

2017

# UNIPRINT 116 Operator Manual

SSLAW



HSLA



SSHSLA



Innovative  
Machine, Inc.

## Copyrights

Any unauthorized reproduction of the contents of this document, in part or whole, is strictly prohibited.

## Limitation of Liability

Innovative Machine, Inc. (IMI) makes no representations or warranties of any kind regarding this material, including, but not limited to, implied warranties of merchantability and fitness for a particular purpose. IMI shall not be held responsible for errors contained herein or any omissions from this material or for any damages, whether direct, indirect, incidental or consequential, in connection with the furnishing, distribution, performance or use of this material.

Specifications and contents in this document are subject to change without notice.

Document Name	UNIPRINT116 Operator Manual
Language	English (Original Instructions)
Revision	5



6115 NW 123<sup>rd</sup> Place  
Gainesville, FL 32653  
(386) 418-8880

# Table of Contents

Introduction .....	3
Specifications .....	4
Important Safeguards.....	4
Pictographic Symbols .....	5
Precautions for Handling, Installation and Use .....	6
Safe Handling and Installation.....	8
Definition of Components .....	10
Component Overview .....	10
Manufacturers Nameplate.....	11
Print Engine Detail .....	12
Component Detail.....	14
Fanfold Stock (SSLAW pic reference).....	14
Label Guide (SSLAW pic reference) .....	15
Gap/Label Sensor (SSLAW pic reference).....	16
Print Head Pressure Switch .....	17
Blow Head.....	18
Dancer Arm (SSLAW pic shown) .....	21
Take-Up Spool (SSLAW pic shown) .....	22
Installing the Label Applicator .....	23
Power and Air requirements.....	23
Label Alignment .....	24
Proper Label Feed Position.....	25
Queued Label Position .....	25
Setting the “Offset” for Label Position .....	26
Adjusting Blow Head Air Jets .....	28
New Applicator Checklist .....	29
General Maintenance .....	30
Tools Needed.....	30
Proper Cleaning Supplies .....	31

Frequency of maintenance.....	31
Cleaning.....	31
Decommissioning and Disposal .....	32
Declaration of Conformity .....	33
Troubleshooting .....	34
Labels Not Printing.....	34
Labels Not Printing.....	34
Label Feed/Bouncing .....	35
Labels Bouncing .....	35
Setting voltage for sensor .....	36
Multiple Feed .....	40
Multiple blank labels feeding.....	40
Label Feed Inconsistent.....	41
Labels feeding inconsistently .....	41
Not Blowing Labels .....	42
Label printed but not blowing onto package.....	42
Open Head Sensor Error .....	43
SATO - Open Head Sensor.....	43
Spare Parts .....	44

## Introduction

General use of these models is to apply a paper label that is 63.5mm(2.5”) wide x 44.45mm(1.75”) long along the centerline, with a 47.5mm(1.870”) pitch and 66.68mm(2.625”) liner width. Tolerances on the label are .25mm(.009”). Nominal label thickness is .1mm(.004”) and the liner is .05mm(.002”) for .15mm(.006”) OA.

Model UNIPRINT116 SSLAW and Model UNIPRINT116 SSHSLA will apply top down from 50.8mm(2.0”) below the blow head surface to the top of the customer supplied conveyor at 330.2mm(13.0”). There will be multiple size containers that vary in height from flat packs (i.e. 3mm(.118”) in height) to max size containers (279mm(11.0”) in height).

Model UNIPRINT116 HSLA will apply labels side to side from 50.8mm(2.0”) away from containers to 254mm(10.0”) away. Container sizes will be a minimum 50.8mm(2.0”) tall with no max height set. Label will apply from the bottom of the conveying rollers approx. 6.35mm(.250”) up.

All UNIPRINT116 Models will be able to provide the following:

- Report Error Codes through the I/O
- “low label” I/O to the customer supplied Control Panel
- label stock replenishment at around 60 seconds
- Label placement accuracy shall be less than or equal to +/- 12.7mm inches at a max distance of 304.8mm from the centerline on the blow head.
- I/O devices should be powered from the owners 24VDC supply.
- All sensors must be the PNP type.
- A status indicator “light tree” shall be located on the machine. The indicator contains a horn, a red light, and a green light. These are controlled by the owners PLC and 24VDC power.
- Apply labels at a rate up 254mm/sec or 6000 labels per hour per machine.

Model UNIPRINT116 SSLAW and UNIPRINT116 SSHSLA must be able to handle liner up to 5,000 labels.

Model UNIPRINT116 HSLA must be able to handle liner up to 10,000 labels.

As shown these units have the Sato S84Ex Print Engine. These units are also backward compatible with the Sato 8485Se Print Engine.

## Specifications








	SSLAW	HSLA	SSHSLA
<b>Dimensions and Weight</b>			
Width	736.60mm (29in)	736.60mm (29in)	711.20mm (28in)
Height	889.00mm (35in)	1092.20mm (43in)	1600.20mm (63in)
Depth	838.20mm (33in)	558.80mm (22in)	736.60mm (29in)
Weight	40.37kg (89lb)	52.62kg (116lb)	82.10kg (181lb)
<b>Power Supply</b>			
Input Voltage	AC 100 V - 240 V $\pm$ 10% DC 24v Both supplied through Harting Connector	AC 100 V - 240 V $\pm$ 10% DC 24v Both supplied through Harting Connector	AC 100 V - 240 V $\pm$ 10% DC 24v Both supplied through Harting Connector
Frequency	AC - 50-60 Hz	AC - 50-60 Hz	AC - 50-60 Hz
Power Consumption	AC - 6 amps DC - 2 amps	AC - 6 amps DC - 2 amps	AC - 6 amps DC - 2 amps
<b>Pneumatics</b>			
Min/Max Pressure	5.51bar(80psi)/6.20bar(90psi)	4.82bar(70psi)/6.20bar(90psi)	4.82bar(70psi)/6.20bar(90psi)
Min Volume	11.72m <sup>3</sup> /h (6.9cfm)	11.72m <sup>3</sup> /h (6.9cfm)	11.72m <sup>3</sup> /h (6.9cfm)
<b>Environmental Conditions (Without Media)</b>			
Operating Temperature	-5 to 40 °C (23 to 104 °F)	-5 to 40 °C (23 to 104 °F)	-5 to 40 °C (23 to 104 °F)
Storage Temperature	-20 to 60 °C (-4 to 140 °F)	-20 to 60 °C (-4 to 140 °F)	-20 to 60 °C (-4 to 140 °F)
Operating Humidity	15 to 85% RH (Non-condensing)	15 to 85% RH (Non-condensing)	15 to 85% RH (Non-condensing)
Storage Humidity	15 to 90% RH (Non-condensing)	15 to 90% RH (Non-condensing)	15 to 90% RH (Non-condensing)

## Important Safeguards

This section describes how to safely operate the label applicator. Be sure to read and understand all instructions carefully before you install and use the printer.

## Pictographic Symbols

This label applicator uses a variety of pictographic symbols. These symbols show the safe and correct operation of the printer and how to prevent injury to others and property damage. The symbol explanations are as follows:

	<p>Electrical Shock / Electrocutation hazard.</p>
	<p>Lock Out / Electrical Power. Before any maintenance of the label applicator is to be done, the Electrical Lock-Out Tag-Out should be used.</p>
	<p>Lock Out / Pneumatics. Before any maintenance of the label applicator is to be done, Pneumatics Lock-Out Tag-Out should be used.</p>
	<p>Hand Entanglement / Belt Drive hazard</p>
	<p>Wear Ear Protection. The highest continuous noise level recorded for the label applicator was measures at 85.9 dB (a), therefore Hearing Protection must be worn in its vicinity.</p>
	<p>Please read and understand all manuals prior to use.</p>
	<p>This label applicator is CE Marked in accordance with the relevant European New Approach Directives, current at the time of CE Certification and reflected in the equipment Declaration of Conformity. Any modifications or amendments to the equipment, without the prior consent of the manufacturer, may invalidate the CE compliance of this equipment.</p>

## Precautions for Handling, Installation and Use

This section describes how to safely operate the UniPrint116 Labeling Machine. Be sure to read and understand all instructions carefully before you install and use the printer.

- Place the UniPrint116 on the stand provided
- Make sure the stand is stable and secure
- Do not mount the stand with UniPrint116 on a slanted surface, or a surface subject to strong vibration. If the UniPrint116 falls off or topples it could cause injury to someone.
- Do not place containers filled with liquid on the UniPrint116. If any liquid spills onto the UniPrint116 immediately power off the unit and disconnect power from the UniPrint116. If you operate the printer under these conditions, it could cause electrical shock or fire.
- Do not place objects on the printer
- Do not place metal or flammable objects on or inside the UniPrint116. If a foreign object gets inside the unit then power off the UniPrint116 and disconnect power from it.
- Do not use other than the specified voltage. Doing so could cause a fire or electric shock.
- Always connect the UniPrint116 to electrical ground. Not using the ground wire could cause electric shock.
- Concerning the Harting main interface cable; Do not break or change the Harting type 16 pin interface cable. Do not place heavy objects on this cable. If the cable becomes damaged contact Innovative Machine Inc. or the Technical Support center. Using the cable in this condition could cause a fire or electric shock.
- Do not change, overly bend, twist, or pull the Harting cable.



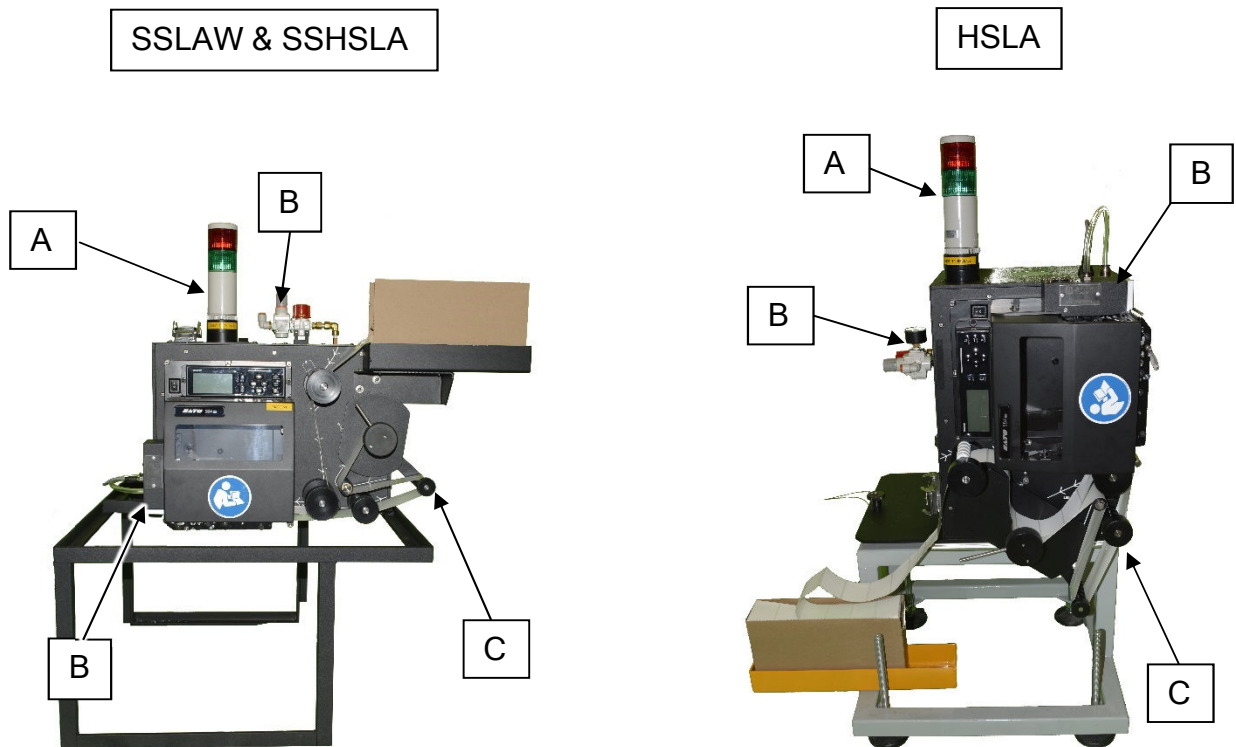
- If the UniPrint116 has been dropped or broken, immediately power the unit off and disconnect the Harting connector. Using the unit could cause fire or electrical shock.
- Do not use the UniPrint116 if something is unusual about it. Continuing to use the UniPrint116 in this state, such as the smell of smoke or unusual smells could cause a fire or electric shock. Under no circumstances should you attempt repairs on your own; It is DANGEROUS.
- Do not disassemble or modify the UniPrint116. Doing so could cause a fire or electrical shock.
- Do not place the UniPrint116 in a location subject to water and oil. Water and oil entering the unit may cause a fire, electric shock, or malfunction.
- This UniPrint116 requires an AC power source. Be sure to connect and make sure it is electrically grounded. Do not share the UniPrint116 power source with other electrical devices that could cause power fluctuations and performance issues.

