

QuickChange[®]

8000 Series

Tape Applicators

OPERATOR'S MANUAL

Shurtape[®]

TRUE TO YOUR WORK[®]

Shurtape is an authorized distributor of PrimeLoc[™] tape applicators.

PrimeLoc[™]

Designed and
manufactured by
PrimeLoc[™] Packaging, Inc.

Table of Contents

I. Introduction

General	1
Manual Markers.....	1
Intended Use and Operation	2
Quick Change Function.....	2

II. Safety

Owner's Responsibility.....	3
Safety Guidelines.....	3
Receiving and Handling	3

III. Specifications

Tape.....	4
Tab Length.....	4
Build and Fasteners	4
Operating Speed	4

IV. Tape Loading

Tape Roll Hub and Lock Mechanism	5
Tape Threading	6
Proper Insert Handling.....	7
Top Insert Loading	8
Bottom Insert Loading.....	9
Determining Spring Settings	11

V. Adjustments

Tape Tension	10
Main Spring Tension.....	11
Determining Spring Setting	11
Tab Lengths.....	12
Folded Edge.....	13
Benefits of Folded Edge.....	14

VI. Maintenance

Tools	15
Cleaning and Lubricating	15
Worn Parts	15

VII. Troubleshooting Guide

Taping Problems	16
Carton Problems	16
Cutting Problems	17
Rear Tab Problems	17

I. Introduction

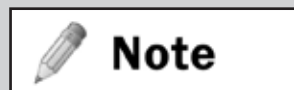
General

This operation manual explains how to handle, operate, adjust, maintain, and troubleshoot your tape applicator. Please ensure that all operators have read and understand the instructions in this manual prior to using or maintaining the applicator. Note that the illustrations provided may differ from your tape applicator, as there are multiple base configurations and optional add-ons available.

In the event that you encounter a problem, please refer to the troubleshooting section of this manual for potential solutions. If your problem persists, you can receive assistance by contacting your distributor, whose contact information is be listed on the front of the tape applicator.

Manual Markers

The following markers will appear throughout the manual to draw attention important operation points and potential safety issues.



A **Note** signals important points that allow the tape applicator to perform optimally if followed.



A **Warning** signals potential hazards or unsafe practices that could result in product damage or personal injury.

I. Introduction

Intended Use and Operation

The tape applicator is a mechanical device to be installed onto a carton sealing machine with conveyors transporting cartons for taping purposes. As the carton passes through the tape applicator, a strip of pressure sensitive adhesive tape from the tape roll mounted on the tape applicator is applied and cut in order to seal the case flaps meeting at the center of the carton. It is necessary to adjust the sealing height and width of the machine according to the size of the carton to be taped. The tape applicator is designed to apply and cut off the tape based on the front and back shoulders of the carton, regardless of the length of the carton. The tape applicator can tape cartons with different length without any adjustment. The tape applicator can be mounted onto the carton sealing machine for top, bottom, or side taping application depending on the model and mounting kits.

Quick Change Function

Compared to conventional tape applicators, the Primeloc D8000 series Quick Change tape applicator allows for rapid and simplified tape replenishment. The D8000 series Quick Change tape applicator allows the operator to remove a smaller and lighter portion of the tape applicator for fast and easy tape replenishment.

The D8000 quick-change tape applicator comprises of two basic sections:

1. A **stationary frame** containing the tape cutting mechanism, rear wiping mechanism, push bar, and cooperating coupler. The stationary frame is securely mounted on the sealing machine.
2. A **detachable insert** with the front tape applying arm, tape roll mounting, and cooperating coupler. The detachable insert facilitates the quick tape changing function. Spare detachable inserts allow for offline tape threading and rapid tape replenishment. The detachable insert allows operators to perform the tape roll installation and tape threading on the insert, away from the machine or the stationary frame. This allows operators to avoid hazards associated with threading the tape on the machine, like the sharp knife on the frame.

In order to reload the tape applicator, the operator should replace the insert with the depleted tape roll with a spare insert, already threaded with a full roll of tape.

II. Safety

Owner's Responsibility

Owners and operators of PrimeLoc tape applicators are responsible for preparing and maintaining an effective safety program. This program should be consistent with good management practices and meet the applicable laws, regulations, and ordinances. Operators must be trained to recognize the potential safety hazards of the tape applicator.



The tape applicator is a non-powered mechanical device with moving parts.

Please follow the listed guidelines below for PrimeLoc tape applicators. Follow the requirements listed by OSHA standards 1910.47.

1. Only qualified personnel are to install, operate, or service the tape applicator.
2. Wear safety glasses when in proximity to the tape applicator.
3. Use proper body mechanics when handling the tape applicator or any of its components that are difficult to lift.
4. Determine and shut off all types of power used on the machine prior to handling the tape applicator (electrical, compressed air, hydraulic, mechanical).
5. Stay clear of all moving parts which may pinch, shear, or cut.
6. Avoid contact from the spring-loaded knife on the cutting apparatus.
7. Place the tape applicator or any of its components on a smooth level surface during maintenance.

Receiving and Handling

When your tape applicator arrives, be sure to inspect the box for damage and check the package contents. Beware of any warping of the frame. Ensure that all springs, compression rollers, and bumpers are in good condition.

When handling the tape applicator, grasp the main frame firmly. Do not handle the tape applicator by the front or rear compression rollers. Doing so may damage the tape applicator and impact performance.

If the tape applicator is not in use, store it in a dry location.

III. Specifications

I. Tape

- BOPP Pressure Sensitive Tape
- Acrylic
- Hot Melt with Release Layer
- 2" Series Tape Applicator: 48mm-53 mm Tape Width
- 3" Series Tape Applicators: 72mm Tape Width
- Up to 15.5" (390mm) Tape Roll Diameter on a 3" Diameter Paper Core

II. Tab Length

- Front Tab Length: From 1.25" (31mm) to 2.75" (69mm)
- Rear Tab Length: From 1.25" (31mm) to 2.75" (69mm)

III. Build and Fasteners

- All Stainless Steel Frame
- All Stainless Steel Fasteners
- Metric Sizes

IV. Operating Speed

- From 80 fpm to 160 fpm, based on carton and case sealer conditions.

