



# Conversion Station Model 812

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Owner's Manual

**3M Library Systems**  
3M Center, Building 225-4N-14  
St. Paul, Minnesota 55144-1000  
[www.3m.com/library](http://www.3m.com/library)

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78-8129-2472-4\_A

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# Safety Information



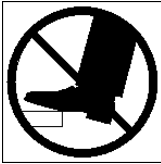
Read, understand, and follow all safety information contained in these instructions prior to installation and use of the 3M™ Conversion Station Model 812. Retain these instructions for future reference.

## Intended use

The 3M Conversion Station Model 812 is intended for use in converting library items that use optical barcode technology to RFID technology using 3M™ RFID Tags.

The Model 812 is designed and intended for use in an indoor library environment. It has not been evaluated for other uses or locations.

EXPLANATION OF SIGNAL WORD CONSEQUENCES	
 <b>DANGER:</b>	Indicates a potentially hazardous situation, which, if not avoided, will result in death or serious injury and/or property damage.
 <b>WARNING:</b>	Indicates a potentially hazardous situation, which, if not avoided, could result in death or serious injury and/or property damage.
 <b>CAUTION:</b>	Indicates a potentially hazardous situation, which, if not avoided, may result in minor or moderate injury and/or property damage.
<b>CAUTION:</b>	Indicates a potentially hazardous situation, which, if not avoided, may result in property damage.

EXPLANATION OF PRODUCT SAFETY LABEL SYMBOLS	
	<b>Attention: Read accompanying documentation</b>
	<b>Warning: Risk of Electric Shock</b>
	<b>Warning: Not a Step</b>
<div style="border: 1px solid black; padding: 5px; width: fit-content;">           BACKLIGHT CONTAINS MERCURY,            DISPOSE ACCORDING TO LOCAL,            STATE, AND FEDERAL LAWS         </div>	<b>Caution: Mercury disposal hazard</b>

## **WARNING**

### **To reduce the risk associated with hazardous voltage:**

- Do not attempt to modify or repair — no user serviceable parts inside — contact 3M Service for repair.

### **To reduce the risk associated with back strain related injury:**

- Follow safe lifting procedures.

### **To reduce the risk associated with a fall or machine tipping related injury:**

- Do not step or lean on any part of the Conversion Station.

## **CAUTION**

### **To reduce the risk associated with eye related injury:**

- Do not look directly into laser scanner device;
- At the end of service life, dispose of the laser scanner in accordance with federal, state and local requirements.

### **To reduce the risk associated with environmental contamination related injury:**

- The Conversion Station contains a lithium battery, mercury in the monitor/display, and circuitry that contains lead in the solder. At the end of service life, dispose of the Conversion Station in accordance with federal, state and local requirements.

## **IMPORTANT NOTES**

### **Do not bend, fold, or damage the RFID tag in any way.**

Such damage increases the likelihood of premature tag failure.

