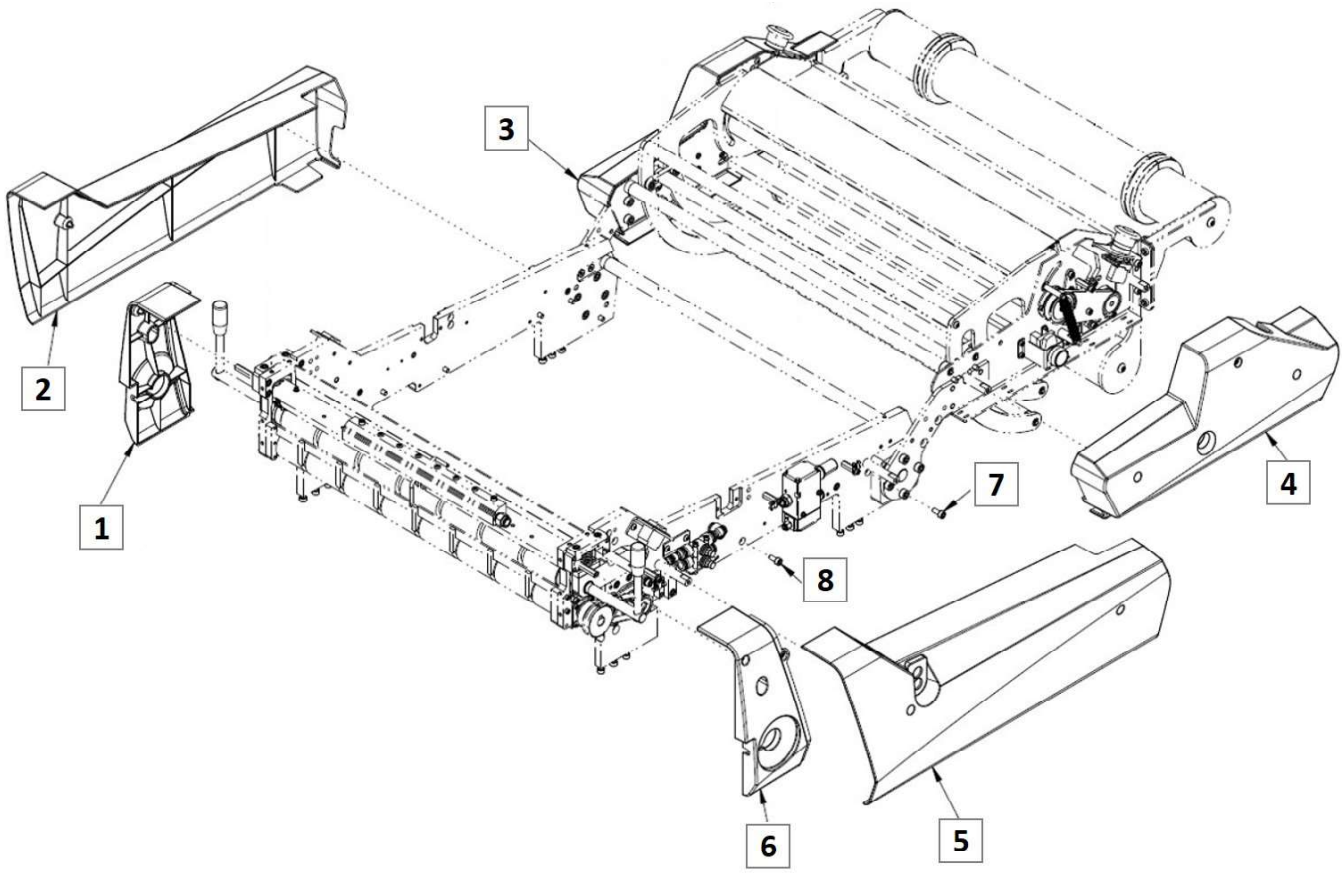


FIGURE 4-32. COVERS, WIDE BAGGER

Item	Description
1	Side cover, small LH
2	Side cover, large LH
3	TCU side cover, LH
4	TCU side cover, RH

Item	Description
5	Side cover, large RH
6	Side cover, small RH
7	M6x1.0 x 14MM screw
8	M6x1.0 x 14MM screw

TABLE 4-10. COVERS, BAGGER

Adjustment

No adjustments are required.

Removal

To remove the covers, use the following steps:

1. Undo (3) screws each on the left and right TCU side covers (items 3 and 4).
2. Remove TCU side covers.
3. Undo (2) screws each on the left and right large side covers (Items 2 and 5).
4. Remove large side covers.
5. Remove (2) screws each from the left and right small side covers (Items 1 and 6).
6. Remove the small side covers.

Cleaning

Wipe down with a clean, lint free cloth.

Installation

1. Install the small side covers (Items 1 and 6).
2. Install (2) screws for each small side cover.
3. Install the large side covers (Items 2 and 5).
4. Install 2 screws for each large side cover.
5. Install TCU side covers (Items 3 and 4).
6. Install 3 screws for each TCU side cover.

TECHNICAL SUPPORT

To contact us via mail, telephone or e-mail:

ADDRESS:

Automated Packaging Systems
10175 Philipp Parkway
Streetsboro, OH 44241

WORLD HEADQUARTERS:

Toll Free: 1 (800) 527-0733
Local: (330) 342-2000
Fax: (330) 342-2400

E-MAIL:

customerservice@autobag.com
info@autobag.com

WEBSITE:

www.autobag.com

Subject **Page**

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Technical Support

This section includes the procedures for requesting technical support and the part lists used to identify and order replacement parts for the Autobag 500 series machine.

A stock inventory of spares will minimize lost production time due to worn or broken parts.

Need Help? Contact a technical support representative at the local office listed below, your local area Automate Packaging Systems representative, or an authorized distributor.

For International Support send e-mail to the Technical Assistance Team at itechsupport@sealedair.com.

Technical Support Location	Contact Number
Inside USA	1-800-527-0733
Outside Europe and USA	0011+1+800-527-0733
Latin America	009+1+800-527-0733
United Kingdom	0800 731 3643
Brussels, Belgium	+32 (0)2725 3100
France	+33 0472 15 86 50
Germany	+49 (0)531 903 83 0

TABLE 5-1. TECHNICAL SUPPORT CONTACT NUMBERS

NOTE

Refer to the contact information in the front of the manual for additional regional office contacts.

Ordering Replacement Parts

Follow these guidelines when ordering replacement parts:

1. When ordering replacement parts, use both the part name and part number.

2. If a complete subassembly is needed, use the subassembly name and part number.

3. Have the machine serial number available. The Autobag Serial Number tag can be found on the right front leg of the bagger support frame. Refer to Figure 5-1.

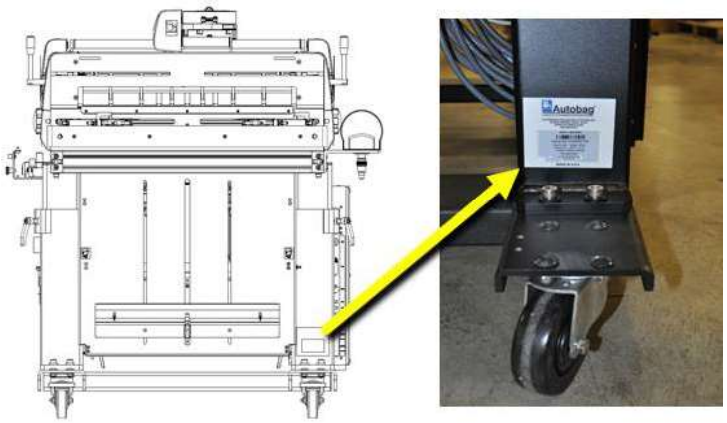

FIGURE 5-1. SERIAL NUMBER TAG

Machinery Return Procedures

For technical support in North America or to start the return process, please call the Automated Packaging Systems Technical Support Team at 1-888-277-0785 and select from the options.

The Technical Support Team should be contacted for all Automated Packaging Systems machine repair or replacement issues. Please have the machine part number and serial number ready when making the call.

For technical support outside of North America, call the Technical Support Location listed in Table 5-1, your area Automate Packaging Systems representative, or an authorized distributor.

Spare Parts List

There are three types of spare parts kits for Automated Packaging Machines:

Basic

The minimum amount of spare parts to be kept on hand.

Intermediate

Includes the Basic spare parts kit and the amount of spare parts to be kept on hand for smaller packaging companies.

Major

Includes Basic and Intermediate spare parts kits and the amount of spare parts to be kept on hand for machinery requiring maximum production readiness and immediate repairs to reduce downtime.

Autobag 850 Spare Part Lists

Autobag 850 Basic Parts Kit P/N 3-003012

Item	Part No.	Qty.	Description
1	3-001458	1	RUBBER, SEAL, 23 WIDE
2	3-001985	1	TEFLON, HEATER BAR 23"
3	25409A1	1	TAPE, TEFLON, ¼" W, 18 YD ROLL
4	3-004773	1	ASSY, HIGH VOLTAGE FINGER RIGID
5	3-004681	1	FINGER, HIGH VOLTAGE, RIGID 850
6	591147A1	1	ASSY, FINGER PERF DETECTOR
7	2-001926	1	BELT, ROUND, 1/8", DIA, 6-1/4" OUTER CIRCLE, URETHANE
8	2-001875	2	SPRING, EXTENSION, 500 OD X 2.500 LG X .049 WIRE ZINC, MW
9	3-002409	1	ASSY, PRESSURE SENSOR W/PLUG
10	1-61509F	6	RING, RETAINING, E-CLIP, 6MM DAI, NOM, DIN 6799, SS
11	3-001984	1	INSULATOR, HEATER BAR 23"
12	1-15106F-012M	2	SCREW, SHOULDER, 6MM DIA X 12MM LG, SS
13	1-11157F-012M	2	SCREW, CAP, SOCKET HEAD, M4X0.7 X 12 MM LG, SS
14	2-001036	1	FILTER, COALESCING, SIXE 40, ¼ NPT
15	29524A1	2	O-RING, URETHANE 3/16 X 1-1/8
16	3-002569	1	RUBBER, GRIPPER
17	200507A5	1	FUSE, 5A, MINI BLADE 58V FAST
18	200507A2	3	FUSE, 2A. MINI BLADE 58V FAST
19	200507A15	1	FUSE, 15 A, MINI BLADE 58V FAST
20	200507A10	2	FUSE, 10A, MINI BLADE 58V FAST
21	2-001388	1	BUMPER, BUNA S, .50 OD X .125 ID X .25 H

