THE SX GO™

Operator Manual

Model 1172

SHARP®
PACKAGING SYSTEMS BY PREGIS

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Original Printed English

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IMPORTANT SAFETY INFORMATION

DEFINITION OF TERMS

Throughout this manual, you will find the following safety notices with the accompanying symbol.

⚠ This symbol signifies important safety issues regarding the operation and maintenance of the Sharp ***SX GO***™.

⚠ WARNING!

GENERAL WARNING. Indicates information important to the proper operation of the equipment. Failure to observe may result in damage to the equipment and severe bodily injury or death.

⚠ CAUTION

GENERAL CAUTION. Indicates information important to the proper operation of the equipment. Failure to observe may result in damage to the equipment.

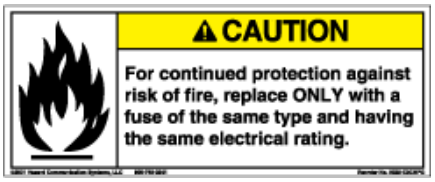
SAFETY LABELS

The following label is placed onto the Sharp ***SX GO***™ wherever a removable shield, or panel, guards the heated sealing area. Always disconnect electrical power from the machine prior to removing any guards and/or panels.

The following label is displayed where there is the potential of your hands, long hair, jewelry, etc., becoming entangled between two rotating parts. Be sure to secure loose items before approaching and operating the machine.

The following label on the Sharp ***SX GO***™ is located where there is potential of injury due to pinch points or moving parts. Make certain electrical power is disconnected before removing any guards and/or panels.

The following label is located in the proximity of a fused circuit. Be certain to replace blown fuses ONLY with fuses with the same electrical rating. Always disconnect electrical power before removing any guards and/or panels and servicing the Sharp ***SX GO***™***.***



The label shown below is located on the Sharp ***SX GO***™ wherever a removable shield, or panel, guards electrical components. Always disconnect electrical power from machine prior to removing any guards and/or panels with this label.

SAFETY RULES & PROCEDURES

The machine requires regular, periodic maintenance to ensure reliable service. No maintenance should be performed unless the safety precautions for the maintenance are thoroughly understood.

Follow all instructions in this manual for safe operation.

Follow all company and industry standard safety policies regarding this kind of machinery that may exceed those listed in this manual.

Keep all safety features, guards, interlocks and sensors in good working order.

⚠ WARNING!

Always remove electrical power from the unit prior to performing any service on the machine.

⚠ WARNING!

Do NOT operate or perform maintenance with exposed long hair, jewelry or loose clothing as these may get caught in machine. Failure to do so could result in severe bodily injury or death.

EQUIPMENT SAFETY FEATURES

The Sharp **SX GO™** is equipped with a polycarbonate shield covering the Jaw and Bag Open Fingers.

DO NOT operated the unit with this feature removed.

⚠ WARNING!

The Sharp *SX GO*™ is equipped with Jaw Obstruction Detection Sensors. These sensors are not designed, nor intended , to be a safety sen-

OBSTRUCTION SENSING JAW

The Sealing Assembly is equipped with Obstruction Sensing Sensors, which can detect an obstruction in the Sealing Area. If the Jaw Sensors detect and object preventing the Jaw from closing, the Obstruction Sensors de-energize and place the machine into a fault condition.

A message appears in the display informing the Operator of the Jaw Fault, allowing the Operator to clear the Sealing Area and reset the bagging cycle.

GENERAL INFORMATION

ABOUT THIS MANUAL

This manual has been prepared for your use in operating the Sharp ***SX GO***™ packaging machine.

It is important that you familiarize yourself with the product as much as possible before operating or troubleshooting.

Make sure you read through the ***IMPORTANT SAFETY INFORMATION*** and ***THEORY OF OPERATION*** sections of this manual before operating this machine.

The ***SX GO***™ packaging machine is designed to be an effective solution for manually bagging product, dramatically reducing packaging costs and improving package quality. The ***SX GO***™ platform features an integrated pivoting Printhead utilizing a Datamax A-4212 Mark II printer.

Print Method	Thermal Transfer, directly onto surface of bag
Print Speeds	12”/second (304 mm/sec)[1]
Print Resolution	203 dpi (8 dot/mm)
Print Width (max.)	4.094” (104 mm)

The printer has full downloadable font support to Windows® TrueType® (including multiple language and Unicode support); Fixed, variable and merged test fields; Flexible date/time formats; Flexible shift code formats; Auto best before date calculations and concession management; Auto incrementing/ decrementing text, counters and bar codes; Multiple graphic formats supported (up to maximum print area); Link fields to databases; Scalable text and blocks.

Your Sharp **SX GO**™ is the result of extensive research and field testing with the following features:

- State of the art *Step Logic Programming* technique that logically controls each machine action (step) in sequence and verifies that the correct action occurred with sensor feedback.
- Simplified layout of digital outputs in PLC program for ease of troubleshooting.
- Improved fault handling that can display multiple fault conditions simultaneously.
- Simplified operator set-up.
- Displays all PLC I/O status, including Expansion I/O.
- Manual pushbuttons on Service Screens provide both text and color cues as to the state of the device.
- Help Screens show setting range and default values.
- Speed settings in inches/second instead of raw numbers.

The materials used were selected for maximum durability and optimum performance. Every unit is thoroughly inspected and tested prior to shipment.

TECHNICAL ASSISTANCE

Assistance with the ***SX GO***™ can be obtained by notifying Sharp Packaging Systems at:

Sharp Packaging Systems
Corporate Headquarters
N56 W22387 Silver Spring Drive
Sussex, WI 53089 USA

Service: 800-634-6359 (ext. 1572)
Parts: 800-634-6359 (ext. 1571)
Fax: 262-820-0373

SPECIFICATIONS

PACKAGING SPECIFICATIONS

	BAG WIDTH	BAG LENGTH	FILM GAUGE
MINIMUM	2” (5 cm)	3.5” (8.89 cm)	1 mil (25 microns)
MAXIMUM	18” (45.72 cm)	40” (101.6 cm)	4 mil (100 microns)

MACHINE SPECIFICATIONS

WIDTH	HEIGHT	DEPTH	WEIGHT	POWER	RATE	OPERATING TEMP	HUMIDITY RANGE
30” (76.2 cm)	24” (60.96)	34.5” (87.63)	250 lbs. (113.40 kg)	110VAC, 10A	35 BPM[1]	32° - 140° F	10% - 90% RH, Non-Condensing

[1]*Material, gauge and size of package, along with weight and size of product will cause rate to vary.*

SHARP EZ-BAGS© & RIBBON

The Sharp ***SX GO***™ is designed to use a wide variety of bag sized and materials. Sharp EZ-Bags© are recommended for optimum operating performance, efficiency and safety. System performance specifications are base on utilizing consistent, high quality, pre-opened bags. Any bag used must meet Sharp Packaging Systems' manufacturing tolerances. The following list shows so me of the Sharp EZ-Bags© films available through Sharp Packaging Systems, Inc.:

E-Z Bags©

- General Purpose
- Xtreme Poly (XP)
- Ultra
- HD Mailer
- Sharp Packaging High Density (SPHD)
- Polypropylene
- Sharp's Military Specification Film
- Gamma Patient
- Sharp's Metalized Barrier Film
- Electric Static Discharge (ESD)
- Modified Atmospheric Packaging (MAP)
- Sharp's Non-Scratch Film
- E-Z Stat™ (Anti-Static)
- Vapor Corrosive Inhibitor (VCI)

Contact Sharp Customer Service at 800-634-6359 to order Sharp EZ-Bags© and for information regarding film and bag specifications.

THERMAL TRANSFER RIBBON

The Sharp SX GO uses thermal transfer ribbon to print various information onto the bags as they pass through the machine. The following is a list of ribbon that is available through Sharp Packaging Systems.:

- Standard Direct Wax Ribbon
- Premium Was Resin Ribbon.

Contact Sharp Customer Service at 800-634-6359 to order ribbon.

THEORY OF OPERATION

MODES

The bagger has four distinct operating modes: Manual, Auto, Filler, and Auto Filler. Manual and Auto modes are built into the machine and require no optional equipment or changes to the Factory Configuration. Filler and Auto Filler are optional and must be setup in the Admin and Setting II Screen.

To better define these terms, a Filler is a machine such as a weigh scale, vibratory bowl, or infeed conveyor that will fill the open bag with product, prior to sealing the bag. A Filler requires the use of Handshaking I/O between the bagger PLC and the Filler, so that the Filler will know when to deliver product to the bagger and the bagger will know when to cycle.

The term AUTO refers to how the bagger cycles. If the machine cycles bags continuously without the operator manually initiating each cycle start, not including the first bag out, then the machine is cycling automatically (AUTO). If each bagger cycle requires the operator to manually press a cycle start button, foot switch, etc., then the machine is said to be cycling in Manual Mode.

MANUAL MODE

Filler = OFF

Auto = OFF

Both the Filler and Auto buttons are OFF at the HMI. In manual mode, the operator hand loads or fills each opened bag and then cycles the bagger. The operator initiates a cycle by one of these methods:

- Pressing the Cycle pushbutton on the HMI
- Operating the Foot Switch

In manual mode, the machine cycles one bag at a time. Cycle rates in this mode are largely dependent upon the loading speed of the operator.

Filler Mode

Filler = ON

Auto = OFF

With Filler ON and Auto OFF, the bagger will run in "**Filler Mode**". This mode cycles a single bag out each time and requires the operator to initiate a Cycle Start for each bag. In this mode, a filler device or machine does the actual loading or filling of the open bag.

The Filler uses handshake signals to synchronize with the bagger for product delivery. A bagger output, signals the Filler to deliver product and a bagger input, signals when the Filler is done. For example, Filler Mode could be used when an operator is hand loading literature after the infeed conveyor delivered its separate part or component.

Ready for Filler (O-13) – The bagger PLC (Programmable Logic Controller) turns on this output as follows:

- The machine has successfully completed a cycle and presented a new bag. Once the above condition(s) is (are) met the PLC program turns on O-13, essentially telling the Filler device that a bag is present and ready to be filled. The filling device releases its product into the open bag.

Filler Done (I-11) - The Filler device will turn on the bagger PLC input I-11. This signals the bagger that the filler has completed delivery of the product. The filler machine must include a dry contact isolation relay for its signaling device to ensure electrical isolation between the Filler and the Bagger PLC.

THEORY OF OPERATION

- The filler function has a separate detailed specification, "**Sharp Packaging Filler Handshaking"**. The specification covers all Sharp Baggers and includes signature sign-off lines so that Filling machine vendors are in 100% compliance with this specification. This also ensures proper operation of a complete system.

AUTO MODE

Filler = OFF

Auto = ON

With Filler OFF and Auto ON, the bagger will run in "**Auto Mode**". In Auto Mode the machine operator manually fills the opened bag, while the machine cycles automatically. The Auto Dwell time is adjustable using the numeric entry box located just to the right of the AUTO button.

The operator initiates the first bag out and Auto Mode is immediately activated. When the bag is opened, the operator loads the bag (Auto Dwell Timer is timing). When the timer finishes, the bagger automatically starts the bagger sealing cycle and feeds out the next bag. To cancel Auto Mode, the operator can press the Reset Button on the HMI.

AUTO FILLER MODE

Filler = ON

Auto = ON

With Filler and Auto both ON the bagger will run in "**Auto Filler Mode**". In this mode a Filler device is used to both fill and automatically initiate the next cycle. This is accomplished by means of hand-shaking I/O provided in the bagger's standard control interface. The Filler device must comply with the "**Sharp Packaging Filler Handshaking Specification**" .

Parts Counting

Filler = ON

Auto = ON/OFF

Parts Counter = ON

Target Count – The numeric entry next to the "Parts Counter" button is the Target Count and is adjustable from 1-999. This button and numeric entry is located on Settings 2 screen.

Actual Count – The numeric entry next to the "Parts Count" displays how many parts have been counted. This number resets to 0 once the bagger cycle is initiated or if Part Counter is turned off. This value can be edited from the dashboard.

The bagger has a setting for counting parts. Parts Counting mode is used in conjunction with the Filler mode. When the parts counter is turned on, the bagger counts each part as it is being loaded into the opened bag. When the terminal count is reached, the Filler Trigger signal is turned on to start the Filler Drop Timer.

Parts can be loaded and counted in the following ways:

Filler

An automatic filling Machine can deliver one part at a time and signal the bagger using the "FILLER DONE" input I-11. The bagger will count each rising edge of I-11 as a single part. When the parts counted equals the target value, the filling cycling is completed and the bagger will automatically cycle after the drop timer has expired.

Hand Loading

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Batch Counter

Target Count – The numeric entry next to the "Batch Counter" button is the Target Count and is adjustable from 2-9999. This button and numeric entry is located on Settings 2 screen. When the actual count equals this target, the bagger will be inhibited and cannot be cycled again until this counter is Reset.

Actual Count – The numeric entry next to the "Batch Count" displays how many bags have been sealed. The count will be incremented each time the seal bar has retracted. This value can be edited from the dashboard.

Batch counting allows a customer to make a run of products to a particular quantity and then stop the machine. To use this feature the operator should cycle the first bag out into the loading position and then reset the actual count to 0.