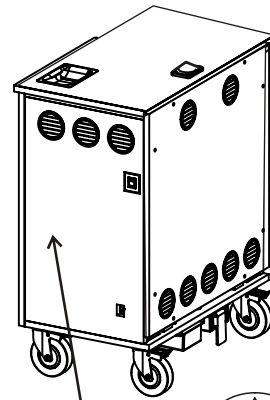
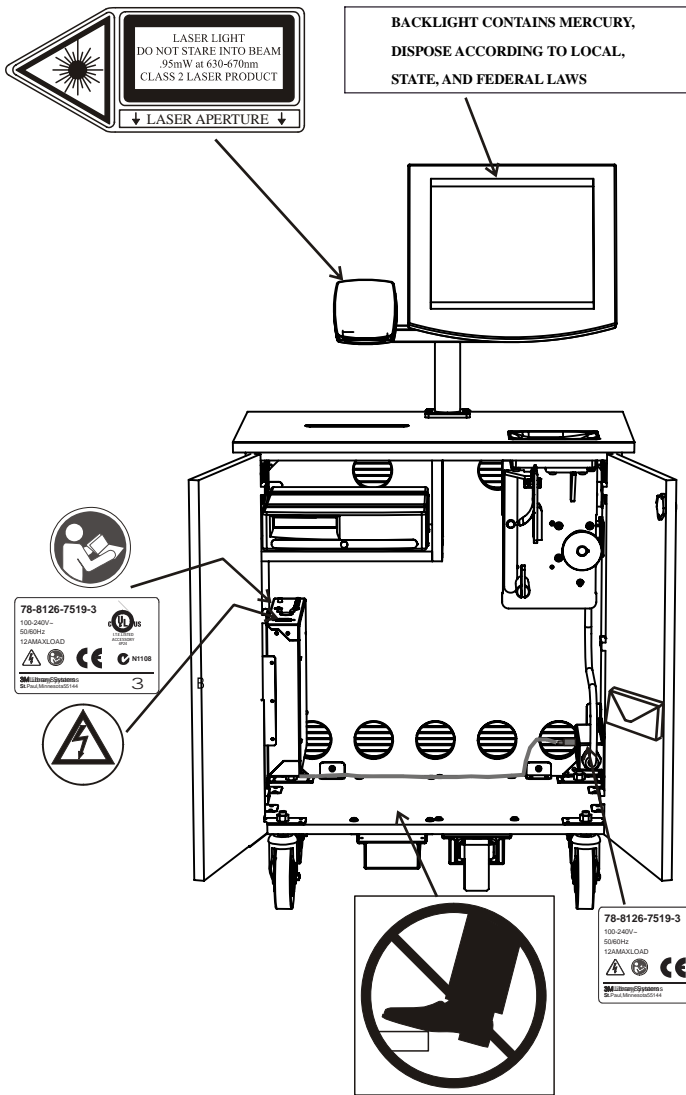
**If you receive a system message indicating that a tag cannot be programmed, that tag may be defective.** Ask your conversion coordinator where to put any tags that are suspected of being un-programmable.

## **IMPORTANT NOTE**

### **The Code of Federal Regulations (CFR) 21CFR1040.10 requires the following statement for products containing lasers:**

Caution—use of controls or adjustments or performance of procedures other than those specified herein may result in hazardous laser light exposure.

# Safety Label Locations



**Model 812 Conversion Station**  
**100-120V / 200-240V~**  
**50 / 60 Hz**  
**5 / 2,5 A**  
 FCC ID: DGFSSD812  
 Canada: \_\_\_\_\_  
**S/N: 812XXXX**

**UL** US  
LITE LISTED  
4P24

**CE**

**3M Security Systems Division**  
 St. Paul, Minnesota 55144

**3M**

This device complies with Part 15 of the FCC Rules. Operation is subject to the following two conditions: (1) this device may not cause harmful interference, and (2) this device must accept any interference received, including interference that may cause undesired operation.

This Class A digital apparatus meets all requirements of the Canadian Interference-Causing Equipment Regulations.  
 Cet appareil numérique de la classe A respecte toutes les exigences du Règlement sur le matériel brouilleur du Canada.

**This product complies with  
21 CFR Subchapter J,  
IEC 60825-1:1997  
and EN 60825-1:1996**

812\_OM\_001\_labels

# Regulatory compliance

## EMC compliance USA and Canada

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### **FCC Radio Frequency Rules and Regulations**

This equipment has been tested and found to comply with the limits for a Class A device, pursuant to Part 15 of the FCC Rules. These limits are designed to provide reasonable protection against harmful interference when the equipment is operated in a commercial environment. This equipment generates, uses, and can emit radiated radio frequency energy and, if not installed and used in accordance with the instruction manual, may cause harmful interference to radio communications.

Operation of this equipment in a residential area is likely to cause harmful interference in which case the user will be required to correct the interference at their own expense.