## Safe Handling and Installation

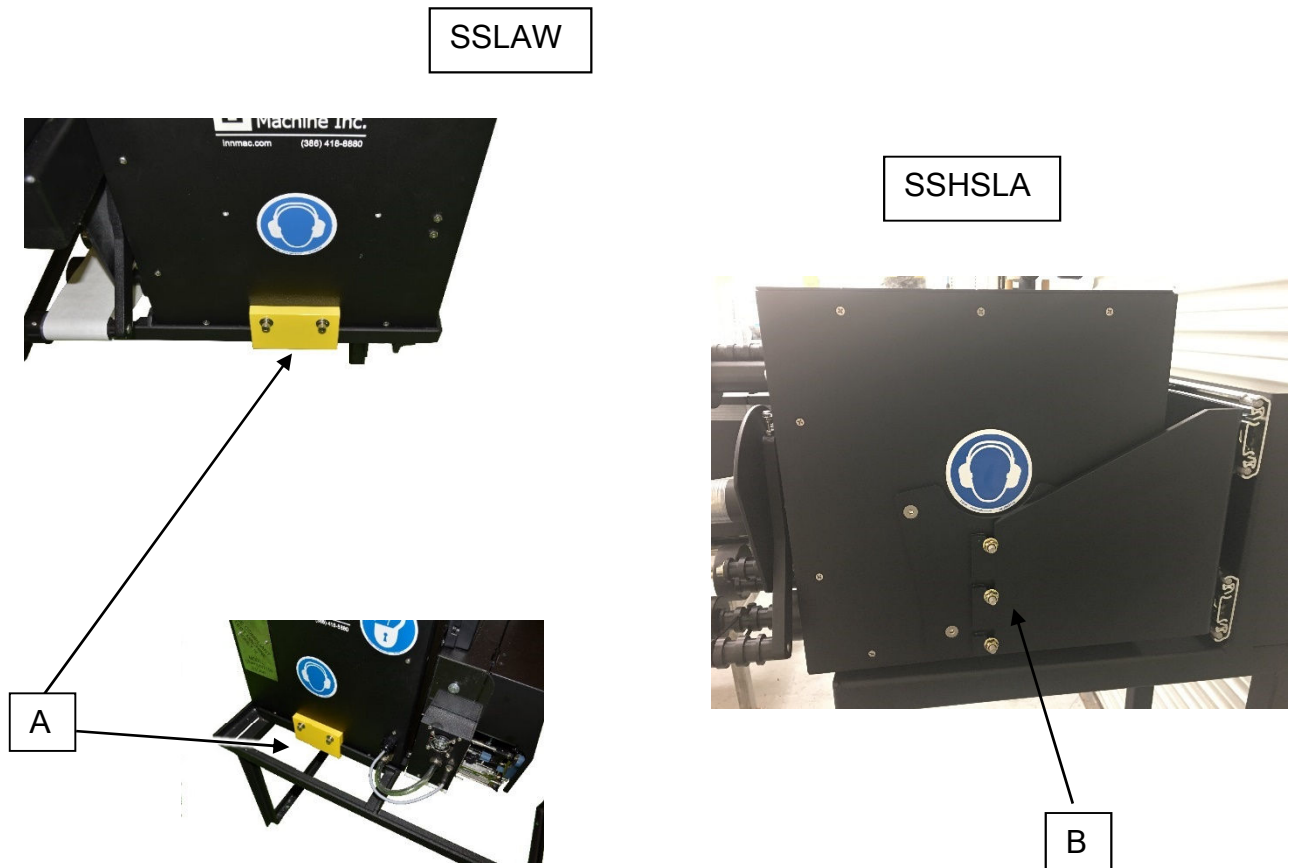
The Model UniPrint116 family of labelers exceed the weight required for one person to move or handle. Two people are required when handling these units. Handling involves installation, removal or replacement for service.

The UniPrint family of Labeling Machines must be handled correctly to not damage certain components.

- Do NOT use the Light Tree (A), Filter Regulator (B), Dancer Arm Roller (C), or Blow Head (D) when moving or positioning the equipment.
- You MUST pick up the machine with a person on each side of the frame.
- As shown the reference for SSLAW and SSHSLA are both the same printer frame orientation with different stand mounts.

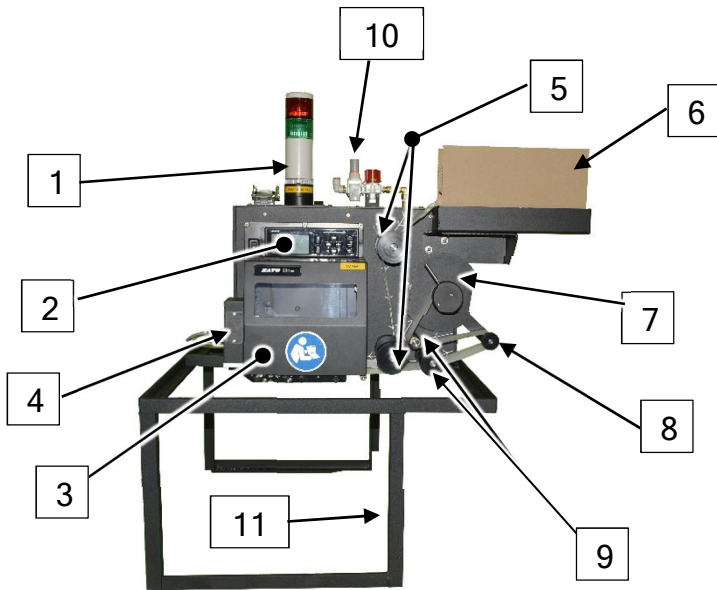


- The UniPrint116 SSLAW requires the following mounting clips (A) to be used. The mounting clips (in yellow) are used to safely hold the UniPrint116 SSLAW to the frame. There are two (2) ¼-20 bolts provided that must be used for each side as shown.
- The UniPrint116 HSLA is mounted from the factory to the stand and requires no separate mounting brackets.
- The UniPrint116 SSHSLA is mounted to the stand with a 3 bolt carriage system (B)

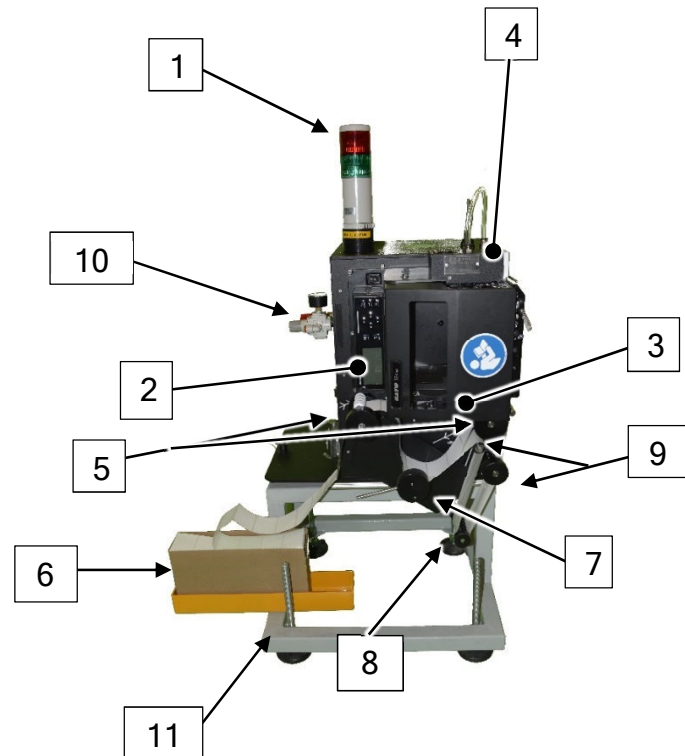


## Definition of Components




### Component Overview









1	Light Tree
2	SATO LCD Display
3	SATO Print Engine
4	Blow Head
5	Retaining Rollers
6	Fanfold Labels
7	Take-up Reel
8	Dancer Arm
9	Idle Rollers
10	Regulator
11	Stand



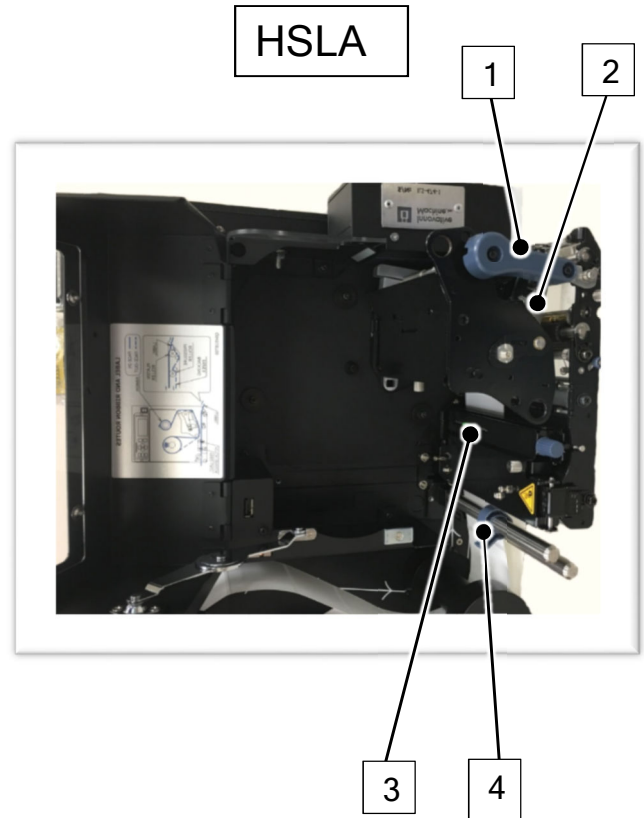
## Manufacturers Nameplate

<b>Manufacturer Name :</b>  Innovative Machine, Inc.	<b>Machine Type:</b> <b>Print and Apply Labeling Machine</b>
<b>Manufacturer Address:</b> 6115 NW 123rd Place Gainesville FL 32653 USA  <b>Telephone:</b> +01 386-418-8880  <b>Email:</b> sales@innmac.com	<b>Model:</b> Uniprint116 HSLA
	<b>Serial Number :</b> IMI-XXX-X
	<b>Power Supply:</b> 110/240 Vac, Single Phase 50/60Hz + PE
	<b>Weight/Mass:</b> 116 lbs. / 53 Kgs
	<b>Full Working Load:</b> 6 Amp
	<b>SCCR:</b> 5KA
	<b>Electrical Drawing #:</b> 091416-914 through 091416-1448
	<b>Year of Manufacture:</b> 2017
 	