TABLE 5-2. AUTOBAG 850 BASIC PARTS KIT

Autobag 850 Intermediate Parts Kit P/N 3-009070

Item	Part No.	Qty.	Description
1	3-003012	1	AB850S Spare Parts Kit - Basic
2	3-008037-001	1	JAW, BAG GRIPPER LH
3	3-008037-002	1	JAW, BAG GRIPPER RH
4	3-008311-001	1	PIN, SEAL FLATTENING EXTENDED LH
5	3-008311-002	1	PIN, SEAL FLATTENING EXTENDED RH
6	2-001927	1	BELT, TIMING, 124L, 12.4" OC, 33T, 1/2" WIDE
7	2-001876	1	BELT, TIMING XL 67 T X 3/8 W NEOPRENE
8	2-001395	1	LEVER, CAM CLAMP M6 STUD
9	2-003331	1	CYLINDER, DOUBLE-ACTING 16mm BORE x 25mm STROKE AUTO CUSHIONING
10	1-61509F	6	RING, RETAINING, E-CLIP, 6MM DIA. NOM, DIN 6799, SS
11	2-001031	2	SILENCER, RESIN, G1/8
12	2-001040	1	SILENCER, RESIN, 1/4 NPT
13	3-008196	1	ASSY, BAG GRIPPER ENHANCED RH
14	3-008195	1	ASSY, BAG GRIPPER ENHANCED LH
15	3-002018	1	ROLLER, NIP DRIVER TCU
16	200398A1	1	VALVE,3-WAY DOUBLE N.C. 2 POS.
17	200398A2	1	VALVE,4-WAY SOLENOID 2 POS
18	200398A3	1	VALVE,SOL DBL 3-WAY EXH CENTER
19	200398A4	1	VALVE,SOL DBL 3-WAY BLK CENTER

TABLE 5-3. AUTOBAG 850 INTERMEDIATE PARTS KIT

Autobag 850 Major Parts Kit P/N 3-009071

Item	Part No.	Qty.	Description
1	3-009070	1	AB850S Spare Parts Kit - Intermediate - Enhanced Bag Open
2	3-002447	1	ASSY, MOTOR, SERVO NEMA23 W/ENCODER & 9:1 GEARBOX
3	3-002454	1	ASSY, MOTOR SERVO NEMA23 W/ENCODER WIRED
4	3-002453	1	ASSY, MOTOR SERVO NEMA23 W/ENCODER 101:1 GEARBOX WIRED
5	2-001961	1	DRIVE, LINEAR SLIDE, TOOTHED BELT AXES, 35MM, 300MM STROKE
6	2-001963	2	COUPLING, MANDREL
7	2-001954	6	T-NUT, ELGR, M3
8	3-001999-C1	1	ASSY, MOTOR CROWBAR BOARD POPULATE
9	3-002568	2	ASSY, PMD HORIZONTAL ATLAS DRIVE W/ HEAT SINK
10	3-003923	2	NUT, SLOT DOUBLE M3 X 40mm
11	360038A1	1	ASSY, POTTED HIGH VOLTAGE WITH ESD PROTECTION
12	200187A1	1	SENSOR, PROX REFLEX

TABLE 5-4. AUTOBAG 850 MAJOR PARTS KIT

H-Class Printer Spare Part Lists

NOTE

These spare parts do NOT apply to Autobag 800 series baggers operating without a printer.

The H-Class printer is available in Right Hand (P/N 3-001910-001) and Left Hand models (P/N 3-001910-002). The tables below indicate the minimum amount of Spare Parts to be kept on hand.

NOTE

Choose between a Spare Parts Kit for a 203 DPI or 300 DPI or 406 DPI Print Head. All other spare parts listed in the tables are the same.

H-Class OneStep 203DPI parts list – P/N 3-004120-203

Item	Part No.	Qty.	Description
1	29738A1	1	PRINT HEAD 203 DPI PS 125ONESTEP KYOCERA P/N: KPW 104-8TBB4-DMX
2	3-001915	2	ROLLER, RUBBER RIBBON DRIVE
3	3-004048	1	ASSY, CYLINDER AIR HEAD DOWN, 14MM BORE
4	3-002521	1	NOSE, ROD END HEAD DOWN CYLINDER

TABLE 5-5. 203 DPI PRINTER SPARE PARTS KIT

H-Class OneStep 300 DPI parts list – P/N 3-004120-300

Item	Part No.	Qty.	Description
1	29738A1	1	PRINT HEAD 300 DPI PS 125ONESTEP KYOCERA P/N: KPW 106-12TBH4-DMX1
2	3-001915	2	ROLLER, RUBBER RIBBON DRIVE
3	3-004048	1	ASSY, CYLINDER AIR HEAD DOWN, 14MM BORE
4	3-002521	1	NOSE, ROD END HEAD DOWN CYLINDER

TABLE 5-6. 300 DPI PRINTER SPARE PARTS KIT

H Class OneStep 406 DPI parts list – P/N 3-004120-406

The 406 DPI spare parts listed has not been released as of the printing of this manual.

H-Class OneStep Additional printer parts

Item	Part No.	Qty.	Description
1	28559A1	1	SPINDLE, RIBBON TAKE-UP LH 412
2	28559A2	1	SPINDLE, RIBBON TAKE-UP RH 412

TABLE 5-7. ADDITIONAL PRINTER PARTS

Autobag 800 and 850 Tubing

Item	Part Number	OD	Color	Length
1	2-002051	4	Black	72 in (1.83 mm)
2	2-002052	4	Blue	72 in (1.83 mm)
3	2-002053	6	Black	72 in (1.83 mm)
4	2-002054	6	Blue	72 in (1.83 mm)
5	2-002055	10	Black	72 in (1.83 mm)
6	2-002056	4	Blue/Black	90 in (2.29 mm)
7	2-002057	6	Blue/Back	72 in (1.83 mm)

TABLE 5-8. AUTOBAG 800 AND 850 TUBING

Bag and pouch materials

Automated Packaging Systems is the original manufacturer of genuine Autobag pre-opened bags-on-a-roll. These bags are system matched for optimum performance and offer a variety of value-added features.

To order Autobag packaging supplies, contact Automated Packaging Systems:

Automated Packaging Systems

10175 Phillip Parkway

Streetsboro, OH 44241

World Headquarters: 1-800-527-0733 / 330-342-2000

Field Service: 1-888-277-0785

Fax: 330-342-2400

On the Web: www.autobag.com

E-mail: itechsupport@sealedair.com / info@sealedair.com

For information on bag and pouch materials, please visit our website at: http://www.autobag.com/bag-and-pouch-materials/films-by-type

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THEORY OF OPERATION

To contact us via mail, telephone or e-mail:

ADDRESS:

Automated Packaging Systems
10175 Philipp Parkway
Streetsboro, OH 44241

WORLD HEADQUARTERS:

Toll Free: 1 (800) 527-0733
Local: (330) 342-2000
Fax: (330) 342-2400

E-MAIL:

customerservice@autobag.com
info@autobag.com

WEBSITE:

www.autobag.com

Automated PACKAGING SYSTEMS

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Major Hardware Sections

The major hardware sections of the Autobag 600 and 650 consist of the following:

Main Electrical Assembly

The Main Electrical Assembly consists of the following:

- Main Electrical Enclosure (E-BOX)
- Electrical Boards
- Servo Motors
- Power Supplies
- Fuses and LEDs
- Cables
- E-STOP Circuits
- Take Away Conveyor Electrical Enclosure (optional)

Tension Control Unit (TCU)

The tension control unit consists of the following hardware:

- Lower TCU tube with bag-out sensor
- Upper TCU tube with centering guides
- TCU Nip
- Dancer with 1 servo motor

Printer (Autobag 850 series)

The Printer consists of the following hardware:

- DataMax H-Class Printer Head
- Printer Pivot
- Printer Electrical Enclosure

Main Nip

The Main Nip consists of the following hardware:

- Feed buttons
- Nip (open) Levers
- Upper Nip Roller
- Lower Nip Roller

Pneumatics

The Pneumatics consists of the following hardware:

- Air Preparation Assembly
- Hose Entry and Distribution Manifold
- Valve Manifold
- Seal Bar and Clamps
- Heater Bar
- Air Pulse and Blower
- Load Shelf
- Air Guide
- Seal Flattener Pins
- Bag Grippers

Seal Area

Sealing area consists of the following hardware:

- Sealer Bar
- Heater Bar
- Air Blip
- Air Pulse
- Air Blower

Load Shelf

Load shelf consists of the following hardware:

- Vertical Shelf
- Articulating Load Shelf

HMI

The HMI consists of the following hardware:

- Control Screen
- Adjustable Arm

E-STOP System

When the machine is in E-STOP, the following happens:

- Dump valve activates
- Valve manifold disables
- Safety contactor opens

Boards Overview

- Main Control Board (MCB)
- Upper Frame Connector Board (UFCB)
- Heat Stick Control Board (HSCB)
- Crowbar Board (CBB)

MCB

The Main Control Board (MCB) for the machine is the main brain of the machine. The MCB controls the motion system for the machine. It collects and distributes Ethernet signals for the machine. The SRAM battery is located on the MCB.

UFCB

This is a distribution board with a power and ground sensor board. It takes bulk connections of I/O J3) and power (J4) and distributes those to additional connectors/devices located in the upper frame section of the machine. The safety E-STOP is a large part of this board.

HSCB

The machine has a Heat Stick Control Board (HSCB) that controls the heat of the wire by suppling constant current thru the heat wire

CBB

This board looks for voltage spikes generated by the motors on the power rail. If a spike is detected, it is diverted and suppressed thru power resistors.

TROUBLESHOOTING

To contact us via mail, telephone or e-mail:

ADDRESS:

Automated Packaging Systems
10175 Philipp Parkway
Streetsboro, OH 44241

WORLD HEADQUARTERS:

Toll Free: 1 (800) 527-0733
Local: (330) 342-2000
Fax: (330) 342-2400

E-MAIL:

customerservice@autobag.com
info@autobag.com

WEBSITE:

www.autobag.com

Subject **Page**

General Troubleshooting

A good maintenance policy includes checking the operation of the machine against known specifications. When operating difficulties occur, observe what is happening, search out the cause, and make an adjustment. Make only one adjustment at a time and then check for a result. If an adjustment does not help or increases the difficulty encountered, adjust it back to the previous position and then move on to the next step.

All adjustments must be performed by a qualified maintenance technician.

Before performing any maintenance, perform LOTO procedures.

Power is always live to line filters, contactors and power switch. Unplug and perform LOTO procedures when servicing or troubleshooting.

Avoid damage to electronic components. Never weld on the unit.

NOTE

Many common issues may be resolved by performing a power cycle after clearing a fault.

