

6000 & 7000 Series Tape Applicators

Operations Manual



Shurtape is an authorized distributor of Primeloc™ tape applicators.



Designed and
manufactured by
Primeloc™ Packaging, Inc.

Table of Contents

I. Introduction

About	1
Operation	1
Receiving and Handling	1
Features	2
Available Configurations	2

II. Safety

Owner's Responsibility	3
Safety Guidelines	3
Manual Markers	3

III. Loading Tape

Tape Roll Hub and Lock Mechanism	4
Threading	5

IV. Adjustments

Tape Alignment and Tracking	6
Tension Management	7
Rear and Front Tab Adjustments	8
Main Spring	9
Determining Spring Settings	9

V. Maintenance

Tools	10
Cleaning and Lubricating	10
Worn parts	10

VI. Troubleshooting Guide

Taping Problems	11
Carton Problems	11
Cutting Problems	12
Front/Rear Tab Problems	12,13

V. Assembly Drawings

Assembly Drawings	Attached Package
-------------------------	------------------

I. Introduction

About

PrimeLoc™ Packaging strives to develop and deliver the best taping equipment in the industry. Our ongoing commitment to innovation and to quality design, manufacturing, and testing ensures that our products will exceed your expectations. Each of our tape applicators has been individually inspected against our high standard of quality.

This manual explains how to handle, operate, and maintain your tape applicator. Please ensure that all operators have read and understood 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 would be listed on the front of the tape applicator. Replacement parts may be identified by referencing the Assembly Drawings section of this manual.

Operation

PrimeLoc™ Tape Applicators are fitted onto case sealers to automatically apply pressure-sensitive tape to cartons as they are conveyed. The tape applicator can be positioned as a top-, bottom-, or side-sealing unit.

The tape applicator compression roller makes the initial contact with the carton's front panel. As the carton is conveyed past the tape applicator, the tape is fed and applied along the major flaps of the carton. A spring-loaded safety knife then cuts the tape as the carton exits the machine.

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 vinyl grips located on the 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.

I. Introduction

Features

PrimeLoc™ Tape Applicators offer industry leading performance along with several exclusive technologies. Such features include:

- Mild steel or stainless steel construction
- Fiber Bond™ quality taping adhesion for case closure
- Open tape path design for easy threading
- Safety knife design with straight cutting performance
- Adjustable front and back tab lengths, from 1½" to 3"
- Optional Prime-Alert™ line of tape monitoring systems
- Optional patented Folded-Edge technology for no-knife, easy opening

Available Configurations

PrimeLoc™ Tape Applicators are available in multiple configurations to best suit the packaging environment. Note that illustrations in this manual are based off the standard PrimeLoc™ 7200 model, which is oriented in the *Right-Hand* direction. For *Left-Hand* models, the orientation is mirrored.

Model	Build	Width	Orientation	Frame
6200	Mild Steel	2"	Right-Hand	Standard
6210	Mild Steel	2"	Left-Hand	Standard
6300	Mild Steel	3"	Right-Hand	Standard
6310	Mild Steel	3"	Left-Hand	Standard
7200	Stainless Steel	2"	Right-Hand	Standard
7205	Stainless Steel	2"	Right-Hand	LD
7210	Stainless Steel	2"	Left-Hand	Standard
7215	Stainless Steel	2"	Left-Hand	LD
7300	Stainless Steel	3"	Right-Hand	Standard
7305	Stainless Steel	3"	Right-Hand	LD
7310	Stainless Steel	3"	Left-Hand	Standard

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 any applicable laws, regulations, and ordinances. Operators must be aware and trained to recognize the potential safety hazards of the tape applicator.

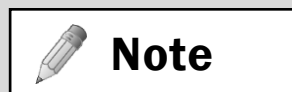
Safety Guidelines

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

1. Only trained personnel are to operate the tape applicator.
2. Wear safety glasses when near the tape applicator.
3. Determine and shut off all types of power used by the machine prior to handling the tape applicator (electrical, compressed air, hydraulic, mechanical, etc.).
4. Stay clear of all moving parts which may pinch, shear, or cut.
5. Avoid contact with the spring-loaded knife on the cutting apparatus.

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.

