3M

Instructions and Parts List

3M-Matic
12AB

Type 29300

Adjustable

Case Sealer

with

AccuGlide II Taping Heads



Important Safeguards

Read operating safety information on pages 2, 3 and 11 BEFORE installing or operating case sealer.

Important

It is recommended you immediately order the spare parts listed on page 35. These parts are expected to wear through normal use and should be kept on hand to minimize production delays.

To Our Customers:

This is the 3M-Matic[™]/AccuGlide[™]/Scotch[™] brand equipment you ordered. It has been set up and tested in the factory with "Scotch" brand tapes. If any problems occur when operating this equipment, and you desire a service call, or phone consultation, call, write or Fax the appropriate number listed below.

Replacement Parts

Order parts by part number, part description and quantity required. Also include machine name, number and type. A parts order form is provided at the back of this manual.

3M/Tape Dispenser Parts 241 Venture Drive Amery, WI 54001-1325

1-800/344 9883

FAX# 715/268 8153

Minimum billing on parts orders will be \$25.00. Replacement part prices available on request. \$10.00 restocking charge per invoice on returned parts.

Note: Outside the U.S., contact the local 3M subsidiary for parts ordering information.

Service

3M National Service Center – 1-800/328 1390 (Twin Cities Metro Area call 737 6507). Please provide the customer support coordinator with the machine number and serial number. If you have a technical question that does not require an immediate response, you may Fax it to 612/737 7121.



To Our Customers:

This is the 3M-Matic[™]/AccuGlide[™]/Scotch[™] brand equipment you ordered. It has been set up and tested in the factory with "Scotch" brand tapes. If any problems occur when operating this equipment, and you desire a service call, or phone consultation, call, write or Fax the appropriate number listed below.

SERVI	CE AND PARTS AVAILABLE DIRECT FROM:
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Order parts by part number, part description and quantity required. Also include machine name, number and type.



Instruction Manual

12AB, Type 29300 Adjustable Case Sealer

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Equipment Warranty and Limited Remedy: THE FOLLOWING WARRANTY IS MADE IN LIEU OF ALL OTHER WARRANTIES, EXPRESS OR IMPLIED, INCLUDING, BUT NOT LIMITED TO, THE IMPLIED WARRANTY OF MERCHANTABILITY, THE IMPLIED WARRANTY OF FITNESS FOR A PARTICULAR PURPOSE AND ANY IMPLIED WARRANTY ARISING OUT OF A COURSE OF DEALING, A CUSTOM OR USAGE OF TRADE:

3M sells its 3M-Matic™ 12AB, Type 29300 Adjustable Case Sealer with the following warranties:

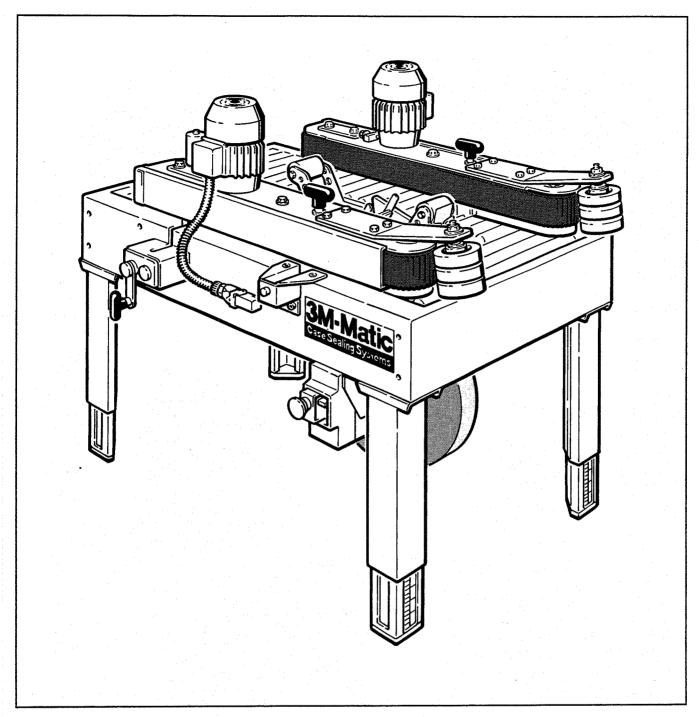
- 1. The Taping Head knife blade, springs and rollers will be free from all defects for ninety (90) days after delivery.
- 2. All other Taping Head parts will be free from all defects for three (3) years after delivery.
- 3. The motor and transmission will be free from all defects for one (1) year after delivery.
- 4. All other parts will be free from all defects for ninety (90) days after delivery.

If any part is proved to be defective within its warranty period, then the exclusive remedy and 3M's and seller's sole obligation shall be, at 3M's option, to repair or replace the part, provided the defective part is returned immediately to 3M's factory or an authorized service station designated by 3M. A part will be presumed to have become defective after its warranty period unless the part is received or 3M is notified of the problem no later than five (5) calendar days after the warranty period. If 3M is unable to repair or replace the part within a reasonable time, then 3M, at its option, will replace the equipment or refund the purchase price. 3M shall have no obligation to provide or pay for the labor required to install the repaired or replacement part. 3M shall have no obligation to repair or replace (1) those parts failing due to operator misuse, carelessness, or due to any accidental cause other than equipment failure, or (2) parts failing due to non-lubrication, inadequate cleaning, improper operating environment, improper utilities or operator error.

Limitation of Liability: 3M and seller shall not be liable for direct, indirect, special, incidental or consequential damages based upon breach of warranty, breach of contract, negligence, strict liability or any other legal theory.

The foregoing Equipment Warranty and Limited Remedy and Limitation of Liability may be changed only by a written agreement signed by authorized officers of 3M and seller.

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3M-Matic[™] 12AB Adjustable Case Sealer, Type 29300

Description

The 3M-Matic™ 12AB Adjustable Case Sealer with AccuGlide™ II Taping Head is designed to apply a "C" clip of Scotch™ brand pressure-sensitive film box sealing tape to the bottom center seam of regular slotted containers. The 12AB is manually adjustable to a wide range of box sizes (see "Specifications – Box Weight and Size Capacities", page 6.)

Important Safeguards

The "Warning – Sharp Knife" label shown in Figure 1-1, is attached to the orange cut-off blade guard on the taping head. The label warns the operator and service personnel of the very sharp knife located behind the guard and to keep hands out of this area except for tape loading and/or servicing the taping head.

The taping head is equipped with an orange colored blade guard that covers the blade. The taping head should never be operated with the blade guard removed.

Turn air and electrical supplies off before servicing the taping head.

The "Caution – Disconnect Electric Plug" label, shown in Figure 1-2, is attached to the frame on the left side of the machine, by the belt drive motor electrical connector. The label warns service personnel to unplug the power supply before attempting any service work on the case sealer.

The "Caution – Keep Hands And Objects Out Of This Area" label, shown in Figure 1-3, is located on the top, infeed end of both drive belt assemblies. These labels warn the operator to keep hands out of this area when drive belts are running.

A WARNING Sharp Knife

Figure 1-1 - Knife Warning Label



Figure 1-2 – Electrical Caution Label



Figure 1-3 – Hands Caution Label

Important Safeguards (Continued)

The "Operating Notice" label, shown in Figure 1-4, is located on the side discharge end of both drive belt assemblies. The labels remind operators service personnel of correct belt adjustment procedures.

The "Tape Threading Label" shown in Figure 1-5, is attached to the left side of the taping head. The label provides a convenient tape threading diagram.

More detailed tape loading and threading information

is provided in this manual in the operation section.

NOTICE

- 1. UPPER AND LOWER ADJUSTMENT SCREWS MUST BE ADJUSTED EQUALLY TO PREVENT BELT FAILURE.
- 2. FASTENERS MUST BE TIGHTENED SECURELY BEFORE STARTING UNIT.

Figure 1-4 - Operating Notice Label

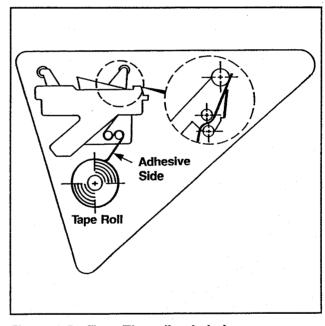


Figure 1-5 - Tape Threading Label

IMPORTANT - Read "Warnings" on page 11 before set-up, operation, maintenance or adjustments of case sealer.



THIS SAFETY ALERT SYMBOL IDENTIFIES IMPORTANT SAFETY MESSAGES IN THIS MANUAL. READ AND UNDERSTAND THEM BEFORE INSTALLING OR OPERATING THIS EQUIPMENT.

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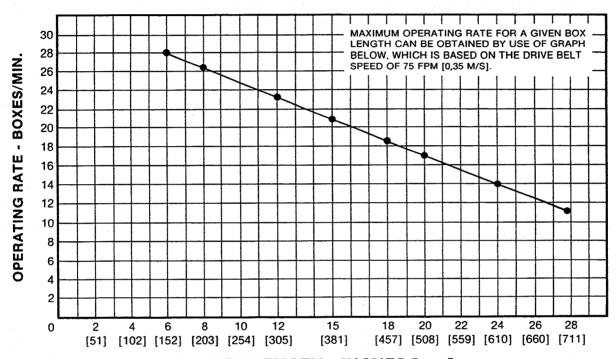
Specifications

1. Power Requirements:

Electrical - 115 VAC, 60 Hz, 4.8 Amp.

The machine is equipped with a standard neoprene covered power cord and a grounded plug. Contact your 3M Representative for power requirements not listed above.

2. Operating Rate:



BOX LENGTH - INCHES [mm]

Actual production rate is dependent on operator dexterity.

Boxes must be 18 inches [455 mm] apart minimum.

3. Operating Conditions:

Use in dry, relatively clean environments at 40° to 105° F [5° to 40° C] with clean, dry boxes.

IMPORTANT SAFEGUARD

MACHINE SHOULD NOT BE WASHED DOWN OR SUBJECTED TO CONDITIONS CAUSING MOISTURE CONDENSATION ON COMPONENTS.

(Specifications continued on next page)

Specifications (Continued)

4. Tape:

Scotch™ brand pressure-sensitive film box sealing tapes.

5. Tape Width:

1-1/2 inches or 36 mm minimum to 2 inches [50 mm] maximum.

6. Tape Roll Diameter:

Up to 16 inches [405 mm] maximum on a 3 inch [76,2 mm] diameter core. (Accommodates all system roll lengths of **Scotch™** brand film tapes.)

7. Tape Application Leg Length - Standard:

2-3/4 inches $\pm 1/4$ inch [70 mm \pm 6 mm]

Tape Application Leg Length - Optional:

2 inches ±1/4 inch [50 mm ± 6 mm] (See "Special Set-Up Procedure", page 30)

8. Box Board:

Style – regular slotted containers - RSC Bursting test – 125 to 275 P.S.I., single wall or double wall B or C flute.

9. Box Weight and Size Capacities:

A. Box Weight, filled – minimum weight must be sufficient to hold carton on the conveyor bed with bottom flaps fully closed, maximum 50 lbs. [23 kg].