If there are no causes or solutions listed in the following sections that apply to your situation, do not make any adjustments. Call Automated Packaging Systems at one of the following telephone numbers:

Customer Service: 1-800-527-0733 or 330-342-2000

Field Service: 1-888-277-0785

Technical Service: 1-800-316-6994

E-mail: techassistance@autobag.com

Power Supplies

The Autobag 800 and 850 machines have three power supplies used to power the machine and are in the Main E-BOX:

- PS10031 48VDC, 1500W Heat power supply
- PS10101 48VDC, 1500W Motor power supply
- PS10251 24VDC, 200W Bagger power supply

The Autobag 850 includes an additional power supply located in the Printer E-BOX and used for the printer:

- • PS10201 Printer power supply

Main Electrical Enclosure (E-BOX)

The main electrical enclosure houses the following, as shown in Figure 7-1 and described in Table 7-1

- Three power supplies
- Four software-controlled drives, integrated to motion control process
- Main control board
- Crowbar board

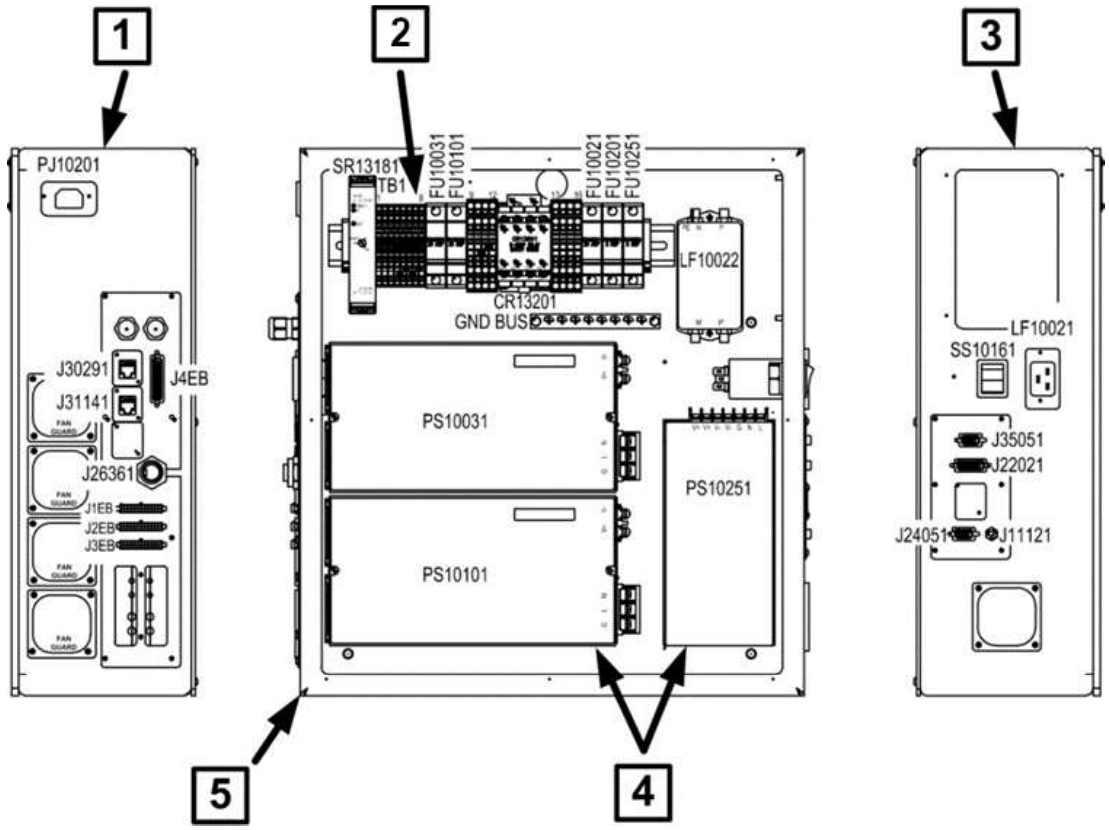


FIGURE 7-1. MAIN ELECTRICAL ENCLOSURE P/N 3-003765

Item	Description
1	Front View (Operator Facing)
2	Din Rail
3	Rear View
4	Power Supply and Filter Wiring
5	Side (Internal) View

TABLE 7-1. MAIN ELECTRICAL ENCLOSURE DETAILS

Cables and Connections

Main E-BOX Flat BOM	
Part Number	**Description**
2-002070-002	CABLE, ETHERNET EXTENSION CAT5E 2 FEET
3-001864	ASSY, CABLE, 24V POWER TO MCB J15 FAB
3-002610	ASSY, CABLE, 24 PIN, J1EB TO MCB, IN ELEC BOX
3-002611	ASSY, CABLE, 24 PIN, J2EB TO MCB, IN ELEC BOX
3-002612	ASSY, CABLE, 24 PIN, J3EB TO MCB, IN ELEC BOX
3-002614	ASSY, CABLE, FAB VALVE PACK DB25 PANEL TO CONTROL BOARD
3-002615	ASSY, CABLE, FAB CONVEYOR PANEL TO CONTROL BOARD
3-002616	ASSY, CABLE, FAB DATAMAX SERIAL DB9 PANEL TO CONTROL BOARD
3-002798	ASSY, CABLE, AB800 48VDC POWER SUPPLY/TERMINAL BLOCKS TO CROWBAR J1
3-002799	ASSY, CABLE, AB800, CROWBAR J2 TO MCB-J25
3-003210	CABLE, SIGNALING OUT OF E-BOX, AB800
3-003233-001	ASSY, CABLE, DC POWER WIRES, DUAL FERRULE, AB800
3-001861	ASSY, CABLE E-STOP & DANCER RIGHT
3-001862	ASSY, CABLE E-STOP & DANCER LEFT
3-001863	ASSY, CABLE, HMI DISPLAY
3-001869	ASSY, CABLE, DUMP VALVE
3-001870	ASSY, CABLE, CLAMP AND HEAT BAR SENSORS
3-001876	ASSY, CABLE, SENSOR BAG DETECT FRONT & BACK
3-001879	ASSY, CABLE, SENSOR HIGH VOLTAGE

TABLE 7-2. CABLES AND CONNECTIONS

	Main E-BOX Flat BOM, continued
3-001880	ASSY, CABLE, SWITCH, JOB LEFT & RIGHT
3-002437	ASSY, CABLE, MOTOR POWER, MAN NIP DRIVE
3-001880	ASSY, CABLE, SWITCH, JOB LEFT & RIGHT
3-002437	ASSY, CABLE, MOTOR POWER, MAN NIP DRIVE
3-001883	ASSY, CABLE, CURTAIN FANS
3-002438	ASSY, CABLE, MOTOR ENCODER AND HALL, MAIN NIP DRIVE
3-002439	ASSY, CABLE, MOTOR POWER, SEAL BAR DRIVE
3-002440	ASSY, CABLE, MOTOR ENCODER AND HALL, SEAL BAR DRIVE
3-002441	ASSY, CABLE, MOTOR POWER, TCU DANCER DRIVE
3-002442	ASSY, CABLE, MOTOR ENCODER AND HALL, TCU DANCER DRIVE
3-002443	ASSY, CABLE, MOTOR POWER, TCU UNWIND DRIVE
3-002444	ASSY, CABLE, MOTOR ENCODER AND HALL, TCU UNWIND DRIVE
3-002625	ASSY, WIRE, HIGH VOLTAGE BOARD TO SENSOR/FINGER
3-002626	ASSY, WIRE, HIGH VOLTAGE SENSOR/FINGER TO SENSOR/FINGER
3-002803	ASSY, CABLE, MAIN E-BOX TO UFCB P1EB TO J1
3-002804	ASSY, CABLE, MAIN E-BOX TO UFCB P2EB TO J2
3-002805	ASSY, CABLE, MAIN E-BOX TO UFCB P3EB TO J3
	For Printer External to E-BOX (3-002767)
28605A2.5	CABLE, SUB-D,15 PIN MALE-15 PIN MALE, 2.5 FEET
2-002069-002	CABLE, DB9 MALE/MALE 1:1 2.5 FEET
2-002075	CABLE, AC POWER EXTENSION FAB TO H-CLASS
3-001878	ASSY, CABLE, PRINT HEAD SOLENOID, AB800/500
3-002549	ASSY, CABLE, PRINT HEAD UNWIND SPINDLE, AB800/500
3-002550	ASSY, CABLE, PRINT HEAD POWER, AB800/500
3-002551	ASSY, CABLE, PRINT HEAD DATA, AB800/500
3-002817	ASSY, CABLE, PRINTER STEPPER MOTOR, AB800/500

TABLE 7-2. CABLES AND CONNECTIONS (CONTINUED)

	Printer Cables
3-003210	Cable, Signaling out of E-BOX, AB800
3-003210	Cable, Signaling out of E-BOX, AB800
3-003233-001	ASSY, CABLE DC Power Wires, Dual Ferrule, AB800
	Foot Switch
2-002136	Cable, 4 pin, mini change male, 2M LG, Male Threads
	Palm Switch
2-002110	Cable, Mini FAST, 4-pin, Male to Female, 2mLG, 18AWG

TABLE 7-2. CABLES AND CONNECTIONS (CONTINUED)

Main Fuse Location and Replacement

The main fuse locations for the machine are mounted on the DIN rail assembly in the E-BOX. The DIN rail also contains other components used in the electrical system.

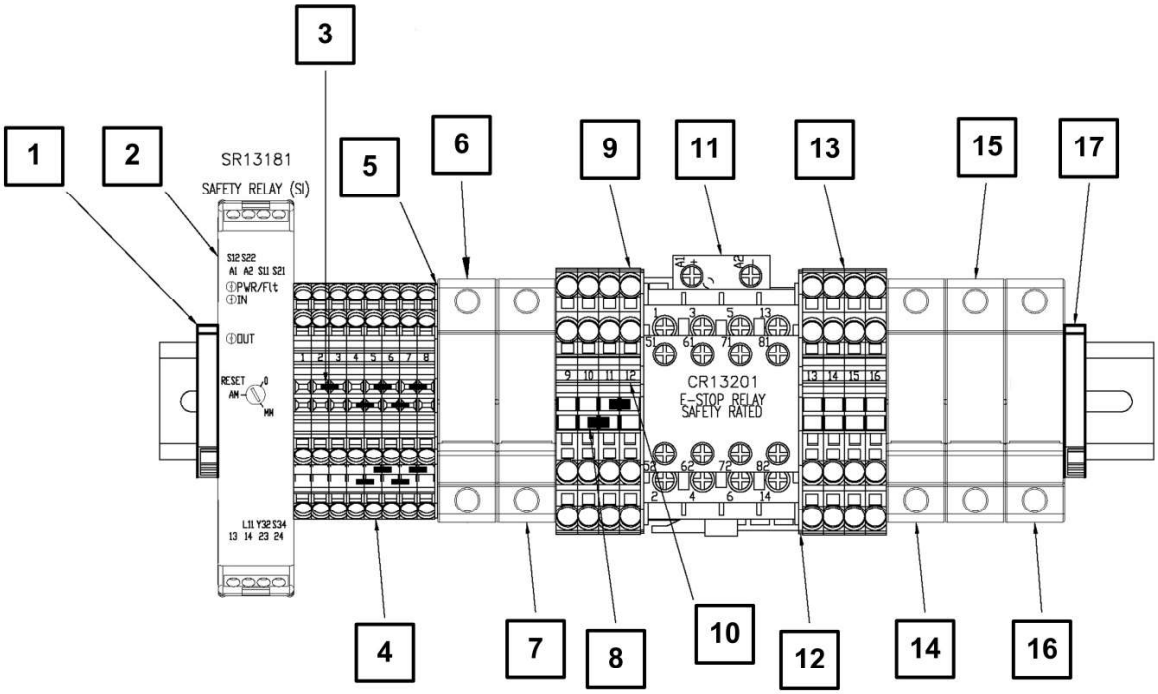


FIGURE 7-2. DIN RAIL ASSEMBLY-CE

Item	Description
1	Bracket, Term BLCK End 6mm Wire
2	Relay, Safety, 24VDC, One Dual Ch Input
3	Term, 2002 Series, Jumper, 2 Pole
4	Term, Wago, 2002 Series, 2 Tier
5	Term, 2002 Series, 2 Tier End Cover
6	FU10031, Class CC, Time Delay, 20A
7	FU10101, Class CC, Time Delay, 30A
8	Term, Wago, 2004 Series, Jumper 2 P
9	Ter BLK, 2004 Series 4 Wire
10	Term, Wago, Number Labels1-50 (2 Sets)
11	Contactor, E-STOP with 4 N.C. Aux Contact
12	Term BLK, Div 2004 Series 4 Wire
13	Ter BLK, 2004 Series 4 Wire
14	FU10021, see Table 7-4
15	FU10201, see Table 7-4
16	FU10251, see Table 7-4
17	Bracket, Term BLCK End 6mm Wire

TABLE 7-3. DIN RAIL ASSEMBLY-CE

⚠ CAUTION

The Autobag 800 and 850 machines require different fusing depending on the input power. Configurations are *CE-Domestic and CE-International.* Refer to Table 7-4 for correct fusing based on the power kit selected.