III. Loading Tape

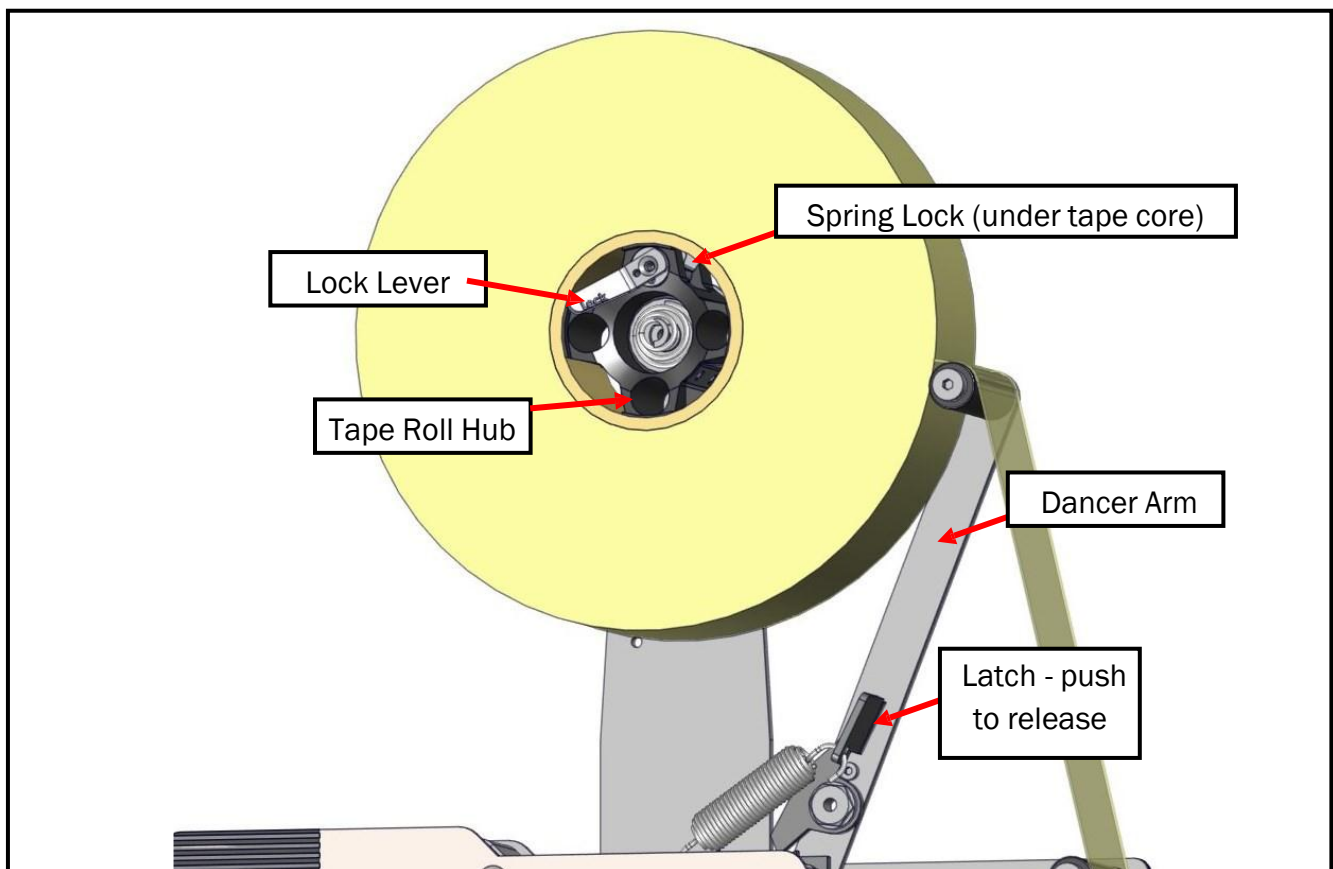
Tape Roll Hub and Lock Mechanism

To load the tape onto the tape roll hub of the applicator, please follow these steps.