**NO MODIFICATIONS.** Modifications to this device shall not be made without the written consent of The 3M Company. Unauthorized modifications may void the authority granted under Federal Communications Commission Rules permitting the operation of this device.

### **FCC Intentional Radiator Certification**

FCC ID: DGFSSD812.
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This equipment contains an intentional radiator approved by the FCC under the FCC ID number shown above. This device complies with Part 15 of the FCC Rules. Operation is subject to the following two conditions: (1) this device may not cause harmful interference, and (2) this device must accept any interference received, including interference that may cause undesired operation.


## Industry Canada radio frequency rules and regulations

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This Class A digital apparatus meets all requirements of the Canadian Interference-Causing Equipment Regulations.

Cet appareil numérique de la classe A respecte toutes les exigences du Règlement sur le matériel brouilleur du Canada.

# Specifications

Shipping Dimensions and Weight		Tag Types
Height	57 inches [1448 mm]	<p>Make sure that you use the correct type of tag. The Conversion Station Model 812 uses ISO-compliant RFID tags from 3M.</p> <p>3M inspects all RFID tags during manufacturing and ensures that shipments contain the quantity of good tags ordered. When defective tags are discovered, the following occurs:</p> <ul style="list-style-type: none"> <li>Tags are added to the shipment to make up for defective tags discovered during the inspection.</li> <li>A hole is punched through defective tags if a customer has purchased this option. Do not use tags with holes in them.</li> </ul>
Width	42.5 inches [1080 mm]	
Depth	47.5 inches [1206 mm]	
Weight	249 lbs. [113 kg]	
Operating Dimensions and Weight		
Height	56.7 in. [1440 mm]	
Width	30.0 in. [762mm]	
Depth	18.0 in. [457mm]	
Weight	160 lbs. [72.6 kg]	
Operating and Storage Temperature		
Storage Temperature and Humidity	-40 to 131 degrees F [-40 to 55 degrees C] 0 to 85% RH, non-condensing	
Typical Ambient Temperature	50 to 104 degrees F [10 to 40 degrees C]	
Electrical Requirements		
<p>The customer must provide an electrical receptacle within 10 feet [3m] of the Conversion Station. If the Conversion Station is to be used in the book stacks, it is the responsibility of the customer to provide an extension cord.</p> <p> For operations outside of the U.S. (OUS), the customer must provide a power cord.</p>		
Voltage	110/120 VAC 50-60Hz 220/240 VAC 50-60Hz	
Amperes	110/120 VAC – 5 Amps 220/240 VAC – 2.5 Amps	
RFID Operating Frequency	13.56 MHz	