<b>Manufacturer Name :</b>  Innovative Machine, Inc.	<b>Machine Type:</b> <b>Print and Apply Labeling Machine</b>
<b>Manufacturer Address:</b> 6115 NW 123rd Place Gainesville FL 32653 USA  <b>Telephone:</b> +01 386-418-8880  <b>Email:</b> sales@innmac.com	<b>Model:</b> Uniprint116 SSLAW
	<b>Serial Number :</b> IMI-XXX-X
	<b>Power Supply:</b> 110/240 Vac, Single Phase 50/60Hz + PE
	<b>Weight/Mass:</b> 90 lbs. / 41 Kgs
	<b>Full Working Load:</b> 6 Amp
	<b>SCCR:</b> 5KA
	<b>Electrical Drawing #:</b> 091416-914 through 091416-1448
	<b>Year of Manufacture:</b> 2017
 	

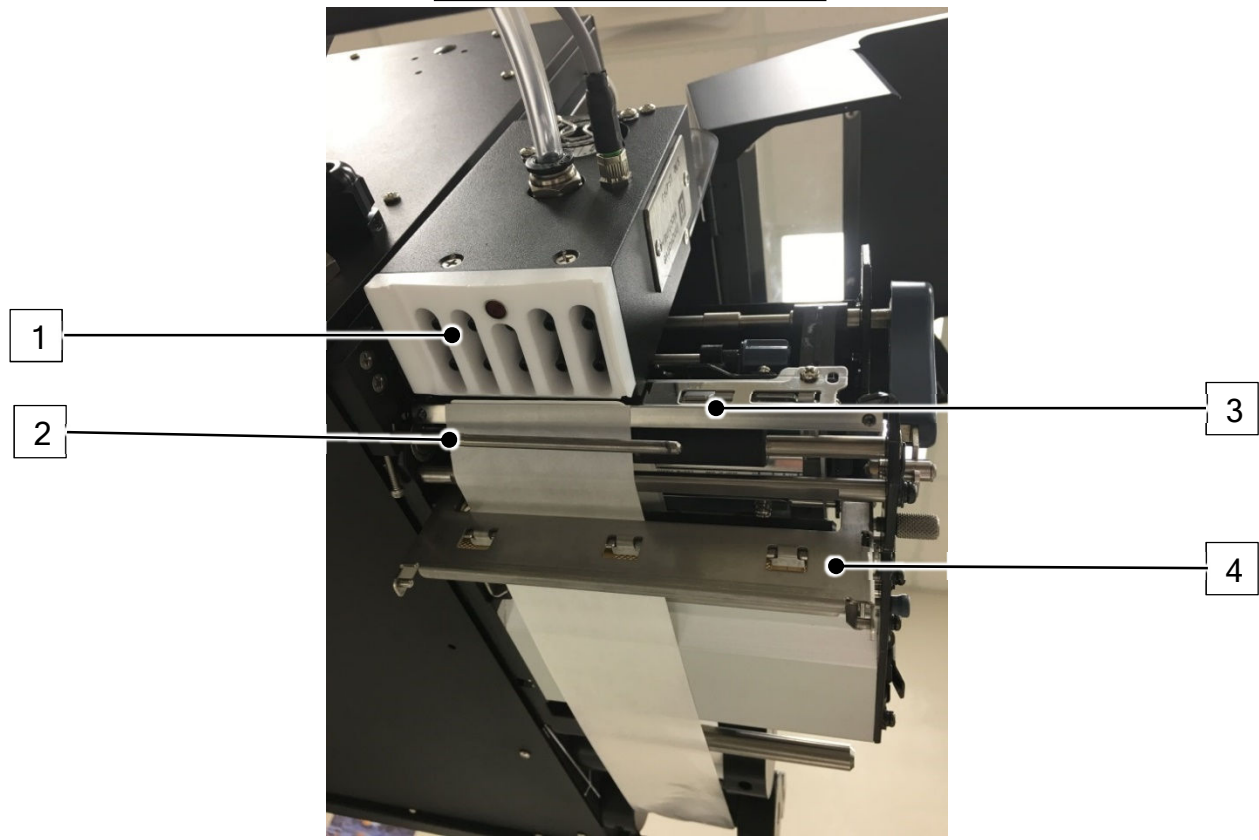
<b>Manufacturer Name :</b>  Innovative Machine, Inc.	<b>Machine Type:</b> <b>Print and Apply Labeling Machine</b>
<b>Manufacturer Address:</b> 6115 NW 123rd Place Gainesville FL 32653 USA  <b>Telephone:</b> +01 386-418-8880  <b>Email:</b> sales@innmac.com	<b>Model:</b> Uniprint116 SSHSLA
	<b>Serial Number :</b> IMI-XXX-X
	<b>Power Supply:</b> 110/240 Vac, Single Phase 50/60Hz + PE
	<b>Weight/Mass:</b> 181 lbs. / 82.10Kgs
	<b>Full Working Load:</b> 6 Amp
	<b>SCCR:</b> 5KA
	<b>Electrical Drawing #:</b> 091416-914 through 091416-1448
	<b>Year of Manufacture:</b> 2017
 	

## Print Engine Detail



1	Latch Print Head
2	Print Plate / Head
3	Gap Sensor
4	Label Guide

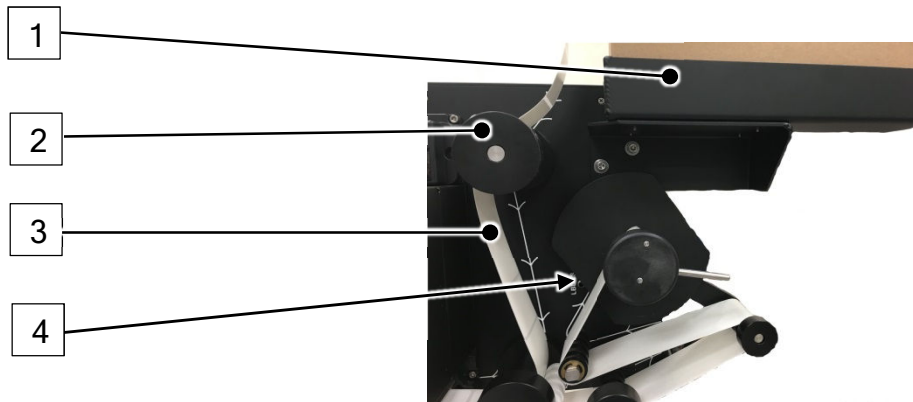
As shown SSLAW



1	Blow Head
2	Blow Assist Bar
3	Peel Bar
4	Knurled Roller (Behind plate)

## Component Detail

### Fanfold Stock (SSLAW pic reference)

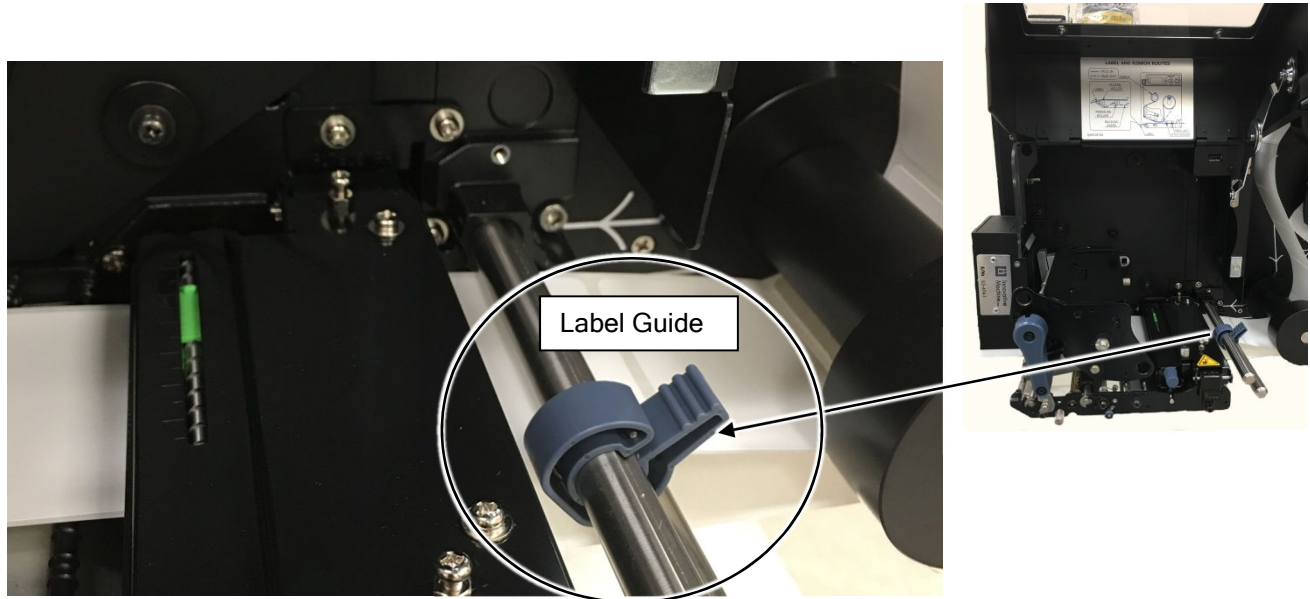


1	The <b>FanFold Mount</b> allows the labels to be properly mounted / fed through the applicator and maintains proper tension on the label feed. If excess or lack of tension occurs, labels can jam or feed improperly causing labels to bounce.
2	Retaining Roller
3	Tension on the Roll should be similar to this illustration.
4	The <b>Low Label Sensor</b> detects when the labels are about to run out. This sensor triggers the Green light to flash and an audible horn every 30 seconds. Once this sensor is flagged a counter from the UPS PLC controls starts to shut the system down after 500 packages to replace labels.