IV. Tape Loading

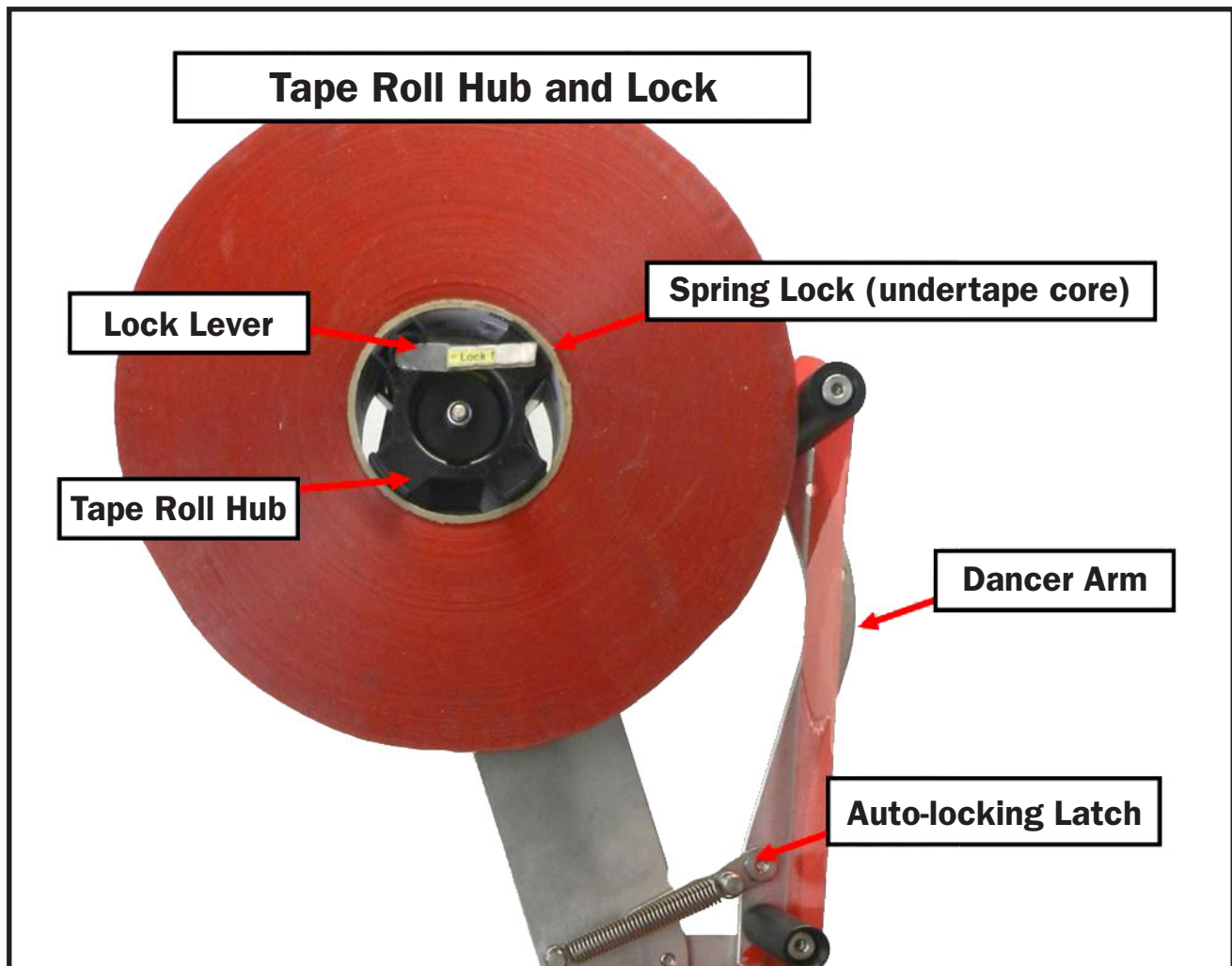
Tape Roll Hub and Lock Mechanism

1. Pull the dancer arm shaft until the latches stops it in place. This will prevent the dancer arm from interfering with the reloading process.
2. Turn the lock lever away from the locking position. Remove the spent core. Reload with a new roll, ensuring the adhesive side of the tape thread faces toward incoming cartons. Return the lock lever to the secure position after reloading the tape. Ensure the spring lock is not bent during the process.
3. Allow the dancer arm roller to rest between the new tape roll and tape thread.



Note

Ensure the lock lever is in the correct position during and after loading. Pushing or pulling a roll of tape while the lock is engaged may bend the spring lock. It can be bent back into a straight position if deformed.