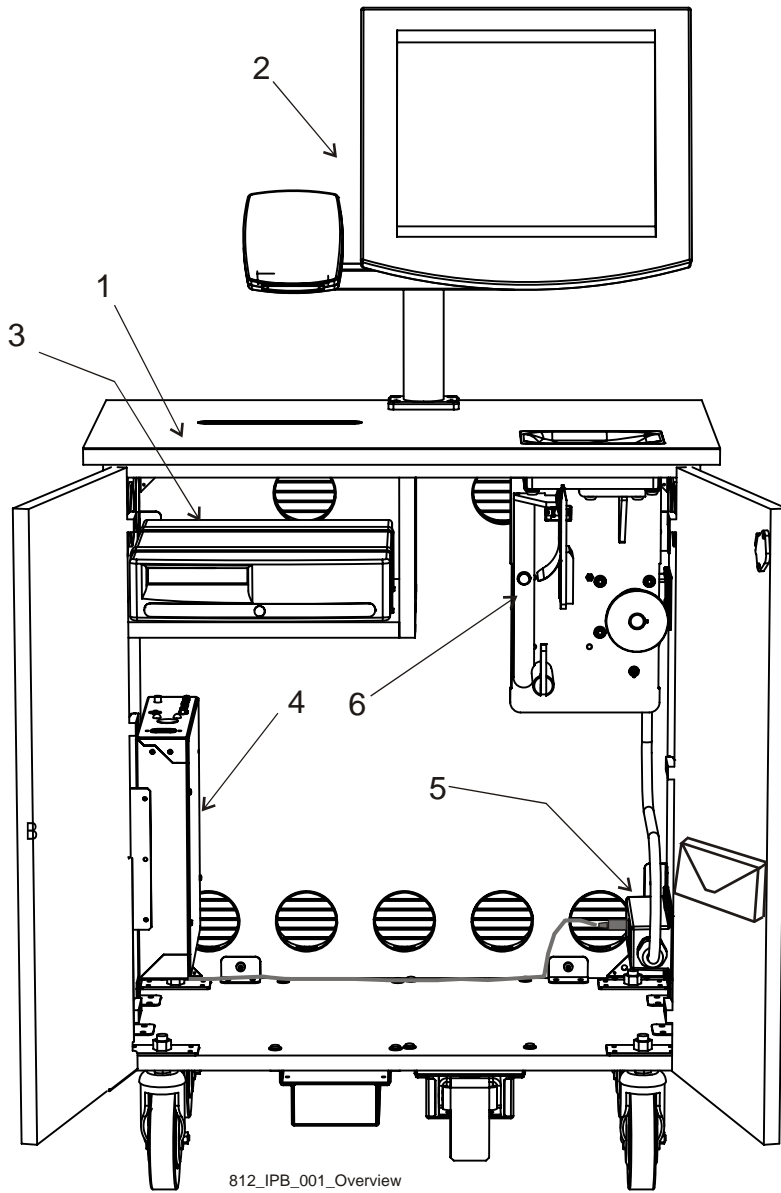
## CAUTION

### To reduce the risk associated with environmental contamination related injury:

- The Conversion Station contains a lithium battery, mercury in the monitor/display, and circuitry that contains lead in the solder. At the end of service life, dispose of the Conversion Station in accordance with federal, state and local requirements.



# Components



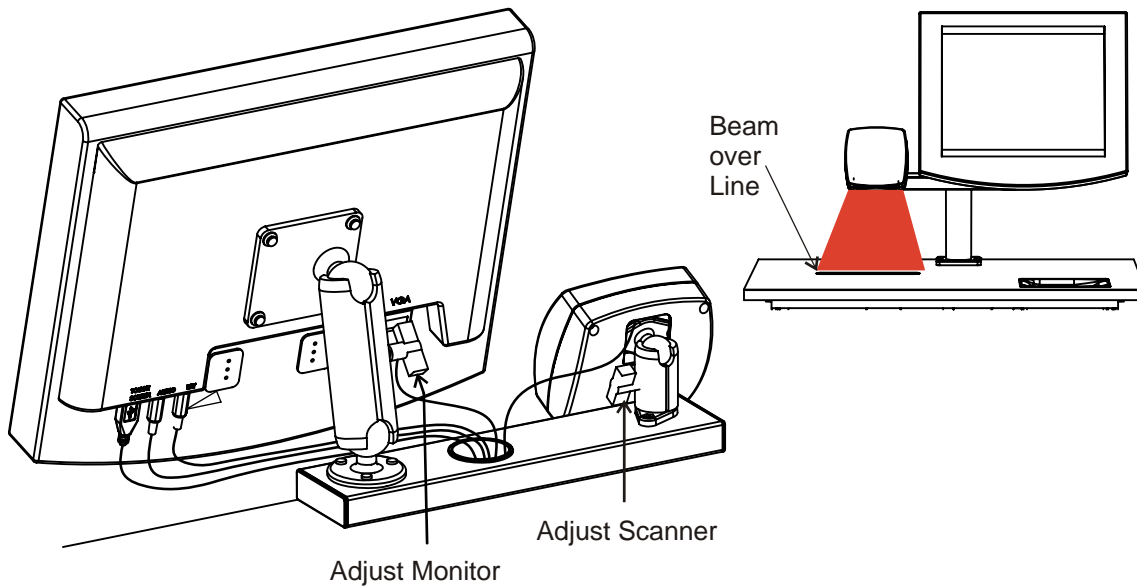
**Figure 1 Conversion Station Model 812 Components**