Consecutive Seal Bags Mode

This is a special operating mode that allows multiple filled and sealed bags to be connected together in a continuous strip. There are restrictions and limitations to this feature. This mode requires that the customer pay particular attention to keeping the drive rollers cleaned and in good condition. Dirty drive rolls can result in loss of registration and slipping. The following settings pertain to this function:

Consecutive Bags

This maintained button turns on the function.

Number Of Bags

This numeric entry determines number of bags that will connected together in the strip. The maximum setting is limited to 20 consecutive bags or 50 inches of total strip length, whichever comes first. The operator can enter the desired number of bags, however if the total strip length exceeds 50, the PLC will recalculate the Number of Bags value to limit the total length to 50 inches.

Bag Length Setting

Measure the perf to perf distance of the bags and use this value for the Bag Length setting. Use the Seal Offset setting to adjust the sealing point on the strip of bags.

Consecutive Bags Current Count

The dashboard screen will display the current count value. This value will increment at the end of each bag feed. The consecutive bags counter will reset if there is any fault as the strip of bags is being made.

Green Light – In Cycle

OFF indicates the following information:

- The bagger is not ready for the next cycle to begin due to a fault condition, power is removed, etc.

FLASHES at a steady rate, light is on for 0.5 seconds and off for 0.5 seconds, to indicate the following:

- The bagger is ready to cycle and is **WAITING** for a cycle start input from either the operator (Foot Switch, Optical Palm Buttons, Cycle Start) or a Filling Machine (Filler Done Input).

STEADY ON indicates the following:

- The bagger is in cycle. A bagger cycle consists of the following general functions:
    1. Seal the existing bag.

THEORY OF OPERATION

2. Separate the sealed bag from the web.
3. Feed out a new bag.
4. Open the new bag for filling.

Note: Filling of the opened bag is a separate operation and is not part of the bagger cycle.

Red Light – Fault

This light is steady ON if the bagger has an active fault condition. A fault is a condition that detects a significant problem and stops the machine if it is cycling. The fault condition must be corrected and reset before the next cycle can be initiated.

Power-up Lamp Test

When master control power is turned on the Stack light tower will go through a lamp test sequence for 4 seconds to verify that the each light is functioning properly. The sequence is:

Green **On**

Red **Off**

Green **On**

Red **On**

Both **Off**

Both **On**

Test **Done**

THEORY OF OPERATION

PERMISSIVES & SPECIAL CONDITIONS

This section describes Permissives and Special Conditions. In general terms, a permissive is a condition that must be TRUE in order to permit or allow a particular operation to take place.

All options must be configured.

All optional features must be selected or configured before they can be turned on. By default if an option is not selected its function will be turned off.

Ready to Cycle Permissive

All of the follow conditions must be true before the machine will cycle:

- The Jaw must go through a homing cycle on each power-up.
- The bagger cannot be faulted.
- All Bagger motions must in their home position
- Jaw is opened to the Pass-Thru position
- Print Head is raised.
- Printer not in cycle
- Batch Counter NOT done.
- If the batch counter function is on and the counter has reached its terminal count, then the counter must be reset before the bagger can cycle again

Product Delivery Permissive

The PLC program of the Filler Machine is required to have a permissive contact directly in series with its real world output address that controls the product delivery to the bagger:

- Permissive contact must be programmed N.O. (normally opened)
- Permissive contact shall consist only of the real world PLC input address mapped to the "**Ready For Filler**" output from Sharp Packaging.
- Permissive contact may not be from an internal memory coil, timer bit, or any PLC logic associated with the operation of the Filling Machine.
- Filler PLC may never turn on the Delivery/Dump output unless the Permissive is ON.

Intermittent Filler Sequence is as follows:

- Bagger is manually cycled to feed out the first bag.
- Output O-13 turns on when a bag is opened and the bagger is "Ready for Filler". The Filler must always monitor this signal.
- Filler completes product drop or delivery and turns on I-11 input.
- When Sharp PLC receives the I-11 Filler Trigger, it will turn off the O-13 output.
- Sharp PLC starts a Drop Time Delay to allow for product to drop into the opened bag. When Drop timer expires, bagger is cycled and the next bag is fed out to make ready.

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Infeed Option

The bagger can be configured with an optional Infeed to automatically deliver product into the opened bag. The device can be selected as a Filler The general Filling machine can take on many variations and is usually supplied by another company.

Filler

This selects an independent, automated device that will deliver product to the Sharp bagger and can provide digital I/O signaling to the bagger, i.e., bowl feeder, conveyor or weigh scale. **Filler Drop Time**

Filler Drop Time is user adjustable time delay that provides a sufficient amount of time for the part to fall from the filler device into the opened bag and past the pressure bar. It can be adjusted from 0 – 9.99 seconds. Typically the bagger is setup to run in Auto Filler Mode, so that when the Filler Drop Timer expires, the next bagger cycle will start.

Filler Handshaking Specification

This document is intended to be an agreement between Sharp Packaging Systems and parties that design and manufacture equipment which will be interfacing with the Sharp product line. It describes multiple variations of interfacing options. The interfacing option chosen will be application dependent.

Filler Definitions

Filler: An independent, automated device that will deliver product to the Sharp bagger and can provide digital I/O signaling to the bagger, i.e. bowl feeder, conveyor or weigh scale.

Intermittent Filler: This type of filler is characterized by asynchronous cycling action. The filling machine will hold or manage its product until it is instructed by the Sharp Bagger to deliver the product. The timing of the filler delivery is determined by the length of time between bagger cycles. Intermittent Fillers are only permitted to deliver product between bagger cycles.

Examples of intermittent fillers include linear weigh scales, indexing infeed conveyors and bowl feeders.

Handshaking Signals Definition

O-13 - **Ready for Filler**: This is an output that signals the filling machine when the bagger is ready to accept product delivery. This signal must be continuously monitored by the filling device. The signal is presented as a N.O. dry contact closure to provide electrical isolation between the two systems. The contacts will be closed when O-13 is on and will open when O-13 is off.

Intermittent Applications – O-13 cycles from OFF to ON with each bagger cycle. It goes HIGH when a bag has been fed out into the filling position. It goes LOW if the bagger receives a valid I-11 Filler Trigger signal OR if the bagger is faulted and unable to automatically cycle.

I-11 – Filler Trigger: This is an input from the filling system telling the bagger that the filler has completed its product delivery. The bagger will provide a suitable drop delay to account for the last part clearing the bagger funnel before cycling. The filler will present this signal to the bagger as a N.O. dry contact to ensure electrical isolation between the two systems. **Filler Trigger** should be switched on immediately at the point in time when product delivery is completed.

Intermittent Applications – The Filler PLC program should reset I-11 Trigger Filler when it sees that O-13 Ready For Filler has transitioned from ON to OFF.

SECURITY

Sharp Packaging has developed two versions of the HMI software. A non-secure version and a secure version. Both versions will be installed on the bagger. The secure version has security login as described below.

SECURITY LOGIN

The Security Login occurs when the user selects a secured screen. A login Numeric Keypad will be automatically displayed. The login is a two step operation.

User: A blinking cursor is shown in the box next to the word. Key in the desired User number, but do not press the enter key.

Password: Touch the entry area to the right of Password: and the blinking cursor will show up in the entry box. Key in the correct password number for that user number and then press the enter key.

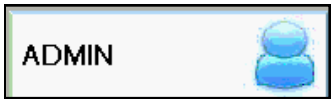
SECURITY LOGOUT

The Security Logout occurs either automatically after 15 minutes of inactivity or if the user presses a Logout button on any of the secured screens. The Logout changes back to the Home Screen.

Security is screen based and defined as three distinct users.

User 1 - Admin

User 1 can access the ADMIN SCREEN only. This is for selecting the options that are installed on the machine.



User 2 – Service

User 2 is a qualified service person. This level can access all secured screens except the ADMIN SCREEN. The following Screens are accessible when logged in as User 2.

User 3 – Supervisor

User 3 is a supervisor/super user of the bagger. The following Screens are accessible when logged in as User 3.

NO SECURITY

When the non-secured version of HMI program is selected. The Operator can access all screens without a password.

MACHINE PLACEMENT

The Sharp ***SX GO***™ should be placed on a smooth level surface with access to a 115 VAC, 50/60 Hz, 10 Amp (minimum) electrical outlet.

⚠ WARNING!

Do not use Lexan / metal guards to lift the machine. The guards are not designed for lifting. Using the guards for lifting may cause damage to the machine and/or result in severe bodily injury or death.

Locate the machine so there is adequate access to the back and right side for loading bag rolls and ribbon.

Make sure unit is located at a comfortable height for operation and product loading.

⚠ WARNING!

Do not operate the machine in or around standing water. Failure to observe the warning may result in damage to the equipment and/or severe bodily injury or death.

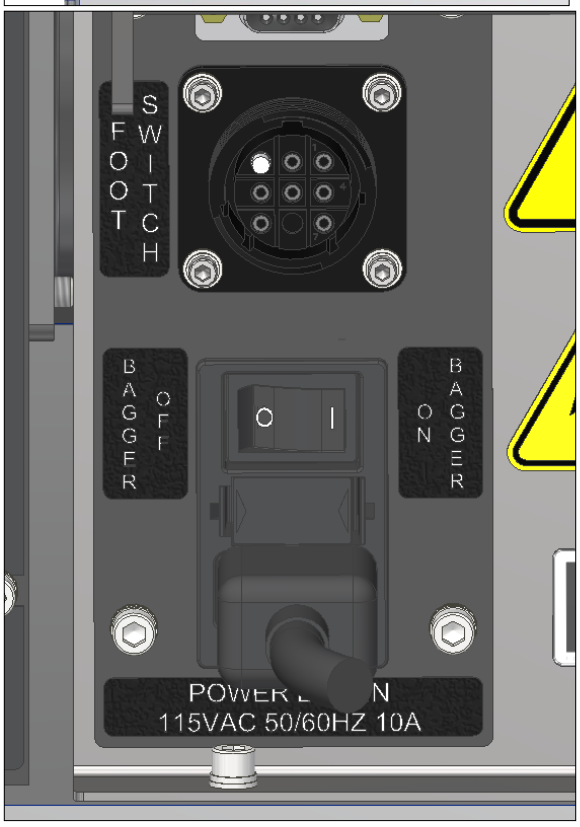
ELECTRICAL

The Sharp ***SX GO***™ is equipped with a 3-prong electrical cord for standard, properly grounded, 115 VAC, 50/60 Hz, 10 Amp (minimum) service.

⚠ WARNING!

Failure to have properly grounded outlets may cause damage to equipment and/or severe bodily injury or death.

1. Before plugging the cord into the back of the machine, ensure that both Power Switch is in the BAGGER OFF position.
2. Make sure the wall outlet or electrical drop is rated for proper voltage and that the outlet is grounded.
3. Place the female end of the electrical cord provided into the back of the machine, then plug the male end into the electrical outlet.
4. To power up the machine, flip switch to the BAGGER ON position.



5. Printer Power Switch is on the front of the Printer Control Box.

LOADING BAG FILM

A decal showing the film threading path through the machine is located on the Frame Cover.

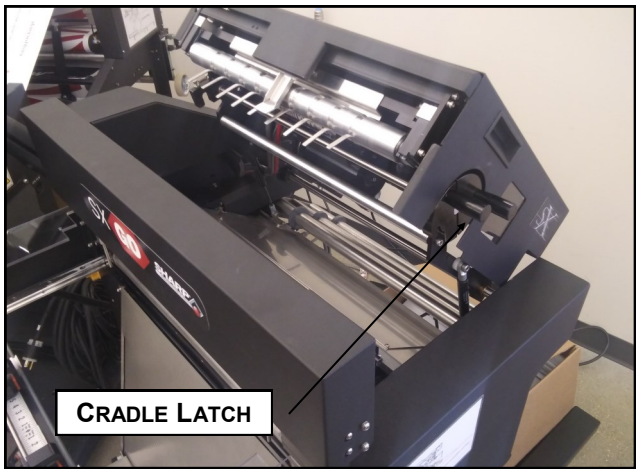
⚠ WARNING!

Use extreme caution when feeding bags into machine; electrical voltage and possible pinch points are present.

Note: At this point, in most cases, you would center the bags to the Printhead Cradle. However, there may need to be an offset to prevent hang holes.

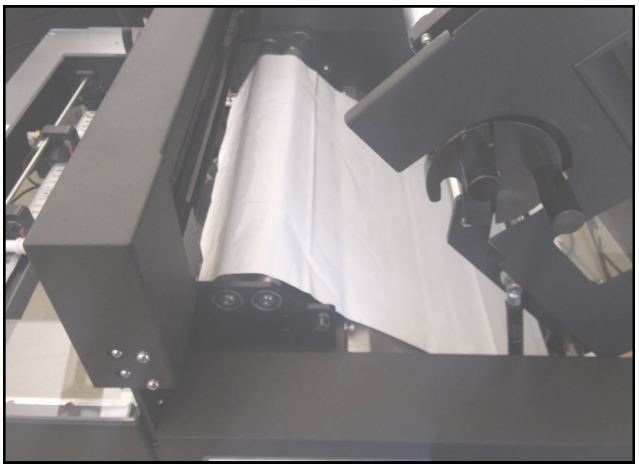
1. Place box of bags behind the bagger sot the perforation of the first bag opens toward you when standing behind box.