B. Box Size:

	Minimum	Maximum
Length -	6 inches [150 mm]	Unlimited
Width -	4.5 inches [115 mm]	20.0 inches [500 mm]
Height -	4.8 inches [120 mm]	Unlimited

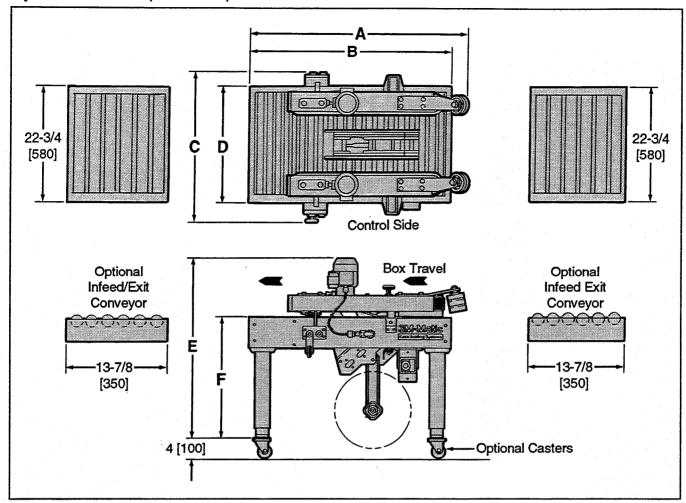
Special modifications may be available for carton sizes not listed above. Contact your 3M Representative for information.

Note: The case sealer can accommodate most boxes within the size range listed above. However, if the box length (in direction of seal) to box height ratio is .6 or less, then several boxes should be test run to assure proper machine performance.

DETERMINE THE BOX LIMITATIONS BY COMPLETING THIS FORMULA:

BOX LENGTH IN DIRECTION OF SEAL MUST BE GREATER THAN .6
BOX HEIGHT

Specifications (Continued)



10. Machine Dimensions:

		A	В	С	D	E	F
Minimum Inches [mm]		38-3/4 [985]	36-1/4 [920]	32 [815]	22-3/4 [580]	31 [785]	20-3/4 [525]
Maximum Inches [mm]			1			40-1/4 [1020]	30 [760]
Weight: crated uncrated	- 2: - 1:	20 pound 80 pound	s [100 kg] s [82 kg]				

11. Set-Up Recommendations:

- Machine must be level.
- Customer supplied infeed and exit conveyors (if used) should provide straight and level box entry and exit.
- Exit conveyors (powered or gravity) must convey sealed boxes away from machine.

Set-Up Procedure

Receiving And Handling

After the machine has been uncrated, examine the case sealer for damage that might have occurred during transit. If damage is evident, file a damage claim immediately with the transportation company and also your 3M Representative.

Machine Set-Up

It is recommended that the case sealer be set-up and operated with product before placing it in the production line. This approach will allow your thorough review and familiarization with the case sealer before subjecting it and operating personnel to a production situation where time for set-up, adjustments, and operator training usually becomes limited.

The following instructions are presented in the order recommended for setting up and installing the case sealer. Following them step by step will result in an installation in your production line that best utilizes the many features built into the case sealer.

IMPORTANT - Read "Warnings" on page 11 before attempting to set-up the case sealer for operation.

- 1. Follow "Unpacking Instructions" label attached to corrugated packing cover.
- Remove the four brackets that secure the machine legs to the shipping pallet.
- Width adjustment crank is shipped mounted in upside down position. Remove crank and install right-side up as shown in Figure 2-1.
- 4. Remove the plastic ties that secure the taping head in place.
- 5. Adjust case sealer conveyor bed height.

The case sealer is equipped with four adjustable legs that are located at the corners of the frame. The legs can be adjusted to obtain different machine conveyor bed heights from 20-3/4 inches [525 mm] minimum to 30 inches [760 mm] maximum.

Refer to Figure 2-2A and set the conveyor bed height as follows:

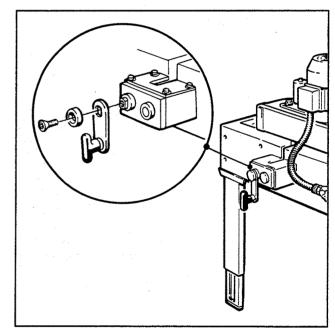


Figure 2-1 - Width Adjustment Crank

- a. Block up the machine frame to allow adequate leg adjustment.
- b. Loosen, but do not remove, two M8 x 16 mm socket head screws in one leg. Adjust the leg length for the desired conveyor bed height. Retighten the two screws to secure the leg. Adjust all four legs equally.
- 6. Tape Drum Bracket Assembly

The normal position for the tape drum bracket assembly (with conveyor bed height at 26 inches [660 mm] minimum) is straight down. For conveyor bed heights less than 26 inches, the tape drum bracket may be pivoted forward to allow for maximum tape roll diameter. See Figure 2-2B.

Note - With bracket in extreme forward position, only one mounting bolt is used along with pivot/spacer bolts.

Set-Up Procedure (Continued)

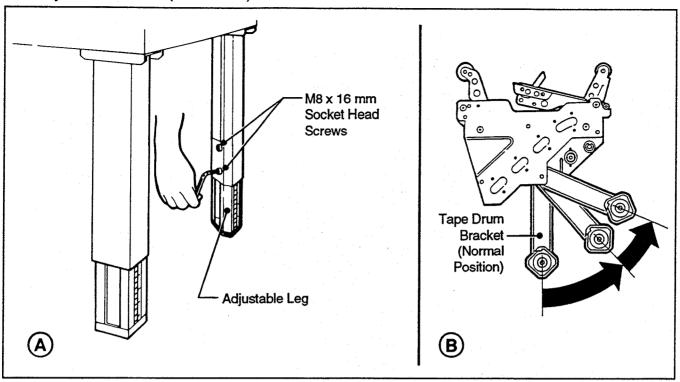


Figure 2-2 - Conveyor Bed Height/Tape Drum Bracket

Taping Head

The taping head has been pre-set to accommodate 2 inch [50 mm] wide tape rolls. To apply narrower tapes, refer to "Adjustments – Tape Web Alignment", page 27 for set-up.

Electrical Connection and Controls

The electrical control box, shown in Figure 3-1, contains the "On/Off" switch with pre-set circuit breaker and can be located on either side of the main conveyor for customer operating convenience. A standard three conductor power cord with plug is provided at the back of the electrical control box for 115 Volt, 60 Hz, 3.6 Amps electrical service. The receptacle providing this service shall be properly grounded. Before the power cord is plugged into 115 Volt, 60 Hz outlet, make sure the red "Off" button is depressed and that all packaging materials and tools are removed from the machine. Do not plug cord into outlet until ready to run machine.

Note – Machines outside the U.S. may be equipped with 220/240 Volt, 50 Hz systems or other electrical requirements compatible with local practice.

Initial Start-Up of Case Sealer

After completing the "Set-Up" procedure, continue through "Operation", pages 11-15 to be sure case sealer is properly adjusted to run product.

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Operation

IMPORTANT – Before operating the case sealer, read all the "Important Safeguards", pages 2-3 and "Warnings" below as well as all of the "Operation" instructions.

Refer to Figure 3-1 to acquaint yourself with the various components of the case sealer and Figure 3-2 for taping head components.

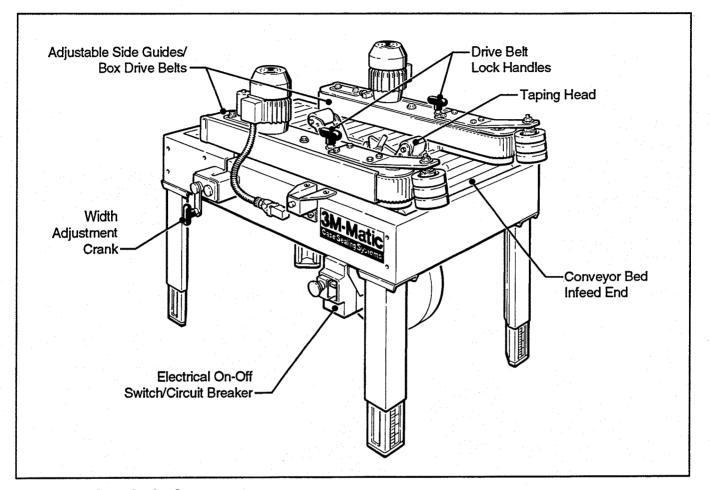


Figure 3-1 - Case Sealer Components

A

WARNINGS

- 1. Turn electrical supply off and disconnect before servicing taping head or performing any adjustments or maintenance on the machine.
- 2. Turn electrical supply off when machine is not in use.
- 3. Before turning drive belts on, be sure no tools or other objects are on the conveyor bed.
- 4. Keep hands and loose clothing away from moving belts.
- 5. Never attempt to remove jammed boxes from machine while machine is running.
- 6. When feeding boxes to the machine by hand, push box in from end or top corner only do not push with hands on side corners of the box.
- 7. THE 12AB taping head utilizes an extremely sharp knife blade. The blade is located under the orange blade guard which has the "WARNING SHARP KNIFE" label. Before loading tape, refer to Figure 3-2 and identify the blade location. Keep hands out of these areas except as necessary to service the taping head.
- 8. Failure to comply with these warnings can result in severe personal injury and/or equipment damage.

Electrical On/Off Switch

The box drive belts are turned on and off ("Off" button is red) with the electrical switch on the side of the conveyor bed frame. Refer to Figure 3-1 for location of this switch.

Note – the case sealer has a circuit breaker incorporated into the "On/Off" switch. If circuit becomes overloaded and circuit breaker trips, wait two minutes, then push "On" button to reset breaker.

Taping Head

A threading diagram is attached to the taping head for operator reference. However, it is recommended that the more detailed instructions and sketches in this manual be referred to the first few times the unit is loaded until the operator becomes thoroughly familiar with the tape loading operation.

A plastic threading needle is provided with the taping head – retain the needle for continued use in the tape loading procedure.

Refer to Figure 3-2 to identify the various components of the taping head, especially the cut-off blade location.

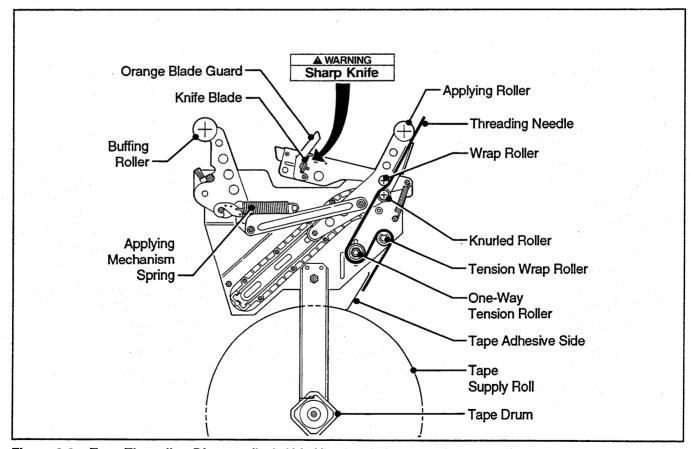


Figure 3-2 - Tape Threading Diagram (Left Side View)

Tape Loading/Threading

WARNING - TURN OFF AND DISCONNECT ELECTRICAL SUPPLY BEFORE LOADING/THREADING TAPE. IF ELECTRICAL SUPPLY IS NOT DISCONNECTED, SEVERE INJURY TO PERSONNEL COULD RESULT.