Item	Description
1	Cabinet
2	Monitor and scanner
3	Computer
4	Interconnect box
5	Switched power strip
6	Tag dispenser

# Adjusting the Monitor and Scanner

You can adjust the angle of the monitor and scanner. You must keep the following in mind, however:

- When you adjust the viewing angle of the monitor, be sure to support the monitor to ensure that it doesn't fall.
- Adjust the scanner only if the scan line no longer falls over the red line on the Conversion Station desktop. The scanner may not read reliably if this angle is not maintained.



812\_IPB\_003\_scanner\_adjust

# Using the Tag Dispenser

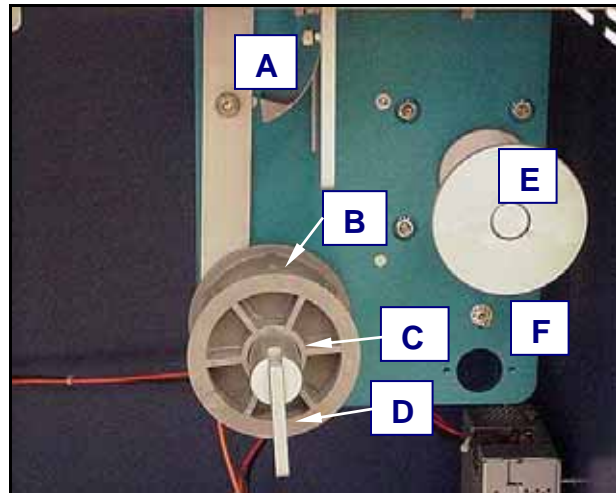
## IMPORTANT NOTES

- Do not bend, fold, or damage RFID tags because this may cause premature tag failure.
- If you discover a tag with a hole punched through it, do not use the tag. A hole indicates that the tag was identified as defective during inspection.
- If you receive a system message indicating that a tag cannot be programmed, ask your conversion coordinator where to put these tags.

## Automatic Tag Dispenser components

The Automatic Tag Dispenser consists of the following components

- A** Curved steel spring guide plate
- B** Two plastic core inserts
- C** Supply roll shaft
- D** Stop lever
- E** Take-up spool
- F** Tag dispenser switch



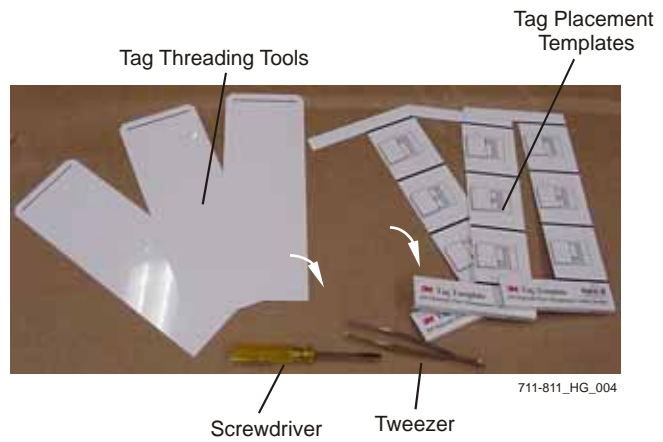
## Operator tool kit

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The Conversion Station comes with a tool kit attached to the inside right front door.