Fusing for CE – Domestic			
Fuse	Part Number	Fuse Value	Description
FU10021	24014A15	20 Amp Slow Class CC	Mains Supply Fuse – no substitutions
FU10031	27014A15	20 Amp Slow Class CC	Heat Power Supply DC
FU10101	27014A17	30 Amp Slow Class CC	Servo Power Supply DC
FU10201	27014A8	5 Amp Slow Class CC	Printer Power Supply Mains
FU10251	27014A8	5 Amp Slow Class CC	Control 24 Volt Supply Mains
Fusing for CE – International			
Fuse	Part Number	Fuse Value	Description
FU10021	27014A12	10 Amp Slow Class CC	Mains Supply Fuse – no substitutions
FU10031	27014A15	20 Amp Slow Class CC	Heat Power Supply DC
FU10101	27014A17	30 Amp Slow Class CC	Servo Power Supply DC
FU10201	27014A5	2.5 Amp Slow Class CC	Printer Power Supply Mains
FU10251	27014A5	2.5 Amp Slow Class CC	Control 24 Volt Supply Mains

TABLE 7-4. FUSING FOR POWER KITS

WARNING

Fuse replacement must be accomplished by a qualified maintenance technician.

Replace fuses as follows:

1. Ensure that the power is switched to OFF (O).
2. Open the E-BOX door and locate the fuse holders in the upper left corner of the E-BOX.
3. Open fuse holder and remove fuse.
4. Insert a new fuse.
5. Close fuse holder and E-BOX door
6. Turn the power switch to ON (I) to verify operation.

NOTE

The fuses are ATDR type arc flash rated and must be replaced with the correct fuse. The fuse holders are designed to accept only ATDR type arc flash rated fuses and cannot work with incorrect fuses.

Part Compatibility

The Autobag 800 and 850 machines use software, firmware and hardware that must be compatible with each other in order to function correctly. When troubleshooting or ordering parts ensure that parts ordered are the correct versions. These parts may include, but are not limited to:

- HMI assembly
- Heat Wire Control Board
- Main Control Board
- HMI software
- Machine Firmware

In addition to correct compatibility, some parts may need to be programmed when ordered as spare parts.

E-STOP Safety Switches and Reporting Circuit

The Autobag 800 and 850 machines use a reporting circuit and switches for the E-STOP circuit. The E-STOP HMI page shows the state of the switches in the circuit.

There are three E-STOP buttons on the machine. They are located on HMI and on either side of the Tension Control Unit (TCU). This is a 2-channel E-STOP circuit with redundant contacts. Each E-STOP has two normally closed contacts and one normally open contact. All contacts must change state at the same time. Refer to Figure 7-3.

Avoid injury, before performing any maintenance, turn the power switch off (O), disconnect the power cord, and disconnect the air supply.

In E-STOP, power to heater cartridges is removed. However, residual heat can be maintained for 15 minutes or longer. 24 V power to Heat Board remains.

You cannot troubleshoot during an E-STOP condition. When the machine is in E-STOP:

- Power to motor and to heating cartridge is removed
- Power to the valve pack is removed and all air is dumped
- 24 V power to the heat board remains

Configuration

When the Safety Relay is properly configured, the rotary switch is set to MM and all three LEDs are green, as shown in Figure 7-4. To reconfigure a Safety Relay, see the **Maintenance** Section of this manual.

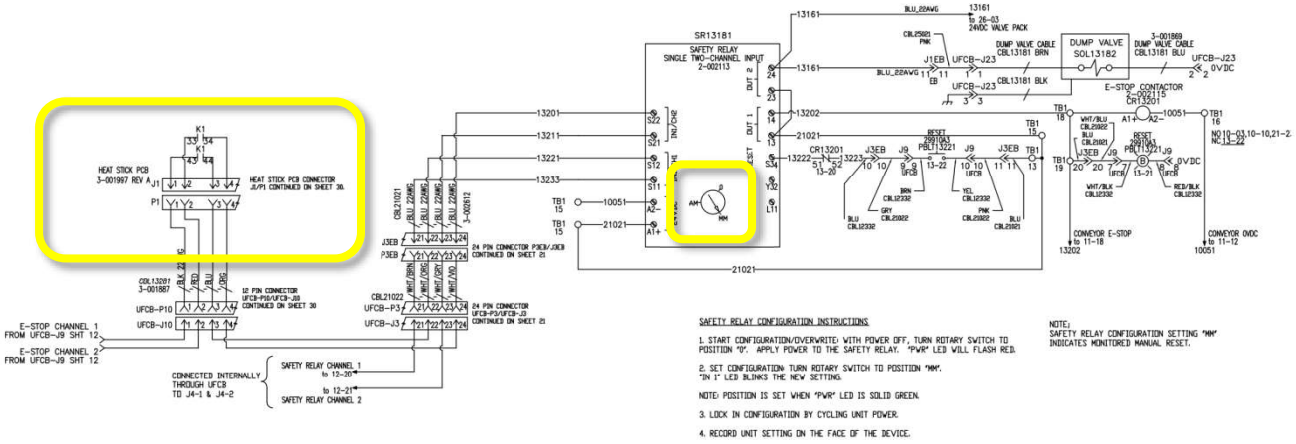


FIGURE 7-3. SAFETY RELAY ONLY: AB2-800-SCH SHEET 15SAFETY RELAY

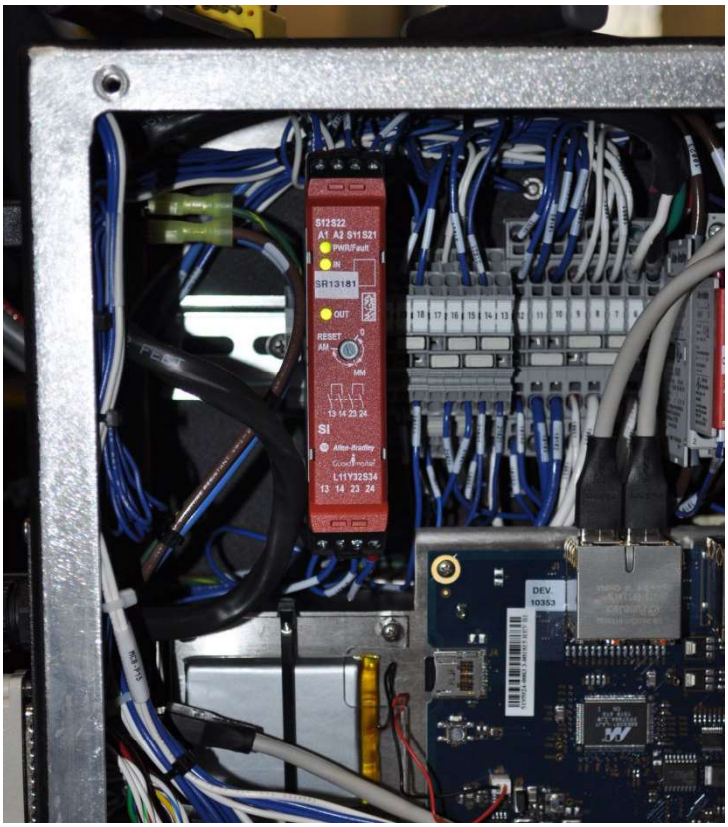


FIGURE 7-4. SAFETY RELAY-CONFIGURATION

NOTE

If you suspect an E-STOP circuit failure, find the diagnostic lights for the safety relay inside the main E-BOX. The lights indicate if both channels from the push buttons, (and Light Curtains, if installed), are open or closed.

NOTE

The Heat Board can create an E-Stop if heater bar temperature reaches 500 degrees – 260 degrees-c. The Safety Relay connection to the Heat Stick PCB is shown in the upper left corner of Figure 7-3.

Valve Pack

Valve pack stations assignments are listed in Figure 7-5. Blanks are installed for machines that do not require the needed valves for an option.

A tool is required to open the drawer containing the valve pack.

Station valves may be manually actuated using the manual override buttons on the valve. Manually overriding a station valve actuates the system attached to it and safety circuits are bypassed during this method of valve actuation.

Ensure station valves are returned to their normal (non-locked) position prior to returning the machine to normal operating condition.

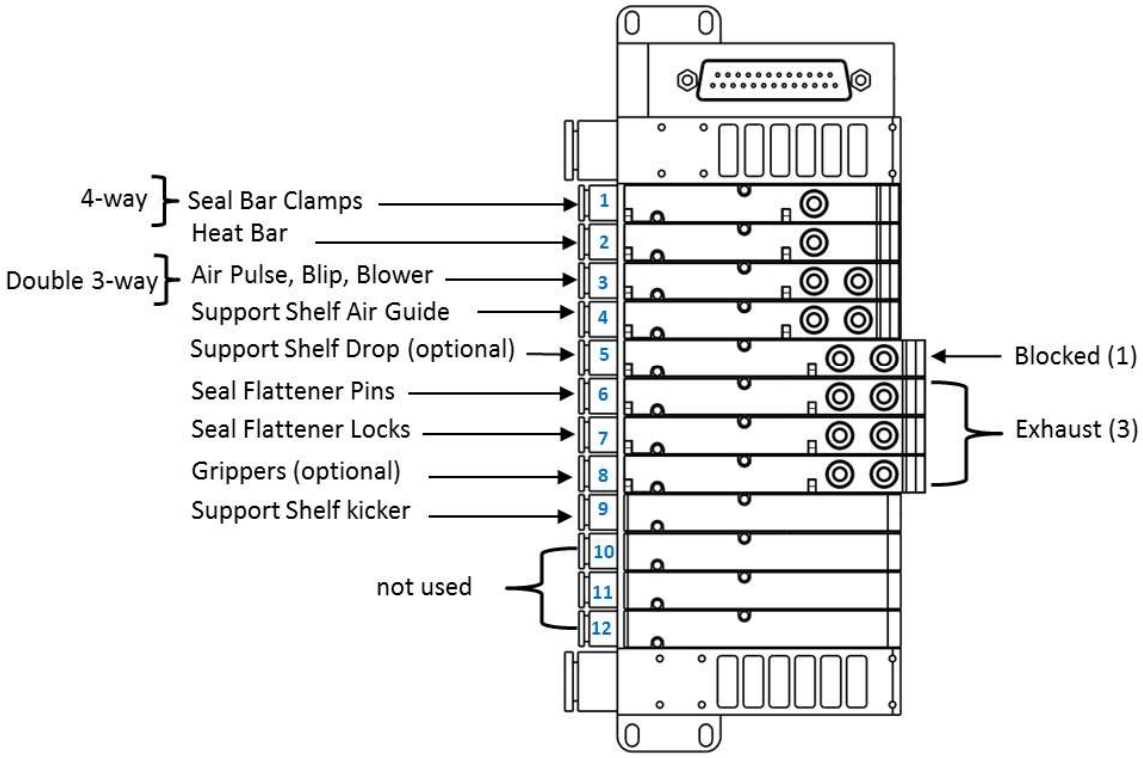


FIGURE 7-5. VALVE PACK

NOTE

There are valves for clamps, air, heater bar and sealer bar. Note that there are three 5/3 exhaust-center valves and one 5/3 block-center valve. They are not interchangeable.