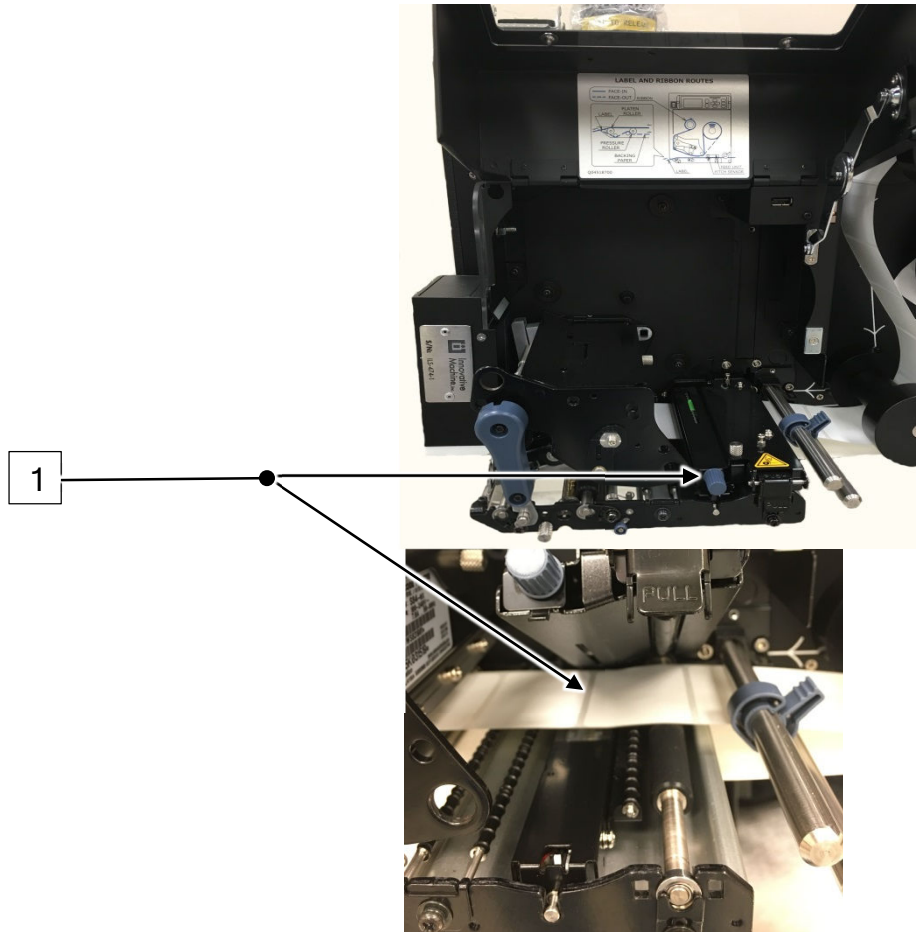


## Label Guide (SSLAW pic reference)

The **Label Guide** is a tab inside the SATO print engine that prevents the label liner from coming off track of the normal label feed path. Should the guide not be in the proper position touching the label liner, labels can get off track and result in labels bouncing. Verify the label guide is free of residue, as this may cause the labels to be pulled to one side miss-feeding onto the blow head.

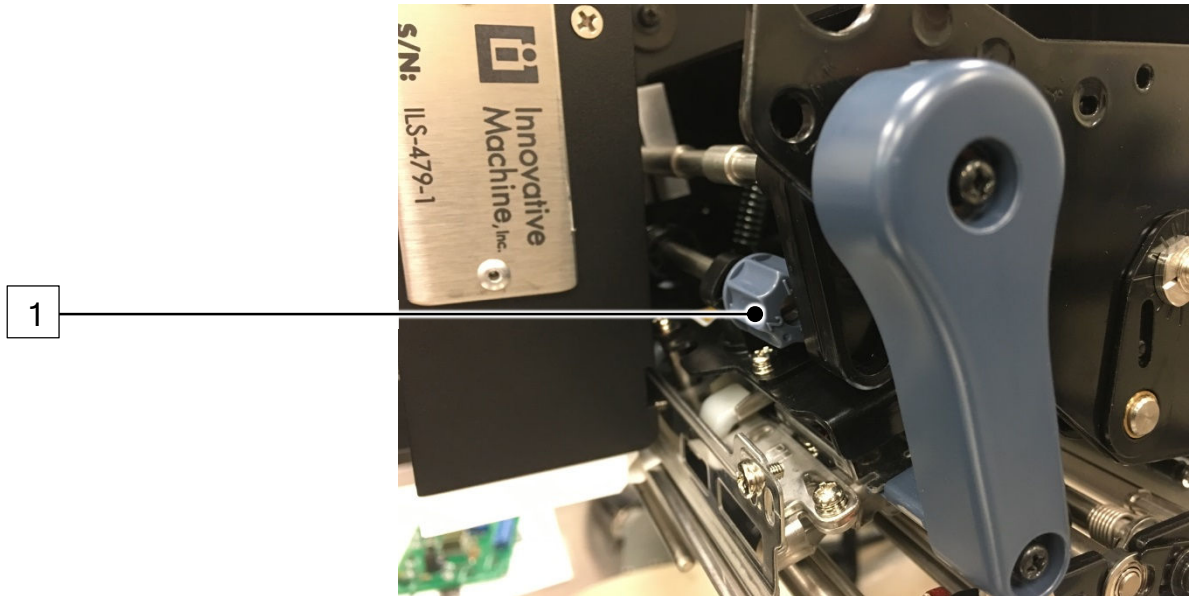


## Gap/Label Sensor (SSLAW pic reference)



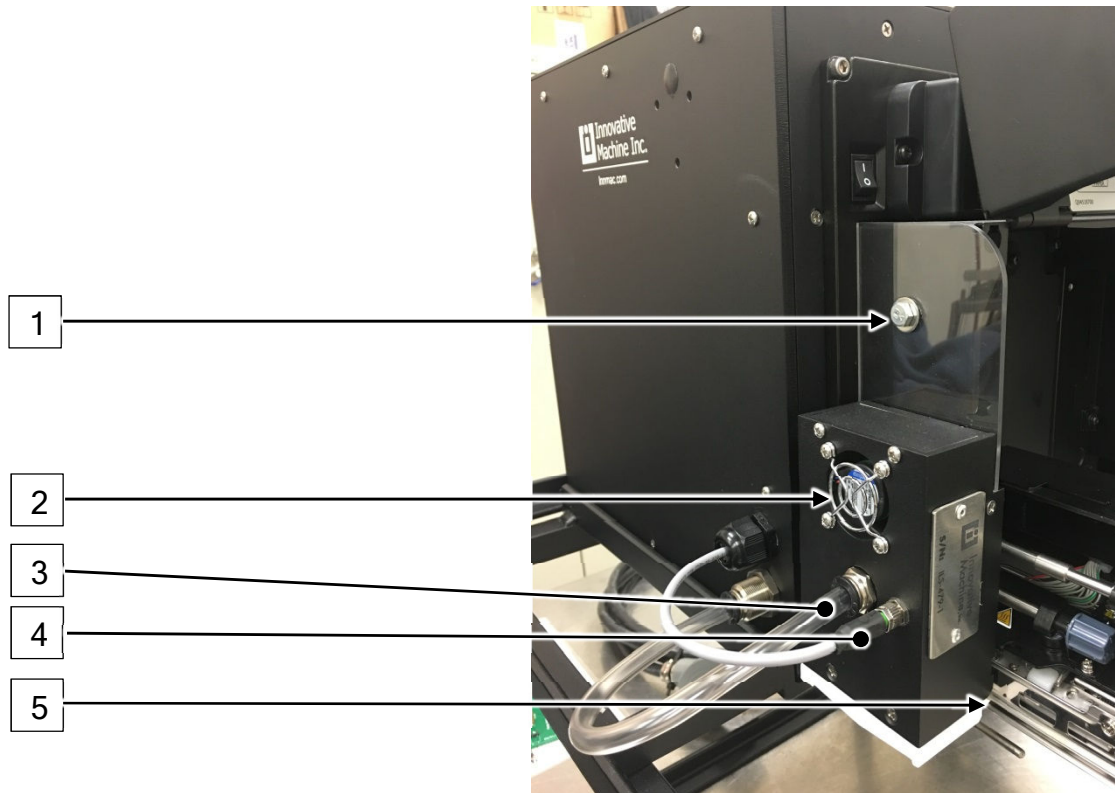
1	<p>The <b>Gap/Label Sensor</b> provides the SATO engine with feedback on the status of labels being fed through the printer. As the labels travel through the engine, this sensor detects the labels and gaps between the labels to ensure the availability of material to print on a how far to feed the labels. Once this sensor becomes dirty it can no longer properly detect the labels and potentially cause a “Labels out Fault” and/or multiple blank labels to be fed at once. To correct this issue, simply wipe with cleaning card and blow the sensor out with compressed air.</p>
---	--

## Print Head Pressure Switch



1	<p>The <b>Pressure Switch</b> provides the ability to increase the pressure the print head applies to the label stock affecting the ability of the thermal print plate to properly contact the label for proper printing. The label stock UPS utilizes requires the least amount of pressure due to its thickness, which is 1. If the switch is increased to anything other than 1, an increase in the tension on the labels could occur causing label feed issues.</p> <p><b>Having the pressure switch set at 2 or 3 will cause premature wear on the print plate shortening the life of this component.</b></p>
---	--

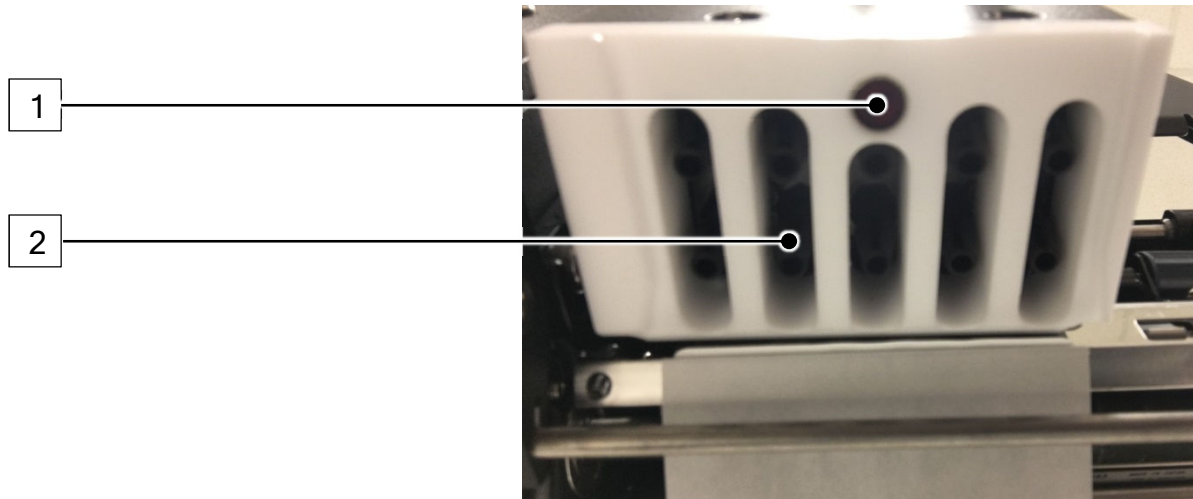
## Blow Head



1	Blow Head Mount uses (1) M6 Bolt as shown
2	<b>Blow head fan</b> is secured using screws on the top/side of blow head. The fan pulls air through the blow head (14 CFM) holding a label on the white face plate until the air jets are actuated. A simple test to verify fan functionality is to stack 3 labels and place on blow head while system is in <b>Maintenance Mode</b> . If a label will not stay on the blow head, the fan is failing or failed and needs to be replaced with <i>Innovative Machine Inc. Part Number UNI-APF12V-40MM</i>
3	<b>Air hose</b> should be secured by applying pressure and allowing hose to slide into push/pull fitting (hose will fall out if not secured properly.) Verify hose is secured inside of blow head by utilizing same procedures
4	<b>Power cord</b> should be screwed into terminal connector to ensure a secure connection with applicator. If loose, the