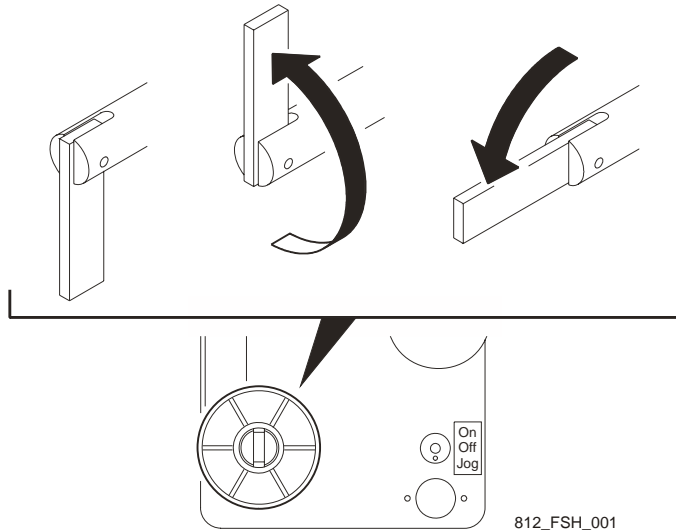
The tool kit contains:

- Three 3M RFID tag threading tools)
- Three 3M tag templates to help you correctly place 3M RFID tags in books
- Small screwdriver
- Tweezers

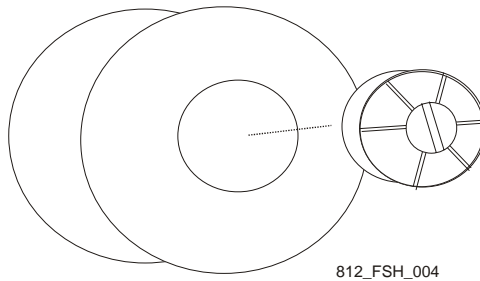


## Loading the tag dispenser with tags

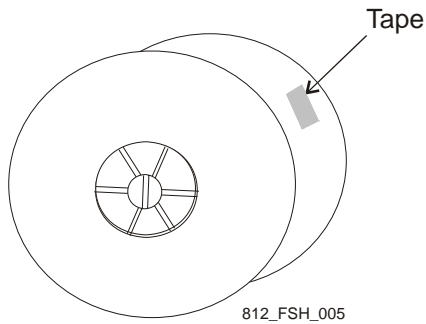
- 1 Open the Conversion Station cabinet doors and locate the tag dispenser.
- 2 Locate the supply role shaft.
- 3 Rotate the supply roll shaft until it is in the up position.
- 4 Release the stop lever so that it drops into a horizontal position.



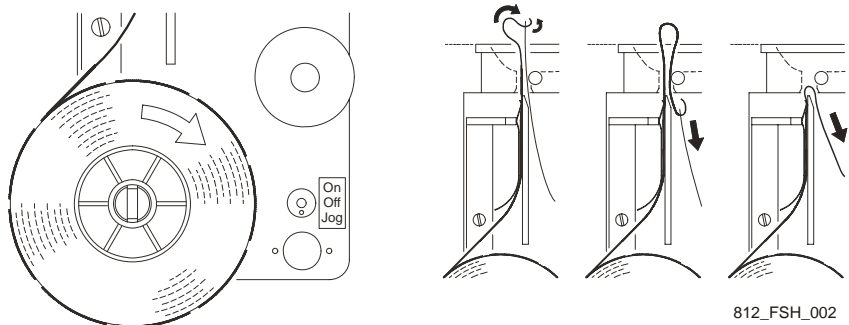
- 5 Remove the two plastic core inserts from the supply role shaft and install one on each side of the roll of RFID tags.



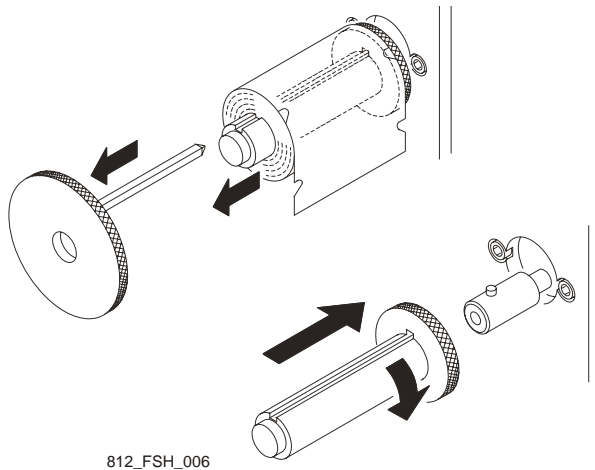
- 6 Remove the tape from the roll of RFID tags.