Motors

There are four Brushless DC Servo Motors assigned as shown in Table 7-5. Each motor has its own fuse on the Main Control Board. When a fuse is blown, an LED illuminates.

The left and right gear boxes have different ratios. They are not interchangeable.

Servo Motor Assignment	Qty	Part Number	Description
Main Nip 9:1 Gearbox	1	3-002447	Controls (driving) lower nip roller
Unwind Nip TCU 101:1 Gearbox	1	3-002454	Unwinds material from the box and around TCU tubes
Unwind Dancer TCU	1	3-002453	Drives two sets of gears for up/down motion of dancer
Sealer Bar	1	3-002454	Controls the linear actuator for in/out movement of bar

TABLE 7-5. SERVO MOTOR ASSIGNMENT

Main Nip Motor Feedback to Main Control Board

The Main Nip Motor Feedback is shown in to Figure 7-6.

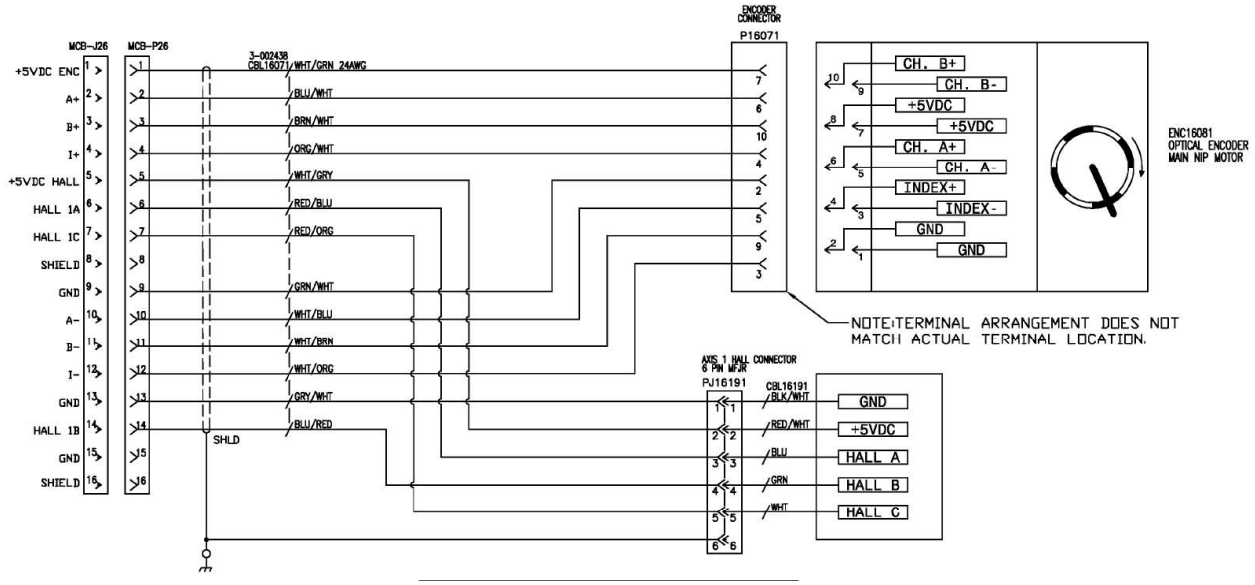


FIGURE 7-6. MAIN NIP MOTOR FEEDBACK CONNECTIONS P/N AB2-800-SCH SHEET 16

Heat Stick Control Board (HSCB)

The Heat Stick Control Board controls two heat sticks in the sealer bar. It communicates with the Main Control Board via an Ethernet connection. The heat sticks are controlled independently but cannot be set independently. Refer to Figure 7-7.

⚠WARNING

In E-STOP, power to heater cartridges turn off. However, residual heat can be maintained for 15 minutes or longer.

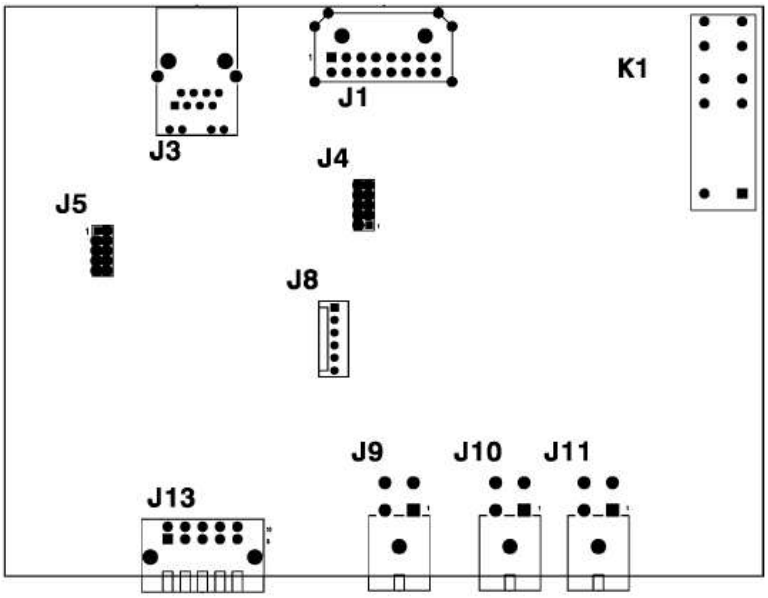


FIGURE 7-7. HEAT STICK CONTROL BOARD P/N 3-001997

Item	Description
J1	E-Stop Interface and Logic Power Input from MCB/UFCB (AB2-800-SCH Shts 13 and 40)
J3	Ethernet to Main Control Board J1 (AB2-800-SCH Sht 01)
J9	Power Output to Heat Stick No. 1 (AB2-800-SCH Sht 30)
J10	Power Output to Heat Stick No. 2 (AB2-800-SCH Sht 30)
J11	48 VDC Power Input from Power Supply (AB2-800-SCH Sht10 & 30)
J13	Thermocouple input from Heat Sticks No. 1 and No. 2

TABLE 7-6. HEAT STICK CONTROL BOARD DETAIL

LED Indicators - Programming

When the Heat Stick Control Board is programmed, LED indicators flash red or green. If not programmed, LED indicators are amber. Refer to Table 7-7.

NOTE

The Heat Stick Control Board is programmed during manufacturing. If not programmed, it can generate an E-Stop that is not explained in the HMI display. Power cycle the bagger to release the E-Stop condition and diagnose the situation.

If excessive heat causes an E-STOP, there is not a warning on the HMI display; there is an indication in the service log. Check **Monitor Heat** temperatures on the HMI.

LED Indicators – Status Descriptions

LED Indicator	Status
Blinking Amber	The heat board is powering up and not yet communicating with the Main Control Board
Blinking Slow Green	The heat board is communicating with the Main Control Board, but no call for heat (operational)
Blinking Rapid Green	The heat board is communicating with the Main Control Board and heating (operating)
Blinking Red	Failure, Emergency Stop relay off
Blinking Red and Green	Heat cartridges are +/- out of target range

TABLE 7-7. HEAT BOARD LED INDICATORS

Heat Warnings

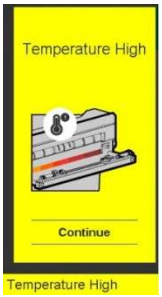
HMI Display	Description
 Temperature Low	A Temperature Low warning occurs when the heater bar falls 25 degrees below the set point. The cycle stops.
 Temperature High	A Temperature High warning occurs when the heater bar rises over 25 degrees above the set point. The cycle stops. If the temperature reaches 500ºF (250 ºC), an E-STOP occurs. There is not a specific indicator or warning on the HMI. There is an indicator in the Service Log. If you suspect excessive heat is causing the E-STOP, go the Monitor Heat page in the Service section of the HMI.

TABLE 7-8. HEAT WARNINGS

Heat Alarm Monitors

If running the Autobag® bagger without heat, the **Heat Alarm** can be turned off in the **Diagnostic Settings** for **Monitor Heat**. Refer to Figure 7-8.

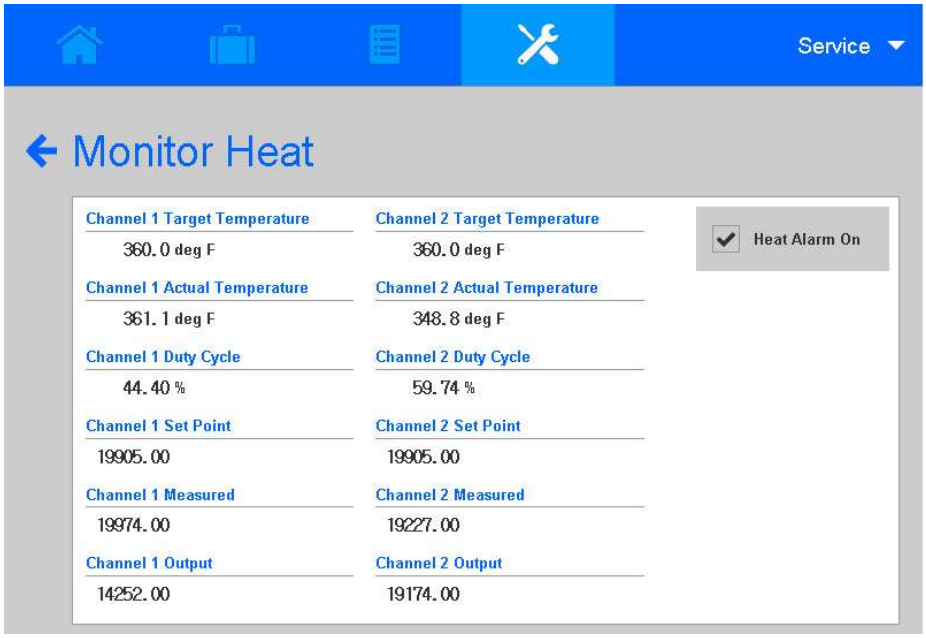


FIGURE 7-8. MONITOR HEAT: HEAT ALARM

Upper Frame Connector Board (UFCB)

This is a distribution board with a power and ground sensor board. External devices located in the upper part of the bagger connect to the Upper Frame Connector Board (UFCB) to help reduce the number of cables running throughout the machine. Refer to Figure 7-9.

These devices are then connected to the Main Control Board (MCB) through three 24-pin connectors, J1, J2 and J3. Mating 24-Pin connectors in the electrical box (J1EB, J2EB and J3EB), distribute these devices to the proper input on the MCB.