- 1. Remove the taping head from the conveyor bed by lifting the head straight up.
- 2. Follow Steps 1, 2 and 3 below and also refer to Figure 3-2.
- 3. Replace the taping head into conveyor bed.

Step 1 - Figure 3-3

Insert the threading needle upward around rollers as illustrated.

Step 2 - Figure 3-4

Place tape roll on drum to dispense tape from top of roll adhesive side forward. Seat tape roll fully against back flange of drum. Adhere tape lead end to upper end of threading needle as shown.

Step 3 - Figure 3-5

WARNING - USE CARE WHEN WORKING NEAR BLADE AS BLADE IS EXTREMELY SHARP. IF CARE IS NOT TAKEN, SEVERE INJURY TO PERSONNEL COULD RESULT.

Manually turn tape roll to create slack tape while pulling threading needle through tape applying mechanism until needle is through and tape is in alignment with applying roller.

Excess tape can be cut with a scissors at applying roller.

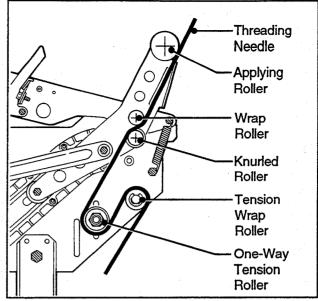


Figure 3-3 - Tape Loading

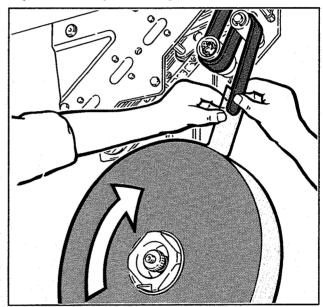


Figure 3-4 - Tape Loading

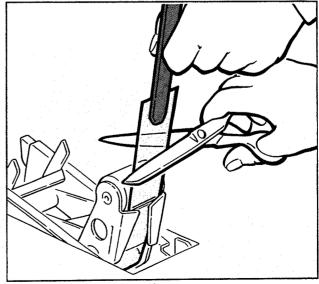


Figure 3-5 - Tape Loading

Machine Adjustments For Box Size Refer to Figures 3-6 and 3-7

WARNING - TURN ELECTRICAL SUPPLY OFF AND DISCONNECT BEFORE BEGINNING ADJUSTMENTS. FAILURE TO COMPLY WITH THIS WARNING COULD RESULT IN SEVERE PERSONAL INJURY OR EQUIPMENT DAMAGE.

Figure 3-6

Place a product filled box on infeed conveyor bed with top flaps folded as shown and manually move box forward to contact lower taping head applying roller.

Turn hand adjustment crank to position both side drive belts against sides of box. Tighten knobs located on top of both side drive belts to secure in operating position.



WARNING – BE SURE ALL
PACKAGING MATERIALS AND TOOLS
ARE REMOVED FROM THE MACHINE
BEFORE OPERATING.

Connect electrical supply and press the electrical switch to "On" to start the side drive belts to remove the set-up box from the case sealer.

If box is hard to move or if box movement is jerky, increase belt pressure on side of box slightly.

ALLOWED TO SLIP ON BOX, EXCESSIVE BELT WEAR WILL OCCUR.

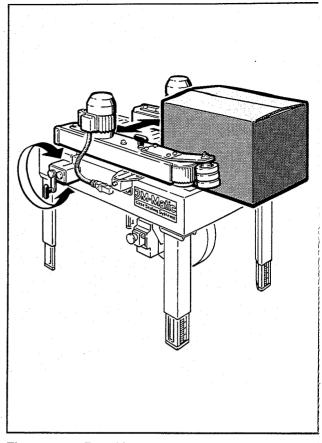


Figure 3-6 - Box Size

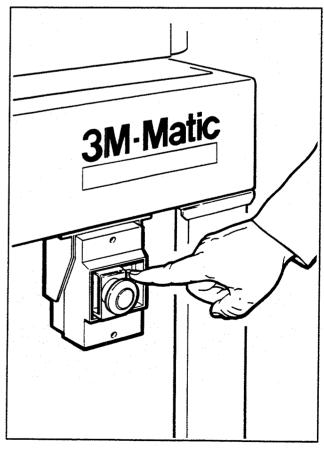


Figure 3-7 - Box Size

Box Sealing - Figure 3-8



WARNINGS

- 1. Remove tools or other objects from machine conveyor bed before starting machine.
- 2. Keep hands and loose clothing away from moving belts.
- 3. When feeding boxes to the machine by hand, push box in from end or top corner only do not push with hands on side corners of the box.
- 4. Never attempt to remove jammed boxes from machine when machine is running.
- 5. Turn electrical supply off when machine is not in use.
- 1. Connect electrical supply.
- 2. Press electrical "On" button to start the drive belts.
- 3. Feed boxes to machine at minimum 18 inch [455 mm] intervals.
- 4. Turn electrical supply "Off" when machine is not in use.
- 5. Reload and thread tape as necessary.
- Be sure machine is cleaned and lubricated according to recommendations in "Maintenance" section of this manual.

Note – box drive motors are designed to run at a moderate temperature of 104°F [40°C]. In some cases, they may feel hot to the touch.

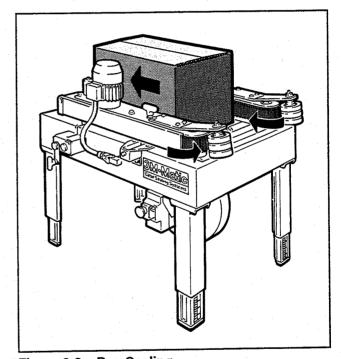


Figure 3-8 - Box Sealing

Note - Adjustment of the machine or taping heads are described in the "Adjustment" section of this manual.

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Maintenance

The case sealer has been designed for long, trouble free service. The machine will perform best when it receives routine maintenance and cleaning. Machine components that fail or wear excessively should be promptly repaired or replaced to prevent damage to other portions of the machine or to the product.

WARNING – TURN OFF ELECTRICAL POWER AND DISCONNECT POWER CORD FROM ELECTRICAL SUPPLY BEFORE BEGINNING MAINTENANCE. IF POWER CORD IS NOT DISCONNECTED, SEVERE INJURY TO PERSONNEL COULD RESULT.

Tool Kit

Since the case sealer utilizes metric fasteners, a tool kit consisting of open end and hex socket wrenches is provided with the machine.

Blade Replacement

Figure 4-1

WARNING – USE CARE WHEN WORKING NEAR BLADE AS BLADE IS EXTREMELY SHARP. IF CARE IS NOT TAKEN, SEVERE INJURY TO PERSONNEL COULD RESULT.

- Loosen, but do not remove the blade screws (A).
 Remove and discard the old blade.
- 2. Mount the new blade (B) with the beveled side away from the blade holder.
- Bottom the blade slots against the screws. This will position the blade at the correct angle. Tighten the blade screws to secure the blade.

Note – check the blade position to insure proper clearance by **slowly pivoting** the blade guard back.

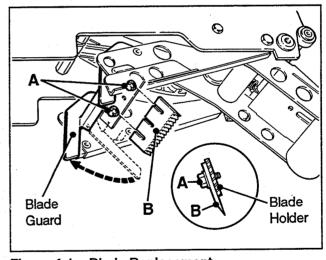


Figure 4-1 - Blade Replacement

WARNING - TURN OFF ELECTRICAL POWER AND DISCONNECT POWER CORD FROM ELECTRICAL SUPPLY BEFORE BEGINNING MAINTENANCE. IF POWER CORD IS NOT DISCONNECTED, SEVERE INJURY TO PERSONNEL COULD RESULT.

Box Drive Belt Replacement

Note – 3M recommends the replacement of drive belts in pairs, especially if belts are unevenly worn.

Figure 4-2

- 1. Disconnect the motor plug (A).
- 2. Crank drive belts to their maximum width position.
- 3. Remove and retain the three screws (B), and side cover (C).

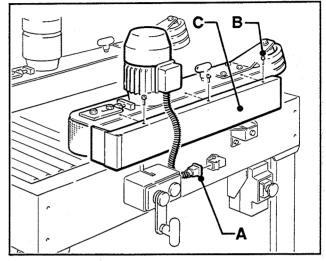


Figure 4-2 – Box Drive Belt (Case Sealer Left Side, Discharge End)

Figure 4-3

- 4. Loosen, but do not remove the lock nut (D) on upper belt tension assembly.
- 5. Loosen, but do not remove the belt pulley shaft fasteners (E).
- 6. Turn the belt adjustment screws (F) clockwise and (G) counterclockwise to relieve tension on the drive belt.

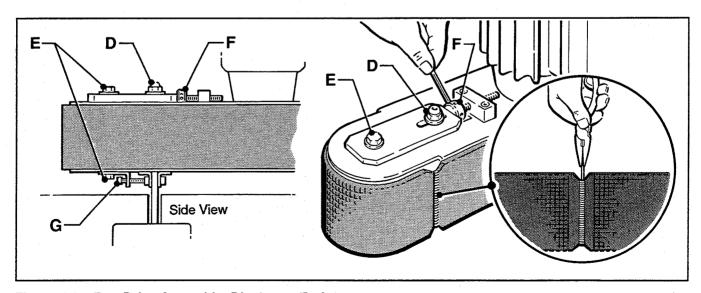


Figure 4-3 - Box Drive Assembly, Discharge End

Maintenance (Continued)

WARNING - TURN OFF ELECTRICAL POWER AND DISCONNECT POWER CORD FROM ELECTRICAL SUPPLY BEFORE BEGINNING MAINTENANCE. IF POWER CORD IS NOT DISCONNECTED, SEVERE INJURY TO PERSONNEL COULD RESULT.

- 7. Remove and discard old drive belt.
- 8. Install new drive belt(s).

Note – Machine is supplied with continuous belts. Replacements, however, will be laced as shown in Figure 4-3. Connecting pin must not extend beyond edge of belt.

IMPORTANT – before installing the new drive belt – check the belt inside surface for drive direction arrows and install the belt accordingly. If no arrows are shown, the belt may be installed either way.

Figures 4-3 and 4-4

9. Drive Belt Tension

To set drive belt tension – turn the adjustment screws (F and G) to provide equal force on both the upper and lower tension assemblies. Turn the screws clockwise to reduce belt tension, counterclockwise to increase belt tension on upper. Reverse for lower.

Note – If you decrease belt tension, be sure to push the idler pulley inward, toward the adjustment screw **before** tightening lock nut (D) and pulley shaft fasteners (E).

Use a force gauge to pull the belt outward one inch [25 mm] at the midspan, as shown with a moderate pulling force of 7 lbs. [3,5 kg]. Tighten the lock nut (D) and retaining screws (E) on both tension assemblies to secure the tension setting.