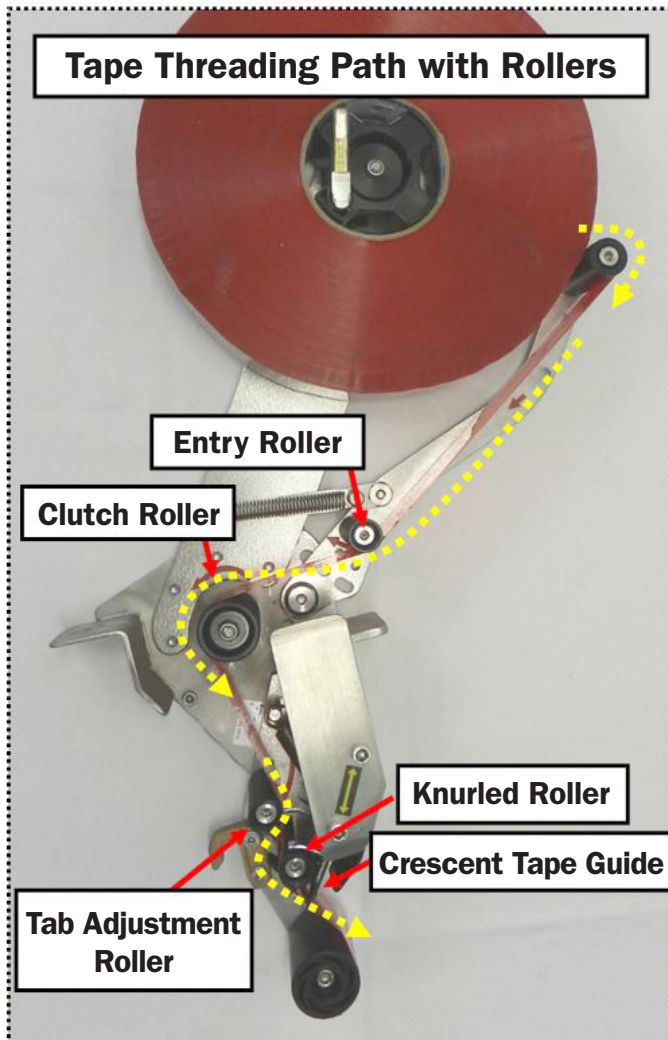


IV. Tape Loading

Tape Threading

Threading can be accomplished away from the case sealer. Follow the arrows along the insert.

1. Load new rolls so the adhesive side of the tape faces incoming cartons.
2. Thread the tape over the dancer arm roller. Pull the tape under the first entry roller. Pull it over the knurled clutch roller so the adhesive side is in contact with the roller. Pull the tape over the tab adjustment roller. Pull it under the knurled roller and between the crescent tape guide and support pad.
3. Tear off the excessive tape with the attached tear blade, allowing the tape to extend $\frac{1}{2}$ " past the centerline compression roller.



IV. Tape Loading

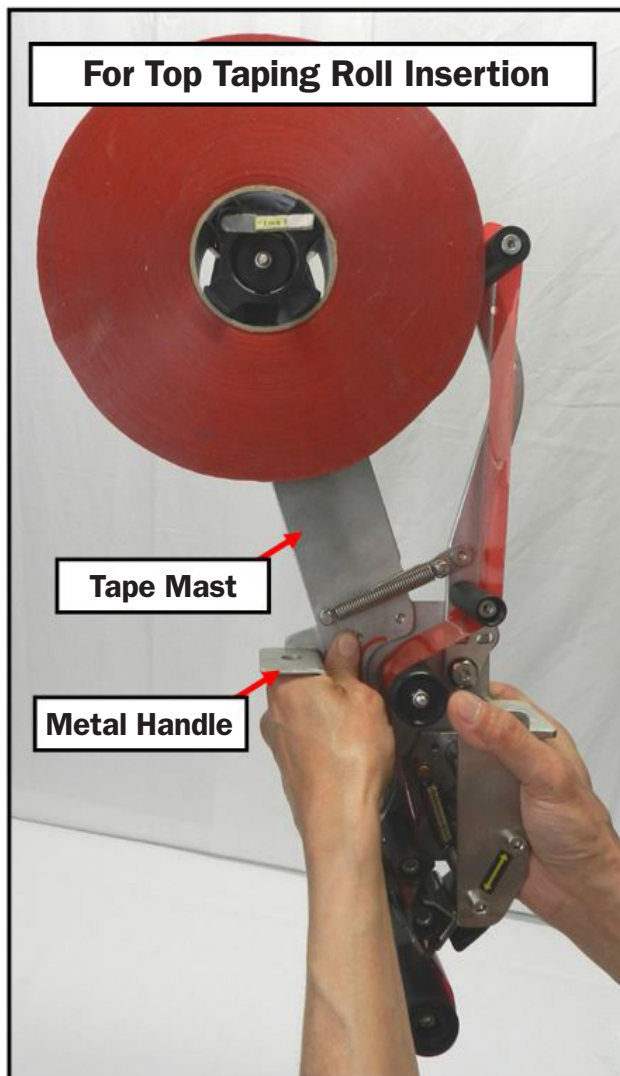
Proper Insert Handling

When handling the detachable insert, only grasp the metal frame. Use either the tape mast or metal handles. Hold the insert according to the images below, depending to the insertion orientation.



Note

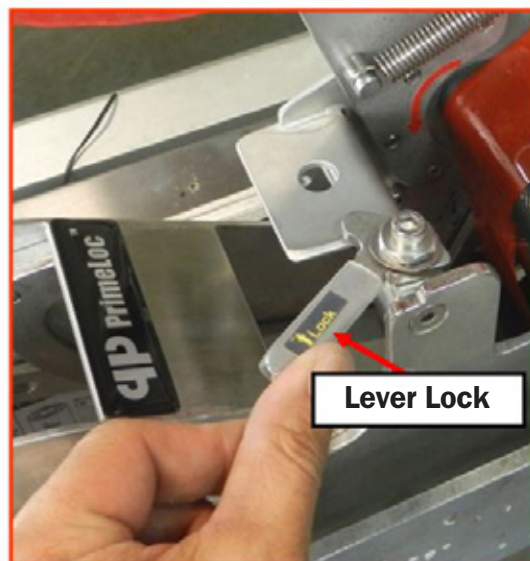
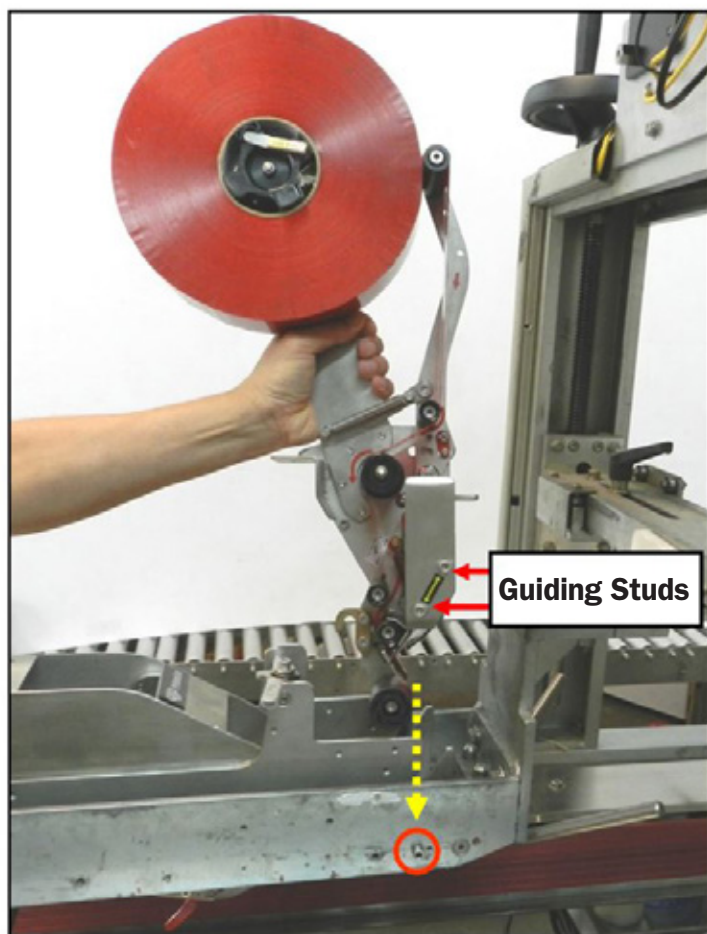
Never grasp the insert by any of the rollers. Doing so may result in damage or misalignment of the tape applicator. The insert may slip from the operator if handled by the rollers.