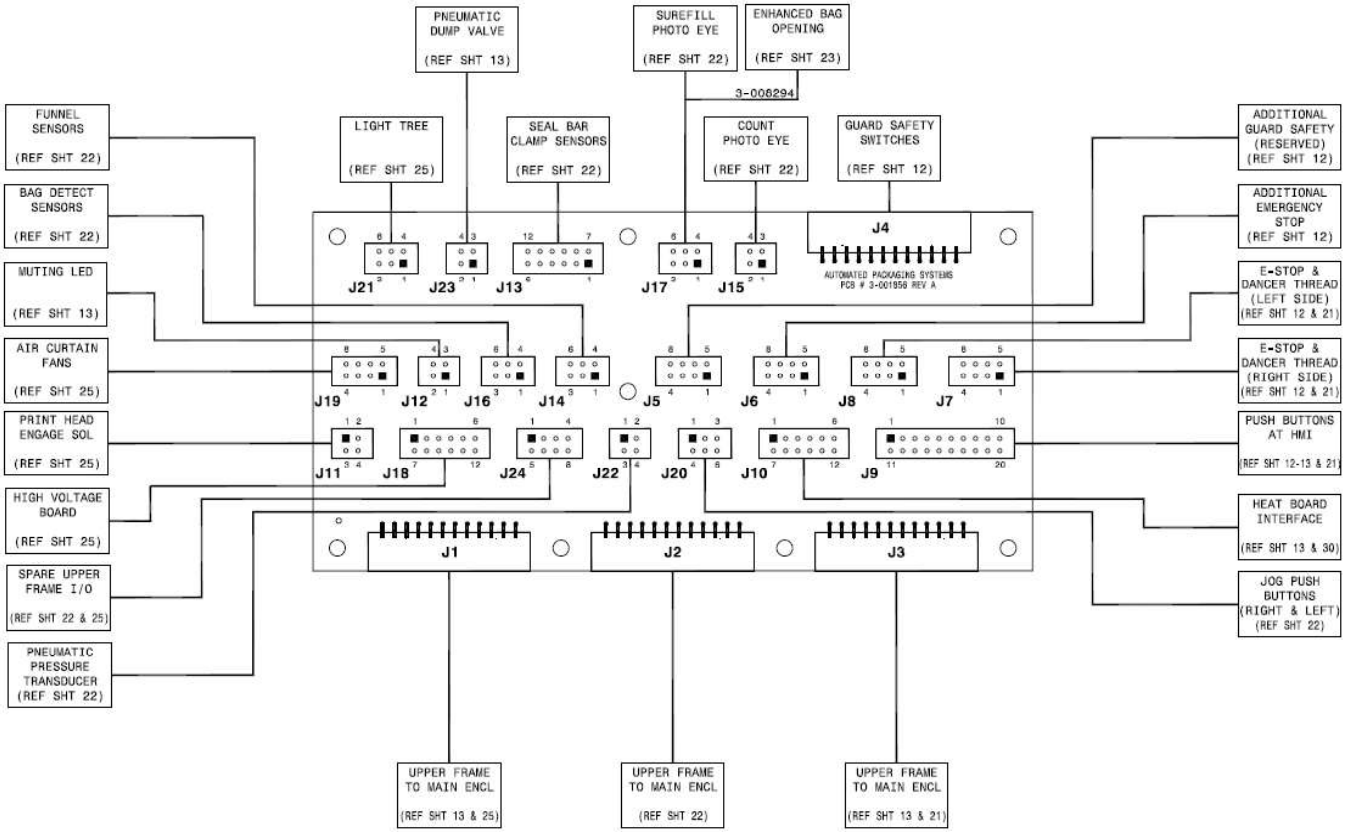


FIGURE 7-9. UPPER FRAME CONNECTOR BOARD P/N 3-001856

Crowbar Board (CB)

The Crowbar Board, located in the main electrical enclosure, applies a bank of resistors to prevent regeneration of current produced by each servo motor. There are three capacitors to reduce the energy effect created by the deceleration of the sealer bar. They provide additional capacitance for the power supply, but they do not prevent overages. If the energy is high enough, a bank of resistors can reduce 52 volts to 50 volts. Refer to Figure 7-10.

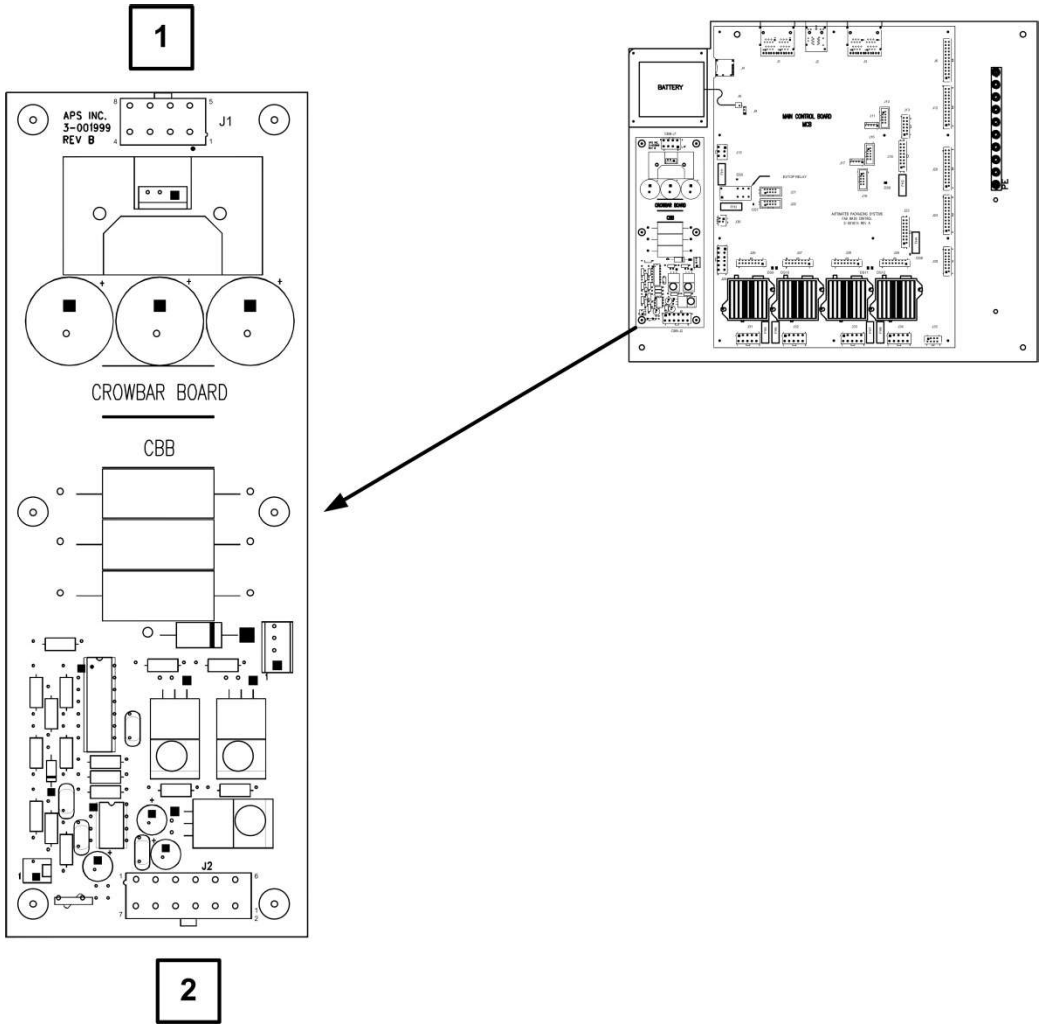


FIGURE 7-10. CROWBAR BOARD

Item	Description
1	Assy, Cable 48 VDC Power Supply to Crowbar [CBB – J1]
2	Assy, Cable, Crowbar to Main Control Board (MCB) [CBB-J2]

TABLE 7-9. CROWBAR BOARD

Main Control Board (MCB)

Connections

The Main Control Board connects to the Heat Stick Control Board and the Operator Interface Touch Screen (HMI) via Ethernet connections. It connects to the Upper Frame Connector Board via four Jumper cables J1, J2, J3 and J4. Refer to Figure 7-11.