10. Reverse procedures in items 1-3 above to reassemble the drive belt assembly.

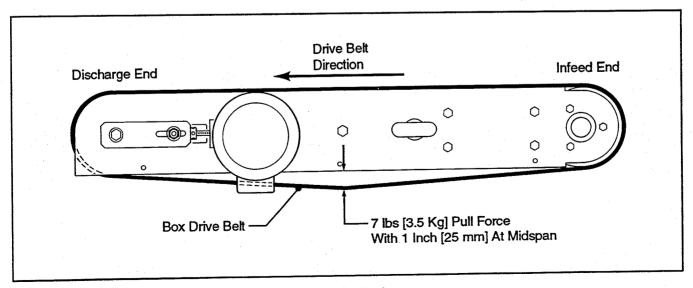


Figure 4-4 - Tension Adjustment, Box Drive Belt (Top View)

Maintenance (Continued)

WARNING - TURN OFF ELECTRICAL POWER AND DISCONNECT POWER CORD FROM ELECTRICAL SUPPLY BEFORE BEGINNING MAINTENANCE. IF POWER CORD IS NOT DISCONNECTED, SEVERE INJURY TO PERSONNEL COULD RESULT.

Cleaning Of The Machine

Note - Never attempt to remove dirt by blowing it out with compressed air. This can cause the dirt to be blown inside the motor and onto sliding surfaces which may cause premature equipment wear. Never wash down or subject equipment to conditions causing moisture condensation on components. Serious equipment damage could result.

Regular slotted containers produce a great deal of dust and paper chips when processed or handled in equipment. If this dust is allowed to build-up on machine components, it can cause component wear and overheating of drive motor. The dust build-up can best be removed from the machine by a shop vacuum. Depending on the number and type of boxes sealed in the case sealer, this cleaning should be done approximately once per month. If the boxes sealed are dirty, or if the environment in which the machine operates is dusty, cleaning on a more frequent basis may be necessary. Excessive dirt build-up that cannot be removed by vacuuming should be wiped off with a damp cloth.

Cut-Off Blade



USE CARE WHEN WORKING NEAR BLADES AS BLADES ARE EXTREMELY SHARP. IF CARE IS NOT TAKEN, SEVERE INJURY TO PERSONNEL COULD RESULT.

Should tape adhesive build-up occur on cut-off blade, carefully wipe clean with oily cloth

Circuit Breaker

The case sealer is equipped with a circuit breaker which trips the "On/Off" switch to tripped position. If circuit is overloaded and circuit breaker trips, wait 2 minutes, and then turn "On". Located inside the electrical control box on the side of the main frame just below the conveyor bed, the circuit breaker has been pre-set and requires no further maintenance.

Maintenance (Continued)

WARNING – TURN OFF ELECTRICAL POWER AND DISCONNECT POWER CORD FROM ELECTRICAL SUPPLY BEFORE BEGINNING MAINTENANCE. IF POWER CORD IS NOT DISCONNECTED, SEVERE INJURY TO PERSONNEL COULD RESULT. USE CARE WHEN WORKING NEAR TAPING HEAD BLADE AS BLADE IS EXTREMELY SHARP. IF CARE IS NOT TAKEN, SEVERE INJURY TO PERSONNEL COULD RESULT.

Lubrication - Mechanical

Like most other equipment, the case sealer must be properly lubricated to insure long, trouble free service. Most of the machine bearings are permanently lubricated and sealed and do not need to be greased. The drive motor is also permanently lubricated and should not require additional lubrication.

Figures 4-5 and 4-6 illustrate the taping head and frame points which should be lubricated every 250 hours of operation. Lubricate the rotating and pivoting points, noted by the arrows, () with SAE #30 non-detergent oil. At the same time, a small amount of multipurpose grease should be applied to the end of each spring where the loop is secured at an eyelet, post, or hole noted by arrows ().

Note – Wipe off excess oil and grease. It will attract dust which can cause premature equipment wear and jamming. Take care that oil and grease are not left on the surface of rollers around which tape is threaded, as it can contaminate the tape's adhesive.

Blade Oiler Pad

The taping heads are equipped with a blade oiler pad that has been **pre-lubricated** at the factory to provide a film of oil on the cut-off blade to reduce adhesive build-up. Apply SAE #30 non-detergent oil as needed. SATURATE FELT OILER PAD.

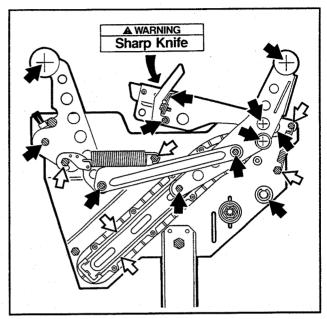


Figure 4-5 - Lubrication Points, Taping Head

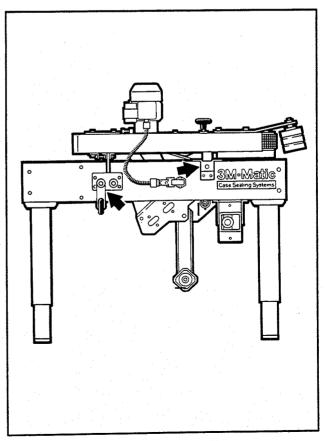


Figure 4-6 - Lubrication Points, Frame

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Troubleshooting

Review Set-Up Procedure Section so that the operational components of the machine are understood. The Troubleshooting Guide lists some possible machine problems, causes and corrections.

Note - Adjustment of the machine or taping heads are described in the "Adjustment" section of this manual.

Troubleshooting Guide

Problem	Cause	Correction
Drive belts do not convey boxes	Narrow boxes	Check machine specifications. Boxes are narrower than
		recommended, causing slippage and premature belt wear
	Worn drive belts	Replace drive belts
	Too much tape tension	Check the threading path, tension adjustments and free operation of the rollers
	Taping head applying spring holder missing	Replace spring holder
	Taping head applying spring set too high.	Reduce spring pressure
Drive belts do not turn	Worn or missing friction rings	Replace friction rings
	Drive belt tension too low	Adjust belt tension
	Electrical disconnect	Check power and electrical plug
	Circuit breaker not at correct setting	Set to correct current value
	Motor not turning	Evaluate problem and correct
	Timing belt stripped or broken	Replace timing belt
Drive belts break	Defective belt	Replace belt

Troubleshooting (Continued)

Troubleshooting Guide

Problem	Cause	Correction	
The tape leg on the front of the case is too long	The tape is threaded incorrectly	The tape must go around the wrap roller before going around the one-way tension roller	
	The tape tension is too low	Adjust the one-way tension roller	
	The knurled roller drags	Check for adhesive build-up between the knurled roller and its shaft. Clean and lubricate shaft. Remove all lubricant from roller surfaces.	
	Tape tracks to one side or drags on the support tabs of applying frame	Adjust the tape web alignment	
	The one-way tension roller is not correctly positioned	Position the roller in its mounting slot so that the tape extends just beyond the center line of the applying roller	
	Taping head is not set up properly	Check leg length adjustments	
The blade does not cut tape or the tape end is jagged or shredded	The blade is dull and/or has broken teeth	Replace the blade	
	Tape tension is insufficient	Increase tape tension by adjusting the one-way roller	
	Adhesive has build up on the blade	Clean and adjust the blade	
	The blade is not positioned properly	Make sure the blade is bottomed out against the mounting bolts	
	The blade is dry	Lubricate the blade oiler pad on the blade guard	
	The blade is in backwards	Mount the blade so that the beveled edge is away from the entrance end of the head	
	One or both cutter springs are missing or stretched	Replace the defective spring(s)	
	Cut off force is insufficient.	Install an additional cutter spring.	
	Tension roller surface is not fully contacting the taping head frame	Make sure one-way bearing is below the surface of the tension roller. If not, press bearing further into roller or replace roller.	

Troubleshooting (Continued)

Troubleshooting Guide

Problem	Cause	Correction
Tape is tabbing on the tailing leg on the back of the box	There is excess tension on the tape drum assembly and/or the one-way tension roller assembly	Adjust the one-way tension roller and/or the tape drum assembly
	Rollers in the tape path do not rotate freely	Clean adhesive deposits from the surface, ends, and shafts of the rollers. Then lubricate roller shafts. Remove all lubricant from roller surfaces.
	The blade is not cutting tape properly	Refer to tape cutting problems
	The tape is threaded incorrectly	Rethread the tape
	Applying mechanism spring has too little tension	Move spring hook to next tighter hole
The tape end does not stay in the	The tape is incorrectly threaded	Rethread the tape
application position in front of the applying roller	Flanged knurled roller overruns on return of applying mechanism to its rest position	Adjust tension roller position in mounting slot to lengthen tape leg
	Applying roller overruns on return of applying mechanism to its rest position	There should be a slight drag when rotating the applying roller. If not, check friction springs and/or friction pins and replace if necessary
	The one-way tension roller is not correctly positioned	Position roller in its mounting slot so that tape end extends beyond center line of applying roller
	The one-way tension roller is defective	Replace the one-way tension roller

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Adjustments

WARNING - TURN OFF ELECTRICAL POWER AND DISCONNECT POWER CORD BEFORE BEGINNING ADJUSTMENTS. IF POWER CORD IS NOT DISCONNECTED, SEVERE INJURY TO PERSONNEL COULD RESULT.

Tape Web Alignment Figure 5-1

The tape drum on the taping head has been pre-set to accommodate 2 inch [50 mm] wide tape, but is adjustable to provide alignment of narrower tapes. If adjustment is necessary to center the tape width on the centerline of the taping head, (and therefore box center seam), make adjustment as follows:

- Loosen locking hex nut behind tape drum on tape drum shaft. Use an adjustable wrench or 25 mm open end wrench.
- 2. Turn tape drum shaft in or out to center the tape web (use 5 mm hex wrench).
- 3. Tighten locking hex nut to secure the adjustment.

No other components require adjustment for tape web alignment.

Tape Drum Friction Brake Figure 5-2

The tape drum friction brake is pre-set for normal operation to prevent tape roll over travel. Should tension adjustment be required, turn the thumbwheel on the shaft to vary compression of the spring. Turn thumbwheel clockwise to increase the braking force, and counterclockwise to decrease the braking force. Adjust to minimum tension that prevents excessive tape roll over travel.

Note – Excessive braking force will cause poor tape application and lead to tape tabbing on the trailing tape leg.

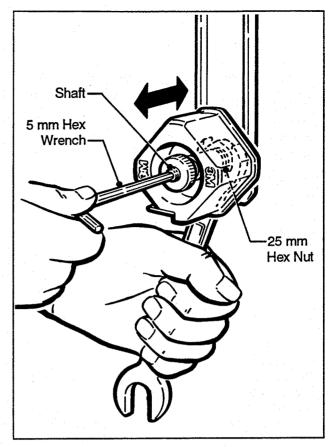


Figure 5-1 - Tape Web Alignment

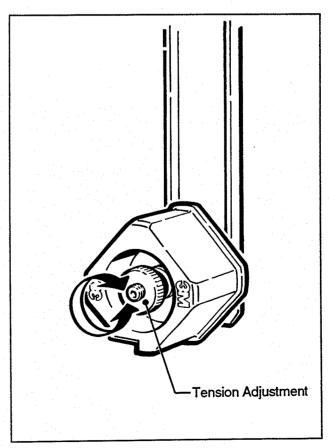


Figure 5-2 - Tape Drum Friction Brake

Adjustments (Continued)

WARNING – TURN OFF ELECTRICAL POWER AND DISCONNECT POWER CORD FROM ELECTRICAL SUPPLY BEFORE BEGINNING ADJUSTMENTS. IF POWER CORD IS NOT DISCONNECTED, SEVERE INJURY TO PERSONNEL COULD RESULT.