IV. Tape Loading

Top Insert Loading

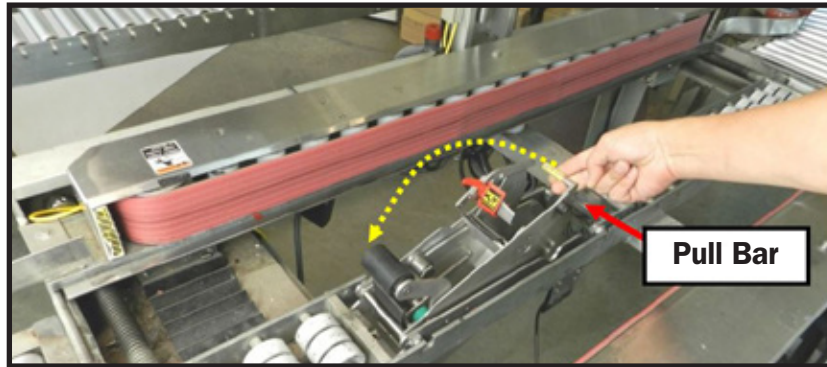
1. Install and secure stationary frame to the machine's top mounting frame with M6 fasteners.
2. Vertically align the insert with the stationary frame by referencing the mounting studs on the exterior of the mount.
3. Lower the insert carefully, allowing the guiding studs to slide along the diagonal open slots.
4. Lock the insert into place with the labeled lever.
5. Release the lock lever for insert removal.



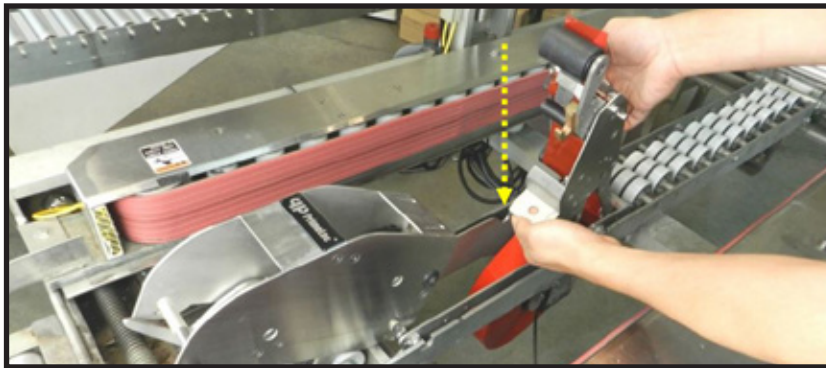
IV. Tape Loading

Bottom Insert Loading

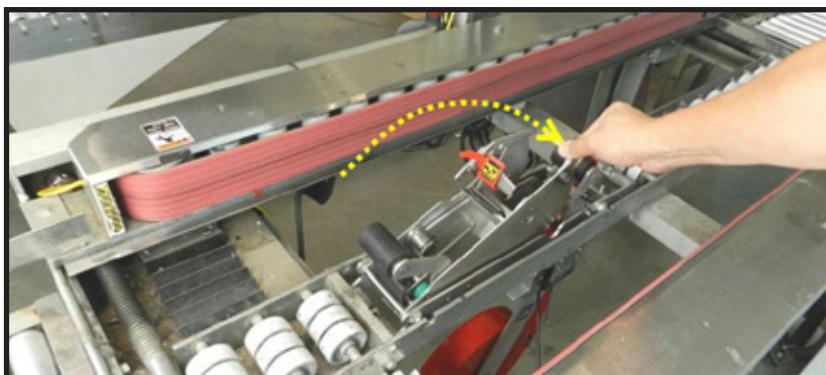
1. Ensure the stationary frame is secured to the bottom mounting frame of the machine with M6 fasteners. Pull the labeled pull bar, pivoting the frame towards the discharge direction of the machine. Allow sufficient open space above to remove the empty insert.



2. Load the refilled insert into the frame. Use the guiding studs on the insert to fit into the open slots of the stationary frame. Be careful not to damage the tape roll.