1. If a dancer arm is present, pull the arm outward until the latches lock into place. This will prevent the dancer arm from interfering with the reloading process.
2. Turn the lock lever away from the locked position and remove the spent core. Reload with a new roll, ensuring that the adhesive side of the tape thread faces toward incoming cartons. Return the lock lever to the secure position after reloading the tape. Make sure that the spring lock is not bent during the process.
3. Pull the dancer arm away from the new roll of tape and press downward on the release latch (if present) so that the dancer arm roller rests against the new tape roll.



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. If deformed, the spring lock may be bent back into a straight position.



III. Loading Tape

Threading

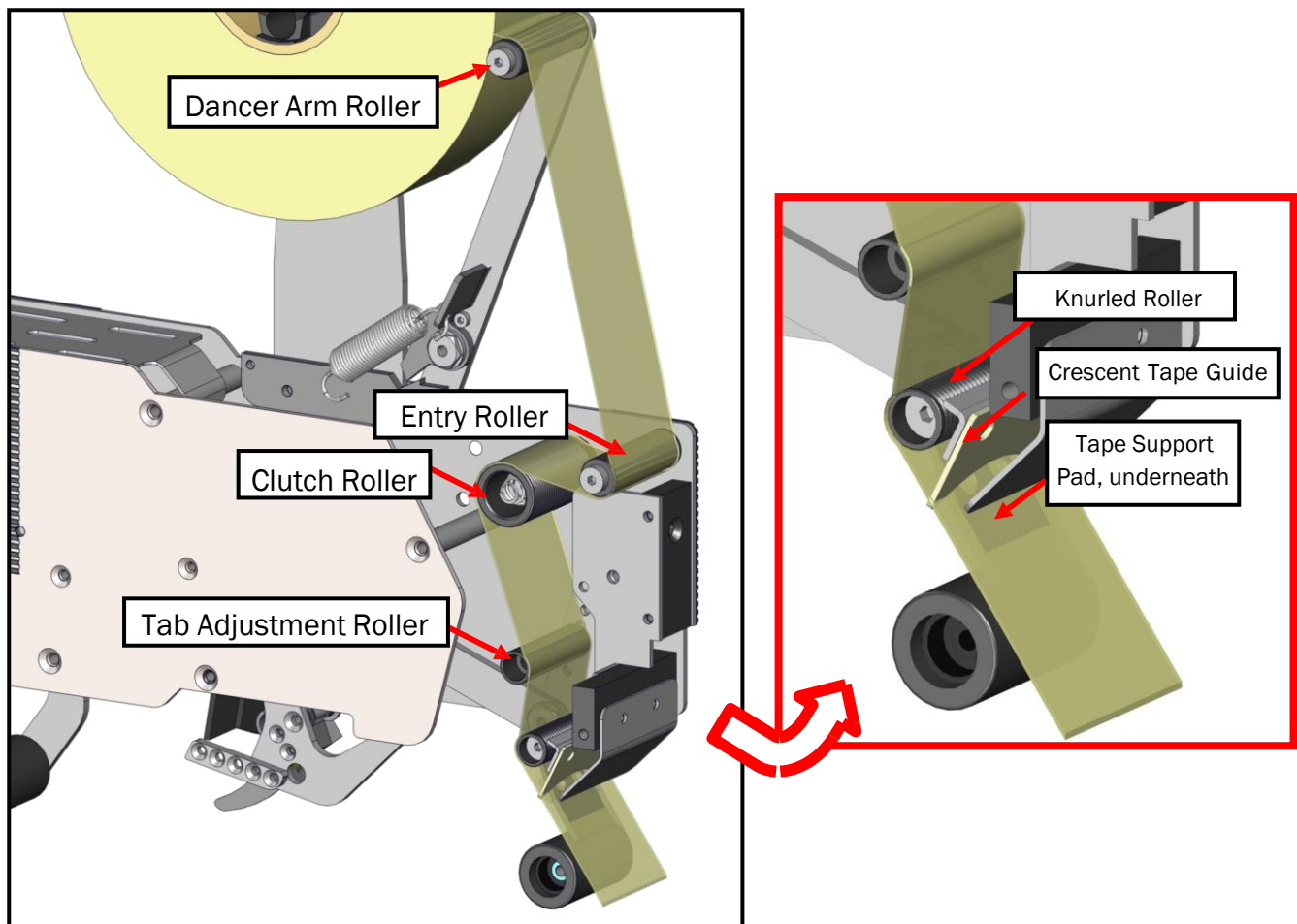
Due to the open design, threading can usually be accomplished without removing the tape applicator from the case sealer. Arrow-shaped stickers along the rollers direct the tape threading.