- 7 Install the roll of tags on the supply role shaft and thread the tags through the unit to the take-up spool.

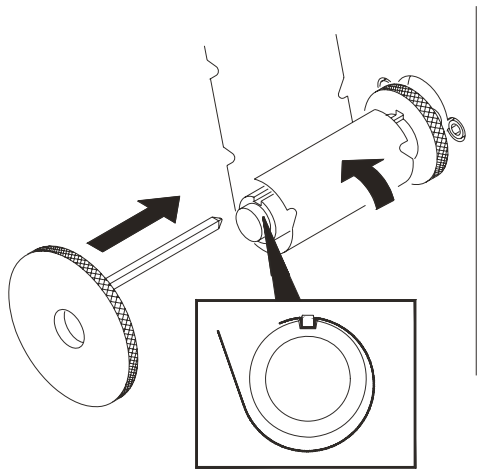


- 8 Remove the take-up spool endplate and the take-up spool.
- 9 If there is a liner from the previous roll of tags, remove it and put the take-up spool back in place.



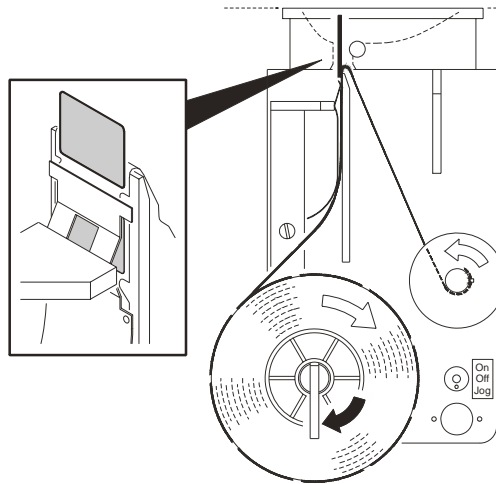
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- 10 Connect the tag roll to the take-up spool and reinstall the end plate.



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The figure shows you how the tag installation should look when you are done with the procedure.



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## Cleaning the tag dispenser opening

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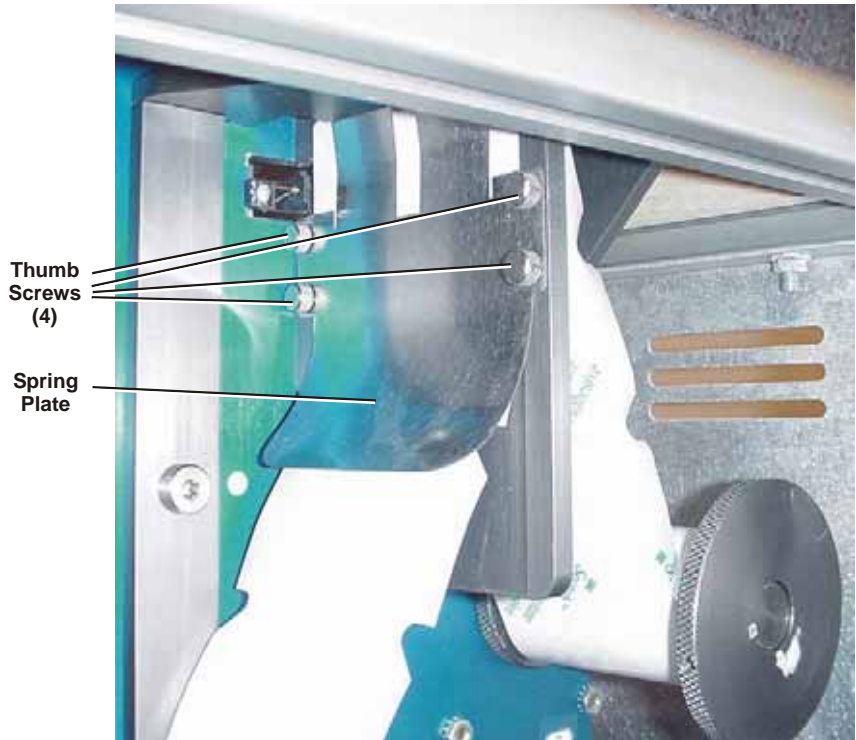
Use a soft cloth to remove any dust from the tag dispenser opening.