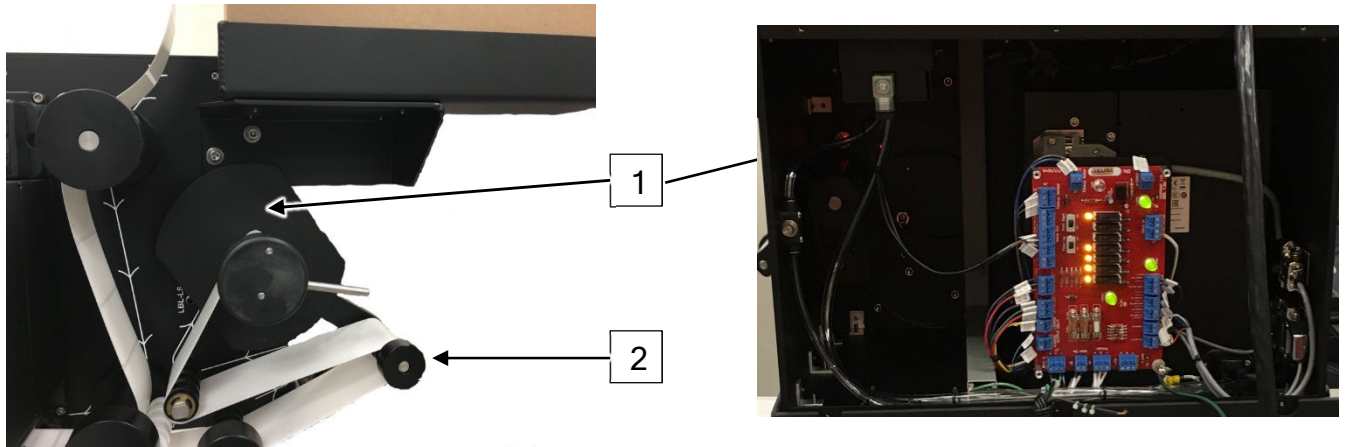
	blow head will not supply power to the fan or label detect photo eye.
5	<b>Air jet set screws</b> are very sensitive components and are usually the culprit of labels blowing consistently in front or behind the applicator. To adjust the direction of the label coming off the blow head use these two set screws. (Ie. If the labels are blowing upstream, move the set screws out a bit. Retest until the labels are blowing down as needed. If the labels are blowing downstream move the set screws in a bit.) Take caution when making adjustments due to the large impacts minimal adjustments will have. Ensure the label feed is correct before making these adjustments. Labels should release from the liner completely during dispensing.

View from bottom of Blow Head



<p>1</p>	<p>The <b>Label detect photo eye</b> detects when a label is on the blow head. If this photo eye becomes dirty, the SSLAW system will experience either false “Label on Blow Head Faults” or will not blow the label onto the package. Cleaning the photo eye typically solves both issues.</p> <p>If the photo eye does not respond after cleaning, a replacement photo eye or Blow head should be installed. Refer to replacement procedures on this component. <i>Part # for photo eye: UNI-LSBA-UNI-S84</i>  <i>Part # for the blow head for a SSLAW: ISS84-SSLAW-BH</i>  <i>Part # for the blow head for a HSLA : HSLA-BA-S84</i></p>
<p>2</p>	<p>The <b>Air jets/manifold</b> is what applies the label down to the package. The manifold shown here is what actually houses the air jets.</p>

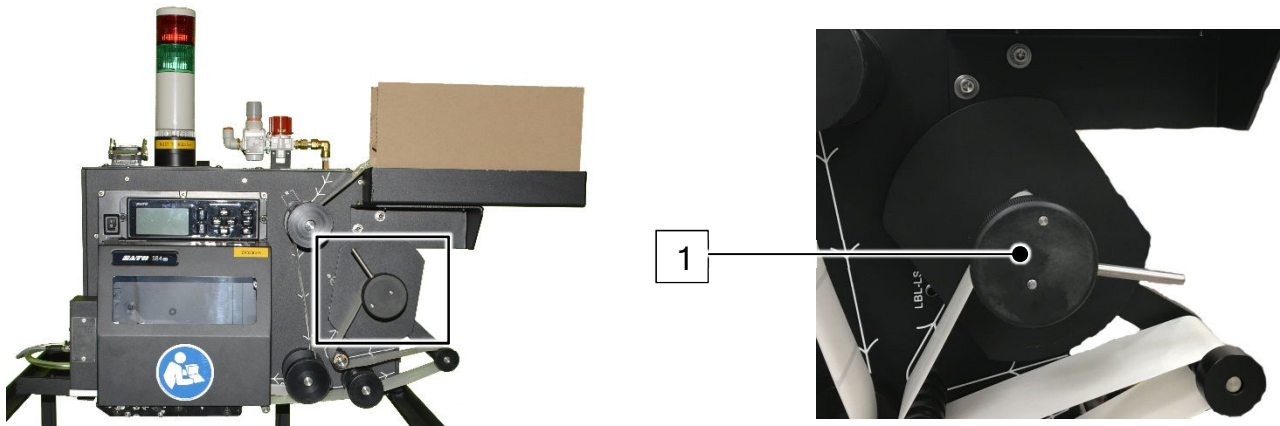
Dancer Arm (SSLAW pic shown)



1	To test the <b>Photoeye</b> remove the liner from the Takeup spool and manually move the dancer arm and verify if the led on the photoeye pictured is changing states from amber to black. If not, then the photoeye needs to be replaced.
2	The <b>Dancer Arm</b> provides constant tension on the label liner to prevent a jam in the label feed path. The dancer arm controls when the take-up spool drive engages to take-up any remaining slack in the label liner. The dancer arm should move freely and spin freely as well on the shaft. The Photoeye inside the applicator frame detects presence of the dancer arm as it moves across. As the dancer arm travels towards the furthest point (right) the photoeye engages the take-up spool. Once the dancer arm returns to the “ <b>Neutral</b> ” position within the shaft (1” from left most side) the photoeye dis-engages the take-up motor. If the photoeye fails, the take-up spool drive will not run.



Take-Up Spool (SSLAW pic shown)



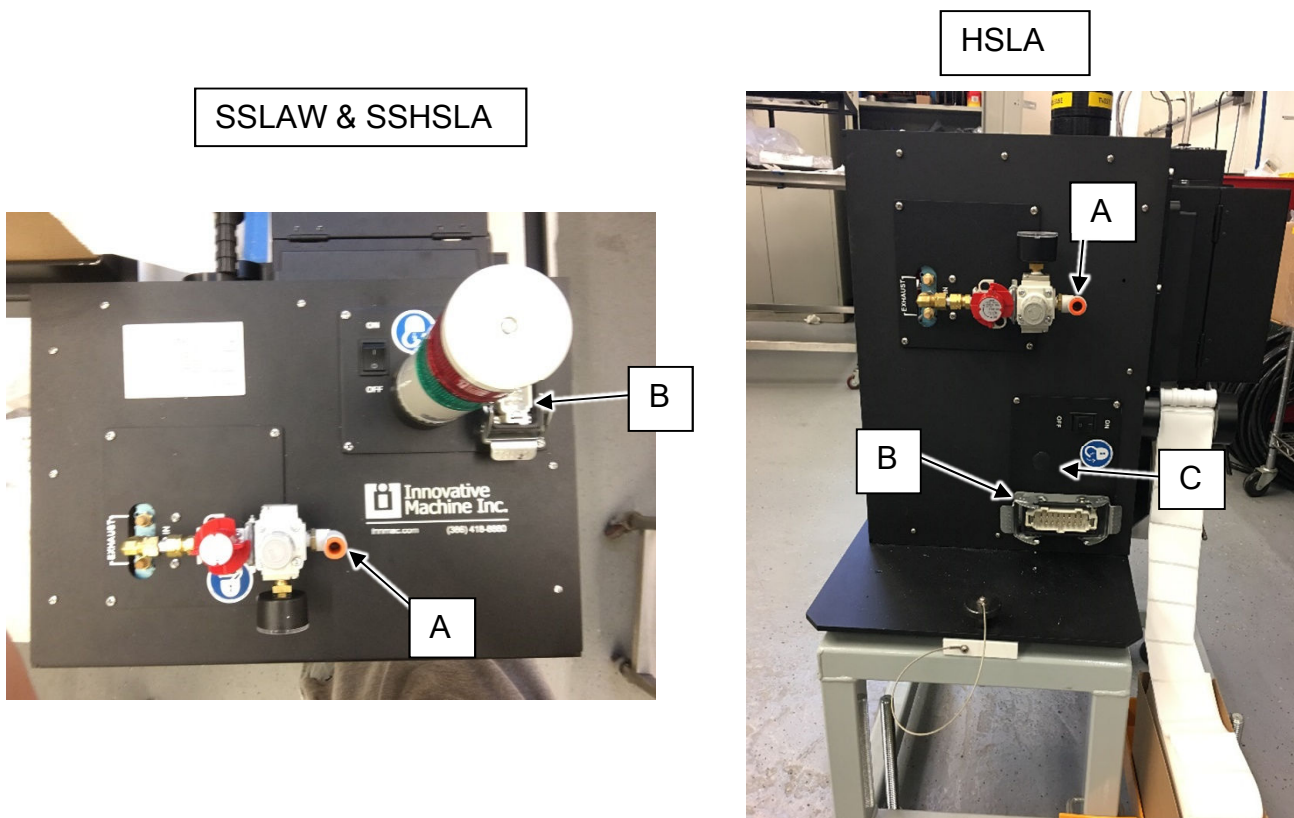
1	<p>The <b>Take-up Spool</b> provides the applicator with a simple way to retrieve and store all used label liner and keep proper tension on the feed system. The take-up spool should only spin “clockwise” and be in line with the new roll spool backing. The motor for the take-up spool is controlled by the dancer arm and should only be engaged while the dancer arm is extended past the “Neutral” zone within its slot. If the take-up spool does not respond to the dancer arm due to the drive belt or motor failure, replacement parts may be ordered through the current supplier of the applicator. If the Securing pin is lost, a replacement unit can be ordered through Oasis/Ariba (Part#: ISUNI-TUCA-11)</p>
---	---



## Installing the Label Applicator

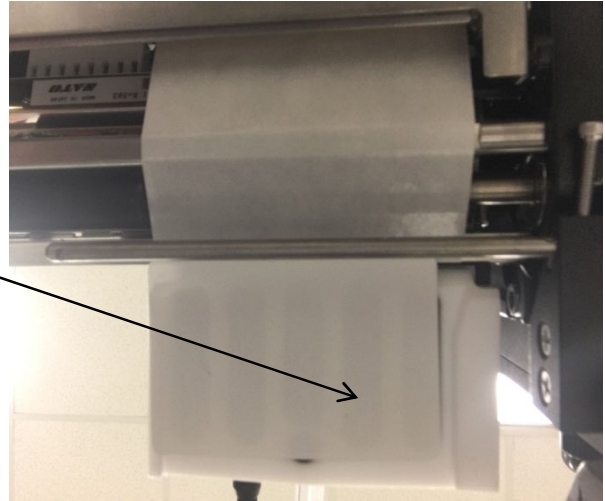
### Power and Air requirements

- The Model UniPrint116 line of printers require power and air connections as noted below.
- The air line should be of a 3/8" OD type (A).
- The electrical connection is a Harting type 16pin connector (B).
- Model HSLA will require a separate Ethernet communication cable (C).