1. Ensure that the new roll is loaded onto the tape roll hub so the adhesive side faces the incoming cartons at the end of the compression rollers.
2. Thread tape over the dancer arm roller (if present).
3. Pull tape under the first entry roller.
4. Pull tape back around the knurled clutch roller so the adhesive side is in contact with this roller.
5. Pull tape over the tab adjustment roller.
6. Pull tape under the knurled roller and between the crescent tape guide and support pad.
7. Allow tape to extend $\frac{1}{2}$ " past the centerline compression roller.



Note

The diagram below depicts threading for right-hand tape applicators. The path is mirrored for left-hand models.



IV. Adjustments

Tape Alignment and Tracking

An adjustment system behind the tape roll hub is provided to center the tape as it moves along the tape applicator rollers and onto the case. Adjusting the position of the hub offsets the tape moving through the applicator.

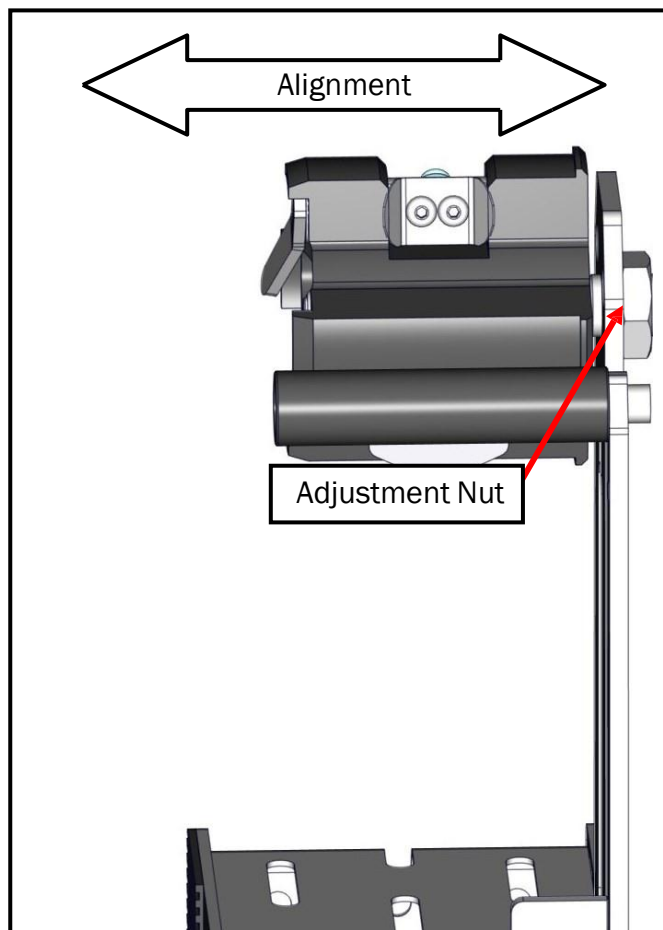
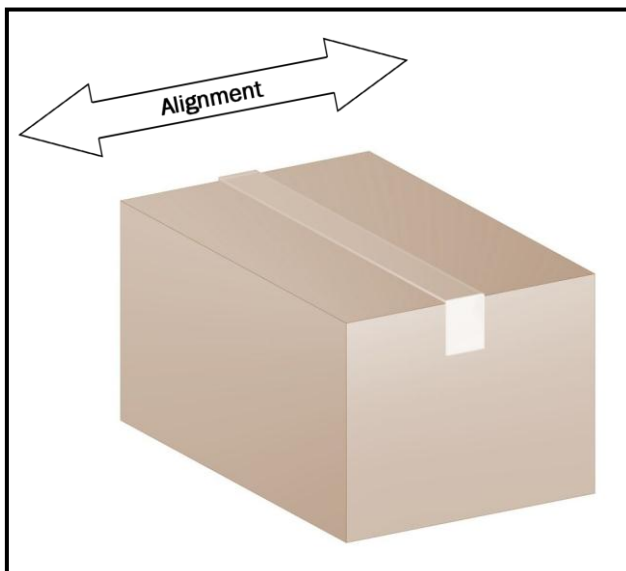
To adjust tape tracking, loosen the nut behind the hub brake using a 15/16 wrench. Turn the hub shaft clockwise to push out the hub or counter-clockwise to move the hub closer to the support arm. Retighten the nut to lock the new position.