2. Raise the Printhead Cradle by rotating the Cradle Latch and lifting the Cradle.



3. While standing at the right side of the machine, feed film over-under-over the Unwind tubes.

4. Pull the bags until they drape over the drive rollers and extend to the bend in the Front Finger Plate.

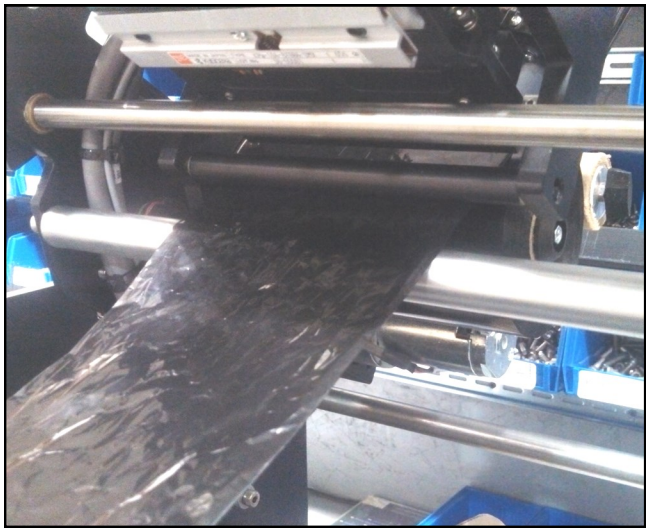


5. Lower and lock the Printhead Cradle into position using the Cradle Latch.

LOADING RIBBON

A decal showing the ribbon threading path is located on the Frame Cover.

1. Raise the Printhead Cradle and lift the Printhead Cradle Cover.
2. Slide empty spool and used ribbon off of hubs.
3. Place a new roll of ribbon onto the Ribbon Unwind hub.



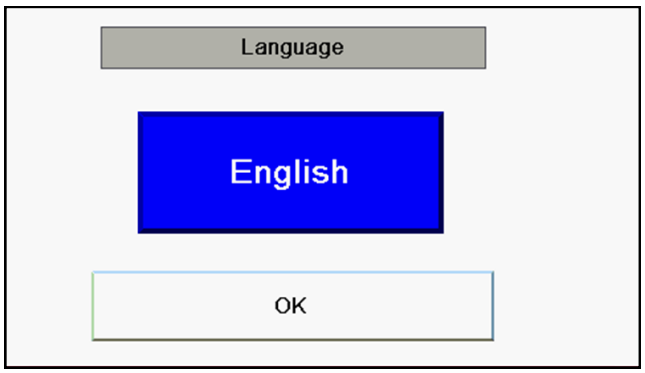
4. Thread the ribbon through the printer according to diagram on side of bagger.

5. Turn knob on Take-Up Spool counter-clockwise to ensure ribbon is tight.
6. Close the Printhead Cradle Cover.
7. Lower and lock the Printhead Cradle.

MACHINE OPERATION

Before attempting to operate the machine, please carefully read and understand the entire operator's manual including the information under *Important Safety Information* and *Controls* to obtain optimum performance and a longer service life from the unit.

1. Make sure the machine is plugged into the proper electrical supply and that all the factory shields are in place.
2. Turn ON power switch in the rear of the machine.
3. The Language Selection Screen will display the last language selected. If same language is used, press OK.
4. If different language is desired, press on the Blue Language Display button until correct language is displayed.
5. Press OK.

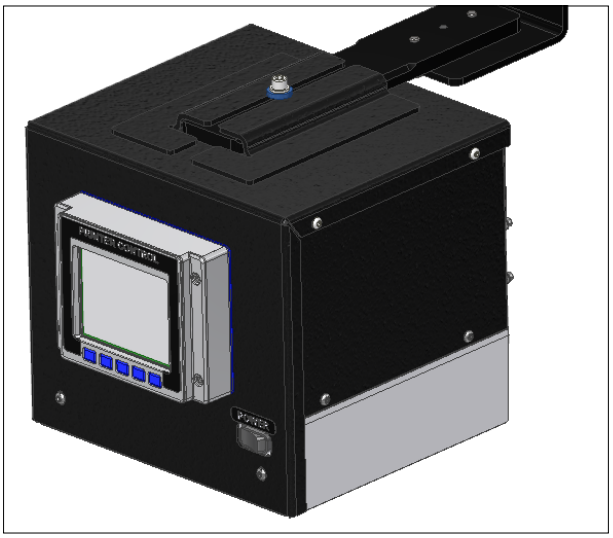


6. Load film material as described under *Loading Bag Film*.
7. Home the Jaw by pressing the Home Jaw Button from the Dashboard or Service Screen 1.
8. Set Bag Settings in Settings Screen.
9. Cycle bagger once to position an open bag.
10. Load product into bag.
11. Initiate sealing cycle using one of three methods:
    - Foot Control plugs into back of machine.
    - Operator Controls
    - Setting the machine to automatically cycle.

PRINTER CONTROL BOX

The Printer Control Box is attached to table where the bagger is mounted.

1. Make Printer Control Box is plugged into the proper electrical outlet.
2. Turn ON power switch on the front of the box.



MAINTENANCE

GENERAL

This machine requires regular, periodic cleaning to ensure reliable service. Shift and daily cleaning can be performed by the operator with a minimum of training.

Regular cleaning is important for the proper operation and performance of the machine. During operation there will be a normal buildup of dirt, dust, and lubricants on various parts of the machine. Ink rubbed off of printed film can also build up.

The machine and areas directly adjacent to it should be kept clean of debris as these can create safety hazards for the operator and the machine.

WARNING!

Disconnect electrical power cord from the machine prior to performing any maintenance on machine.

WARNING!

Do not spray the electrical components of the machine with any liquid. Liquids on electrical components can cause shorts, damaging the components and causing personal injury or death.

WARNING!

Do not attempt to clean the machine while it is running. Cleaning the machine while it is running can damage the machine and cause severe personal injury or death.

DAILY MAINTENANCE

1. Inspect the electric eye. Clean with a cotton swab if dirty. Do not use any solvents or cleaning solutions on the sensing portions of the electric eye.
2. Clean any excess material from the drive roller assembly. Plastic compounds tend to build-up on the rollers. Clean regularly with a soft, lint-free cloth using a rubber platen roller conditioner/ cleaner or isopropyl alcohol.
3. Inspect Teflon tape and replace if damaged or worn.
4. Inspect all electrical lines for any sign of wear or damage. Contact a qualified technician if signs of excessive wear or damage are found.

WEEKLY MAINTENANCE

1. Clean the drive rollers on the drive roller assembly with a soft, lint-free cloth using a rubber platen roller conditioner/cleaner or isopropyl alcohol.
2. Verify that the rollers on the drive roller assembly spin freely with power removed.

ANNUAL MAINTENANCE

1. Check all electrical connections.
2. Check entire machine for loose bolts or nuts.
3. Grease the two pressure bar linear guide bearings using a lithium grease (JIS type 2).
4. Apply a light film of grease to the pressure bar rack and pinion gearing using a lithium grease (JIS type 2).
5. Inspect all drive belts for excessive wear and slack.
6. Clean foam element located at the rear of the machine with water, wring out and reinstall.

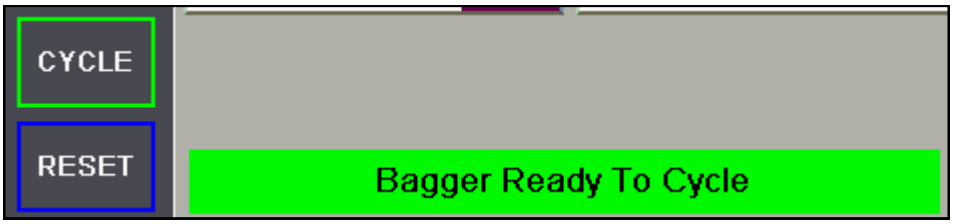
CLEANING THE PRINTHEAD

1. Turn off Power.
2. Lift the Printhead Cradle.
3. Remove ribbon from under Printhead.
4. Clean Printhead with alcohol and lint-free towel. Make sure head is completely dry.
5. Replace ribbon.
6. Lower and lock the Printhead Cradle.

SCREEN NAVIGATION

OPERATOR CONTROLS

The operator control buttons appear at the lower left hand side of every screen.



Pressing the "**CYCLE**" momentary pushbutton will initiate a bagger cycle if "**Ready To Cycle**" message is displayed. This HMI button is the equivalent to a mechanical Footswitch or Optical Palm button start signals.

Pressing the "**CYCLE**" momentary button will stop subsequent automatic cycles from occurring when running in Filler or Auto modes. Note that this button will not turn off either option.

Pressing the "**CYCLE**" momentary pushbutton will have no effect if "**Not Ready To Cycle**" message is displayed.

Pressing the "**RESET**" momentary button will clear a fault or warning, provided the condition that caused the fault is no longer occurring.

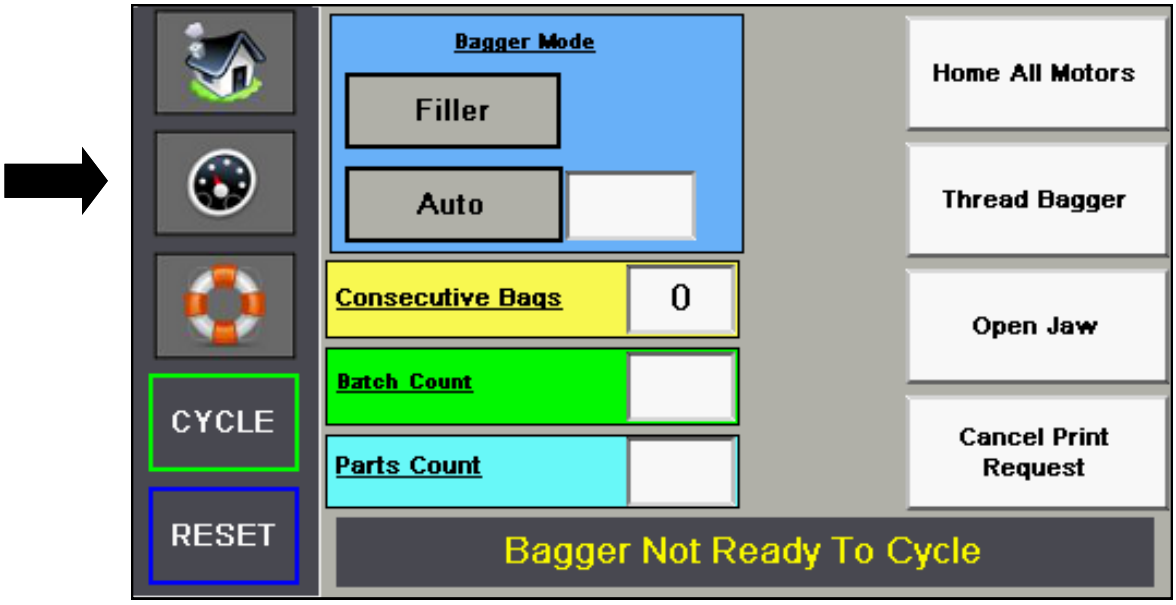
SCREEN NAVIGATION

HOME SCREEN

This screen is the Main Menu. This is the starting point to gather information and to setup the machine. This screen is access by pressing the HOME BUTTON on top left corner.

DASHBOARD SCREEN

This screen is the Dashboard. The Dashboard is the primary screen used by the operator. This screen is accessed by pressing the TACHOMETER BUTTON below the Home Button. Dashboard appearance and configuration may vary based on options selected in the Settings Screen 2.

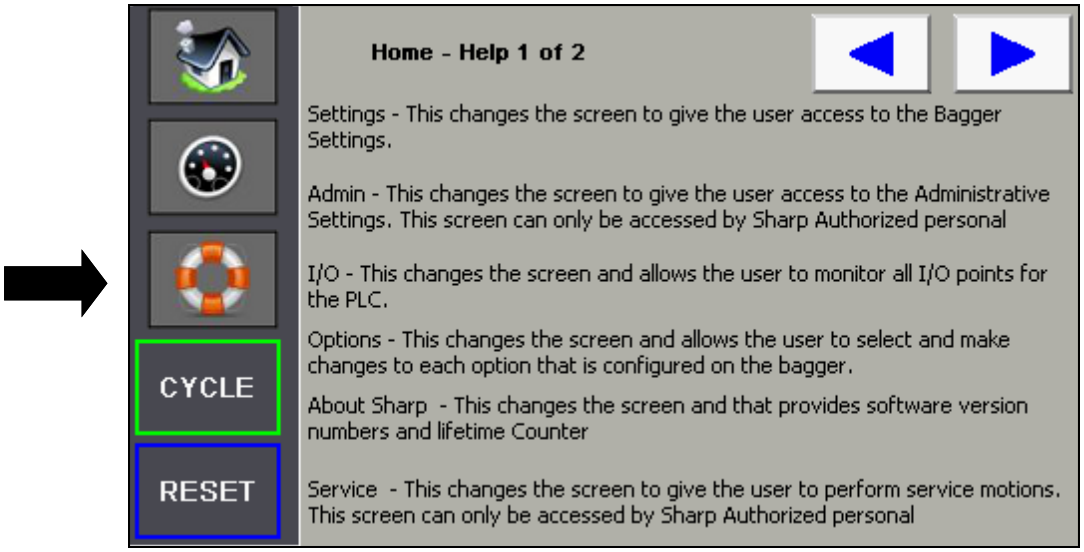


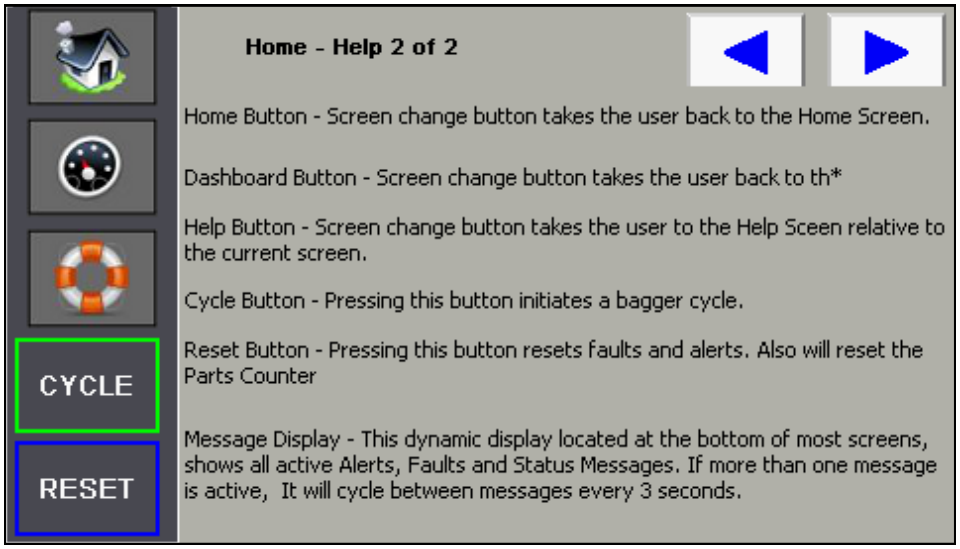
SCREEN NAVIGATION

HELP SCREENS

A Help Screen can be accessed by pressing the LIFESAVER RING BUTTON beneath the Tachometer Button. The screen provides detailed help information about the particular screen that the user is on. In this example these screens provide help from the Home Screen.

