## Instructions and Parts List

## 3M-Matic

## 800rks

Type 19500

## Random King Size

 Case Sealer
## with

## AccuGlide II

 Taping Heads
## Replacement Parts and Service Information

## To Our Customers:


#### Abstract

This is the 3M-Matic ${ }^{\text {TM }} /$ AccuGlide ${ }^{\text {TM }} /$ Scotch $^{\text {TM }}$ brand equipment you ordered. It has been set up and tested in the factory with "Scotch" brand tapes. If technical assistance or replacement parts are needed, call or Fax the appropriate number listed below.


Included with each machine is an Instructions and Parts List manual.

## Technical Assistance:

3M-Matic ${ }^{\text {TM }}$ Helpline - 1-800/328 1390. Please provide the customer support coordinator with the machine number, machine type/model and serial number. If you have a technical question that does not require an immediate response, you may Fax it to 715/381 0248.

## Replacement Parts and Additional Manuals

Order parts by part number, part description and quantity required. Also, when ordering parts and/or additional manuals, 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 involce on returned parts.
Note : Outside the U.S., contact the local 3M subsidiary for parts ordering information.

## Replacement Parts And Service Information

## To Our Customers:

This is the 3M-Matic ${ }^{\text {TM }} /$ AccuGlide ${ }^{\text {TM }} /$ Scotch $^{\text {TM }}$ 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.

Included with each machine is an Instructions and Parts List manual.

SERVICE, REPLACEMENT PARTS AND ADDITIONAL MANUALS
AVAILABLE DIRECT FROM:

Order parts by part number, part description and quantity required. Also, when ordering parts and/or additional manuals, include machine name, number and type.

3M Packaging Systems Division

## Instruction Manual

## 800rks Random King Size Case Sealer, Type 19500

## This Instruction manual is divided into two sections as follows:

Section I Includes all information related to installation, operation and parts for the case sealer. Section II Includes specific information regarding the AccuGlide ${ }^{\text {TM }}$ II STD 3 Inch Taping Heads.

Table of Contents

## Sectlon I - 800rks Random King Size Case Sealer

Description ..... 1
Equipment Warranty and Limited Remedy ..... 2
800rks Contents ..... 2
Safety Labels ..... 3-6
Specifications ..... 7-9
Installation and Set-Up ..... 11-13
Receiving and Handling ..... 11
Machine Set-Up ..... 11-13
Packaging and Separate Parts ..... 11
Machine Bed Height ..... 11
Tape Drum Bracket, Lower Head ..... 12
Tape Drum Alignment ..... 12
Tape Leg Length ..... 12
Pneumatic Connection ..... 13
Electrical Connection ..... 13
Installation in Line/Initial Start-Up ..... 13
Operation ..... 15-20
Machine Components and Controls ..... 15-18
Machine Operating Sequence ..... 18
Operating Warnings ..... 19
Tape Loading/Threading ..... 19
Case Sealing ..... 20
Box Jams ..... 20
Machine Operating Adjustments ..... 20
Maintenance ..... 21-24
Cleaning ..... 21
Lubrication ..... 21
Blade Replacement, Taping Heads ..... 22
Drive Belts, Upper ..... 22
Drive Belts, Lower ..... 23-24
Table of Contents (Continued) ..... Page
Adjustments ..... 25-26
Drive Belt Tension ..... 25
Drive Belt Side Pressure ..... 25
Upper Assembly/Taping Head Down Position ..... 25
Upper Assembly/Taping Head Maximum Height ..... 25
Taping Head Adjustments ..... 25
Factory Set Points ..... 26
Special Set-Up Procedure ..... 27
Changing Tape Leg Length ..... 27
Troubleshooting ..... 29
Pneumatic/Electrical Diagrams ..... 30-32
800rks Valve Location ..... 30
Pneumatic Diagram ..... 31
Electrical Diagram ..... 32
Spare Parts/Tools ..... 33
Spare Parts ..... 33
Label Kit ..... 33
Tool Kit ..... 33
Replacement Parts - Illustrations and Parts Lists ..... 35-71
800rks Parts Illustrations/Lists ..... 37-71
Section II - AccuGlide ${ }^{\text {TM }}$ II STD 3 Inch Upper and Lower Taping Heads
(see Section II, page i for Table of Contents)