Applying Mechanism Spring Figure 5-3

The applying mechanism spring, shown in Figure 3-2, controls applying and buffing roller pressure on the box and returns the mechanism to the reset position. The spring pressure setting, as shown in Figure 5-3A, is for normal operation but is adjustable.

If a tape gap appears on the trailing surface of the box, increase spring pressure. If the front of the box is being crushed by the applying roller, decrease spring pressure.

Removing the spring end loop from the spring holder and placing loop in other holes provided, as shown in Figure 5-3B, will adjust the spring pressure.

The spring pressure should be set to the minimum possible while maintaining good tape application.

One Way Tension Roller Assembly Figure 5-4

The one way tension roller is factory set. When replacing this assembly, the roller must have 1 lb. [0,5 kg] minimum tangential force when turning.

To Set Tension:

- Wrap a cord or small strap (non-adhesive) 4–6 turns around the tension roller.
- 2. Attach a spring scale to the end of the cord or strap.
- Turn the adjusting nut until a force of approximately 1–2 lbs. [0,5 kg to 0,9 kg] is required to turn the roller by pulling on the spring scale.

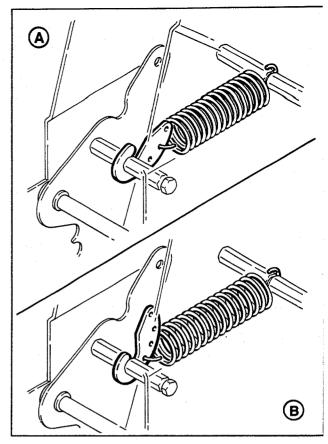


Figure 5-3 - Applying Mechanism Spring

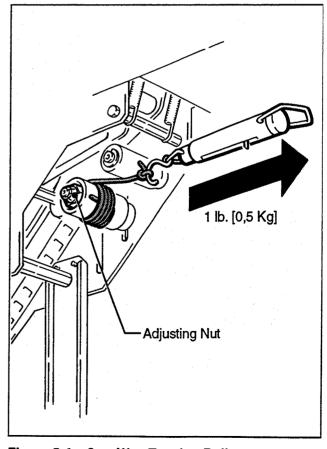


Figure 5-4 - One-Way Tension Roller

Adjustments (Continued)

WARNING – TURN OFF ELECTRICAL POWER AND DISCONNECT POWER CORD FROM ELECTRICAL SUPPLY BEFORE BEGINNING ADJUSTMENTS. IF POWER CORD IS NOT DISCONNECTED SEVERE INJURY TO PERSONNEL COULD RESULT.

Tape Application Leg Length Figure 5-5

For best tape application performance, the taping head should maintain tape leg lengths of 2-3/4 inch $\pm 1/4$ inch [70 mm ± 6 mm].

The one-way tension roller on the taping head is adjustable to control the leading tape leg length.

Moving this roller farther away from the box bottom surface will decrease the leading leg length. Moving it closer to the box bottom surface will increase the leading leg length.

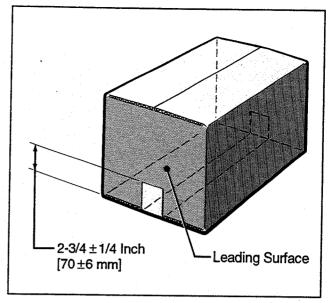


Figure 5-5 - Tape Application Leg Length

Note – Taping head may be converted to apply 2 inch [50 mm] tape leg lengths. See "Special Set-Up Procedure – Changing Tape Leg Length", page 30.

Box Drive Belt Tension

To Adjust drive belt tension, refer to "Maintenance - Drive Belt Replacement", page 19, item 9.

Special Set-Up Procedure

WARNING – TURN OFF ELECTRICAL POWER AND DISCONNECT POWER CORD FROM ELECTRICAL SUPPLY BEFORE BEGINNING SPECIAL SET-UP PROCEDURE, IF POWER CORD IS NOT DISCONNECTED, SEVERE INJURY TO PERSONNEL COULD RESULT.

Changing the Tape Leg Length

(From 2-3/4 to 2 Inches [70 to 50 mm])



WARNING - USE CARE WHEN WORKING NEAR BLADE AS BLADE IS EXTREMELY SHARP. IF CARE IS NOT TAKEN, SEVERE INJURY TO PERSONNEL COULD RESULT.

- 1. Lift taping head straight up to remove from machine.
 - (Refer to Figure 6-1)
- 2. Remove and retain the hex screws to remove the brush from the normal position "A" on the taping head frame.
- 3. Remount and secure the brush in position "A-A" (forward of the normal location) using the original fasteners.
- 4. Remove and retain the two flat head screws to remove the blade cut-off bracket extension in normal position "B".
- 5. Remount and secure the bracket extension in the forward position "B-B" using the original fasteners. Relocate both the right and left extensions.
- 6. Remove and retain the hex head screw and washer to remove the one-way tension roller assembly from slot "C" in the taping head frame.
- 7. Remount and secure one-way tension roller assembly near the top of slot "C-C" in frame using original fasteners.
- 8. Install taping head in machine reverse of disassembly.

Note –The one-way tension roller position is adjustable to control the leading tape leg length. Moving this roller farther away from the box bottom surface will decrease the leading leg length. Moving it closer to the box bottom surface will increase the leading leg length.

Figure 6-2

Illustrates a taped box after case sealer has been converted to 2 inch [50 mm] tape leg length.

Special Set-Up Procedure (Continued)

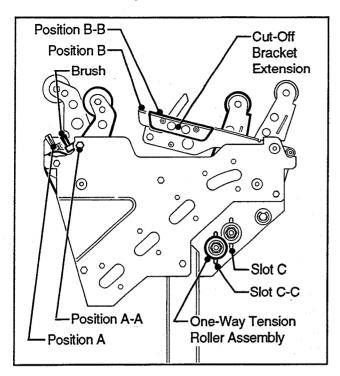


Figure 6-1- Taping Head Changes

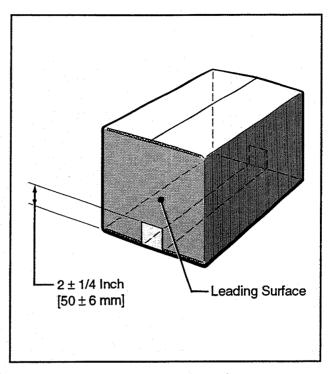


Figure 6-2 – 2 Inch [50 mm] Tape Leg Applied to Box

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Electrical Diagram

WARNING - TURN OFF ELECTRICAL POWER SUPPLY AND DISCONNECT POWER CORD FROM ELECTRICAL SUPPLY BEFORE BEGINNING SERVICE. IF POWER CORD IS NOT DISCONNECTED, PERSONNEL COULD BE EXPOSED TO DANGEROUS VOLTAGES, SEVERE INJURY OR EQUIPMENT DAMAGE COULD RESULT

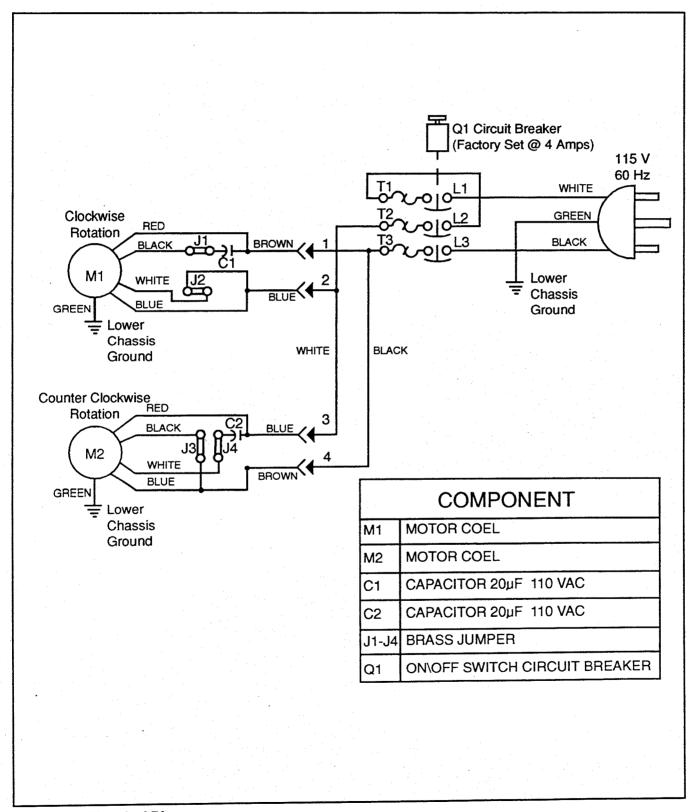


Figure 7-1- Electrical Diagram

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Replacement Parts And Service Information

Spare Parts

It is suggested that the following spare parts be ordered and kept on hand:

Ref. No.	Part Number	Description	
2886-10	78-8070-1273-3	Spring – Lower Extension (Black)	
	78-8017-9173-8	Blade - 2.56 Inch/65 mm	
	78-8052-6602-6	Spring – Cutter	*
	78-8057-6179-4	Roller – Applying	
	78-8057-6178-6	Roller - Buffing	
2403-91	78-80 55-0654-6	Belt – Drive	
•	2886-10 2883-2 2883-12 2880-15 2886-5	2886-10 78-8070-1273-3 2883-2 78-8017-9173-8 2883-12 78-8052-6602-6 2880-15 78-8057-6179-4 2886-5 78-8057-6178-6	2886-10 78-8070-1273-3 Spring – Lower Extension (Black) 2883-2 78-8017-9173-8 Blade – 2.56 Inch/65 mm 2883-12 78-8052-6602-6 Spring – Cutter 2880-15 78-8057-6179-4 Roller – Applying 2886-5 78-8057-6178-6 Roller – Buffing

78-8079-5492-6

Tool Kit

A tool kit, part number 78-8060-8476-6, is available as a stock item. The kit contains the necessary open end and hex socket wrenches for use with the metric fasteners on the case sealer. The threading needle, part number 78-8076-4726-4, contained in above kit is also available as a replacement stock item. Refer to "How To Order Replacement Parts" for ordering information.

How To Order Replacement Parts

 Order parts by part number, part name, machine catalog number, type number and part quantity required. A parts order form is provided at the back of the manual.

Minimum billing on parts orders will be \$25.00. Replacement part prices available on request. \$10.00 restocking charge per invoice on returned parts.

Note: Outside the U.S., contact the local 3M subsidiary for parts ordering information.

2. Replacement parts and part prices available direct from:

3M /Tape Dispenser Parts 241 Venture Drive Amery, WI 54001-1325

800/344 9883 FAX # 715/268 8153

Note - Outside the U.S. contact the local 3M subsidiary for parts order information.