The tape should not extend past the edge of the threading rollers and should be applied directly over the center line of the case flaps.



Note

Only fine adjustments for tape alignment should be done on the tape applicator. Ensure the tape does not extend over any rollers after adjustments. Larger adjustments can often be set on the case sealer or mounting brackets.



IV. Adjustments

Tension Management

One-Way Clutch Roller (Minor Tension Adjustment)

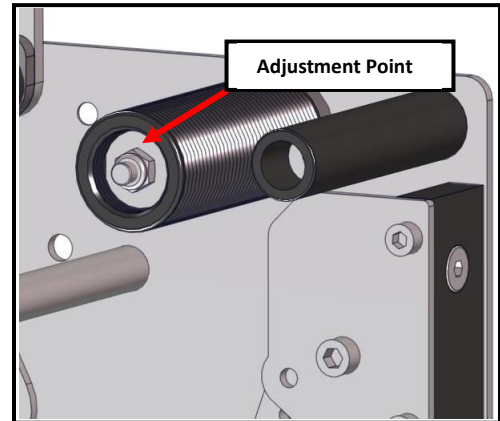
The more common tape tension adjustment is made at the one-way clutch roller. The one-way clutch roller affects the amount of tension or force required to pull the tape. This adjustment will affect wipe-down and cut-off characteristics. The troubleshooting section of this manual helps diagnose improperly adjusted tension.

To increase tension, tighten the center nut clockwise.

To decrease tension, turn the nut counter-clockwise.

To determine tension levels, a yellow sticker with 3 indication levels may be used with the circular plate below the center nut.

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



Tape Roll Hub (Major Tension Adjustment)

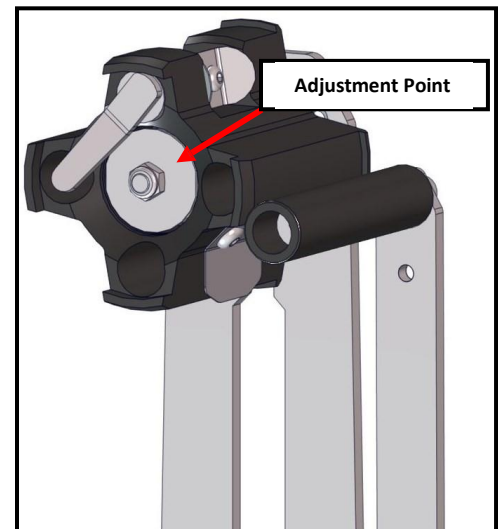
The nut and spring on the tape roll hub controls an adjustable friction brake that should be used to prevent over-spinning of the tape roll. It may be adjusted to provide a minimum amount of resistance against tape pull.

To increase tension, tighten the center nut clockwise.

To decrease tension, turn the nut counter-clockwise.

To determine tension levels, a yellow sticker with 3 indication levels may be used with the circular plate below the center nut.

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



Note

Tape tension is affected by a variety of factors. Improper tension levels can result in poorly cut or applied tape. The troubleshooting section of this manual describes potential tension problems and fixes.

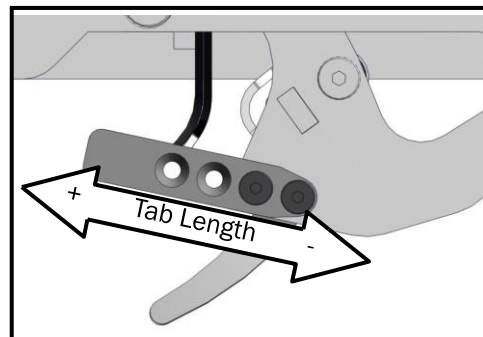
IV. Adjustments

Rear and Front Tab Length Adjustments

Rear Tab

The rear tab length can be adjusted by removing the adjustment bar and placing it along the two drill holes. The further the bar extends from the cutting arm, the longer the tab. After determining a suitable length, ensure that the bar is secured tightly.