Note that there are 2 help screens for the home screen. Pressing the arrow keys allows the user to navigate through the help screens associated with the screen the operator is currently using. Pressing the help Icon (lifesaver) takes the user back to the first help screen.





SCREEN NAVIGATION

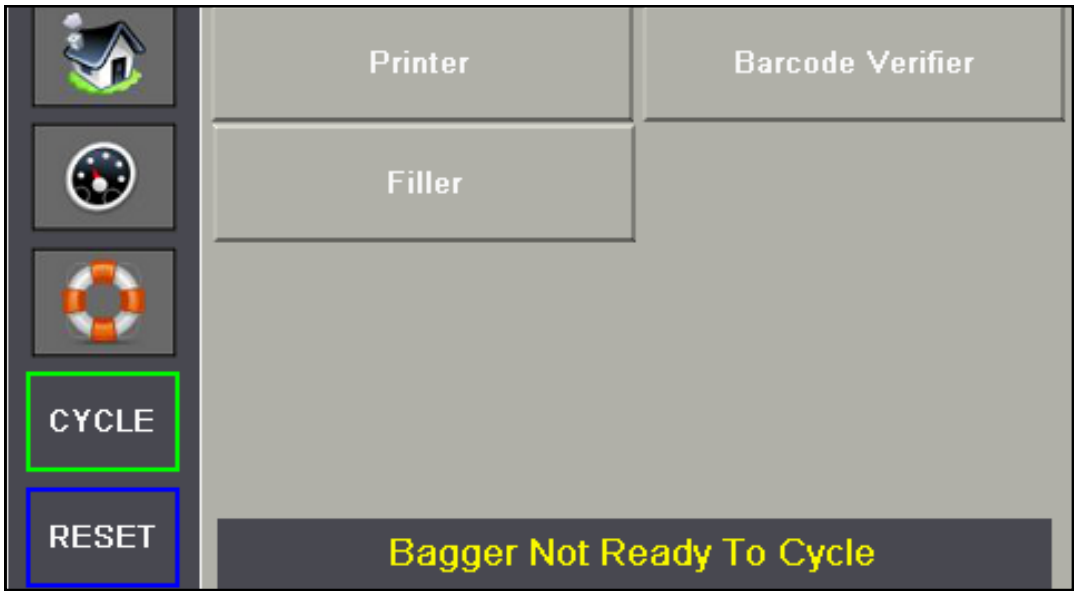
ADMIN SCREEN

This screen is used to enable the options that are installed on the bagger. The option must be enabled here first before it can be used on the bagger.

To enable an option, press the pushbutton of the option, the pushbutton will change color.

Note, If a Safety Light Curtain is installed the Filler should be enabled so that the light curtain can be used for Parts Counting/Cycle Initiate function.

If a Stack Light or Light Curtain option is installed, there is no enable selection required.



SETTINGS SCREEN

There are three screens that allow the user to view and change the current bagger settings.

SETTINGS SCREEN 1

Bag Length

This refers to the usable area inside the bag. This is measured from the bottom of the bag to the seal. The typical setting is 0.5" less than the measured overall bag length. When using sharp bags, enter the length shown on the box or roll label.

Seal Offset Distance

The offset distance moves the seal point down from the nominal (zero offset) position. At zero offset, the seal is approximately 0.5 inches below the perforation. The pressure bar will make contact with the filled bag just below the perforation. As the user adds Seal Offset, the seal moves down.

Feed Speed

This setting adjusts the peak forward web speed in inches per second. The value can be varied from 4 to 30 in/sec.

Seal Dwell

The amount of time the impulse seal wire turns on. High quality seals are accomplished through proper seal time settings. These settings will vary with the film gauge and material.

Seal Cool

This setting adjusts the delay (in seconds) that occurs prior to opening the pressure bar. This can be used to allow additional cooling time for the bag seal. Increasing it will slow the machine and increase the bagger cycle time.

Jaw Pass-Thru

The distance the pressure bar and the stripper plate when the Jaw is opened. It can be adjusted from 1.0 – 4.5” of pass-thru.

Bag Thickness

The thickness of bag material. Found on label of film box or roll.

SCREEN NAVIGATION

SETTING SCREEN 2

Batch Counter

The maintained button turns on the Counter. The numeric entry to the right of the button is the Target Count setting. This can be adjusted from 2-9999. When the counter is done, the yellow alert banner is displayed and the bagger cannot cycle until the counter is reset.

Parts Counter

The maintained button turns on the Counter. The numeric entry to the right of the button is the Target Count setting. This can be adjusted from 1-999. When the counter is done, and the desired number of parts have been loaded into the opened bag, the bagger will cycle.

Consecutive Bags

The maintained button turns on the Consecutive Bags function. The numeric entry to the right of the button is the desired number of consecutive bags in the strip. This can be adjusted from 2-20, but is limited to 50.0 inches of total length.

Be sure to change the Bag Length Setting to the measured length of the bag, and use the Seal Offset setting to adjust the desired sealing position for each bag in the strip.

Filler Drop Time

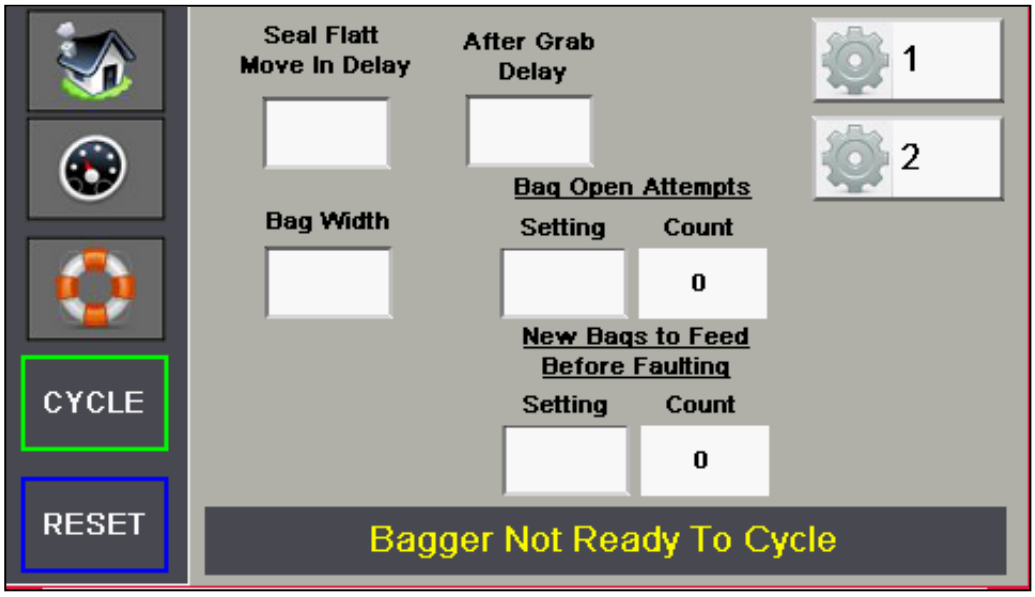
This setting determines the length of time between Filler Done signal and the start of the next bagger cycle. The delay is too ensure that the product has been delivered into the bag and is below the pressure bar. This value is adjustable from 0-9.99 seconds.

HPA Bag Open Dwell

When high pressure air (HPA) is connected, the HPA blows a short blast to aid in opening the bag. The dwell time determines how long the blast lasts. It is adjustable from 0 to 1.0 seconds.

SCREEN NAVIGATION

SETTING SCREEN 3



Seal Flatt Move In Delay

Time to wait to move3 Seal Flatteners in after grabbing bag with Bag Open Fingers.

After Grab Delay

The Time to wait after moving the Bag Open Fingers down before moving Jaw out.

Bag Width

The width of the bag as stated on the Production Decal on side of roll.

Bag Open Attempts

Setting

The number of Bag Open Attempts performed before a new bag is indexed.

Count

The actual count of attempts to open bag.

New Bags to Feed Before Faulting

Setting

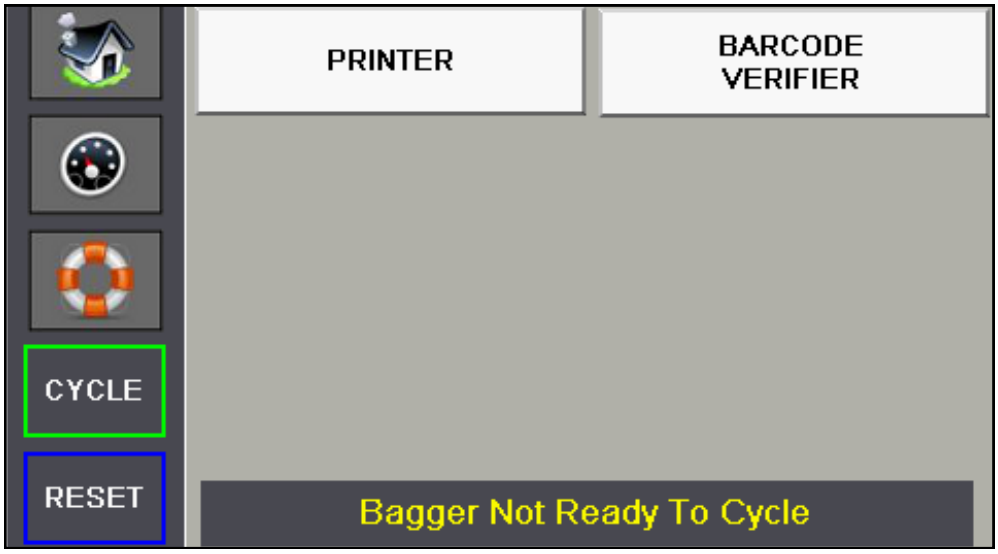
The number of new bags indexed before a fault occurs.

Count

The actual count of new bags fed into load position.

SCREEN NAVIGATION

OPTIONS



The buttons on the Options Screen provide screen navigation for each option that is configured on the bagger.

Press the desired button to activate the option.

SCREEN NAVIGATION

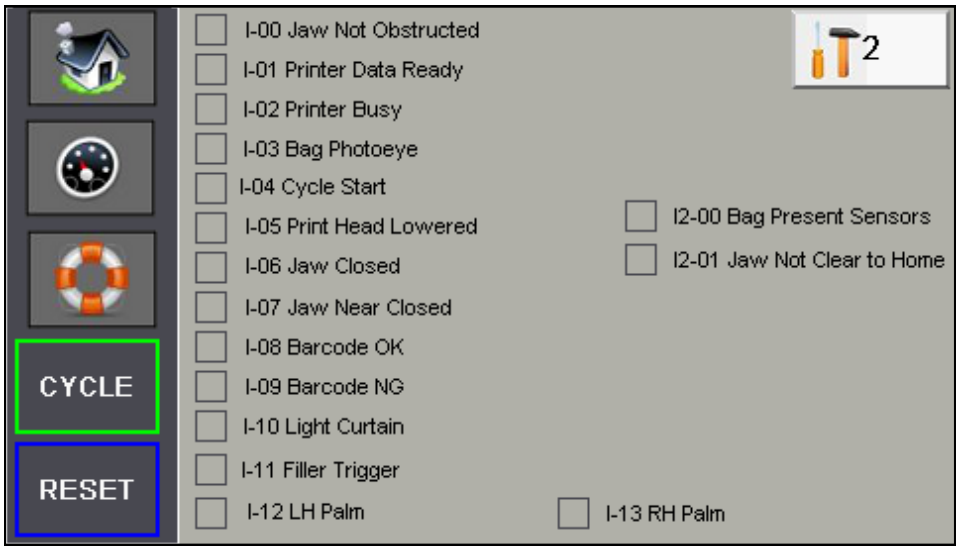
I/O Screen

This screen describes the I/O available to qualified service technicians and technical personnel.