Repair Service

Refer to the first page of this instruction manual "Service Instructions" for information on repair service.

Options/Accessories

For additional information on the options/accessories listed below, contact your 3M Representative.

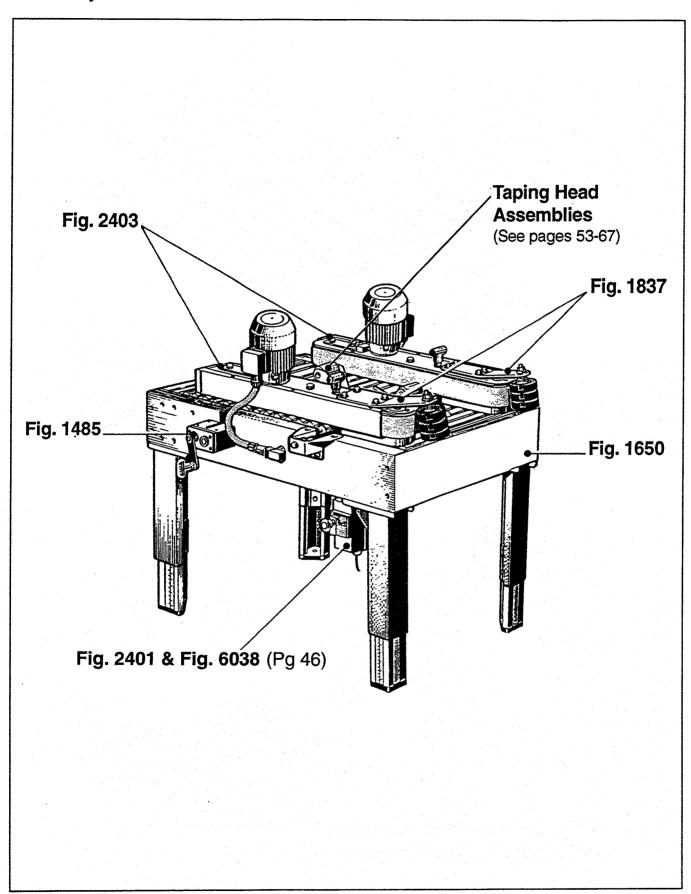
Part Number	Option/Accessory		
78-8069-3983-7	Caster Kit Attachment, Model 2	28700	
78-8052-6555-6	Conveyor Extension Attachmer	nt, Model 18500	
78-8052-6553-1	Box Hold Down Attachment		
78-8079-5560-0	Tape Application Sensor		
78-8095-4855-1	2 Inch Tape Edge Fold Attachn	nent – Bottom	

Replacement Parts – Illustrations and Parts Lists 12AB Adjustable Case Sealer, Type 29300 Frame Assemblies

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for	the parts in	that illust	ration.								
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12AB Adjustable Case Sealer



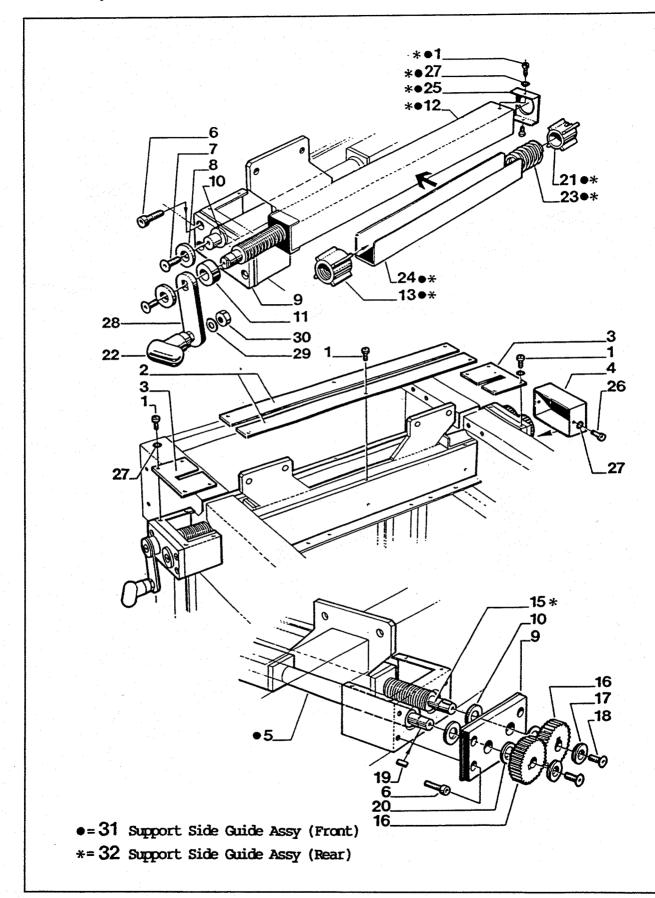


Figure 1485

Figure 1485

Ref. No.	3M Part No.	Description
1485-1	26-1002-5753-9	Screw - Self Tapping
1485-2	78-8054-8914-9	Rear Guide Guard
1485-3	78-8054-8915-6	Screw - Adjustment Guard
1485-4	78-8054-8916-4	Guard – Gear
1485-5	78-8054-8917-2	Conductor Screw
1485-6	26-1003-7951-5	Screw – Soc Hd, M5 x 20 mm
1485-7	78-8057-5726-3	Screw - Flat Hd Soc, M6 x 15 mm
1485-8	78-8054-8577-4	Washer – Special
1485-9	78-8054-8918-0	Plate
1485-10	78-8054-8919-8	Washer – 15/25 x 5 mm
1485-11	78-8054-8920-6	Spacer - 15.5/30 x 10 mm
1485-12	78-8054-8921-4	Support - Side Guide
1485-13	78-8054-8922-2	Nut – Plastic
1485-15	78-8054-8923-0	Screw – Side Guide
1485-16	78-8054-8924-8	Gear – 28 Teeth, 1.5 mm Pitch
1485-17	78-8054-8877-8	Washer – 5.5/20 x 4 mm
1485-18	26-0001-5862-1	Screw - Flat Hd Soc M5 x 12 mm
1485-19	78-8028-8244-5	Key – 4 x 4 x 10 mm
1485-20	78-8054-8925-5	Washer - 12/25 x 3 mm
1485-21	78-8054-8926-3	Collar
1485-22	78-8054-8578-2	Crank
1485-23	78-8055-0623-1	Spring
1485-24	78-8055-0624-9	Spacer
1485-25	78-8055-0625-6	End Cap
1485-26	26-1002-4955-1	Screw – Self Tap 8P x 13 mm
1485-27	78-8005-5740-3	Washer - Plain, 4 mm
1485-28	78-8060-8065-7	Lever – Knob
1485-29	78-8010-7435-8	Washer – Lock, M6
1485-30	78-8010-7418-4	Nut – Hex, M6
1485-31	78-8060-8119-2	Support - Side Guide Assembly (Front)
1485-32	78-8060-8120-0	Support - Side Guide Assembly (Rear)