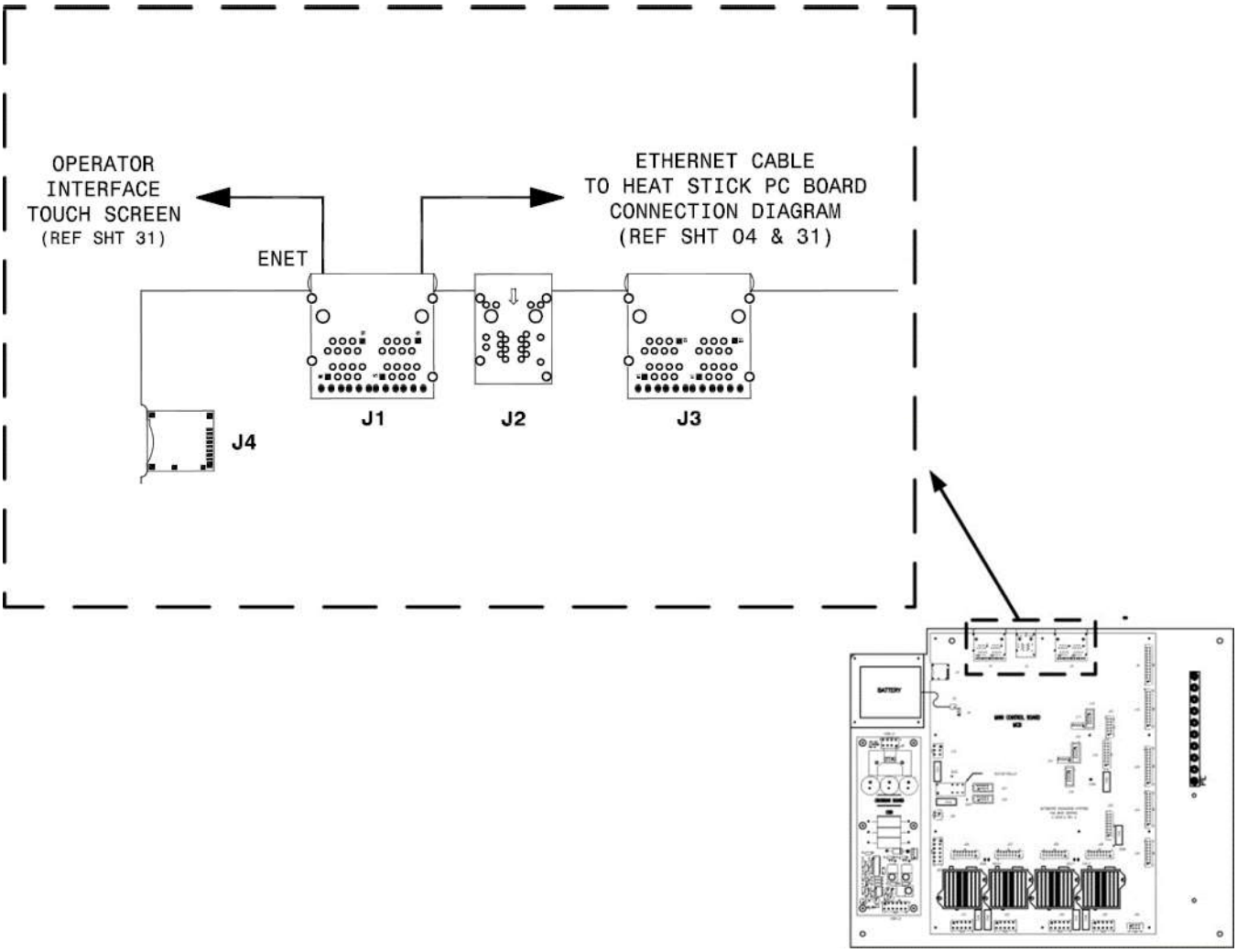


FIGURE 7-11. MAIN CONTROL BOARD P/N 3-005066-4

Fuses

Fuse	Fuse Value	Part Number	Description
FH1	5 amp 58V	200507A5	+24V Supply
FH2	2 amp 58V	200507A2	Valve Pack
FH3	2 amp 58V	200507A2	E-Stop String
FH4	2 amp 58V	200507A2	PWM Outputs Curtain Fans, Print Head Solenoid
FH5	15 amp 58V	200507A15	V Motor 1 (Main Nip)
FH6	10 amp 58 V	200507A10	V Motor 2 (Dancer TCU)
FH7	10 amp 58 V	200507A10	V Motor 3 (TCU Nip)
FH8	10 amp 58 V	200507A10	V Motor 4 (Seal Bar)
Fuse	**Fuse Value**	**Resettable Fuses**	**Description**
F1	.075 amp 33V	surface mount	Top Machine Board
F2	.075 amp 33V	surface mount	+24 Sensors and Signaling
F3	.075 amp 33V	surface mount	High Voltage
F4	.075 amp 33V	surface mount	Signaling, Light Pole, Heat Board, Light Curtain Muting
F5	.075 amp 33V	surface mount	Motor Feedback Main Nip
F6	.075 amp 33V	surface mount	Motor Feedback Dancer TCU
F7	.075 amp 33V	surface mount	Motor Feedback TCU Nip
F8	.075 amp 33V	surface mount	Motor Feedback Seal Bar
F9	.075 amp 33V	surface mount	+24 V PMD Position Limit & AT Rest I/O

TABLE 7-10. MAIN CONTROL BOARD FUSES

LED Assignments

LED	Color	Status	Description
DS-1	Blue	On when button is pressed	Reset Button LED
DS-2	Red/Green	Various. See Blink Codes	Heart Beat LED
DS-3	Green	On unless Fuse blown	+3.3 V Supply Regulator
DS-4	Green	On unless Fuse blown	+5 V Supply Regulator
DS-5	Yellow	On unless Fuse blown	+24V Supply FH1
DS-6	Yellow	Off unless fuse blown	Valve Pack FH2
DS-7	Yellow	Off unless fuse blown	Safety String FH3
LED	**Color**	**Status**	**Description**
DS-8	Yellow	Off unless fuse blown	PMW Supply FH4
DS-9	Yellow	Off unless fuse blown or E-Stop	V Motor 1 (Main Nip Servo)
DS-10	Yellow	Off unless fuse blown or E-Stop	V Motor 2 (Dancer TCU Servo)
DS-11	Yellow	Off unless fuse blown or E-Stop	V Motor 3 TCU (Nip Servo)
DS-12	Yellow	Off unless fuse blown or E-Stop	V Motor 4 (Seal Bar Servo)

TABLE 7-11. MAIN CONTROL BOARD LED ASSIGNMENTS

Blink Codes

The heartbeat LED indicates blink codes for machine errors. If the heartbeat LED indicates a blink code, use Table 7-12 for fault codes to determine the likely fault.

NOTE

Confirm with the diagnostics log in the HMI if you have a fault code.

Blink Code	Fault Code
0	FaultNone
1	FaultPlaceHolder
2	FaultFileCreation
3	FaultControlMotor1Voltage
4	FaultControlMotor2Voltage
5	FaultControlMotor3Voltage
6	FaultControlMotor4Voltage
7	FaultMainNipDriveOvercurrent
8	FaultMainNipDriveOperating-ModeMismatch
9	FaultMainNipDriveOvervoltage
10	FaultMainNipDriveUndervoltage
11	FaultMainNipDriveFoldback
12	FaultMainNipDriveOver Temperature
13	FaultMainNipDriveSPIChecksum
14	FaultDancerDriveOvercurrent
15	FaultDancerDriveOperatingMode Mismatch
16	FaultDancerDriveOvervoltage
17	FaultDancerDriveUndervoltage
18	FaultDancerDriveFoldback
19	FaultDancerDriveOver Temperature
20	FaultDancerDriveSPIChecksum
21	FaultUnwinderDriveOvercurrent

TABLE 7-12. FAULT BLINK CODES

Blink Code	Fault Code
22	FaultUnwinderDriveOperatingMode Mismatch
23	FaultUnwinderDriveOvervoltage
24	FaultUnwinderDriveUndervoltage
25	FaultUnwinderDriveFoldback
26	FaultUnwinderDriveOverTemperature
27	FaultUnwinderDriveSPIChecksum
28	FaultSealbarDriveOvercurrent
29	FaultSealbarDriveOperatingMode Mismatch
30	FaultSealbarDriveOvervoltage
31	FaultSealbarDriveUndervoltage
32	FaultSealbarDriveFoldback
33	FaultSealbarDriveOverTemperature
34	FaultSealbarDriveSPIChecksum
25	FaultHeat
26	FaultHeatWire
37	FaultTestFault
38	FaultMaxFaults

TABLE 7-12. FAULT BLINK CODES (CONTINUED)

Possible Operational Faults

Listed in Table 7-13 are some possible operational faults a user may encounter and suggested items to check to resolve the problem.

NOTE

For an explanation of HMI pop up errors, refer to POPUP MESSAGES in the Operation Module.

	Symptom	Problem	Solution
	Cycle stops. Main Nip Drive Fault – message in Status Bar and Popup screen. Screen 221	Fault from Drive. Error type is found in the Drive Log; it does not display on the HMI.	E-Stop or power cycle machine to reset.
	Cycle stops. Out of bags – message in Status Bar and Popup screen. Screen 222	Fault from Drive. Error type is found in the Drive Log; it does not display on the HMI.	E-Stop or power cycle machine to reset.
	Cycle stops. Dancer Drive Fault – message in Status Bar and Popup screen. Screen 223	Fault from Drive. Error type is found in the Drive Log; it does not display on the HMI..	E-Stop or power cycle machine to reset.

TABLE 7-13. OPERATIONAL FAULTS

	Symptom	Problem	Solution
 Seal Bar Drive Fault	Cycle stops. Unwinder Drive Fault – message in Status Bar and Popup screen. Screen 224	Fault from Drive. Error type is found in the Drive Log; it does not display on the HMI.	E-Stop or power cycle machine to reset.
Machine locks up.		Possible dip or momentary interruption in the supply voltage to the machine.	Reboot the machine. If reboot fails to restore normal operation, contact an APS Service Technician.

TABLE 7-13. OPERATIONAL FAULTS (CONTINUED)

Printer E-BOX

NOTE

The printer E-BOX power switch should always remain on. Control of the printer E-BOX should be controlled by the main E-BOX power switch only.

If the printer E-BOX is turned on after the main E-BOX, the machine does not communicate with the printer correctly and requires a power cycle.

Take-Away Conveyors

Take-away conveyors consists of a belt and its own motor enclosure and outfeed panel.

Motor enclosure

The conveyor is connected to the conveyor motor on the left or right side of the conveyor motor enclosure, (E-box), depending on the type of conveyor being connected. See Figure 7-12. Use the following guidelines to connect a conveyor.

- A rear take-away conveyor connects to the left side (item 2) of the E-box, using connector 2-003576. If a rear take-away conveyor is in use, plug the right side connection (item 7) with connector 2-003214.
- Right or left side take-away conveyors connect to the right side (item 7) of the E-box, using connector 2-003576. If a right or left take-away conveyor is in use, plug the left side connection (item 2) with connector 2-003214.

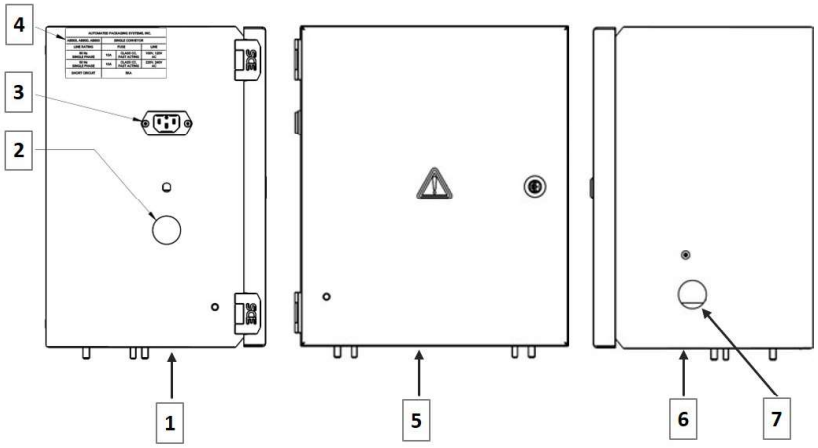


FIGURE 7-12. CONVEYOR MOTORENCLOSURE

Item	Description
1	Motor Enclosure, left side
2	Connection, left side, for rear take-away conveyor, using connector 2-003576.
3	Jack, IEC inlet, .250"0D, 10 A
4	Decal, Conveyor Nameplate Line Rating
5	Motor Enclosure, front
6	Motor Enclosure, right side
7	Connection, right side, for right or left side take-away conveyor, using connector 2-003576.

TABLE 7-14. CONVEYOR MOTOR ENCLOSURE

Motor outfeed panel

The Main Control Board of the machine commands the conveyor when to start and stop via a 3-pin connector with three signals:

1. E-Stop – the conveyor stops in an E-STOP condition. The conveyor cannot initiate an E-STOP.

2. Conveyor Run

3. 0VDC (Zero VDC)

NOTE

If conveyor goes into overload, it does not signal the bagger to stop.