## Label Alignment

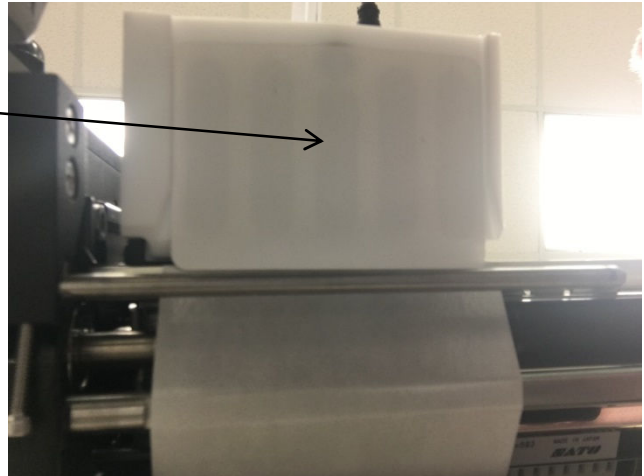
Adjustments to the tracking are only needed when label is consistently being fed onto to blow head at an angle as shown and not in the tracking groove.



View from bottom of blow head

Once the adjustment to the tracking has been completed the label should be centered on the blow head face plate and label blow pattern should be straight below blow head.

Visual reference for label being centered on blow head

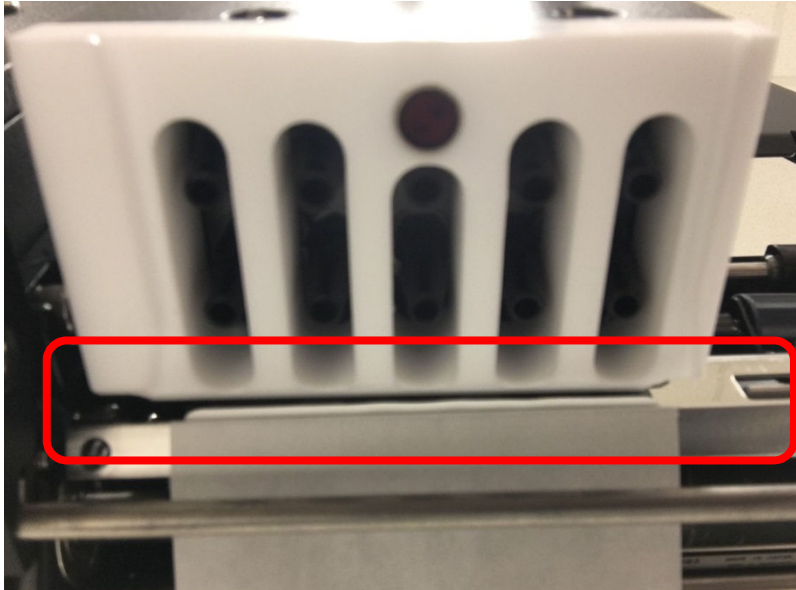


View from bottom of blow head

## Proper Label Feed Position

### Queued Label Position

To ensure the label feed is functioning properly, the queued label should be positioned as illustrated below. There should be between  $\frac{3}{32}$ " and  $\frac{1}{8}$ " of the queued label hanging out over the peel bar.



## Setting the “Offset” for Label Position

Following the procedures below allows the offset to be adjusted to acquire proper feed of the label queue:

1. Press and hold the UP and DOWN arrows for 2 seconds until you see the image below showing Pitch Position. Release the UP/DOWN. The Pitch Position adjusts the data on the label to make sure it is even from top to bottom. If you need to change the value use the UP or DOWN arrow key and press ENTER when done.



2. To change the value of OFFSET use the UP/DOWN arrow keys to make the change. Once the value has been changed press the Function Key to return to OFFLINE mode. At OFFLINE mode test the change and adjust as needed.



3. Increasing the “Offset Position” number should be done in increments of .25 .
4. If the too much of the queued label is being fed onto the blow head, decreasing the number would help.

## Adjusting Blow Head Air Jets



**CAUTION:** Adjusting components below without prior knowledge or guidance could cause unfavorable results.

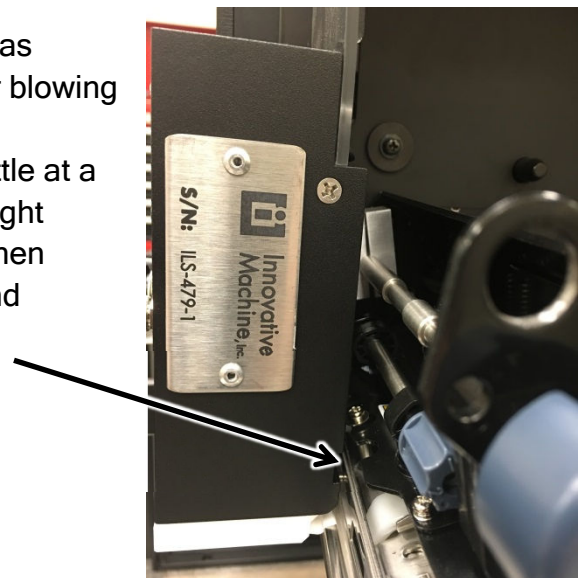
### Tools Required:

- Adjust Blow Head Set Screws	1/16" Allen wrench
-------------------------------	--------------------

Properly aligning the air jets inside the blow head is a very delicate process that requires minimal effort once the secure bolts have been loosened.

Follow the proper procedure to make necessary adjustments to the angle of the air jets:

- There are 2 set screws that may be adjusted as needed to position the blow head properly for blowing the labels correctly. If the labels are blowing upstream, then back out the 2 set screws a little at a time and test until the labels are blowing straight down. If the labels are blowing downstream then screw the set screws in to move the blow head towards the printer frame.



## New Applicator Checklist

The following checklist should be completed once a label applicator is installed from the manufacturer:

1. Verify all connections
  - Power connector
  - Air hose
2. Verify applicator is properly secured in printer mount
3. Ensure all components power on properly
  - Applicator power switch switched to on position
  - SATO/Print engine powered on
    - Initial air charge should be heard until engine boots.
    - Verify 80-90 psi on regulator
    - SATO LCD screen should be illuminated with “Online” displayed
    - Opening printer door should generate printer alarm (3 beeps should be heard)
    - Verify all SATO label feed heads are secured (Tracking, Print head and Knurled roller head)
    - Once SATO printer door is closed the LCD should display “Offline”
4. Verify all idle roller jackets spin freely and free of residue
5. Properly load a new fanfold of labels ensuring that paper feed path is clear of debris or residue
  - Verify label guide is touching the label liner (should not be distorting the liner)
  - Verify all 3 heads are secured per training document (Tracking, Print head and Knurled roller head)
  - Once labels are loaded per training document, press Feed button to present a label onto blow head
    - Feed 10 labels onto blow head to ensure proper label alignment
    - The 11<sup>th</sup> Label should be square and centered on blow head
6. Test label blow pattern by putting SSLAW into “Maintenance Mode”
  - Press the feed button to feed a label onto the blow head and blow the label to the belt
  - The label pattern should be consistent not varying more than half a label
7. Test applicator by running a stress test of 75 to 100 envelopes to verify applicator is communicating and performing correctly

# General Maintenance



**CAUTION:** Before maintenance is started, ensure that both the Electrical and Pneumatic lockout/tagout (LOTO) has been carried out.

## Tools Needed

	Description
-	Wrench or socket for blow head bolt removal
-	1/8" Allen wrench
-	Adjustable wrench
-	1/16" or 0.60" Allen wrench
-	3/32" Allen wrench
-	5/32" Allen wrench
-	6/32" Allen wrench
-	Small Phillips head screw driver



## Proper Cleaning Supplies

- iProcurement supplier item number 02115602,  
Description: “**PRINTER CLEANING PAD 4X6, 25/BX**”



- iProcurement supplier item number IS47362, Description: “**ZEBRA PREVENTATIVE MAINTENANCE KIT, PRINTHEAD CLEANER, INCLUDES SIX SATURATED ALCOHOL CLEANING SWABS, FOR USE WITH ALL ZEBRA PRINTERS**”



## Frequency of maintenance

- Follow proper Daily Pre/Post Trip practices

## Cleaning includes (recommended daily)

- Verify all label spools and rollers spin freely and clean from label residue
- Verify Label Guide is free from label residue and touching paper liner
- Verify/Clean the gap sensor's black segmented rollers
- Verify/Clean gap sensor window and blow out with compressed air to clear dust/residue (use alcohol cleaning pad if necessary)
- Verify the print head and print plate area is free of label residue and clean if necessary with alcohol pad
- Verify the knurled drive roller is clean and free of label residue
- Verify the blow head is clean and internal label detect photo eye functions properly (cleaned with alcohol swab if necessary) (part #: IS47362)
- Verify dancer arm moves freely and is free of label residue
- Entire applicator should be cleaned with compressed air to ensure all components and placards are visible (alcohol cleaning pad may be used if necessary)

## Decommissioning and Disposal

When the label applicator has reached the end of its life-cycle, care should be taken to decommission and dispose of it.

Decommissioning would typically involve the cutting of all pneumatic hoses and electrical conductors, after being disconnected from the source, to ensure that the label applicator is inoperable.

When disposing of the label applicator, it should not be treated as household waste. Instead, disposal of any hazardous substance and/or electrical/electronic components should be in accordance with National regulations of the End User (e.g. the Re-cycling of components, sub-assemblies and the equipment itself).

## Declaration of Conformity



**Name of manufacturer or supplier**

Innovative Machine Inc.

**Full postal address including country of origin**

6115 NW 23rd Place, Gainesville, FL 32653, USA

**Description of product**

Print and apply Label Machine

**Name, type or model, batch or serial number**

**Model:** Uniprint116 - SSLAW

**Serial Number:** XXXXXXX

120/240VAC, 1 Phase 50/60Hz

Gainesville (FL) USA

**Relevant Standards for Machinery Directive**

EN 4414: 2010; EN 11201:2010; EN 12100: 2010; EN 13849-1: 2015; EN 13857:2008; EN 14120: 2015; EN 60204-1: 2006/AC2010 and EN 61310-1:2008

**Relevant Standards for EMC Directive**

EN 55011+A1: 2010; EN 61000-4-2: 2009; EN 61000-4-3 +A2: 2010 and EN 61000-4-4 +A1: 2012

**Name of Responsible Person within the EU**

Dianne Cowley

**Full postal address if different from manufacturers**

Lacon Ltd: 300 Pennistone Road, Sheffield, S5 FU2, England

**Declaration**

I declare that 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.