12AB Adjustable Case Sealer

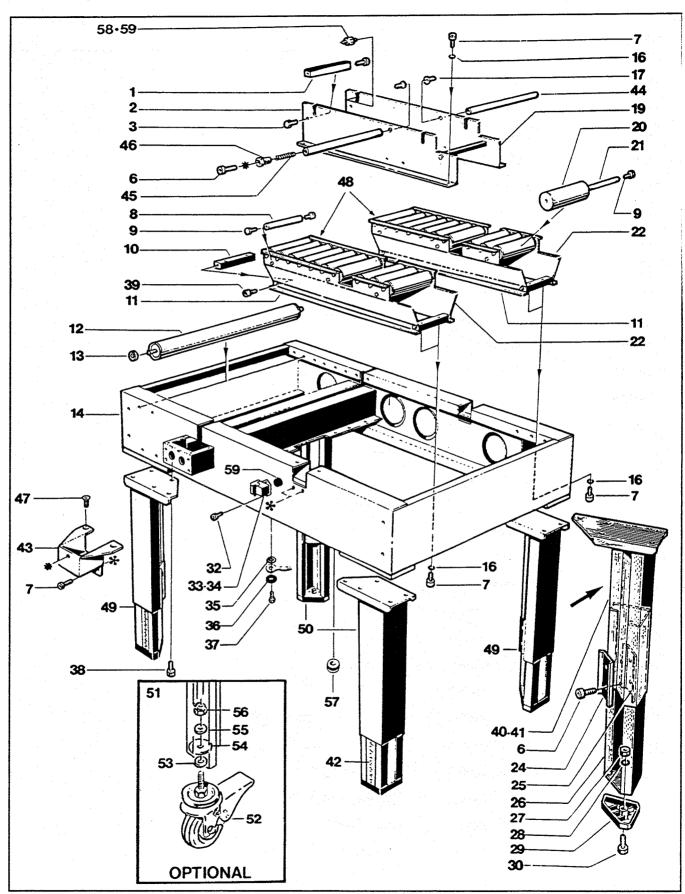


Figure 1650

Figure 1650

Ref. No.	3M Part No.	Description
1650-1	78-8054-8862-0	Spacer – 12 x 12 x 140 mm
1650-2	78-8055-0626-4	Frame – Upper Main Left
1650-3	78-8010-7169-3	Screw – Hex Hd, M6 x 12 mm
1650-6	26-1003-7963-0	Screw – Soc Hd, M8 x 16 mm
1650-7	26-1003-7957-2	Screw – Soc Hd Hex, M6 x 16 mm
1650-8	78-8054-8865-3	Shaft – 8 x 139 mm
1650-9	78-8010-7163-6	Screw – Hex Hd, M5 x 10 mm
1650-10	78-8054-8870-3	Spacer – 15 x 15 x 95 mm
1650-11	78-8055-0628-0	Roller Bed – Left
1650-12	78-8052-6669-5	Roller – Conveyor
1650-13	78-8052-6668-7	Snap - Roller
1650-14	78-8055-0629-8	Bed – Conveyor
1650-17	78-8057-5716-4	Screw - Flat Hd Soc, M8 x 15 mm
1650-19	78-8055-0630-6	Frame – Upper Main Right
1650-20	78-8055-0631-4	Roller – Conveyor, 32 x 138 mm
1650-21	78-8054-8874-5	Shaft – 8 x 148 mm
1650-22	78-8055-0632-2	Roller Bed – Right
1650-24	78-8052-6676-0	Clamp – Outer
1650-25	78-8052-6677-8	Clamp – Inner
1650-26	78-8052-6678-6	Leg – Inner
1650-27	78-8017-9313-0	Nut – Self Locking M8
1650-27	26-1004-5507-5	Washer – M8
1650-29	78-8052-6679-4	Pad – Foot
1650-30	26-1003-5842-8	Screw – Hex Hd, M8 x 20 mm
1650-32	78-8028-8208-0	Screw – 6P x 9.5 mm
1650-33	78-8060-7876-8	Cover – Plug
1650-34	78-8060-7873-5	Plug – Female
1650-35	78-8046-8217-3	Washer - Special
1650-36	78-8005-5741-1	Washer - Plain, M5
1650-37	26-1003-5820-4	Screw – Hex Hd, M5 x 12 mm
1650-38	26-1003-7964-8	Screw - Soc Hd Hex Soc Dr, M8 x 20 mm
1650-39	78-8010-7209-7	Screw – Soc Hd, M6 x 12 mm
1650-40	78-8060-7948-5	Leg – Left
1650-41	78-8060-7947-7	Leg - Right
1650-42	78-8052-6680-2	Label - Height
1650-43	78-8055-0620-7	Mount – Side Guide
1650-44	78-8054-8831-5	Shaft - 14 x 255 mm
1650-45	78-8054-8999-0	Spring
1650-46	78-8054-8998-2	Bushing
1650-47	26-1001-9843-6	Screw - Flat Soc Hd, M6 x 16 mm
1650-48	78-8060-8121-8	Conveyor Assembly
1650-49	78-8060-8122-6	Leg Assembly - Right
1650-50	78-8060-8123-4	Leg Assembly – Left
1650-51	78-8060-8060-8	Caster Assembly – 80
1650-52	78-8060-8061-6	Caster - 80
1650-53	78-8060-8124-2	Spacer - Caster
1650-54	78-8060-7699-4	Washer – 12-45, 5 x 4 mm
1650-55	78-8017-9059-9	Washer - Flat For M12 Screw
1650-56	78-8060-7532-7	Nut – Self Locking M12
1650-57	78-8060-7758-8	Fairlead 20
1650-58	78-8070-1456-4	Stud – Hex
1650-59	78-8052-6659-6	Grommet
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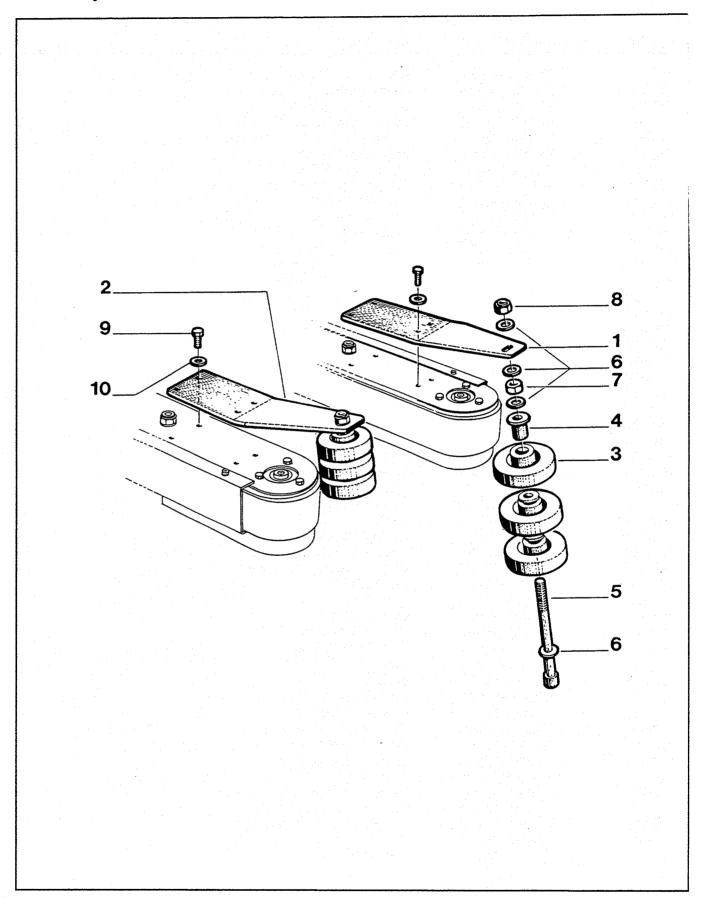


Figure 1837

Figure 1837

Ref. No.	3M Part No.	Description	en e
	78-8059-5522-2	12AB Attachment Kit (Includes Items 1-10)	
1837-1	78-8055-0822-9	Arm - Right Side	
1837-2	78-8055-0823-7	Arm – Left Side	
1837-3	78-8055-0821-1	Rubber – Roller	
1837-4	78-8060-8106-9	Bushing - Nylon	
1837-5	78-8055-0824-5	Screw - Soc Hd, M10 x 110 mm	
1837-6	78-8052-6566-3	Washer - Friction	
1837-7	26-1003-6905-2	Nut – M10	
1837-8	26-1003-6918-5	Nut – Flange Hex, M10 Plastic Insert	
1837-9	78-8010-7193-3	Screw - Hex Hd, M6 x 20 mm	
1837-10	78-8042-2919-9	Washer - M6	

12AB Adjustable Case Sealer

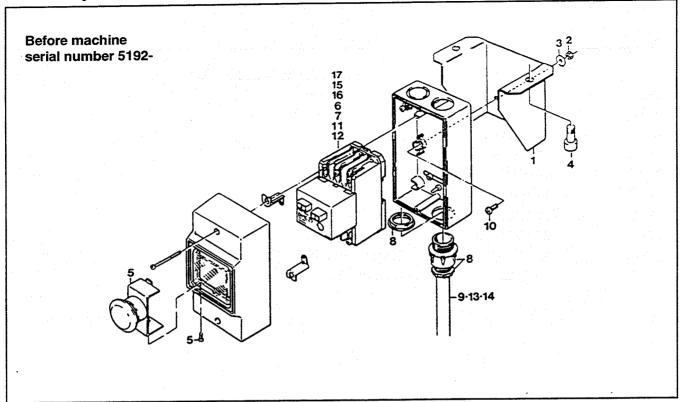


Figure 2401

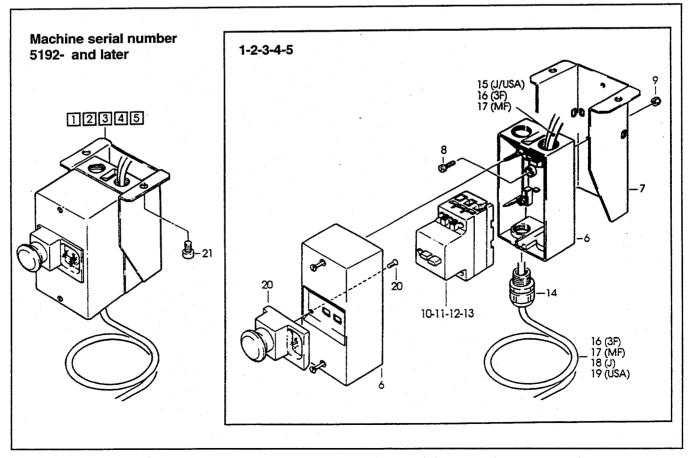


Figure 6038

Figure 2401

Ref. No.	3M Part No.	Description
2401-1	78-8052-6724-8	Switch - Bracket
2401-2	78-8010-7416-8	Nut – Hex, M4
2401-3	78-8017-9018-5	Washer - Plain, M4
2401-4	26-1003-7963-0	Screw – Soc Hd, M8 x 16 mm
2401-5	78-8052-6725-5	Emergency Stop
2401-6	78-8052-6727-1	Switch - On/Off 1 - 1.6 AMP
2401-7	78-8052-6728-9	Switch - On/Off 1.6 - 2.5 AMP
2401-8	78-8057-5807-1	Cord Grip
2401-9	78-8028-7909-4	Power Cord
2401-10	78-8017-9257-9	Screw - Phil. Hd, M4 x 10 mm
2401-11	78-8060-7637-4	Plug Terminal Wire – 1.5
2401-12	78-8060-7881-8	Eyelet Terminal – 5 Yellow
2401-13	78-8060-8052-5	Cable – 4 x 1.5 5MT 3PH
2401-14	78-8060-8053-3	Cable - 3 x 1.5 5MT 1PH
2401-15	78-8052-6729-7	Switch - On/Off 2.5 - 4 AMP
2401-16	78-8052-6660-4	Switch - On/Off 4 - 6.3 AMP (used in North America) Iskra
2401-17	78-8052-6661-2	Switch - On/Off 6.3 - 10 AMP
18	78-8070-1573-6	Boxonly

Figure 6038

Ref. No.	3M Part No.	Description
	70 0400 4470 0	Cuitab Accombby 200/260V 50/60U7 2 Phase
6038-1	78-8100-1176-3	Switch Assembly – 200/260V, 50/60HZ, 3-Phase
6038-2	78-8100-1177-1	Switch Assembly – 380/415V, 50/60HZ, 3-Phase
6038-3	78-8100-1178-9	Switch Assembly – 100V, 50/60HZ, 1-Phase
6038-4	78-8100-1179-7	Switch Assembly – 115V, 60HZ, 1-Phase
6038-5	78-8100-1174-8	Switch Assembly – 220/240V, 50/60HZ, 1-Phase
6038-6	78-8076-4601-9	Box – Switch
6038-7	78-8111-1434-3	Support – Switch
6038-8	78-8017-9257-9	Screw - Phil. Hd, M4 x 10 mm
6038-9	26-1003-6914-4	Nut – Plastic Insert, M4
6038-10	78-8076-4592-0	Switch – On/Off, 1.6 A
6038-11	78-8076-4593-8	Switch – On/Off, 1.6 - 2.5 A
6038-12	78-8076-4687-8	Switch - On/Off, 4 - 6.3 A (USA) AE G
6038-13	78-8076-4688-6	Switch – On/Off, 6.3 - 10 A
6038-14	78-8057-5807-1	Cord Grip
6038-15	78-8060-8053-3	Wire – 3-Pole, 5 Meters Length
6038-16	78-8060-8052-5	Cable – 4 x 1.5, 5MT, 3PH
6038-17	78-8091-0433-0	Cable - 3 x 1.5, 1-Phase, 5MT
6038-18	78-8028-7909-4	Power Cord – USA
6038-19	26-1009-8724-2	Power Cord W/Plug – Type SO
6038-20	78-8076-4733-0	Emergency Stop
6038-21	26-1003-7963-0	Screw - Soc Hd, M8 x 16

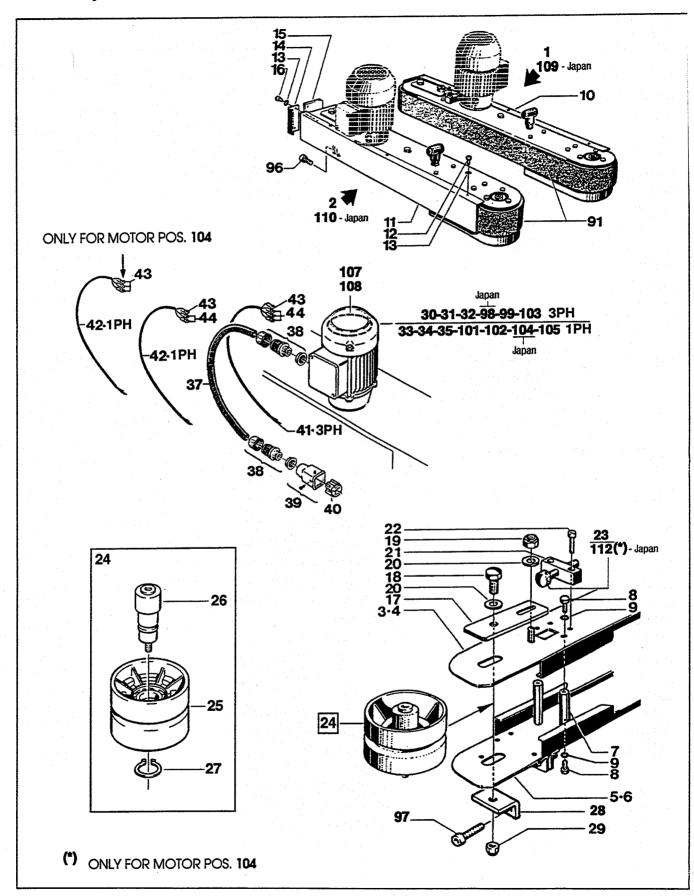


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Figure 2403 (Page 1 of 2)