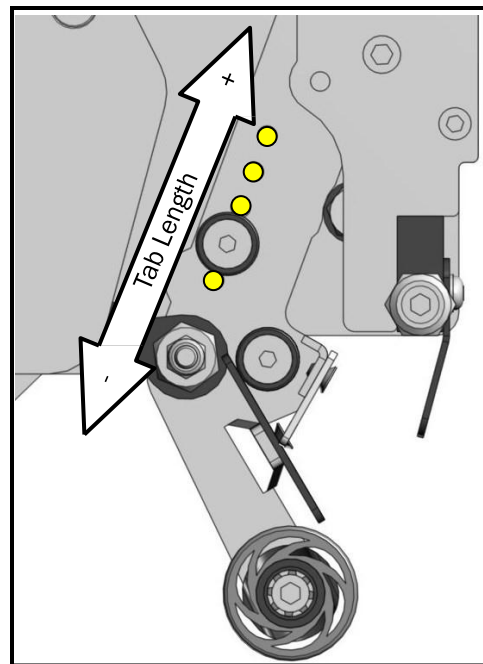
Adjustment can range from 1 ½" to 3" tabs.



Front Tab

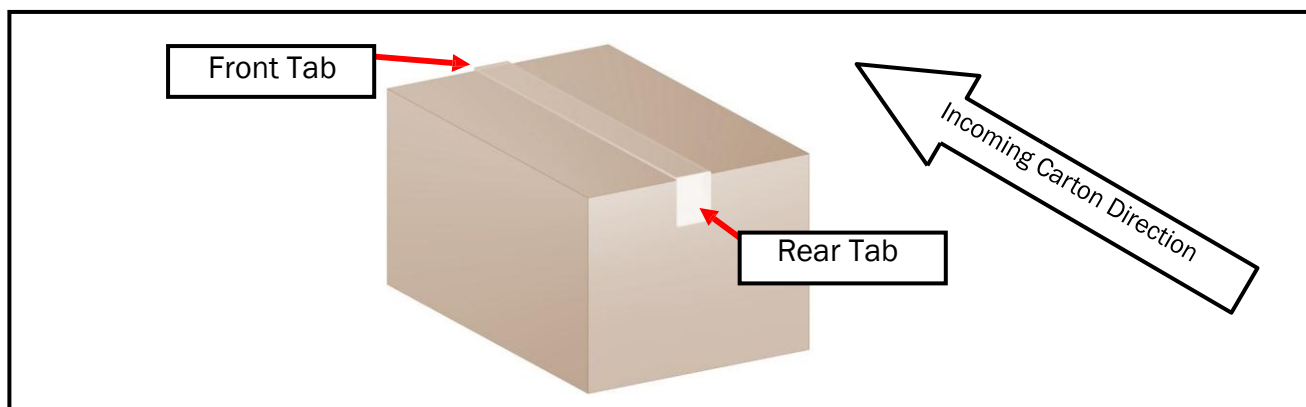
The front tab length is adjusted by removing the tab adjustment roller and securing it along one of the five position holes. After determining a suitable length, ensure the roller is secured.

Adjustment can range from 1 ½" to 3" tabs.



Note

Tab lengths are sensitive to tension levels. Generally, lower tension settings are required to create longer tabs.



IV. Adjustments

Main Spring

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 smoothly travel past the tape applicator.

Determining Spring Settings

1. Soft Touch for...

- Light carton entry with minimum resistant force
- Under-filled or soft cartons
- Re-shipper cases
- Lightweight, corrugated carton
- 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