**Printed Name:**

**Signature of Manufacturer:**

**Position Held:**

**Date:**




ORIGINAL

## Troubleshooting




**CAUTION:** Adjusting components below without prior knowledge or guidance could cause unfavorable results

### Labels Not Printing

Symptom	Possible Causes	Troubleshooting Steps
Labels Not Printing 	<ol style="list-style-type: none"> <li>1. Applicator/Print engine not powered on</li> <li>2. Applicator/Print engine not "Online"</li> <li>3. Label jam in feed path</li> <li>4. UPSView not in "Running" state</li> <li>5. UPSView PLC message ID/Green dot missing</li> <li>6. XLE communication loss</li> <li>7. PLC communication loss</li> <li>8. UPSView PC communication loss</li> </ol>	<ol style="list-style-type: none"> <li>1. Verify power for both applicator and print engine (plug and power switch)</li> <li>2. Confirm applicator LCD display is "Online"</li> <li>3. Verify label path is clear of jam or residue</li> <li>4. Verify UPSView is "Running" (<i>Page 33</i>)</li> <li>5. Verify PLC message ID/Green dot in UPSView "Conveyor View Window" (<i>Page 33</i>)</li> <li>6. Power off XLE hockey puck in PC panel and power back on (<i>Page 34</i>)</li> <li>7. Contact Plant Engineering to cycle power to PLC panel</li> <li>8. Reboot UPSView PC</li> </ol>

## Label Feed/Bouncing

Symptom	Possible Causes	Troubleshooting Steps
<p>Labels Bouncing</p> <p><i>*When corrected, label pattern should represent this illustration</i></p> 	<ol style="list-style-type: none"> <li>1. Label Jam</li> <li>2. Residue build up</li> <li>3. Blow head not in “Home” position</li> <li>4. Label feed inconsistent</li> <li>5. Bad Label stock</li> <li>6. Labels not feeding correctly onto blow head</li> <li>7. Knurled roller not secured properly or dirty</li> <li>8. Take-Up spool not turning</li> <li>9. Blow head Fan not running properly</li> <li>10. Blow head diffuser sticking</li> <li>11. Blow head misaligned</li> </ol>	<ol style="list-style-type: none"> <li>1. Verify label path is free of label jam / excessive residue / and label pieces</li> <li>2. Perform normal Pre Trip cleaning procedures (Refer to <b>SSLAW Pre/Post Trip</b> document in related documents)</li> <li>3. Verify blow head is secured properly against print head (“Home” position) (<i>Page 32</i>)</li> <li>4. Verify label is squarely positioned on blow head (even spacing on both sides of label while on blow head)</li> <li>5. Replace labels with new stock Description: “Reliance ALL TEMPERATURE ADHESIVE fanfold)</li> <li>6. Next/Queued label under print head not in correct position (<i>Page 33</i>)</li> <li>7. Verify knurled roller is secured properly and clean (<i>Page 9</i>)</li> <li>8. Verify dancer arm is engaging take-up spool (<i>Page 38</i>)</li> <li>9. Ensure blow head fan is spinning and holding labels on head</li> <li>10. <b>Align blow head jets</b> (<i>Page 27</i>)</li> </ol>

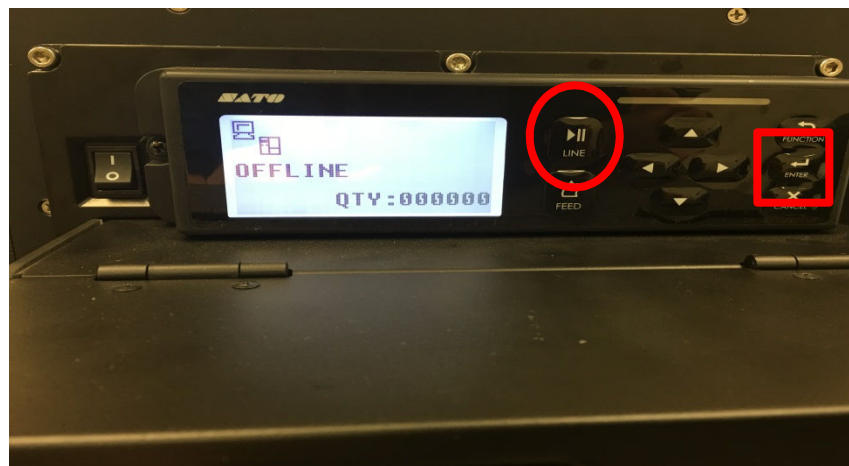
## Setting voltage for sensor

The **Label Sensor** uses voltage to detect the label liner and the gaps between the labels on the liner. If this voltage is not set correctly, there is a potential to have multiple blank labels printed due to the sensor not seeing the difference between the liner only and the label on the liner. To set this voltage requires utilizing the digital settings menu in the SATO. Follow the steps below to properly set the sensor voltage correctly.



SATO LCD screen - Online

1. To enter the SATO's Service Setup menu, enter the Line Key first to put the printer in OFFLINE Mode. Once in offline mode press the ENTER key to bring you into the function menu.



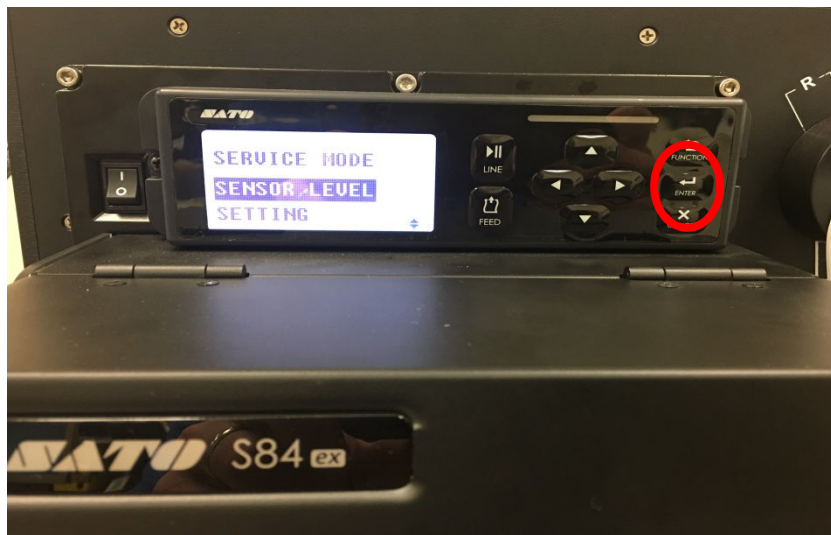
SATO LCD Screen - Offline

2. Once in the Function Menu as shown below, use the arrow keys to move to the hammer icon and SERVICE MODE will appear as shown. Press the ENTER key.



Function Menu Service Mode

3. Make sure SENSOR LEVEL is highlighted using the up/down arrow keys. Press the ENTER key.



Service Menu Sensor Level Screen



4. Make sure AUTO is selected as shown below using the up/down arrow keys. Press ENTER.
5. At the SENSOR SELECT screen shown below highlight GAP as shown and press the ENTER key.



Sensor Level Auto Select Screen

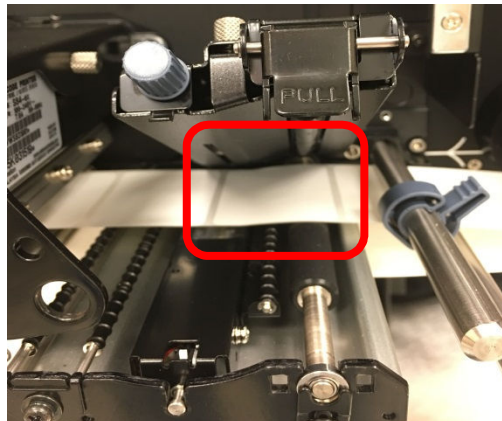


Sensor Select Gap Setting Screen

6. Follow the instructions shown below by removing the label that is denoted and closing the latch. Once you remove the label and latch press the ENTER key.

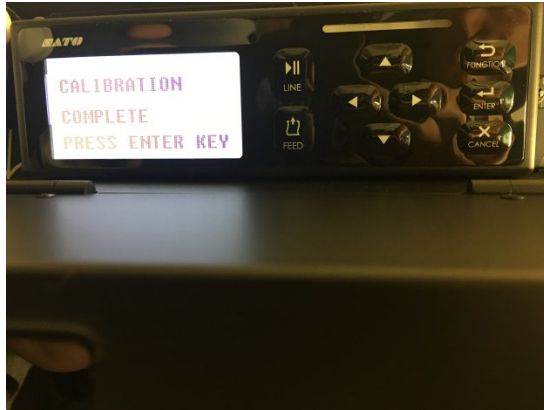


Gap Sensor setting

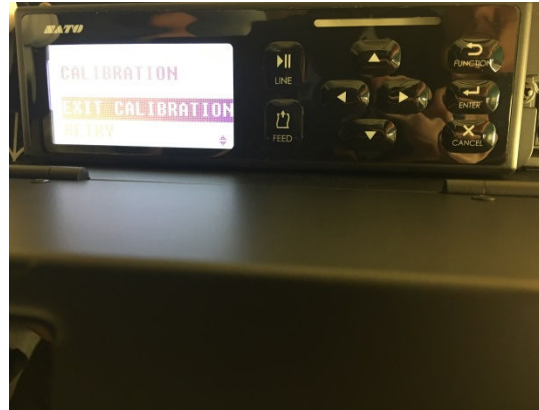


Liner present under sensor





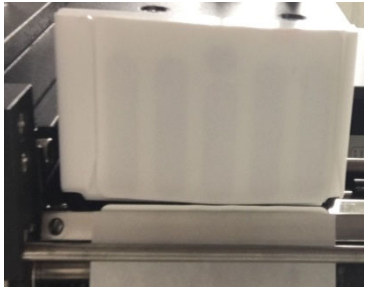
Calibration Complete



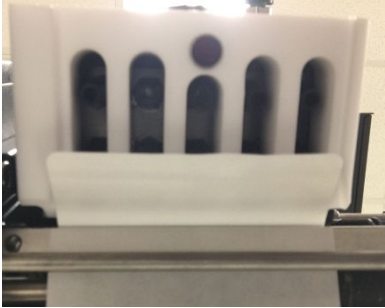

Exit Calibration

7. The screen above will show after the Printer Calibrates the Gap Voltage. Follow the instructions as shown and press the ENTER key.
8. The final screen shown above when the calibration has been completed. Press the ENTER key.
9. After pressing the ENTER key at exit Calibration press the CANCEL key two times to back out of the Function Menu and back to the ONLINE Run screen.

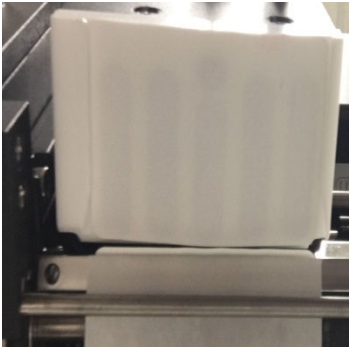
## Multiple Feed

Symptom	Possible Causes	Troubleshooting Steps
<p data-bbox="121 380 414 453">Multiple blank labels feeding</p> 	<ol data-bbox="506 354 902 506" style="list-style-type: none"><li>1. Label stuck on print head</li><li>2. Dirty gap sensor</li><li>3. Bad label stock</li><li>4. XLE Communication loss</li></ol>	<ol data-bbox="943 354 1555 716" style="list-style-type: none"><li>1. Verify print head is clean and free of residue</li><li>2. Clean gap sensor bar where label is detected (careful not to bend or misalign brass spring arm near sensor area) <i>(Page 18)</i></li><li>3. Verify label stock is good and replace if necessary</li><li>4. Reboot XLE hockey puck <i>(Page 42)</i></li></ol>