The purpose of this screen is to aid in the troubleshooting and maintenance of the bagger. The section assumes that the person using this screen has a working knowledge of electronics and PLC based control systems.

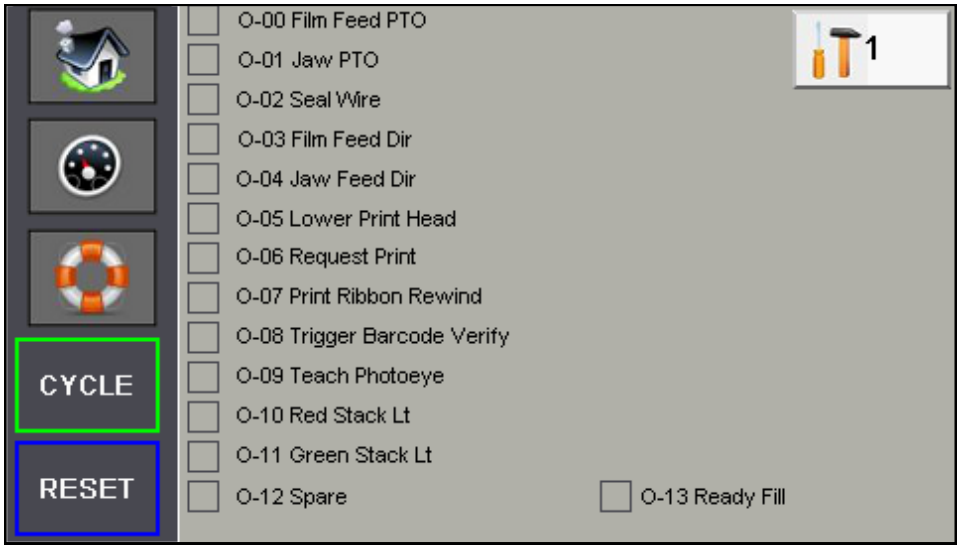
Input Screen

This screen shows the status of all Input points on the Main PLC and the expansion cassette.



Output Screen

This screen shows the status of all Output points on the Main PLC and the expansion cassette.

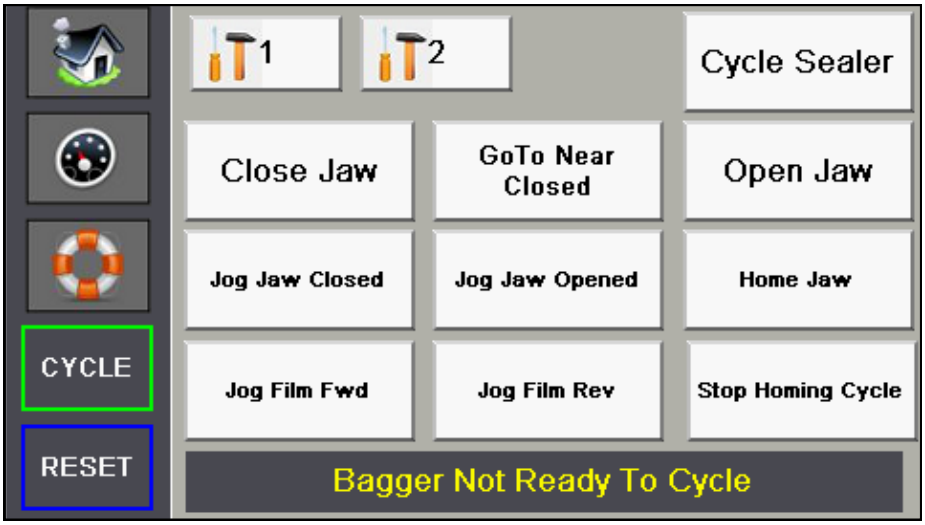


SCREEN NAVIGATION

SERVICE SCREENS

There are two Service Screens to be used by qualified service and maintenance personnel to test the various machine motions. It is assummed that the person using this screen understands the nature of each motion, prior to invoking that motion. Care must be used to ensure the operation does not damage equipment.

Service Screen 1



Close Jaw – The jaw must be at the Pass-Thru position before this motion will occur. When the momentary button is pressed, the Jaw will move to the Sealing Position and the Jaw Closed Sensor should make.

GoTo Near Closed – When the momentary button is pressed, the Jaw will move to the Near Closed Position and the Jaw Near Closed Sensor should make.

Open Jaw – When the momentary button is pressed, the Jaw will move to the Pass-Thru Position determined by the Pass-Thru setting.

Cycle Sealer – When the momentary button is pressed, the Jaw will move to the seal position and the seal wire be activated based on the Seal Dwell Setting. After the Cooling Time has expired, the jaw will return to the Pass-Thru position.

Jog Jaw Closed – When the momentary button is pressed, the Jaw will close at Jogging Speed as long as the button is held. The Jogging will be stopped automatically if the Jaw reaches the Closed Sensor.

Jog Jaw Opened – When the momentary button is pressed, the Jaw will open at Jogging Speed as long as the button is held. The Jogging will be stopped automatically if the Jaw reaches the maximum pass-thru of 4.5 inches.

Home Jaw – All Faults must be cleared before this cycle can be requested. When the momentary button is pressed, the Jaw will begin the Homing cycle. The jaw travels until it hits the Jaw Closed sensor, which is the Home Switch. This esatblishes a Zero Position. All Jaw moves except Jogging and Faults are Absolute Positional Moves. The homing cycle finishes by moving the jaw to the Pass-Thru Position.

Jog Film Fwd – When the momentary button is pressed, the film will feed out at Jogging Speed as long as the button is held.

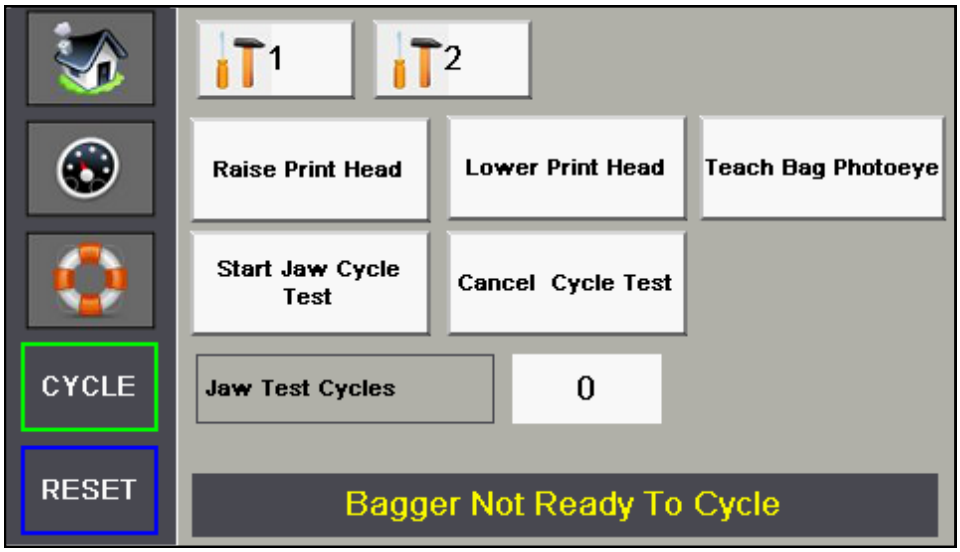
Jog Film Rev – When the momentary button is pressed, the film will reverse at Jogging Speed as long as the button is held.

Stop Homing Cycle – When the momentary button is pressed, the Jaw will Homing cycle will be stopped and the jaw will back out 0.5” from the point at which the cycle was stopped. The HMI will display the “Jaw Failed To Home Fault” The fault must be reset before the Jaw Homing Cycle can be repeted.

SCREEN NAVIGATION

SERVICE SCREENS

Service Screen 2



Raise Print Head – The Printer Option must be enabled in the Admin Screen before this service button is active. Pressing it will deenergize the elctrical solenoid and raise the print head. The Print Head Lowered sensor will switch off when the head raises.

Lower Print Head – The Printer Option must be enabled in the Factory Configuration, before this service button is active. Pressing it will energize the elctrical solenoid and lower the print head. The Print Head Lowered sensor will switch on confirming the head has lowered.

Teach Bag Photoeye – If the bag eye is not detecting the film, the photoeye may need to be taught. Remove the film from between the eye and the refelector and besure that the top is closed and latched. Press and Hold this button for at least 2 seconds but less than 5 seconds.

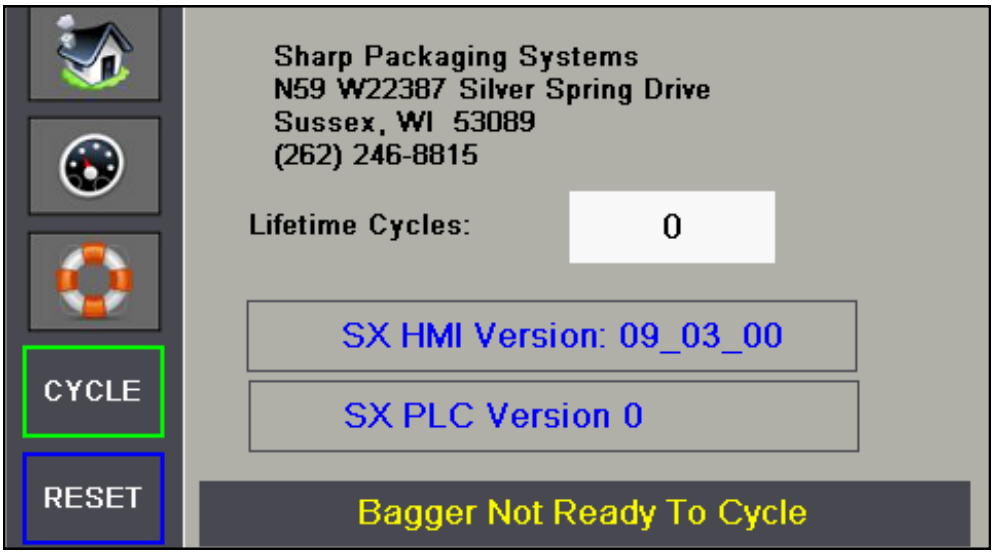
Start Jaw Test Cycle – This is a test cycle of the Jaw and is used by the assembly personnel to break-in the Jaw slide. When the button is pressed, the Jaw moves to the Closed Position and dwells there for 0.5 seconds. It then opens to the Pass-Thru Position and dwells there for 0.5 seconds. The cycle runs for 1 hour and records the number of cycles.

Cancel Cycle Test – Pressing this button stops the test cycle.

Jaw Test Cycle – Numeric Readout displays the number of Jaw Cycles. Resets when the next Test Cycle is initiated.

SCREEN NAVIGATION

ABOUT SHARP SCREEN



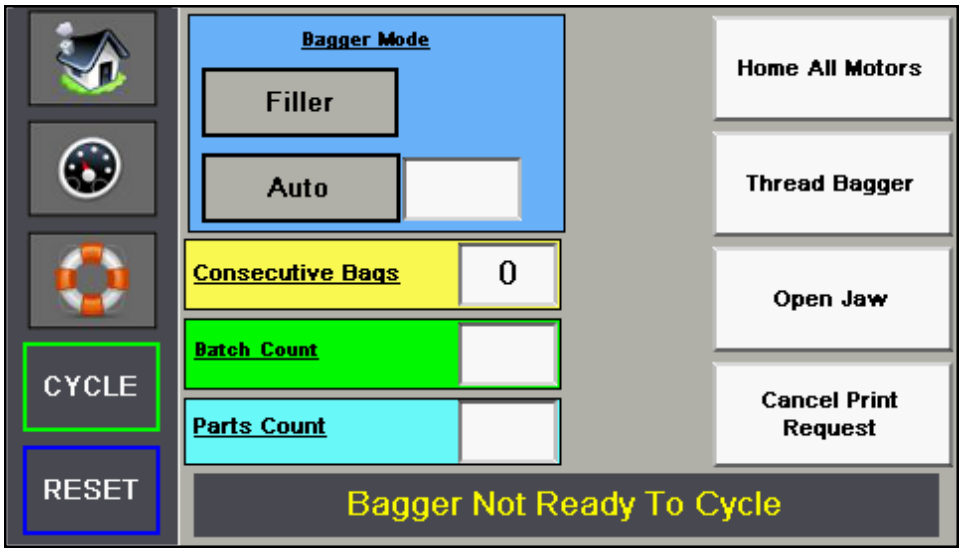
SX Software Version: – This is the revision number of the PLC software.

For this example, 06_17_00 breaks down in the following way: 6 is the Major Release number _17 is the minor revision number _00 indicates a custom version. Custom versions use alpha characters appending on to the last two digits to the numeric.

Lifetime Counter – This numeric displays shows the total number of bagger cycles and cannot be reset

SCREEN NAVIGATION

DASHBOARD SCREEN



Bagger Mode

Two maintained buttons are used to select the Bagger's Operating Mode. Filler & Auto. The combination of these buttons selects the mode.