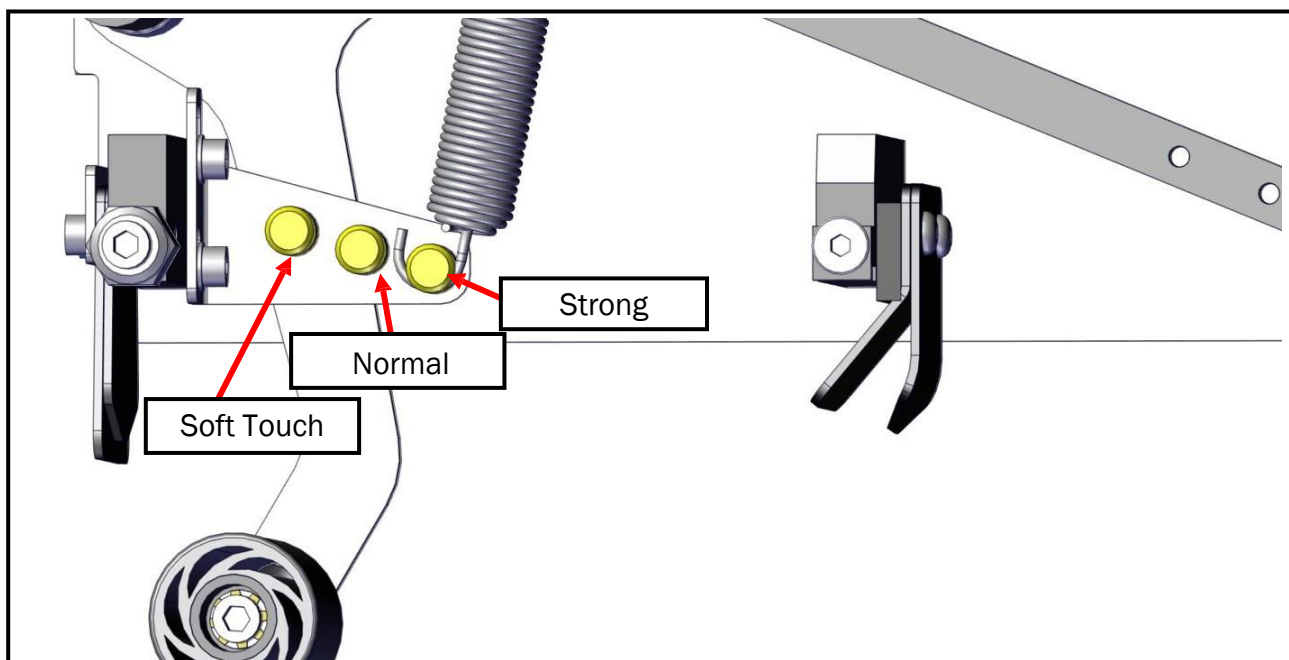
3. Strong for...

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



Note

The tension setting affects the front and rear tab wipe-down pressure. Should tape looping or flagging appear on the rear tab, raising the spring tension to normal or strong may help.



V. Maintenance

Tools

Metric Hex Keys

A ball end set is recommended.

2 mm, 2.5 mm, 3 mm, 4 mm, 5 mm, and 6 mm keys are required.

Wrenches

8 mm, 10 mm, 5/18 inch, and 15/16 inch wrenches are required.

Heat source and Loctite®

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

Cleaning and Lubricating

Rollers

Rollers are subject to adhesive buildup. Clean with a light solvent, i.e. isopropyl alcohol or acetone.

Knife

The knife is subject to adhesive build-up and wear. Clean with a light solvent, i.e. isopropyl alcohol or acetone. Use light oil to prevent debris from building up. If cutting quality is poor, check the knife edge and replace if required.

Linkages

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



During maintenance, always beware of the tape applicator's knife edges.

Worn Parts

1. Determine the worn part(s) by consulting the assembly drawings package at the end of the manual. Note that 6000 and 7000 series components have the same part numbers if they share the same orientation and frame width.
2. Contact your local distributor to prepare and deliver replacement parts.

VI. Troubleshooting Guide

Taping Problems

Excessive tape stretching

1. Verify that the tape is threaded properly.
2. If a dancer arm is present, make sure that it rests against the tape roll.
3. The tape roll unwind tension may be too high. Decrease drag tension of the tape roll hub and clutch roller by turning the adjustment nut counter-clockwise.

Tape Wrinkling

1. Verify that the tape is threaded properly.
2. The tape applicator may be too far away from the carton. Readjust the tape applicator height so the bottom of the tape applicator is 1/8" away from the taping surface.

Carton is not being taped

1. The leading tab may be too short for the front wipe-down compression roller.
 - a. Readjust or loosen the tension settings until the tape is below the midpoint of the front application roller.
 - b. Readjust the front tab length with the adjustment roller to increase tab length.
2. The tape applicator may be too far away from the carton. Readjust the machine height so the bottom of the tape applicator is 1/8" away from the taping surface.