3. Return the pull bar down towards the insert. Make sure the pull bar pin is fully engaged to the open slot bushing.



V. Adjustments

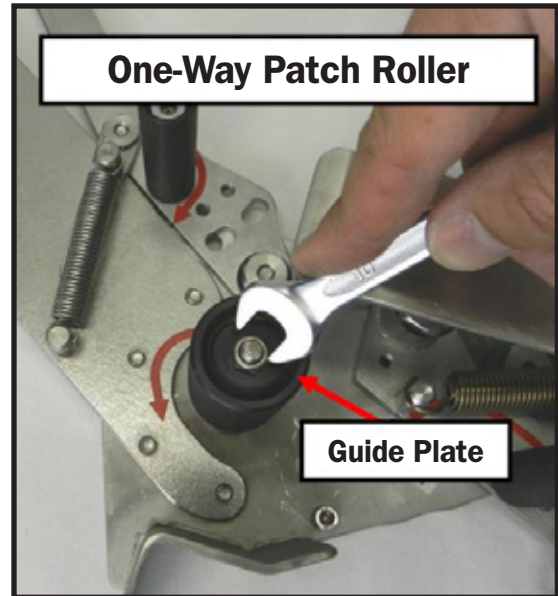
Tape Tension

One-Way Clutch Roller

The main tape tension adjustment is made at the one-way clutch roller. The one-way clutch roller is located on the insert. It affects the amount of tension and force required to pull the tape. This adjustment will affect wipe-down and cut-off characteristics. The trouble shooting section of this manual will help diagnose improperly adjusted tension. To increase tension, tighten the center nut clockwise. To decrease tension, tighten the center nut clockwise.

A yellow sticker with 3 indication levels can be used with the circular plate below the center nut to determine tension levels.

0-1: Light / **1-2:** Medium / **2-3:** Strong

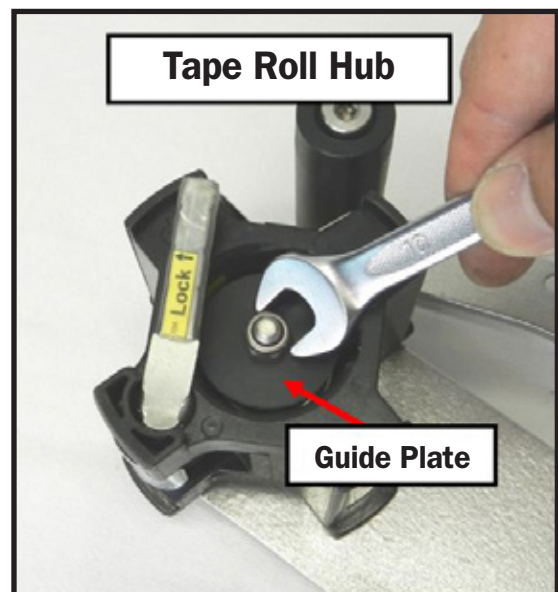


Tape Roll Hub

The nut and spring on the tape roll hub controls an adjustable friction brake that should be used to prevent over-spinning of the tape roll. It should be adjusted to provide slight resistance against tape pull. To increase tension, tighten the center nut clockwise. To decrease tension, tighten the center nut clockwise.

A yellow sticker with 3 indication levels can be used with the circular plate below the center nut to determine tension levels.

0-1: Light / **1-2:** Medium / **2-3:** Strong



Note

Tape tension should be set according to a variety of factors. Incorrectly set tension can result in poorly applied or cut tape. The troubleshooting section of this manual will describe potential tension problems and solutions.

V. Adjustments

Main Spring Tension

The main spring operates the front and rear wipe down linkage mechanism. Operators can adjust the spring setting to provide an appropriate amount of force to wipe down the front and rear tabs, while allowing cartons to travel smoothly past the tape applicator.



Note

The spring tension setting affects rear tab wipe down pressure. If tape flagging or looping appears on the rear tab, increasing the tension setting may help.

Determining Spring Setting

1. Soft Touch

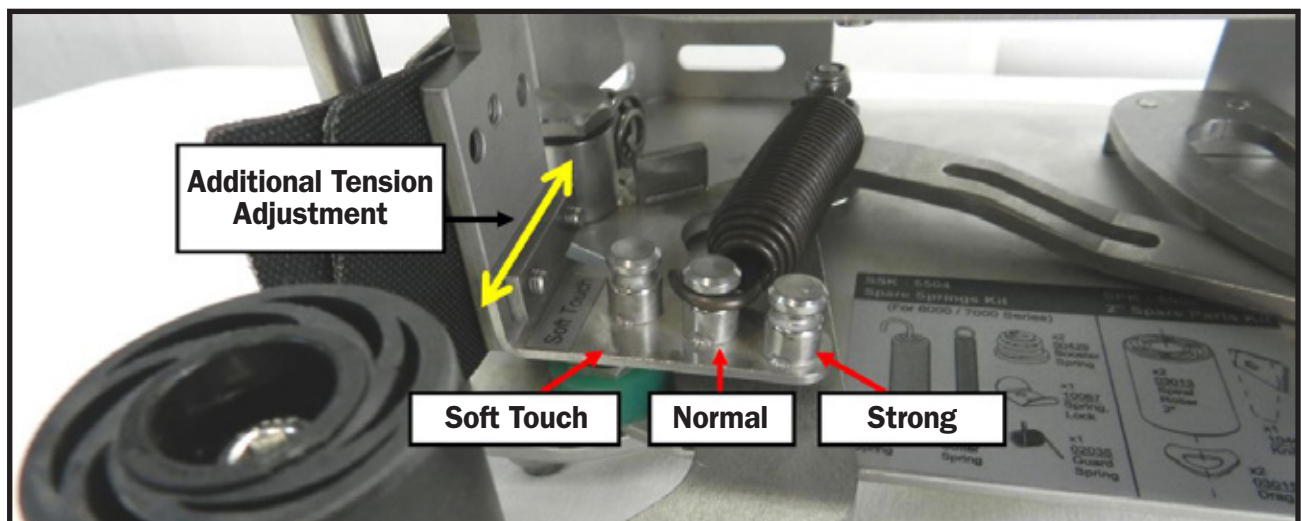
- Minimal resistance force, for light carton entry
- Under-filled or soft cartons
- Re-shipper cases
- Light weight corrugated cartons
- Machines with low conveyor drive force (e.g. worn belts, bottom belt driven)

2. Normal

- For most top or bottom taping applications
- Normal case sealer speed

3. Strong

- Overfilled cartons
- Heavy cartons
- Double walled corrugate cartons
- Very High speed operations (over 150 ft/min)