Manual Mode

Filler is OFF & Auto is OFF. This is a Single Cycle configuration, meaning that bagger will cycle one time per Cycle Initiation.

Auto Mode

Filler is OFF & Auto is ON. The Auto Dwell Timer entry located to the right of the button is used to deter mine the time between automatic cycles.

Filler Mode

Filler is ON & Auto is OFF. This mode requires Filler Trigger to load parts and "Cycle" button by Operator to initiate the cycle. Filler Drop time is active.

Auto-Filler Mode

Filler is ON & Auto is ON. Bagger cycles automatically after Filler Drop Time is done.

Consecutive Bags

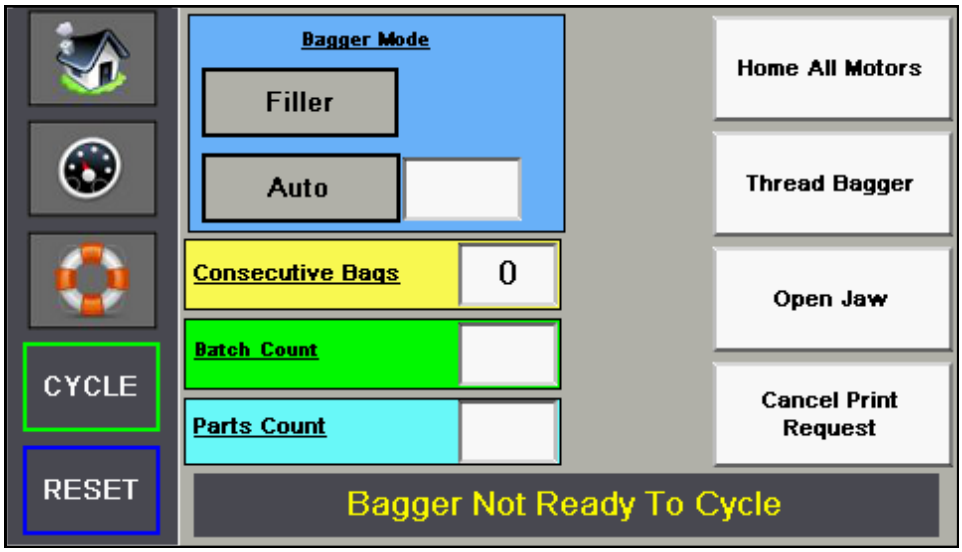
This numeric display will appear on the Dashboard if the Consecutive Bags Function is Turned ON. The readout displays the actual count of the Consecutive Bags Counter. This value can not be edited by user.

Batch Counter

The numeric display/entry will appear on the Dashboard if the Batch Counter Function is turned ON. This readout displays the actual count of the Batch Counter. This value can be edited by the user.

SCREEN NAVIGATION

DASHBOARD SCREEN CONT.



Parts Counter

This numeric display/entry will appear on the Dashboard of the Parts Counter Function is turned ON. This readout displays the actual count of the Parts Counter. This value can be edited by the user.

Home All Motors

Pressing this button will cause the Jaw, Seal Flatteners, and Bag Open Fingers to go into a Homing Cycle. The Jaw Closed slowly until it finds the “Closed Sensor” and then backs out to the value entered for the Pass -Thru Setting. The Seal Flattener Fingers will extend to widest point then center to narrowest point, stopping at Load Position. The Bag Open Fingers will cycle full range of motion.

Thread Bagger

This button opens the Seal Flatteners to widest position to allow for loading bags and closing the Cradle.

Open Jaw

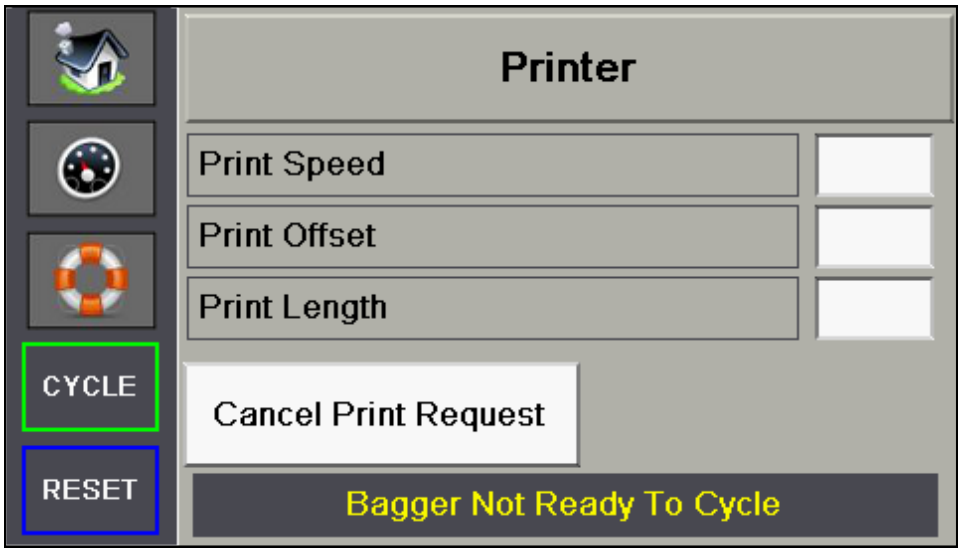
Pressing this button returns the Jaw to Pass-Thru position.

Cancel Print Request

This button will only appear on the Dashboard if the bagger has the Printer Enabled. If a print is requested, but no label is loaded into printer, this button will cancel the print request and feed out the bag.

PRINTER

PRINTER CONFIGURATION SCREEN



Printer Button

The printer option must be turned on to operate. Printer is on when large box is Blue.

Print Speed

This numeric setting determines the web feed speed during the print cycle. It is adjustable from 2.00 to 12.00 Inches/Sec. This setting should be set to the same value that resides in the Datamax Printer.

Print Offset

This numeric setting determines the starting position of the printed label. This can be used to adjust the label position on the bag. It is adjustable from 0 to 10.00.

Print Length

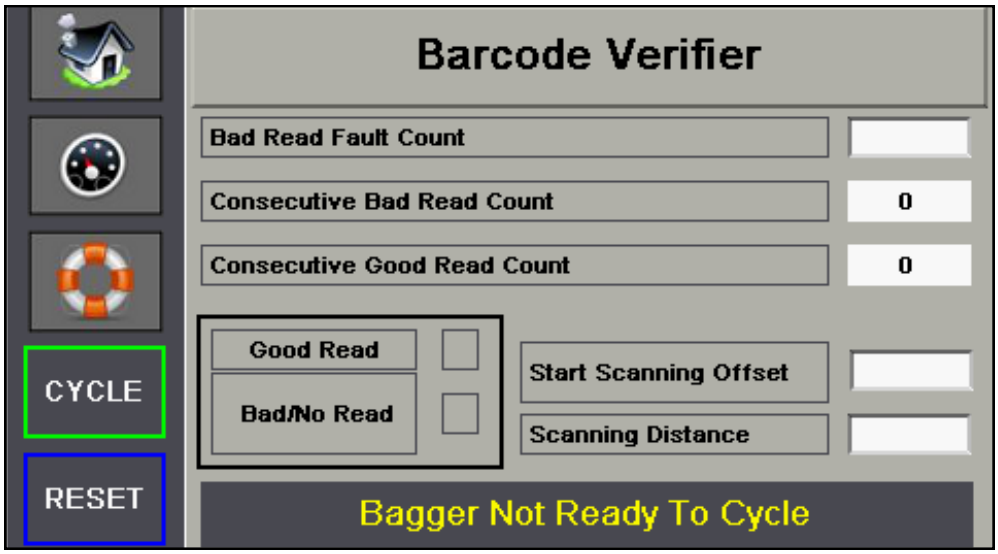
This numeric setting determines the distance the web will feed during the print cycle. This should be set to smallest value that will produce the desired label. Typically this setting is approximately ¾ of inch longer than the length of the label.

Cancel Print Request

This button allows a print request to be canceled. The function occurs when the printer option is turned on and the bagger cycles, but no print job was loaded into the printer. The bagger will display a yellow alert message “Waiting for Printer”. Pressing the button, cancel the print request and allows the bagger cycle to finish.

BARCODE VERIFIER

BARCODE VERIFIER CONFIGURATION SCREEN



Barcode Verifier Button

This maintained button turns on the Barcode Verification Option.

Bad Read Fault Count

The number of consecutive bad barcode reads before the bagger will fault. The valid range is 000 - 999.

Consecutive Bad Read Count

The number of bad reads scanned in a row. Scanning a good barcode will reset this value to zero.

Consecutive Good Read Count

The number of good reads scanned in a row. Scanning a bad barcode will reset this value to zero.

Good Read

Box will illuminate green once a good barcode is read.

Bad/No Read

Box will illuminate red once a bad barcode is read.

Start Scanning Offset

The number of inches that the bag will feed forward before the Barcode Scanner is turned ON. The valid range is 0.00 - 32.00 inches.

Scanning Distance

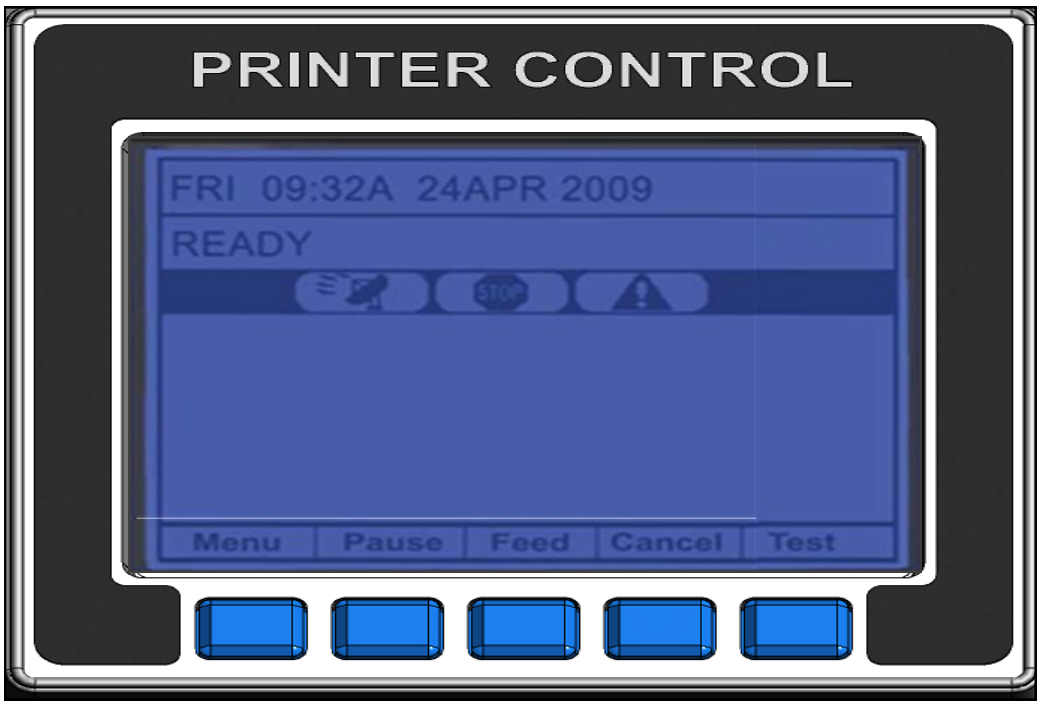
The number of inches that the Barcode Scanner will stay ON once it has been triggered. The valid range is 0.00 - 32.00 inches.

NOTE: Start Scanning Offset + Scanning Distance must not be greater than the bag length.

PRINTER

CONTROL PANEL

The Control Panel is an event-driven user interface composed of a graphics display and Soft Keys.



Time and Date

Displays the current time and date.

Printer Status Line

Following initialization, the 'READY' message and label counter during a batch print job.

Current State Icons

Displays the Icons of the current state of the printer. See description of icons on page 4-2.

Soft Key Labels

Menu - The Menu key takes the printer offline and enters menu mode.

Pause - The Pause key temporarily suspends printing, as noted by the current state indicators. Pressing the key again will return the printer to normal operation.

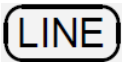
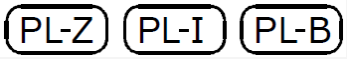
Feed - The Feed key advances one label, and clears any corrected faults.

Cancel - The Cancel key 'pauses' the printer and prompts you for confirmation. If yes, the current job is cancelled. The printer remains paused until t he 'Pause' key is pressed again.

Test - The Test key enters the test mode.

PRINTER

CURRENT STATUS ICONS

ICON	DESCRIPTION
	Initialization, typically brief (but a damaged or invalid printhead can delay the process).
	Display Large Fonts
	Input Mode - DPL
	Input Mode - LINE
	Input Mode - Emulation
	RFID Detected
	SD Memory Card Detected
	USB Memory (or keyboard) Detected
	Wired Network Detected
	Server Inaccessible
	WLAN Associate with Access Point
	WLAN Not Associated with Access Point
	WLAN ADHOC Mode
	Receiving Data
	Paused
	Faulted

PRINTER

LOADING A LABEL

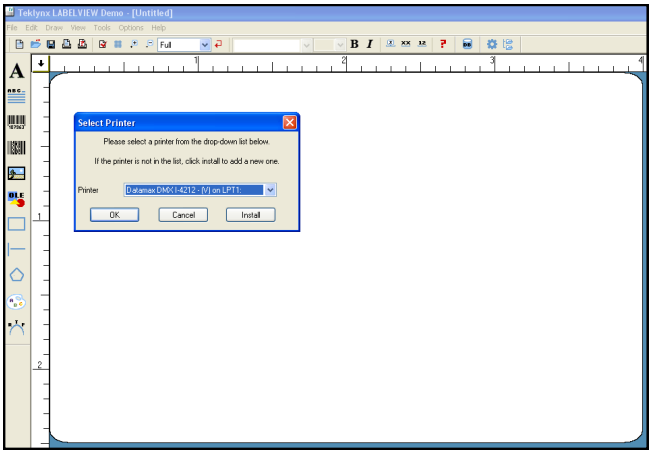
This section will briefly guide you through creating and loading labels using Labelview™. Labelview™ is labeling software available from Sharp Packaging Systems. This software can be used for creating text, bar codes, graphics, lines, and boxes. For more detailed instructions on using Labelview™ refer to the Help section within the software.