Ref. No.	3M Part No.	Description
2403-1	78-8060-8129-1	Side Drive Assembly - Right
2403-2	78-8060-8130-9	Side Drive Assembly – Left
2403-3	78-8055-0657-9	Guide Plate – Up Right
2403-4	78-8055-0658-7	Guide Plate – Up Left
2403-5	78-8055-0662-9	Guide Plate – Low Right
2403-6	78-8055-0663-7	Guide Plate – Low Left
2403-7	78-8055-0661-1	Spacer
2403-8	78-8010-7169-3	Screw – Hex Hd, M6 x 12 mm
2403-9	26-1000-0010-3	Washer - Flat M6
2403-10	78-8055-0653-8	Guard - Right
2403-11	78-8055-0655-3	Guard - Left
2403-12	26-1002-5753-9	Screw - Self Tapping
2403-13	78-8005-5740-3	Washer - Plain 4 mm
2403-14	78-8055-0651-2	Belt – Guard
2403-15	78-8055-0650-4	Guard - Belt
2403-16	26-1002-4955-1	Screw – Self Tap, 8P x 13 mm
2403-17	78-8055-0656-1	Plate – Belt Adjustment
2403-18	26-1002-4189-7	Screw – Hex Hd, M10 x 20 mm
2403-19	26-1003-6918-5	Nut – Hex, M10 Plastic Insert
2403-20	78-8052-6566-3	Washer - Friction
2403-21	78-8054-8903-2	Block - Belt
2403-22	78-8010-7210-5	Screw – Soc Hd, M6 x 20 mm
2403-23	78-8054-8904-0	Screw – Belt Adjustment
2403-24	78-8060-8131-7	Roller Assembly – Idler
2403-25	78-8055-0660-3	Roller – Idler
2403-26	78-8055-0659-5	Shaft – Roller E-Ring – M25
2403-27	12-7997-0272-0	Plate – Belt Adjust.
2403-28	78-8060-8139-0 78-8017-9313-0	Nut – Self Locking, M8
2403-29	78-8017-9313-0 78-8057-5717-2	Coel Motor – 220/380V, 50HZ, 3 PH – Europe
2403-30	78-8057-5717-2 78-8057-5719-8	Coel Motor – 240/415V, 50HZ, 3 PH – Australia/N. Zealand
2403-31 2403-32	78-8057-5718-0	Coel Motor – 260/440V, 50HZ, 3 PH – U.K.
2403-32 2403-33	78-8057-5720-6	Coel Motor – 220V, 50HZ, 1 PH – Ireland/H. Kong
2403-33 2403-34	78-8057-5721-4	Coel Motor – 240V, 50HZ, 1 PH – U.K.
2403-34 2403-35	78-8054-8842-2	Motor 0, 12HP, 110V, 60HZ, 1 PH – U.S.A.
2403-35 2403-37	78-8060-8132-5	Sleeving - 12-0, 32 M
2403-37	78-8060-7626-7	Connector – PH 11/12
2403-38	78-8060-7877-6	Plug - Housing Vertical
2403-40	78-8060-7875-0	Plug – Male
2403-41	78-8060-8052-5	Cable - 4 x 1.5 5 Meter, 3PH
2403-42	78-8091-0433-0	Cable – 3 x 1.5 5 Meter, 1PH
2403-43	78-8060-7880-0	Eyelet - Terminal 4 Red
2403-44	78-8060-8133-3	Eyelet – Terminal 3 Red
2403-45	78-8054-8883-6	Spacer - Motor
2403-46	78-8060-8073-1	Washer - Motor
2403-47	26-1005-4758-2	Screw - Flat Hd, M5 x 20 mm
2403-48	78-8054-8885-1	Pulley – Timing 14 Teeth For 60 HZ Motor
2403-49	26-1003-8816-9	Screw – Set M5 x 6 mm
2403-50	78-8060-8134-1	Wrap Pulley Assembly
2403-51	78-8060-8135-8	Pulley – Wrap
2403-52	78-8023-2410-9	Bearing - 6000-2RS
2403-53	78-8023-2544-5	Bearing – 6203-2RS
2403-54	78-8055-0665-2	Shaft - Pulley Wrap

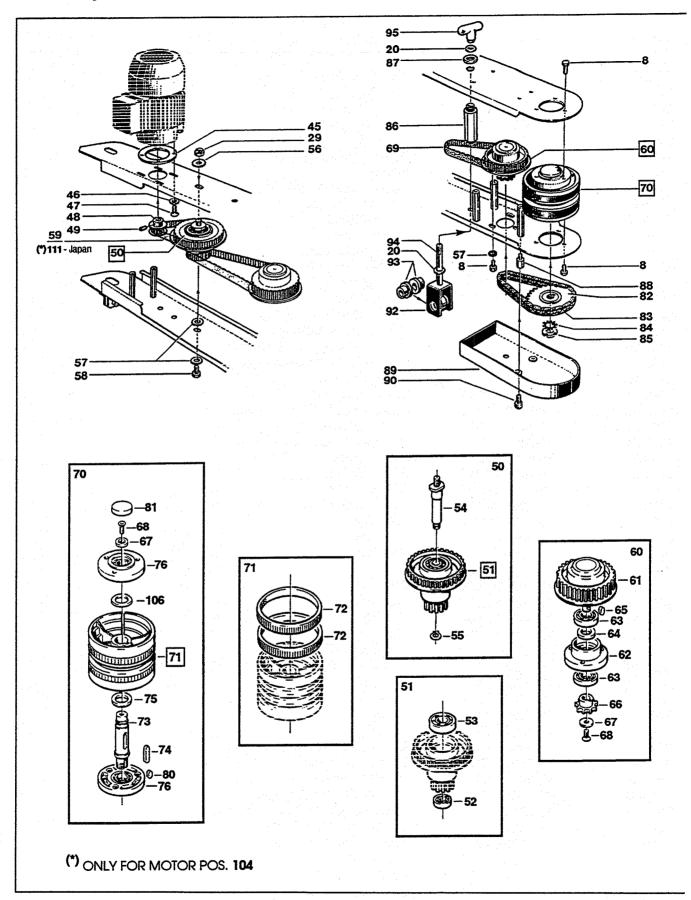


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Ref. No.	3M Part No.	Description	
2403-55	78-8016-5855-6	E-Ring – 10 mm	
2403-56	26-1004-5507-5	Washer - M8	
2403-57	78-8042-2919-9	Washer – M6	
2403-58	78-8032-0375-7	Screw – Hex Hd, M6 x 15 mm	
2403-59	78-8060-8140-8	Timing Belt – 160XL050	
2403-60	78-8060-8136-6	Drive Pulley Assembly - Keyed	
2403-61	78-8054-8886-9	Pulley – Keyed	
2403-62	78-8054-8889-3	Support – Pulley Keyed	
2403-63	26-1000-6036-2	Bearing – 6003-2RS	
2403-64	78-8060-7547-5	Spacer – Bearing	
2403-65	78-8028-8244-5	Key – 4 x 4 x 10 mm	
2403-66	78-8060-8005-3	Sprocket – 3/8, 11 Teeth	
2403-67	78-8054-8877-8	Washer - 5,5/20X4	
2403-68	26-0001-5862-1	Screw – Flat Hd Soc, M5 x 12 mm	
2403-69	78-8001-7176-7	Belt – Timing 225L050	
2403-70	78-8060-8137-4	Drive Pulley Assembly	
2403-71	78-8076-5441-9	Roller – Drive	
2403-72	78-8052-6713-1	Ring – Polyurethane	
2403-73	78-8055-0669-4	Shaft – Pulley Keyed	
2403-74	78-8057-5739-6	Key – M5 x 5 x 30 mm	
2403-75	78-8055-0668-6	Washer – 15/26 x 1	
2403-76	78-8060-7648-1	Bearing – Flanged	
2403-80	78-8046-8135-7	Key – 5 x 5 x 12 mm	
2403-81	78-8060-8037-6	Cap – Flange Sprocket – 3/8 Pitch, 28 Teeth	
2403-82	78-8054-8881-0	Chain – 3/8 Pitch, 43 Pitch Long	
2403-83	78-8054-8882-8 78-8057-5834-5	Tab Washer	
2403-84 2403-85	78-8057-5835-2	Centering Washer	
2403-86	78-8060-8100-2	Bushing - Threaded	
2403-87	78-8017-9096-1	Nut – M18 x 1 mm Special	
2403-88	78-8054-8891-9	Screw - Special	
2403-89	78-8055-0667-8	Cover - Chain Box	
2403-90	26-1003-7948-1	Screw - Soc. Hd, M5 x 10 mm	
2403-91	78-8055-0654-6	Drive Belt	
2403-92	78-8054-8901-6	Bracket - Guide	
2403-93	78-8054-8902-4	Bushing - Flanged	
2403-94	78-8055-0666-0	Screw - Special	
2403-95	78-8060-8055-8	Knob	
2403-96	26-1003-7965-5	Screw - Soc Hd, M8 x 25 mm	
2403-97	26-1003-7968-9	Screw - Soc Hd, M8 x 40 mm	
2403-98	78-8060-8161-4	Motor - 200V, 50/60 HZ, 3 PH - Japan	
2403-99	78-8060-8162-2	Motor - 220V, 60HZ, 3 PH - Korea	
2403-101	78-8060-8164-8	Motor – 115V, 60HZ, 1 PH – U.S.A.	
2403-102	78-8060-8165-5	Motor – 230V, 50HZ, 1 PH – Singapore	
2403-103	78-8060-8432-9	Motor – 440V, 60HZ, 1 PH KW0.08 – Ireland	
2403-104	78-8060-8074-9	Motor – 100V, 50/60HZ 1 PH – Japan	
2403-105	78-8091-0381-1	Motor – 220V, 60HZ, 1 PH – Korea, Philippines	
2403-106	78-8091-0382-9	Washer – Belleville /16	
2403-107	78-8091-0383-7	Fan – Motor (all motors except Ref. No. 104) Fan – Motor (for motor Ref. No. 104 only)	
2403-108	78-8076-5226-4	Side Drive Assembly Japan – R/H	
2403-109	78-8091-0397-7	Side Drive Assembly Japan – L/H	
2403-110	78-8091-0398-5	Belt – Toothed, 156XL050	
2403-111	78-8091-0399-3	Screw – Belt Tensioning	
2403-112	78-8091-0400-9	51	
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