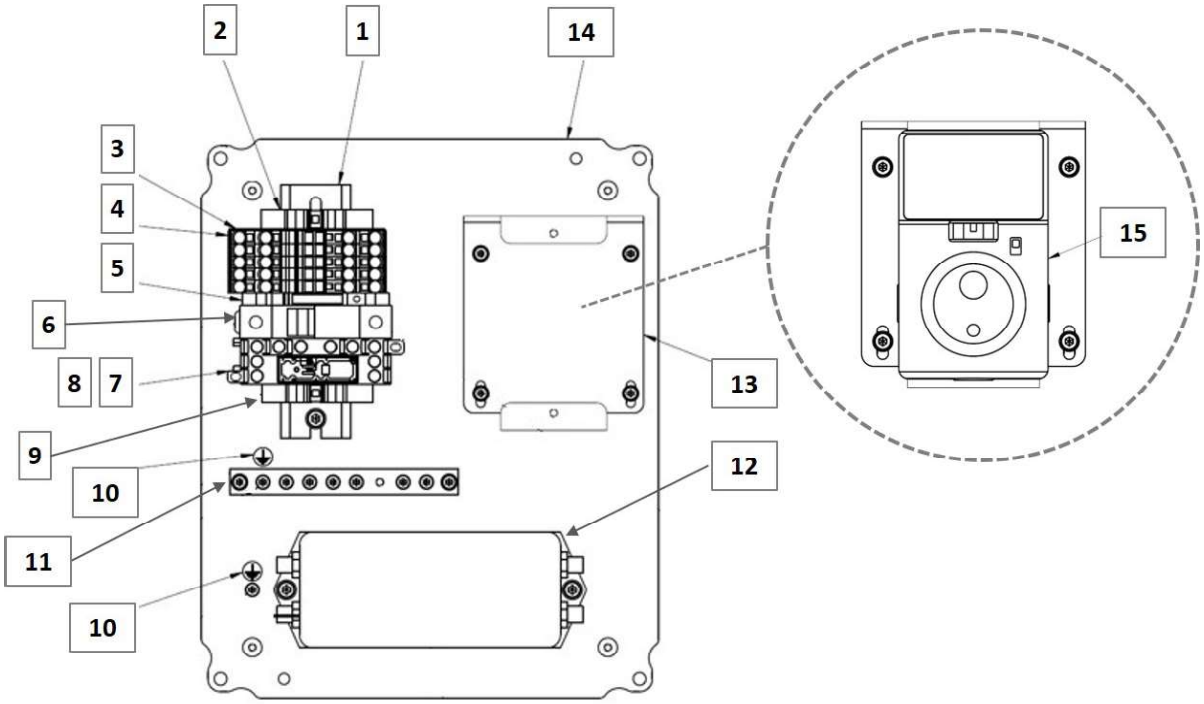


FIGURE 7-13. CONVEYOR MOTOR OUTFEED PANEL, P/N 3-009090

Item	Description
1	Rail
2	Block, Terminal, End Stop
3	Divider, Terminal Block, Black 2004 Series
4	Block, Terminal Block, Black 2004 Series, 4-wire
5	Relay, PLC 24V Mini Rail Mount
6	Fuse Holder, 20 x 38 Class CC
7	Socket, Relay, 4 Pole, DIN MOUNT
8	Relay, 4-Pole 24 VDC, 3NO-INC
9	Block, Terminal End Stop
10	Label, Ground
11	Bar, Bus Grounding
12	Filter, EMI 110/250 VAC
13	Bracket, Drive Mount, Controller
14	Sub Panel, Flat
15	Drive, Motor Controller

TABLE 7-15. TAKE AWAY CONVEYOR MOTOR ENCLOSURE

Motor controller drives

Conveyors may be configured with a motor controller drive (Figure 7-13 item 15) with either 110V or 220V. The controller drive is mounted to the motor sub panel (item 13).

Part No,	Voltage	Description
2-003486-001	110V	50:1 Speed Range 215V, 50/60 HZ, IPH
2-003486-002	220V	50:1 Speed Range 230V, 50/60 HZ, IPH or 3PH

TABLE 7-16. MOTOR CONTROLLER DRIVE CONFIGURATONS

MECHANICAL DRAWINGS

To contact us via mail, telephone or e-mail:

ADDRESS:

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Streetsboro, OH 44241

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WEBSITE:

www.autobag.com

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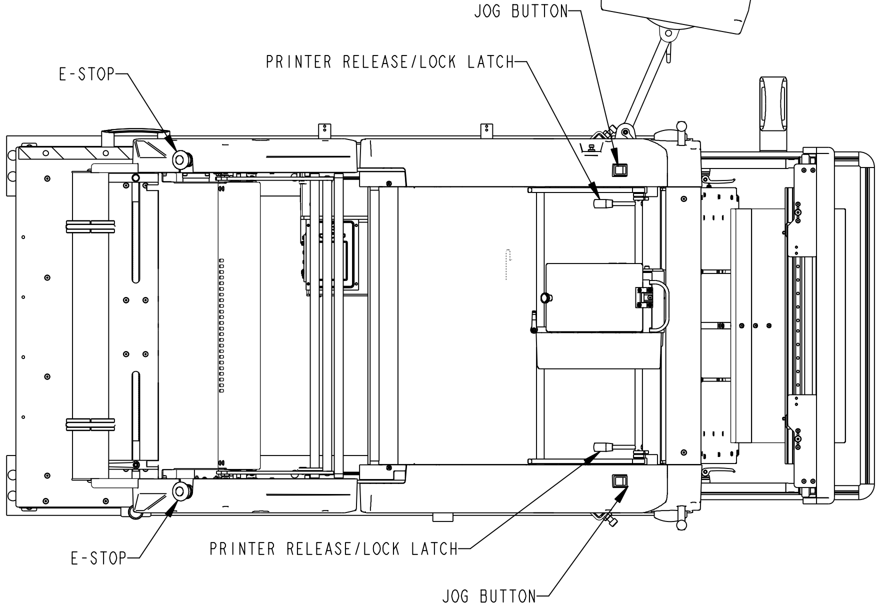

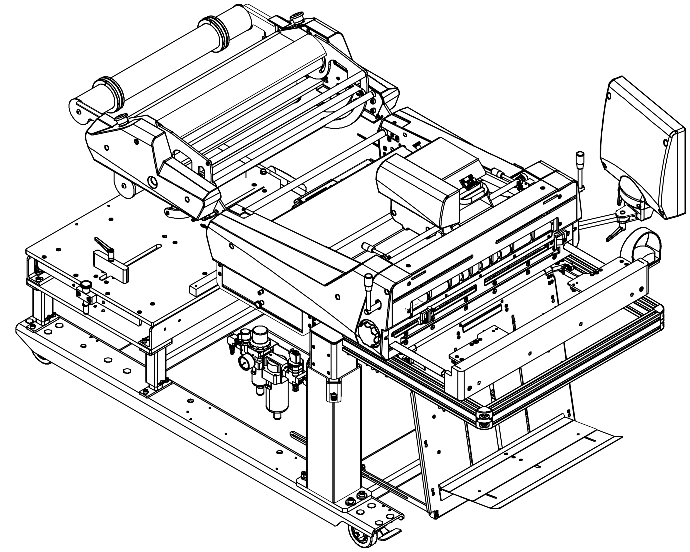

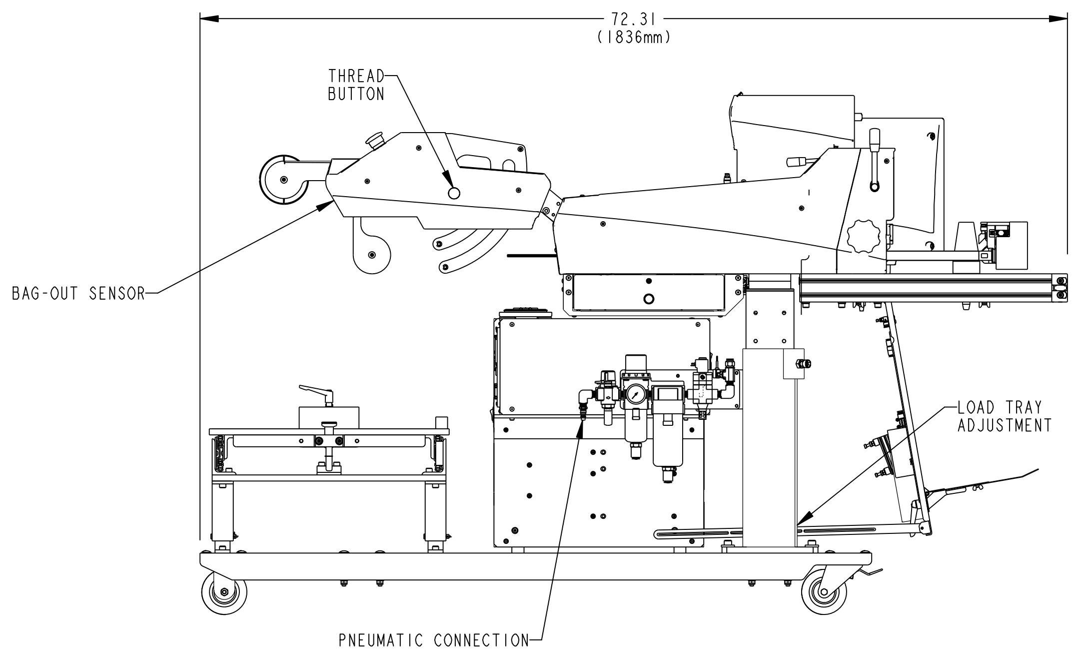

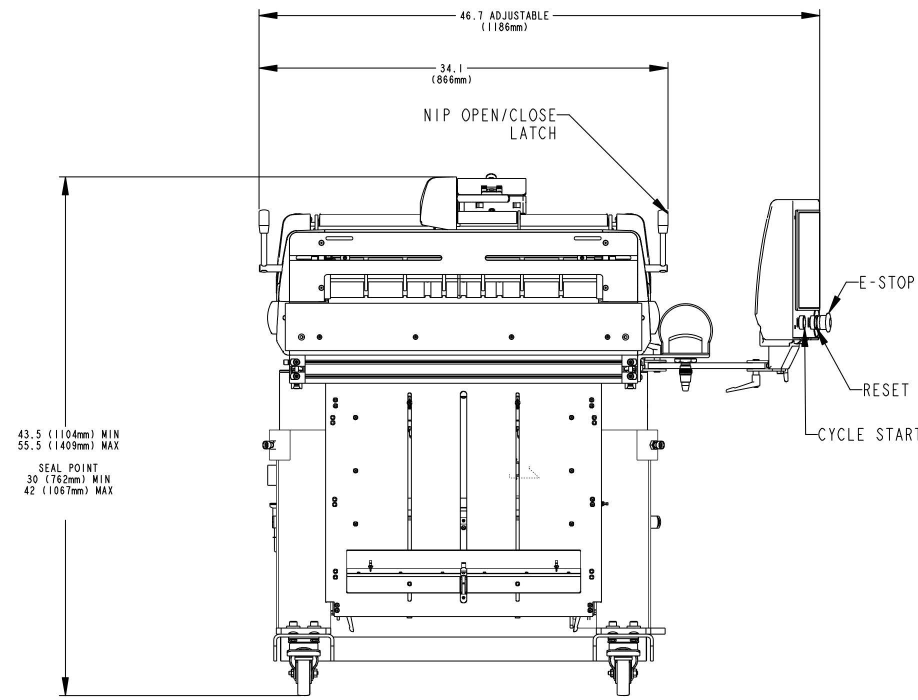

SPECIFICATIONS	
ELECTRICAL	110/220VAC Switchable 50/60 Hz, 1800 Watts Continous
PNEUMATIC	5 CFM @80 PSI, Clean Dry Air

REV	BY	DATE	ECN	DESCRIPTION
E	GHM	6-11-20		ADDED METRIC

FINISH NONE
MATERIAL N/A

Automated PACKAGING SYSTEMS
10175 PHILIPP PARKWAY · STREETSBORO, OH 44241

DRAWING SIZE E · SCALE 1/4
TITLE AB850S MACHINE LAYOUT
INCH (MM) · THIRD ANGLE PROJECTION
SHEET 1 OF 1 · DRAWING NO. FP216 · REV E

Vaulted

Fabricated & Documented
to be RoHS Compliant