Note: Software other than Labelview™ may require different settings.

Once Labelview™ is installed on your PC, perform the following steps.

SELECTING A LABEL PRINTER

1. Go to **File + Select Printer**.
2. Choose the Datamax® DMX I-4212printer from the list.



3. If the Datamax® driver is not in the list select **Install.**
4. Select the Datamax® DMX I-4212 and click install.
5. Click **Close**.
6. Click **OK**.

CONFIGURING LABELVIEW™

1. Go to Options + Configuration.
2. Under the General tab, uncheck all of the boxes except TrueType Fonts as Graphics.

CREATING A NEW LABEL

1. To Create a new Label format, go to **File + New** or click on the icon.
2. Fill out the Label Setup tab of the Label Setup dialog box. The following are some recommended settings for this tab.

Print Speed – Start at 8 and adjust for optimal print quality. (Range is 2 – 11.5)

Temperature – Start at 12 and adjust for optimal print quality. (Range is 0 -30)

3. Click on the Options tab and fill in the boxes. The following are some recommended settings for the options tab.

Print Rotation – Normal

Label Stock – Non Inventory

Sensor Type – Continuous

Cut – Don't Cut

Dots per Inch – 203

Back Feed – 0

Increment Method – Printer

Note: **Label names and paths can contain up to 250 characters. Longer path and file names are not supported.**

4. Click **OK**.

ADDING FIELDS TO LABELS

Adding any field to a label involves all of the same steps.

Adding Text 

1. Click on the button.
2. Non-Resizable means the picture cannot be changed.
3. **Pictures** = Specify the name of the picture file you wish to insert.
4. **Preview =** Check this box to see a thumbnail of the full picture before you place it on the label.

PRINTER

BOXES /   LINES

Click on the or the button.

When you add a line to the label, it will first appear in a default size set by the program. Click on and drag the handles provided to resize the object. Clicking on the item where there is no handle will allow you to drag it to a new location on the label. When adding a box, you will be asked to define the horizontal and vertical widths of the lines before placing it on the label.

SAVING A LABEL

1. Go to **File + Save.**
2. You will be prompted to enter the name of the label. You must also specify where you want the format to be saved; which drive and directory. This operation is identical to saving files from any other Windows program. The maximum length allowed for the path and the file name is 255 characters altogether.
3. Click the OK button to save the label and return to the main screen.

Note: You only need to specify the name and location the first time you save. Thereafter, the label will always use that name and location. To change either value, go to File + Save As.

DOWNLOADING LABELS TO PRINTER

Note: The required serial or parallel cables for downloading labels to the printer are not provided.

1. Within Labelview™, select **File + Open**.
2. Select the label to be printed. Click **OK**.
3. Go to **File + Print.**
4. In the Quick Printing dialog box choose the quantity of labels to be printed and choose Print.
5. A small printing dialog box will appear. When this box disappears the downloading is complete.
6. The printer display will change from READY to WAITING FOR SIGNAL.
7. Cycle the machine.

HMI FAULT MANAGEMENT

All fault and alert messages appear at the bottom of most screens in a single line of text. Messages alternate through a technique known as “Round Robin Display”. Each active message appears for 3 seconds and then the display goes to the next. Thus if there were 3 active messages, all 3 would be displayed every 9 seconds.

Fault Messages

Faults are defined as an error condition that will stop the bagger and prevent subsequent cycles from occurring as long as the fault persists. Faults must be corrected and then reset from the HMI using the Reset Button. Faults are first indicated by the red banner at the bottom of all screens.

CAUSE: There is no film in the machine or the film is not being detected by the bag edge photo-eye

REMEDY: Position the film over the eye and reset the fault.

CAUSE: Consecutive Bad Read Counter = Barcode Fault Setting

REMEDY: There is a problem with the Barcode Scanner. The taught label is not the same as the printed label or

The print quality of the label is poor and cannot be read.

CAUSE: Safety light curtain was broken while the bagger was in cycle.

REMEDY: Operators must wait until the bagger cycle is completed before loading parts.

CAUSE: The Actual Number of Parts loaded into the open bag exceeded the Target Count.

REMEDY: The Filling device is delivering parts after the “Ready For Filler” switched off, or the filling device delivered multiple parts in a single charge and those parts were counted by the counting device. i.e. light curtain, photo-eye, etc. Close examination of the filler and filling process is required to correct the condition.

CAUSE: The Lower Print Head PLC output O-05 was turned on, but failed to make the lowered switch failed to turn on the Print Head Lowered Input I-05.

REMEDY: Lower Print Head Solenoid may have failed or proximity sensor is not positioned correctly with the target. Check PLC I/O circuits.

HMI FAULT MANAGEMENT

CAUSE: The Lower Print Head PLC output O-05 was turned off, but Input I-05 stayed on.

REMEDY: Lower Print Head Solenoid may have failed or proximity sensor is not positioned correctly with the target. Check PLC I/O circuits.

CAUSE: The Jaw Axis detected a motion fault

REMEDY: Reset the fault. If problem persists, rehome the Jaw.

CAUSE: The Film Axis detected a motion fault

REMEDY: Reset the fault. If problem persists, lower the Feed Speed setting.

CAUSE: The commanded motion did not complete before the fault timer expired. The Jaw Closed Sensor must change states as the jaw moves in to the sealing position. Also the Jaw may have mechanically lost its position.

REMEDY: Reset the fault and Rehome the Jaw.

CAUSE: The pressure bar attempted to close, but was blocked by an obstruction.

REMEDY: This is usually a part that did not drop past the pressure bar. Increase the Filler Drop Timer setting.

CAUSE: The Bag Edge Photo-eye did not detect the trailing edge of the film as the web was backing up.

REMEDY: Check that the Photo-eye is correctly sensing the film in front of it.

It should only turn on when it sees the film in front of it. It should turn off just as the trailing edge of the film unblocks the eye. The eye may need to be taught from the service screen or it might need to be cleaned.

HMI ALERT MANAGEMENT

CAUSE: The Jaw Homing Cycle could not be completed or the cycle was stopped by the Operator.

REMEDY: The Jaw Closed sensor may be inoperative or there may be a physical obstruction between the Jaw and the bagger frame that does not activate the Jaw Obstruction sensors.

Alert Messages

Alert messages are displayed in yellow and will not generally stop a bagger cycle, though they can inhibit starting the cycle. Alerts are intended to inform the operator of an event or status of the machine. Alerts can be considered minor faults in some cases and may require the operator to intervene.

CAUSE: The batch counter actual value has reached the target count. This alert will not interrupt the bagger cycle, but subsequent cycles are not possible until the Alert has been reset.

REMEDY: Batch is done. Reset and bagger is free to cycle again.

CAUSE: The bagger has signaled the filler machine that it is ready to accept product and is waiting for the filler to trigger the next bagger cycle.

REMEDY: Filler must complete the delivery of product and turn on the Filler Trigger input.

CAUSE: The bagger requested a print from the printer, but the printer has not responded with “Printer Busy”

REMEDY: Printer does not have a label loaded or there is an I/O communications problem between the PLC and the Printer. Check “Printer Data Ready” Input 02

CAUSE: The Jaw Stepper Motor must be homed before it can operate

REMEDY: Remove bag from Sealing Area. Press “Home Jaw” button located on Dashboard Screen. Jaw will go through homing cycle and when completed, this message will automatically clear.

PRINTER FAULTS

All printer functions are internally monitored. When a problem (Fault) or a potential problem (Warning) is detected, a corresponding message will appear in the display. Fault messages receive the highest display priority . if more the one fault is detected the display will cycle between messages.

Note : To return to normal operation following a fault, the fault must be corrected and then the 'FEED' key must be pressed to clear the condition.

Display Message	Description	Possible Solution (s)
24V OUT OFF TOLERANCE	The printer has detected a drop in the 24-volt power supply.	Try cycling the printer power 'Off' and 'On'. If the fault does not clear, call for service.
ADC FAULT	The printer has detected an analog to digital circuit converter failure	Cycling the printer power 'OFF' and 'ON'. If the fault does not clear, call for service.
DMA FAULT	The printer has detected a direct memory access failure	Cycling the printer power 'OFF' and 'ON'. If the fault does not clear, call for service.
TEMPERATURE FAULT	The printer has shutdown to allow the printhead temperature to cool	Turn off the printer and wait until the printhead cools to prevent permanent damage.
PRINT ENGINE FAULT	The printer has detected a problem within the print logic	Cycling the printer power 'OFF' and 'ON' if the fault does not clear call for service.
HEAD CLEANING FAULT	The scheduled printhead cleaning has been exceeded by the amount equal to three times the pre-programmed distance	Press and hold the 'TEST' key or select 'CLEAN HEAD NOW'
OUT OF STOCK	The printer cannot detect media.	Load Media. Ensure that the labels are passing through the media sensor.
POSITION FAULT	The printer was powered-off or reset during a ribbon, out of stock fault. The printer was unable to complete the media calibration.	Press the 'FEED' key attempt to identify and then clear the fault. If necessary, calibrate the printer.
RAM FAULT	The system has detected a RAM failure.	Try cycling the printer power 'OFF and 'ON', if fault does not clear call for service.
GOODBYE	Power has been removed and shut-down is in progress.	The printer power switch was turned 'OFF'; the line fuse has been blown. Or AC line voltage has been lost.
HOST CHANGES PENDING	The host has pending configuration changes that will not take effect until a 'Host Reset Command' is issued.	To save your changes, send the host reset command (in DPL) or to discard changes press and hold 'CANCEL' key for 4 seconds.

PRINTER FAULTS

Display Message	Description	Possible Solution (s)
DOT FAILURE	The printer has detected defective printhead elements.	Replace the printhead. If the print quality becomes unacceptable.
RTC RAM FAILURE	The printer was unable to save settings in permanent memory.	Possible faulty main logic card. If the condition persists, call for service.
LABEL SENT TO PRINTER. BUT PRINTER STILL SAYS 'READY'	No label sent to printer.	Check the cable between computer and printer control box.
PRINTER WILL NOT TURN ON	Power cable unplugged. Power switch off.	Plug-in power cable. Turn-on power switch on front of printer control box.
BAGGER DISPLAYS ' WAITING FOR PRINTER' MESSAGE	Printer not on. No labels in printer. Printer cables are loose.	Press reset on Bagger, and then turn on printer control box. Load labels into printer. Check printer cables.
PRINTER CONTROL BOX DISPLAY LIGHTS-UP. BUT NO TEXT ON SCREEN	Contrast turned down.	Push and hold the far left button on the printer control box until text is shown.
PRINTER CYCLES BUT NOTHING IS PRINTED ON BAG	1. Lose cables. 2. Ribbon empty. 3. Ribbon installed incorrectly.	Reseat printer cables. Replace ribbon. Install Ribbon Correctly.
RIBBON FAULT	1. Improperly sized ribbon spool. 2. Out of ribbon.	1. Use only 1"ID spools of ribbon. 2. Install new spool of ribbon.
PRINTER CONTINUALLY PRINTS LABELS	1. 'START OF PRINT' set to 'ACTIVE HIGH'. 2. Relay #2 or #4 in printer control box defective. 3. 'END OF PRINT' set to 'ACTIVE HIGH'.	Set 'START OF PRINT' to 'ACTIVE LOW', . Replace defective relay. Set 'END OF PRINT' to 'ACTIVE LOW'
PRINTER PRINTS ONE LABEL AND THEN FEEDS OUT MULTIPLE BAGS	Printer not set to 'CONTINUOUS' in printer control box or Labelview. 'END OF PRINT' set to 'ACTIVE HIGH'.	Set printer to 'CONTINUES' in printer control box and Labelview. Set end of print to 'ACTIVE LOW'.
LABEL LOADS IN PRINTER, BUT 'WAITING FOR PRINTER' ERROR SHOWN ON BAGGER	Printer cabling loose. Printer control box off. GPIO cable unplugged.	Check printer cabling. Turn printer control box on. Plug-in GPIO cable.
PRINTER CYCLES ,BUT LABEL IS BLANK	1. Printhead out of adjustment. 2. Check printer for ribbon.	Adjust printhead. Install new ribbon.