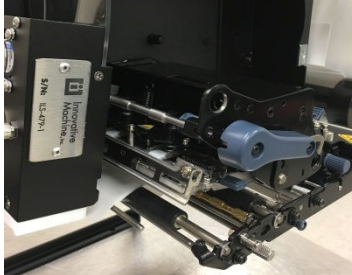
## Label Feed Inconsistent

Symptom	Possible Causes	Troubleshooting Steps
<p>Labels feeding inconsistently onto Blow Head (half/full label)</p>  <p><i>Incorrect feed</i></p>  <p><i>Correct feed</i></p>	<ol style="list-style-type: none"> <li>1. Print head has excessive residue buildup</li> <li>2. Labels fed incorrectly</li> <li>3. Blow head not in home position</li> <li>4. Take-up spool not functioning properly</li> <li>5. Knurled roller has excessive label residue buildup</li> <li>6. Print head pressure switch not set correctly</li> <li>7. Gap sensor voltage not set properly</li> <li>8. Bad label stock</li> </ol>	<ol style="list-style-type: none"> <li>1. Perform pre-trip cleaning procedures and verify label path is clear</li> <li>2. Confirm label feed path with printed white line on applicator back plate</li> <li>3. Verify blow head is secured properly against print head</li> <li>4. Ensure dancer arm engages take-up spool motor</li> <li>5. Verify knurled roller is clean and secured properly (<i>Page 8</i>)</li> <li>6. Verify print head pressure switch is set to "1" (<i>Page 24</i>)</li> <li>7. Verify Gap Sensor Voltage is set correctly (<i>Page 18</i>)</li> <li>8. Replace labels with new stock Description: "Reliance ALL TEMPERATURE ADHESIVE fanfold)</li> </ol>

## Not Blowing Labels

Symptom	Possible Causes	Troubleshooting Steps
<p>Label printed but not blowing onto package</p> 	<ol style="list-style-type: none"> <li>1. Printer not "Online"</li> <li>2. Label jam</li> <li>3. Cable/air hose to blow head not secured</li> <li>4. Air pressure issue</li> <li>5. Dirty/Misaligned blow head photo eye</li> <li>6. E-Stop button pushed in (maintenance mode enabled)</li> <li>7. XLE Communication loss</li> <li>8. PLC communication loss</li> </ol>	<ol style="list-style-type: none"> <li>1. Confirm applicator is "Online"</li> <li>2. Verify label is being fed onto blow head and not jammed</li> <li>3. Verify "gray" power cable and air hose are secured (<i>Page 25</i>)</li> <li>4. Verify 80-90 psi at regulator for applicator</li> <li>5. Verify blow head photo eye is working and clean (<i>Page 27</i>)</li> <li>6. Reset E-Stop</li> <li>7. Reboot XLE hockey puck (<i>Page 34</i>)</li> <li>8. Contact PE to cycle power to PLC panel</li> </ol>

## Open Head Sensor Error

Symptom	Possible Causes	Troubleshooting Steps
<p>SATO - Open Head Sensor</p> 	<ol style="list-style-type: none"><li>1. Print head not properly secured</li><li>2. Bad Sensor</li></ol>	<ol style="list-style-type: none"><li>1. Verify print head lever is properly closed/secured (<i>Page 8</i>)</li><li>2. Print head sensor switch failure (SATO print engine replacement)</li></ol>

## Spare Parts

<b>UNIPRINT116 HSLA Specific Parts</b>	
HSLA-MTRLR	Dual Motor Pulley Large
HSLA-MTRSM	Dual Motor Pulley Small
HSLA-TKUP-BACKPLATE	Takeup Backplate for Model HSLA
HSLA Dancer Arm Assembly	HSLA Dancer arm assembly
HSLA-TUCA-12	Uni-Print-109 Take-up pin holder assembly with pins and Delrin outer holder.
<b>UNIPRINT116 SSLAW Specific Parts</b>	
ISUNI-TKUP-LR	UniPrint109 and UniPrint116 Takeup Pulley Large
IS-UNI-TKUP-MTR-16	UniPrint109 and UniPrint116 Takeup Pulley Small for motor
ISUNI-TUCA-11	UniPrint109 and UniPrint116 Takeup Pin holder assembly
UNI116 TAKEUP BACKPLATE	UniPrint116 Takeup Backplate
<b>Universal Parts for Model UNIPRINT116 Machines</b>	
<b>Mechanical</b>	
HSLA-DB	Square Figure 8 Take-up Drive Belt
HSLA-AAR-8	Air Assist Rod Stainless Steel
HSLA-BB-MNT	HSLA Blow Bar Mounting Block with Three Screws
HSLA-Take-Up-Spring	Take-up Spring
HSLA-DA Roller	Dancer Arm Roller
HSLA-DA- Assembly	Dancer Arm Assembly
IS92815-1536	IMI, S84 Cam
IS2116-1035	IMI, Pinch Roller Assembly, For Uni-Print-109, UNIPRINT116
IS4615-1633	IMI, S84 Guide Clip
HSLA-Take-Up Core	Takeup Roller for UniPrint109 and UniPrint116
IMI-PrinterCover	Universal Cover for Model UniPrint109 and Model UniPrint116
ISUNI-DA	UniPrint109 and UniPrint116 Dancer arm roller
UNI-BB	Bearing Block Assembly with Shaft



<b>Electrical</b>	
HSLA-Relay-SPST-5A-24V	5 Amp Relay for Main PCB Board
HSLA-Harting Base	Harting Connector Base Plate with Mounting Latches
HSLA-25-8PR/#16 CBL	25'-8PR/#16 Cable 300 Volt Wired to Female Harting Connector
HSLA-2Amp-Fuse	Fuse 2 Amp
HSLA-6Amp-Fuse	Fuse 6 Amp
HSLA-Fuse-Pack	Fuses for Main PCB Pack (1.6 amp & 2 amp & 6 amp)
UNI116-TKUP-SENSOR	Take-up Photo Eye Contrinex
HSLA-LME-UF8	Litetree, Patlite for Uni-print 109, UNIPRINT116, LME_UF8 24v AC/DC
HSLA-ON/OFF Switch	On/Off Switch
UNI116-MCB	UNIPRINT116 MAIN CONTROL BOARD
IS92315-1113	IMI Cable, R29622000 S84EXT Cable
IS92315-1114	IMI Cable, S84 RS232 Cable
UNI116-APP CABLE	M8 Female Cable for connecting to blow head on UNIPRINT109 AND UNIPRINT116 Machines
UNI116-PC-COVER	PC board Cover for UniPrint116
ISUNI-864-005	UNIPRINT109 AND UNIPRINT116 TAKEUP MOTOR
<b>Pneumatics</b>	
HSLA-FC14	Flow Control For Air Assist Rod
ISUNI-864-007	Mac Valve Series 461A Dual 2/3
ISUNI-AF18/14S-5	UNI-PRINT-109 1/8 NPT X 1/4" PUSH IN STRAIGHT FITTING
ISUNI-AM18NPT-6	1/8" NPT Mufflers
ISUNI-MS 38/18N	UNI-PRINT-109 1/8 NPT X 3/8" PUSH IN STRAIGHT FITTING
ISUNI-ME 38/18N	UNIPRINT116 PUSH TO CONNECT ELBOW 3/8" TUBE TO 1/8" NPT
UNI116-AIR-PREP-ASSY	UNIPRINT116 AIR PREP ASSEMBLY WITH DUMP VALVE AND LOCKOUT/TAGOUT
UNI116-REG-GUAGE	UNIPRINT116 GUAGE FOR REGULATOR
UNI116-3/8" TUBING	UNIPRINT116 CLEAR TUBING 3/8" OD APPROX 24"
UNI116-1/4" TUBING	UNIPRINT116 CLEAR TUBING 1/4" OD APPROX 30"
	<b><u>Blow Applicators and Repair Parts For UNIPRINT116 SSLAW</u></b>
ISS84-SSLAW-BH	IMI Blow Head, W/Mount for Uni-Print-109 SSLAW Machine with S84 Print Engine
UNI-BALS-109-S84	Lexan Mnt Plate for Uni-Print-109 Blow Applicator with S84 Print Engine
UNI-APF12V-40MM	Replacement Fan 12Volt for Uni-Print-109 Blow Applicator with S84 Print Engine
UNI-APFG-S84	Fan Guard for Uni-Print-109 Blow Applicator with S84 Print Engine
UNI-LSBA-UNI-S84	Label Sensor for S84-SSLAW-BH Blow Applicator BOS-08M-PS-RD11-02
	<b><u>Blow Applicators and Repair Parts for UNIPRINT116 HSLA</u></b>
HSLA-BA-S84	IMI Blow Head, W/Mount for HSLA Side Apply Machine with Right Hand S84 Print Engine
HSLA-BALS-S84	Lexan Mnt Plate for HSLA Blow Applicator with Right Hand S84 Print Engine
HSLA-APF12V-40MM-S84	Replacement Fan 12Volt for HSLA Blow Applicator with Right Hand S84 Print Engine
HSLA-APFG-S84	Fan Guard for HSLA Blow Applicator with Right Hand S84 Print Engine
HSLA-LSBA-S84	Label Sensor for HSLA-BA-S84 Blow Applicator BOS-08M-PS-RD11-02

<b>Print Engines</b>	
ISS84EX-LH-SSLAW	Sato Parts Printer DT, S84EX-LH-SSLAW
S84EX-RH-HSLA	Sato Parts Printer DT, S84EX-RH-HSLA
<b>Repair Kits for Sato S84 Print Engines</b>	
ISS84-STAGE 1 KIT	Sato Parts, S84 Stage 1 Kit (Made up of 5 parts R27603000, R29176000, R29177000, R29219000, RP18026010)
ISS84-STAGE 2 KIT	Sato Parts, S84 Stage 2 Kit (Made up of 2 parts P17053000, R21140001)
<b>Individual Repair Parts for Sato S84 Print Engines</b>	
ISR29219000	Sato Parts, Print Plate, S84 203DPI
ISR27603000	Sato Parts, Pressure Roller Assembly
ISR29177000	Sato Parts, Platen Roller C
ISR29176000	Sato Parts, Platen Roller B
ISP18026010	Sato Parts, Filter Pad for Back of S84 Print Engine
R29054000	Sato Parts, Gap Sensor (Lower)
R29053000	Sato Parts, Gap Sensor (Upper)
P34928000	Sato Parts, Timing Belt (340MM) Gear Box
P46271000	Sato Parts, Timing Belt (192MM) Gear Box
P46270000	Sato Parts, Timing Belt (274MM) Gear Box
R28374005	Sato Parts, Main PCBA Control Board
K00466000	Sato Parts, Power Supply
R28423001	Sato Parts, Motor Drive PCBA Board
R30802001	Sato Parts, LCD PCBA Board
<b>Tool Kit for Print Engine Field Repair</b>	
IMI-Tool Kit	Tool Kit for field repairs on Sato Print Engines (Includes 7 tools and 1 bag)

<b>Crates and Packaging</b>	
3R2727-24B	SKB Molded Hard Plastic Shipping Crate Foamed to Fit Frame with Print Engine and Blow Applicator for UNIPRINT116 Models
Wooden Crate 1 Machine	Wooden Crate Containing 1 Print and Apply Machines with Room for Mounting Brackets and Cables
Wooden Crate 3 Machines	Wooden Crate Containing 3 Print and Apply Machines with Room for Mounting Brackets and Cables
<b>Complete Machines and Mounting Stands</b>	
HSLA Side Apply Machine	Model HSLA Side Apply Label Applicator With Blow Applicator and (Right Hand S84 Sato Print Engine)
Mounting Stand for HSLA	Mounting Stand with Fan-Fold Tray and Sliding Base Mount and Locking Pin (Right Hand Machine)
Uni-116-UPS-SSLAW	Model Uni-116-UPS-Tray Top Apply Label Applicator With Blow Applicator and (Left Hand S84 Sato Print Engine)
Mounting Bracket Uni-Print-116	Mounting Bracket for Model Uni-116-UPS-Tray