## Cleaning the spring plate (tensioner/guide)

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Clean the spring plate approximately every 5,000 tags or as necessary.

- 1 Remove the spring plate.
  - Hold the spring plate and remove the four (4) **thumb screws** that attach the spring plate to the frame.
- 2 Clean the spring plate with a soft cloth and a mild cleaning solution.
  - The surface of the spring plate that contacts the tags may have a thin waxy build-up.
- 3 Replace the spring plate.



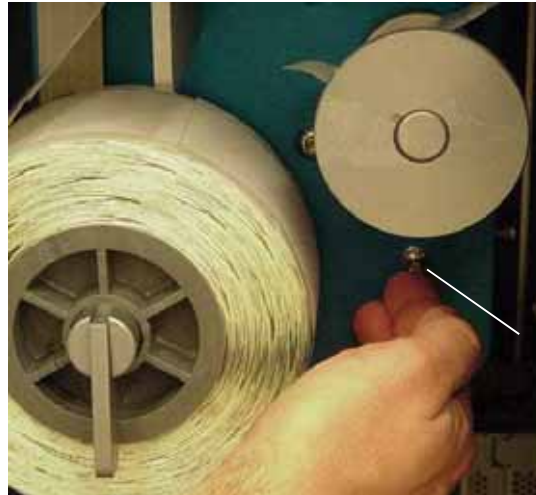
711-811\_001

## Troubleshooting Tag Dispenser problems

The **tag dispenser switch** controls the motor used to advance tags to the feeder opening on the top of the Conversion Station.

The tag dispenser switch has three positions:

- **ON** (up) position
- **OFF** (middle) position
- **JOG** (down) position



Switch

711-811\_HG\_005

Problem	Solution
The motor stops before a tag advances into the correct position above the tag feeder opening,	Turn the tag dispenser switch to the <b>OFF</b> (middle) position and then to the <b>ON</b> (up) position. A tag should advance through the tag feeder opening and into the correct position.
A tag jams below the surface of the tag feeder opening,	<ol style="list-style-type: none"> <li><b>1</b> Go inside the Conversion Station cabinet and clear the jammed tag.</li> <li><b>2</b> Turn the tag dispenser switch to the <b>OFF</b> (middle) position and then to the <b>ON</b> (up) position.</li> </ol> <p>A tag should advance through the tag feeder opening and into the correct position.</p>
A tag appears in or slightly above the tag feeder opening but you cannot peel off the tag	Turn the tag dispenser switch to the <b>JOG</b> (down) position as many times as necessary to advance or “jog” the tag into the correct position.



# Service

## 3M Service phone numbers

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### In the United States

Library Systems: 1-800-328-0067 (Option 1)

### In Canada

English 1-800-268-6235

Français 1-800-567-3193

### In other countries

Call your local 3M office.

## To order tags

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### Tag types

Make sure that you order the correct type of tag for your equipment. The Conversion Station Model 812 uses ISO-compliant RFID tags from 3M.

### Phone numbers

Call the following phone numbers to order the tags listed above.

#### **In the United States**

1-800-328-0067 (Option 2)

#### **In Canada**

English/Français 1-800-410-6880

#### **In other countries**

Call your local 3M office.