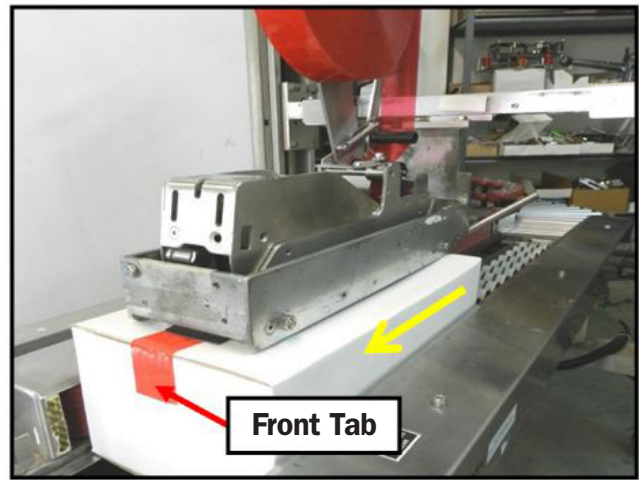
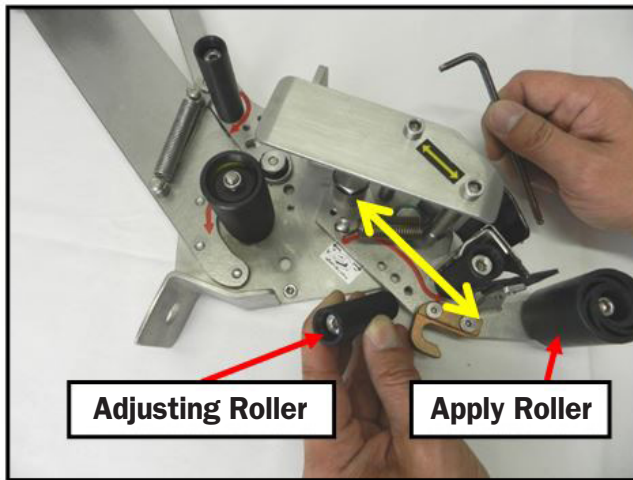


V. Adjustments

Tab Lengths

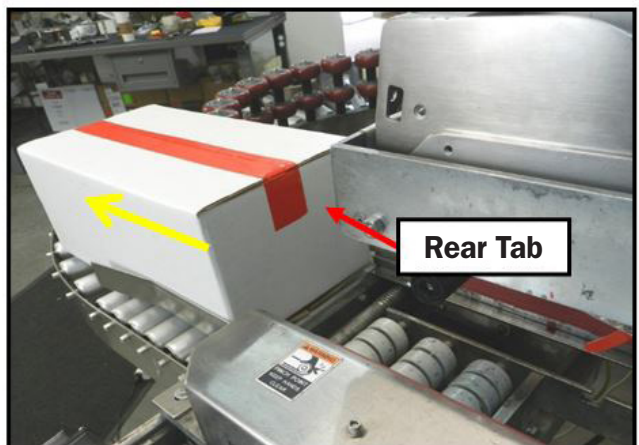
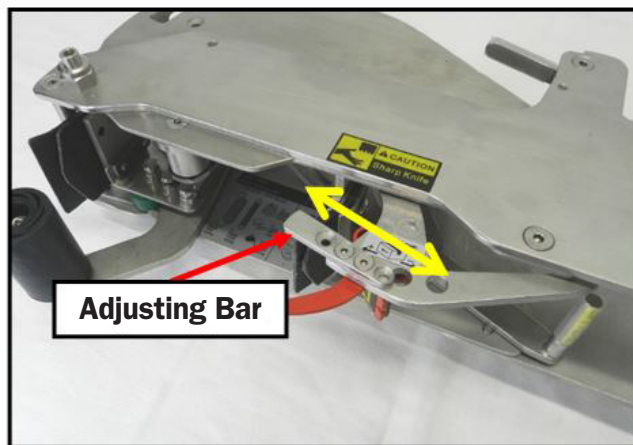
Front Tab Length Adjustment

Position the adjusting roller on the apply arm of the insert as indicated the label on the base plate. For shorter tab lengths, position the adjusting roller closer to the applying spiral roller. For longer tab lengths, position the adjusting roller further away.