Tape is folded along the length of the tape without the use of an edge fold kit

1. The tape may be folded onto one of the rollers during threading.

Carton Problems

Carton is being crushed or collapses under the tape applicator

1. Ensure that the tape applicator is properly distanced away from the carton. The recommended distance is 1/8" from the bottom of the frame to the carton.
2. Lower the main spring force and exchange the cutting spring for a lighter version. This will reduce the resistance against the carton faces.
3. The carton may be under-filled. Increase carton content to provide greater support for the flaps. Otherwise, lower the main spring force and change the cutting spring to reduce applicator force.

Major flap of box is peeled back

1. Ensure that the tape applicator is properly distanced away from the carton. The recommended distance is 1/8" from the bottom of the frame to the carton.
2. Make sure that the front black flap (skid plate) device is installed and functioning properly.
3. Verify that the tension on the clutch roller is not too high.

Tape is not being applied to the center of the carton

1. Ensure that the box is going through the machine while centered and that any guide rails on the machine are equidistant from the cavity. Make sure the machine's alignment is centered before making adjustments to the tape head.
2. The tape hub may not be aligned with the center of the tape applicator. Loosen the alignment nut on the tape hub and move the tape roll left or right as needed (described on page 6).

VI. Troubleshooting Guide

Box is Jamming

1. Ensure that the tape applicator is properly distanced away from the carton. The recommended distance is 1/8" from the bottom of the frame to the carton.
2. If using a bottom belt drive system, make sure that all springs are in light touch settings.
3. A lighter cutting spring may be used on the top tape head cutting arm.
4. Make sure that the belts on the machine are not overly worn and have some traction.
5. If all else fails, notify or call the distributor.

Cutting Problems

Tape is not being cut

1. Ensure that the knife edge is free from debris and adhesive buildup. Clean or replace as required.
2. Make sure that the dull blade extending from the blade is not bent. Replace as needed.
3. The tape head may be too high. It should be approximately 1/8" off the box.
4. Check to see that the tension on the clutch roller is not too loose. If the tension is too loose, the tape will sag down and become more difficult for the knife to cut.
5. The cutting spring may be damaged. Replace if required.

Tape is being cut off prematurely

1. Make sure the tape is threaded properly.
2. The cutting spring may be too strong relative to the main spring setting. Replace the cutting spring with a lighter version and/or readjust the main spring to a higher setting.
3. The carton may be excessively under-filled or the flaps may be composed of light grade corrugate.
 - a. Repackage the contents to increase fill or increase corrugate quality.
4. Lower the head all the way down on the box.
5. The tape unwind tension may be too strong. Reduce tape roll hub tension and the clutch roller tension.

Tape cut is ragged

1. Ensure the knife edge is free from debris and adhesive buildup. Clean or replace as required.
2. The hub and roll of tape may be too far away from the cutting arm. Loosen the nut on the back side of the hub and move the hub closer to the cutting arm side of the tape head.
3. Check to see that the tension on the clutch roller is not too loose. If the tension is too loose, the tape will sag down and become more difficult for the knife to cut.

Front/Rear Tab Problems

Rear tab is too long

1. The adjustment bar may be incorrectly set. Adjust as according to page 8.
2. The tape tension may be too loose. Adjust as according to page 7.

Front tab is too long

1. The front tab adjustment roller may be incorrectly set. Adjust as according to page 8.
2. The tape tension may be too loose. Adjust as according to page 7.

VI. Troubleshooting Guide

Front and rear tab lengths shorten as tape roll diminishes

1. If the tape head has a dancer arm, make sure that it is locked up against the roll of tape.
2. Tape unwind forces increase as the diameter of the tape roll decreases. Changes in force are more evident on larger tape rolls, such as 2,000-yard-long rolls. The tape applicator should be equipped with a dancer arm to reduce the variation.
3. The tape roll hub and clutch roller tension settings may be too high. Lower the tape tension to allow for an acceptable tab length.
4. The front tab length may be adjusted to be too short. Reposition the adjusting roller to a suitable front tab length. Compare the tab length with a full roll and a small roll, adjusting the tension as required.