PRINTER FAULTS

Display Message	Description	Possible Solution (s)
RIBBON FEEDS OUT THOUGH FRONT OF PRINTER	Ribbon take-up motor not spinning. Clutch Pressure. Heat setting in Labelview set too high. Loose printer cables.	Check ribbon take-up motor wiring. Increase clutch pressure. Decrease heat setting in Labelview. Make sure printer cables are secure.
PRINTER KEEPS PRINTING SAME LABEL	Old print jobs not canceled.	Cancel print job. Press 'Cancel', 'Yes', 'Pause' until printer control box displays 'READY'.
PRINTED LABEL MISSING LINES OF PRINT	Dirty Printhead. Loose printer cables. Printhead Defective. Dirty platen roller.	Clean printhead Make sure printer cables are secure. Clean platen roller.
LARGE PORTION OF LABEL MISSING	Printhead out of adjustment. Loose printer cables.	Adjust printhead. Check printer cables.

SETTINGS SUMMARY

This section list the range of each setting and an Initial value if applicable. Note: The initial settings are only applicable during the first time power up of the bagger.

Bag Length

4.00-20.00”

Initial: 6.0”

Seal Offset

Range: 0.00 – 2.00”

Initial: 0.00”

Seal Dwell

Range: 0.00 – 0.40 sec

Initial: 0.25 sec

Seal Cooling Time

Range: 0.00-2.00

Feed Speed

Range: 4.00 – 30.00 In/Sec

Initial: 10.00 In/Sec

Filler Drop Time

Range: 0.00 – 9.99 sec

Initial: none

Auto Load Dwell

Range: 0.00 – 5.00 sec

Initial: 0.00

Batch Counter

Range: 2 – 9999

Initial: 3

Parts Counter

Range: 1 – 999

Initial: 3

Print Speed

Range: 2.00 – 12.00 in/sec

Initial: 6 in/sec

Print Length

Range: 0.5-10.00 in.

Initial: 2 in.

Consecutive Bags

Range: 2-20

Initial: 2

WARRANTY
SHARP PACKAGING SYSTEMS ("SHARP")
STANDARD TERMS AND CONDITIONS FOR PACKAGING MACHINERY

By placing an order, Buyer agrees to the following terms and conditions:

1. **TERMS OF PAYMENT:** Cash in lawful U.S. currency payable as follows: For base machinery w/o automatic in-feed devices, (2/3) of net price with the order and the final (1/3) of net price within thirty (30) days after shipment. For all custom systems and systems with automatic in-feed devices, (50%) of net price with the order, (40%) of net price prior to shipment and (10%) of net price within thirty (30) days after shipment. In addition to any other remedy of Sharp hereunder, if the final payment is not received by Sharp within thirty (30) days after shipment, Buyer shall pay interest thereafter at the rate of eighteen (18) percent per year or the maximum rate permitted by law, whichever is less.
2. **SHIPMENT:** All prices are f.o.b. Sharp's plant in Sussex, Wisconsin. Method and route of shipment are at Sharp's discretion and freight is prepaid and added to Buyer's invoice unless Buyer supplies to Sharp explicit written instructions as to method and route of shipment in which case freight is billed collect. All shipments are insured at Buyer's expense and made at Buyer's risk.
3. **DELIVERY:** Shipping promises are made in good faith. Shipping dates appearing on acknowledgments or orders, or given Buyer in any other manner, are approximate. When Buyer delays in supplying information necessary to proceed with the order, the date of shipment may be extended accordingly and determined by the conditions of Sharp's factory at the time specifications are completed. Sharp shall not be liable for any failure or delay of delivery or performance of this order due to causes beyond its reasonable control. The existence of such causes of delay shall extend the time for delivery or performance of this order by the period of time lost for such reasons unless Sharp and Buyer shall have otherwise expressly agreed in writing.
4. **QUOTATIONS AND PRICES:** Sharp's written quotations of prices automatically expire thirty (30) calendar days from the date issued and are subject to change or to termination by notice within the period. Clerical errors are subject to correction.
5. **TITLE: RIGHTS RESERVED UNTIL PAYMENT:** Until payment of the entire purchase price of the machine purchased: (a) ownership title shall remain in Sharp; (b) Buyer shall not sell, pledge, mortgage or otherwise encumber the machine or permit the machine to be encumbered, shall not remove the machine from its premises, shall protect and keep insured the machine at Buyer's expense (with proceeds payable to Sharp as its interest appears) against injury, loss or destruction, and shall execute and file such Financing Statement as to the property under the Uniform Commercial Code as Sharp shall reasonably request. No injury, loss or destruction of the machine after delivery to Buyer shall release Buyer from its obligation to pay Sharp the entire purchase price. Upon receipt by Sharp of payment of the entire purchase price for the machine, title shall automatically vest in Buyer and Sharp will execute releases or other documents as Buyer may request to confirm that fact.
6. **DEFAULT:** On cancellation of the order by Buyer or default by Buyer in any payment of the price or in the performance of any terms or conditions imposed on Buyer herein, Sharp, without notice, may (a) take immediate possession of the machine as Sharp's own individual and sole property, free and clear of any claim by Buyer, and retain any and all payments made as liquidated damages for Sharp's lost profits, any use of the machine by Buyer, any depreciation of the machine, and any expense to Sharp of taking possession of the machine; or (b) take immediate possession of the machine and sell the machine, without notice, in which case the proceeds of sale shall be applied on the unpaid balance of the price and expenses to Sharp of taking possession, storage and resale. If the proceeds of the resale do not equal the portion of the price remaining unpaid and the expenses to Sharp of taking possession, storage and resale, Buyer agrees to promptly pay to Sharp any deficiency. Buyer hereby irrevocably grants to Sharp, or Sharp's agents or servants, the right to enter at any time, with or without force, any premises in which the machine may be located, and the right to examine or take possession of the machine. Buyer waives any right of action, which might accrue by reason of the entry, or the taking of possession of the machine.
7. **TAXES:** Sharp's prices do not include sale, use, excise or similar taxes or charges now or hereafter imposed. The amount of any such taxes or charges shall be paid by Buyer, or in lieu thereof, Buyer shall provide Sharp with a tax exemption certificate acceptable to the taxing authorities.
8. **LIMITED WARRANTY:** Sharp warrants to the original Buyer only that each new machine will be free from defects in material and workmanship, when properly maintained and under normal use and service, subject to the terms of this warranty. Buyer's sole and exclusive remedy under this warranty shall be limited to repair or replacement, at Sharp's option, of any defective part of the machine which is returned, transportation prepaid, to Sharp's authorized service center within the warranty period. The warranty starts on the date the machine is delivered to the original Buyer and expires one (1) year for parts, and ninety (90) days for labor, after that date. Buyer, at Sharp's request, shall provide documents establishing the delivery date. Exclusions: This warranty shall not apply to: (a) any machine subjected to misuse, abuse, or accident; (b) damage in transit or from external sources; (c) overloading of machine capacity; (d) failures which are due to a lack of proper maintenance or care as prescribed in the operating and maintenance instructions; (e) normal wear and tear or relatively minor adjustments; (f) replacement of consumable items (including, but not limited to, heating elements, silicon pads and Teflon cloth/tape); (g) repairs or alterations performed by any organization other than Sharp or Sharp's authorized service centers and (h) parts, accessories, or other items manufactured by others which are in any way used and/or installed in or on the machine; such machine components may be covered under their own manufacturer's warranties. THIS WARRANTY IS EXCLUSIVE AND IN LIEU OF ANY AND ALL OTHER EXPRESS OR IMPLIED WARRANTIES, WHETHER WRITTEN, ORAL OR IMPLIED, INCLUDING ANY IMPLIED WARRANTY OF MERCHANTABILITY OR FITNESS FOR A PARTICULAR PURPOSE. THIS WARRANTY SHALL CONSTITUTE THE SOLE REMEDY OF BUYER AND THE SOLE LIABILITY OF SHARP, WHETHER IN CONTRACT, TORT OR STRICT LIABILITY. IN NO EVENT SHALL SHARP BE LIABLE FOR ANY LOSS PROFITS OR OTHER INCIDENTAL, CONSEQUENTIAL, OR PUNITIVE DAMAGES ARISING OUT OF, RELATED TO, OR CONNECTED WITH THE FURNISHING, PERFORMANCE, USE OF OR INABILITY TO USE THE MACHINE, EVEN IF SHARP HAS BEEN ADVISED OF THE POSSIBILITY OF SUCH DAMAGES, OR FOR ANY CLAIM AGAINST BUYER BY ANY OTHER PARTY. Buyer shall give written notice to Sharp of any alleged failure or refusal of Sharp to repair or replace as promised by this warranty within fifteen (15) days after Buyer learns of the alleged failure or refusal. If Buyer fails to do so, this warranty shall be void as to the alleged failure or refusal. No action for breach of this warranty shall be commenced more than one year after the cause of action accrues. No modification of this warranty or waiver of its terms shall be binding on Sharp unless approved in writing by an authorized corporate officer of Sharp. This warranty is the entire warranty given by Sharp on the machine and supersedes any prior statements or representations.
9. **INDEMNIFICATION**: Buyer agrees to indemnify and hold Sharp harmless from all claims, demands, losses, damages, costs and expenses, including legal fees, arising out of: (a) any machine subjected to misuse, abuse, or accident; (b) damage in transit or from external sources; (c) overloading of machine capacity; (d) failures which are due to a lack of proper maintenance or care as prescribed in the operating and maintenance instructions; (e) normal wear and tear or relatively minor adjustments; (f) replacement of consumable items (including, but not limited to, heating elements, silicon pads and Teflon cloth/tape); (g) repairs or alterations performed by any organization other than Sharp or Sharp's authorized service centers and (h) parts, accessories, or other items manufactured by others which are in any way used and/or installed in or on the machine.
10. COLLECTION: If Sharp commences any action against buyer to collect any amount due from Buyer to Sharp in connection with the order, Buyer shall pay Sharp's costs of collection, including reasonable attorneys' fees, whether incurred before or after judgment.
11. G**ENERAL:** The "Agreement" means only the provisions of these Standard Terms and Conditions. Acceptance of Buyer's order is expressly made conditional on Buyer's assent to these Standard Terms and Conditions. The Agreement states the entire agreement of the parties concerning the order. The Agreement supersedes all prior agreements, communications, and representations between Buyer and Sharp concerning the order, including any provisions in any order or other form initiated by Buyer which are not expressly accepted by Sharp in writing. The Agreement may not be modified or amended except by written agreement of Sharp signed by an authorized corporate officer of Sharp. Sharp's remedies under the Agreement shall be cumulative. Sharp's election of one remedy shall not preclude pursuit of other remedies. Sharp's waiver of any right shall not prevent Sharp from exercising that right subsequently. Any notice to Buyer shall be deemed given when (a) mailed to Buyer by first class mail at its last known address, or (b) transmitted to Buyer by facsimile at its last known facsimile number, or (c) received by Buyer, whichever is first. If any part of the Agreement is invalid, the rest of the Agreement shall remain in effect.
12. **GOVERNING LAW AND FORUM:** The Agreement shall be interpreted under and governed by the laws of the United States and the State of Wisconsin. Any action arising out of, related to, or connected with the Agreement or machines sold under the Agreement shall be commenced only in the United States District Court for the Eastern District of Wisconsin or the Circuit Court for Waukesha County, Wisconsin. Buyer consents to personal jurisdiction and venue in such courts.
13.

Revised: November 27, 2006 Supersedes: July 19, 2006

Sharp Packaging Systems P.O. Box 124 Sussex, WI 53089 1-800-634-6359 FAX (262) 246-8885

REPLACEMENT PARTS ORDER FORM

Spare or replacement parts can be purchased directly through Sharp Packaging or your local distributor. If faxing or mailing in an order it must be accompanied by a hard copy purchase order. Please follow up with a confirming telephone call. Cut off time for next day air shipments is 2:30 p.m. CST.

Sharp Packaging Systems
Corporate Headquarters
N56 W22387 Silver Spring Drive
Sussex, WI 53089
Parts: 800-634-6359 (Ext. 1571)
Fax: 262-246-3387

(Please Fill in Boxes Below)

Customer Name:

Shipping Address:

Sharp Account Number:

Model and Serial Number:

Shipping Method:

Purchase Order Number:

Other Information:

RECOMMENDED SPARE PARTS

Check ☑ to Order

	PART NO.	QTY.	DESCRIPTION
☐	713713-01	___	Fuse, 6.25A, 250V, 5 x 20mm
☐	962750-01	___	Spare Parts Kit, Basic
☐	712677-01	___	Printhead, Thermal, 4” 203 dpi
☐	869125-01	___	Ribbon, Standard
☐	869216-01	___	Ribbon, Standard w/Core
☐	719157-01	___	Roller, Printer Platen
☐	706435-01	___	Spring, Compression, .055 Wire
☐	710112-01	___	Spring, Compression, Pinch Roller
☐	706566-01	___	Spring, Compression, .067 Wire
☐	706565-01	___	Spring, Compression, Stripper Plate
☐	706622-01	___	Spring, Printhead Cradle Latch
☐	707447-01	___	Sensor, Inductive
☐	700198-01	___	Timing Belt, Motor (170XL037)
☐	707734-01	___	Timing Belt, Pressure Jaw (560-8MGT-20)
☐	712339-01	___	Sensor, Retro-Reflective (WLG4S-3E1134)
☐	706446-01	___	Timing Belt, Platen and Drive Roller (80XL037)
☐	719158-01	___	Roller, Film Feed Drive
☐	706549-01	___	Timing Belt, Ribbon Rewind, Rewind Shaft Side (88MXL025)

Copy this form, and then fax it to Sharp Packaging at the number listed above.