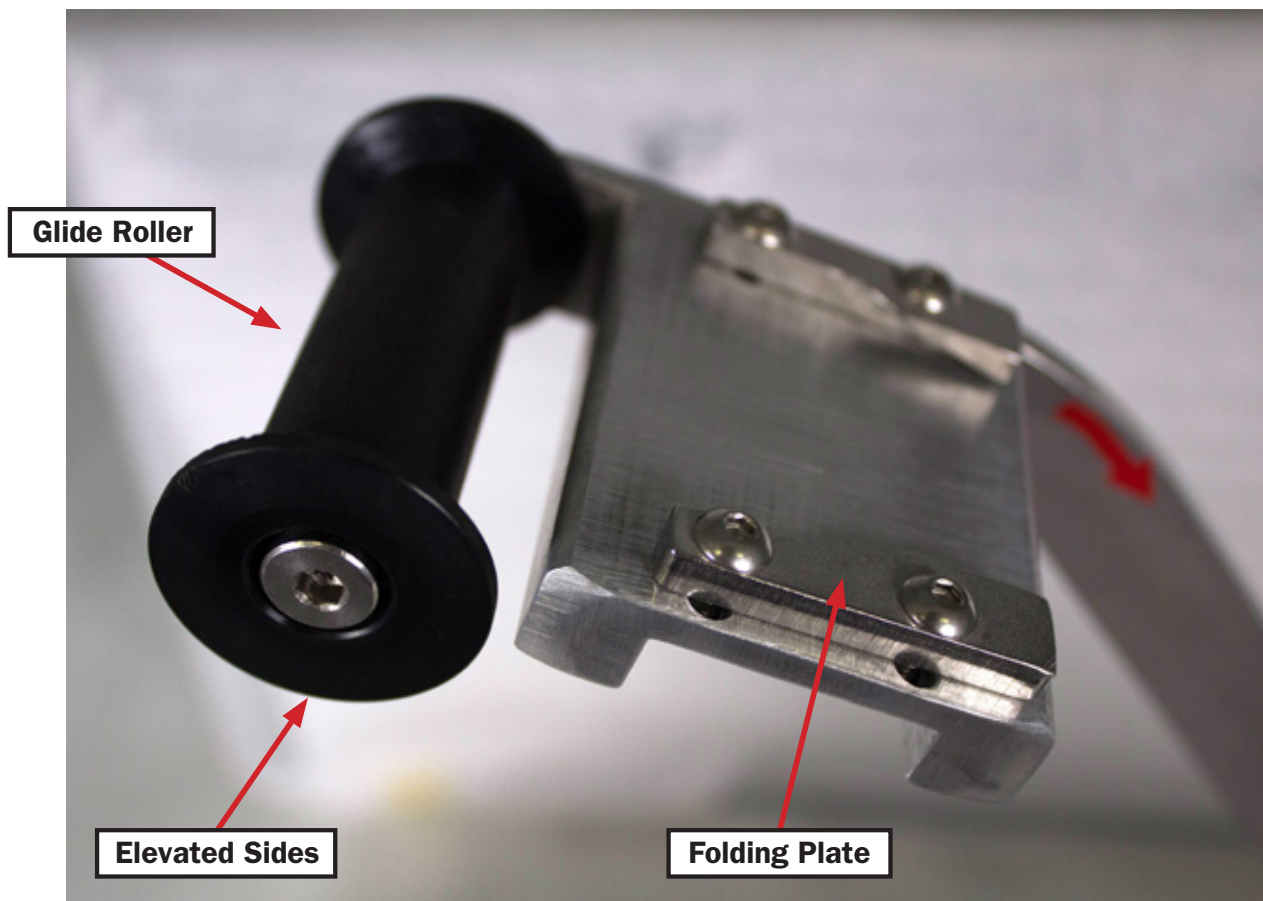


Rear Tab Length Adjustment:

Position the adjusting bar on the cutting cam as indicated by the label. For shorter tab lengths, retract the adjusting bar. For longer tab lengths, extend the adjusting bar on the cutting cam.



IV. Adjustments



Note

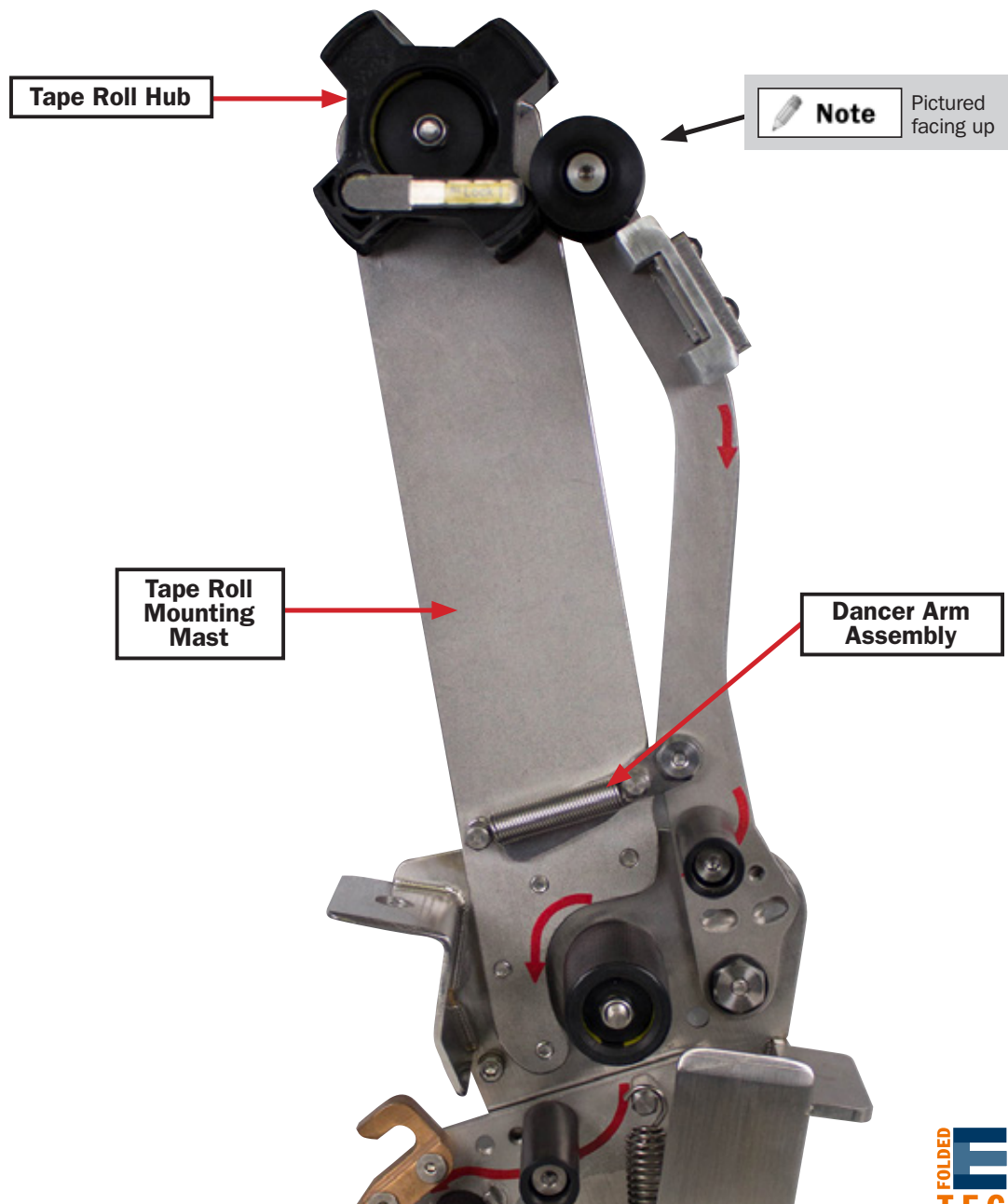
Folding Plates are slotted and can be adjusted to determine width of fold desired.

IV. Adjustments

Benefits of Folded Edge

Reinforced Strength: Adds more reliability in automated packaging systems by strengthening the tape's edge - increasing the relative energy to break by 25%. This additional strength reduces the risk of the tape being nicked and broken, providing an added layer of security to keep carton contents secure from damage, contamination, and theft.

Ready to Open Seals: Creates a secure ready-to-open carton seal that doesn't require a knife or other sharp instrument to open. Essentially, it creates a dry edge that allows the tape to be grasped and removed by hand, reducing the risk of product damage and worker injury attributed to knife cuts.



VI. Maintenance

Tools

Metric Hex Keys

Ball end set recommended. Tape applicator requires 2 mm, 2.5 mm, 3 mm, 4 mm, 5 mm, and 6 mm keys.

Wrenches

Tape applicator requires 8 mm, 10 mm, 5/18 inch, 15/16 inch wrenches.

Heat source and Loctite®

Critical fasteners may be secured with Loctite® Red. If a fastener is difficult to remove, apply heat to loosen

Cleaning and Lubricating

Rollers

Rollers are subject to adhesive build-up. Clean with light solvent.

Knife

The Knife is subject to adhesive build-up and wear. Clean with light solvent. Use light oil to prevent debris from building up. If cutting quality is poor, check the knife edge. Replace if required.

Linkages

Ensure linkages are properly tightened and lubricated. Use light oil to lubricate.



Always beware of the knife and pinch points of the tape applicator during routine maintenance.

Worn Parts

Contact your local distributor to prepare and deliver wear parts.

VII. Troubleshooting Guide

Taping Problems

Excessive tape stretching or wrinkling

1. Leading tab may be too short for the front wipe down compression roller. Readjust the front tab length with the adjustment roller to increase tab length.
2. Tape roll unwind tension may be too high. Decrease tension at the tape roll hub and clutch roller, by turning the adjustment nut counterclockwise.
3. Tape applicator may be too far away from the carton. Re-adjust tape applicator height so the bottom of the tape applicator is 1/4" away from the taping surface.

Carton is not being taped

1. Tape applicator is too far away from the carton. Re-adjust machine height so the bottom of the tape applicator is 1/4" away from the taping surface.

Carton Problems

Carton is being crushed or collapses under the tape applicator

1. The carton may be too weak. Lower the main spring force and exchange the cutting spring to a lighter version will reduce the resistance the carton faces.
2. The carton is under filled. Increase carton content to provide greater support for the flaps. If that is not an option, lower the main spring force and changing the cutting spring can reduce applicator force.
3. Ensure the tape applicator is properly distanced away from the carton. The recommended distance is 1/4" from the bottom of the frame to the carton.

Tape is not being applied to the center of the carton

1. The tape roll may not be aligned to the center of the tape applicator. Loosen the large alignment nut on the back of tape hub and readjust laterally.
2. The tape applicator may be positioned off center on the case sealer. Reposition the tape applicator's mounting bracketry or readjust the machine's center alignment.

VII. Troubleshooting Guide

Cutting Problems

Tape is not being cut

1. The knife may not be able to cut properly. Ensure the knife edge is free from debris and still sharp. Clean or replace if required.
2. The cutting spring may be worn or damaged. Replace if required.

Tape is being cut off prematurely

1. The cutting spring may be too strong relative to the main spring setting. Replace the cutting spring with a lighter version and readjust the main spring to a higher setting.
2. The carton may be excessively under filled or the flaps are composed of light grade corrugate. Repackage contents to increase fill or increase corrugate quality.
3. The tape tension may be too strong. Reduce tension at the tape roll hub and the clutch roller.

Tape cut is ragged

1. The knife is not cutting well. Ensure the knife edge is free from debris and still sharp. Clean or replace if required.

Rear Tab Problems

Rear tab is too long

1. The adjustment bar is incorrectly set.

The rear tab is untidy

1. Lower the tension settings on the clutch roller and tape roller hub.

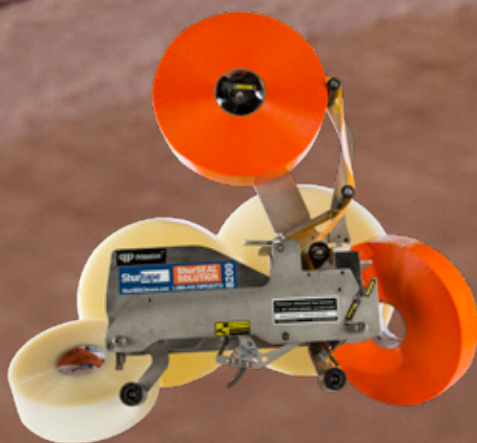
Front and rear tab lengths shorten as tape roll diminishes

1. Tape roll unwind forces increases as the diameter of the tape roll decreases. Changes are more evident on larger tape rolls, such as the 2000 yard long rolls.
2. The tape roll hub and clutch roller tension settings may be too high. Lower the tape tension to allow an acceptable tab length.
3. The front tab length is adjusted too short. Reposition the adjusting roller to a suitable front tab length and compare the tab lengths between a full roll to a small roll, adjusting tension as required.



ShurSEAL[®]
PACKAGING SOLUTIONS

**For Secure Seals
Every Time**



**FOLDED
EDGE[®]
TECHNOLOGY**
Reinforced Strength. Ready To Open.

AGGRESSIVE ADHESIVE
For Highest Holding Power

WIPE-DOWN
For Stronger Seals

FIBER TEAR
For Better Security

Shurtape[®]
TRUE TO YOUR WORK[®]

1712 8th Street Drive SE
Hickory, NC 28602

   
ShurSEALSecure.com
1.888.442.TAPE