The 3M-Matic ${ }^{\text {¹ }}$ 800rks Random King Size Case Sealer with AccuGlide ${ }^{\text {m1 }}$ II Taping Heads is designed to apply a " C " clip of Scotch" brand pressure-sensitive film box sealing tape to the top and bottom center seam of regular slotted containers. The case sealer automatically adjusts to a wide range of large box sizes. (See "Box Weight and Size Capacities", page 8.)


3M-Matic" 800rks Random Klng Size Case Sealer, Type 19500

# 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 IMPLED WARRANTY ARISING OUT OF A COURSE OF DEALING, A CUSTOM OR USAGE OF TRADE: 

3M sells its 3M-Matic ${ }^{\text {TM }}$ 800rks Random King Size Case Sealer, Type 19500 with the following warranties:

1. The Taping Head knife blades, 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 gearmotor 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 3 M 's and seller's sole obligation shall be, at 3M's option, to repair or replace the part, provided the defective part is retumed 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 3 M 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 3 M , at its option, will replace the equipment or refund the purchase price. 3 M 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 3 M and seller.

## 800rks Contents

(1) 800rks Random King Size Case Sealer, Type 19500
(1) Tool Kit
(1) Spare Parts Kit
(1) Instruction and Parts Manual

Important - In the event the following safety labels are damaged or destroyed, they must be replaced to ensure operator safety. A label kit, part number 78-8098-8902-1, is available as a stock item. It contains all the safety labels used on the 800rks Case Sealer. Labels can also be purchased separately, see Parts Drawing/List, pages 70-71.
wo "Warning Sharp Knlfe" labels, shown in Figure 1-1, are attached to both sides of the upper frame at the location of the cut-off blade on the upper taping head. The labels wam operators and service personnel of the very sharp knife used to cut the tape at the end of the tape application.


Figure 1-1 - Knife Warning Label

The "Warning - Hazardous Voltage" label, shown in Figure 1-2, is attached to the frame next to the on/off switch. The label wams service personnel to unplug the power supply before attempting any service work on the case sealer.


Figure 1-2 - Electrical Warning Label
The 800rks is equipped with two "Red" emergency stop (E-Stop) switches. These push-button switches, shown in Figure 1-3, are located (one on either side of the machine), on the side guards at the infeed end of the machine. The "Stop" label, reminds operators and casual personnel of the function of these switches.


Flgure 1-3 - Emergency Stop Label

## Safety Labels (Continued)

A "Moving Mechanism" label, shown in Figure 1-4, is attached, one on each side of the operator guard, at the infeed end of the machine. These labels warn operators and casual personnel of the down/up movement of the upper assembly and the in/out motion of both upper and lower drive belt assemblies.


Flgure 1-4 - Mechanism Warning Label
A "Moving Mechanism" label, shown in Figure 1-5, is attached, one on each side of the operator guard, at the exit end of the machine. These labels warn operators and casual personnel of the down/up movement of the upper assembly and the in/out motion of both upper and lower drive belt assemblies.


Figure 1-5 - Mechanism Warning Label

A "PLC Waming" label, shown in Figure 1-6, is attached to the inside of the control panel door. This label wams service personnel not to modify the PLC program or a hazardous condition could result.


Figure 1-6 - PLC Warning Label
The "Caution - Keep Hands Out Of This Area" label, shown in Figure 1-7, is attached to the upper end of both outer columns on each side of the machine. The label wams operators to keep hands away from this area when machine is operating.


Figure 1-7 - Mechanism Caution Label

## Safety Labels (Continued)

The "Safety Instructions" label, shown in Flgure 1-8, is attached to the machine frame above the main air regulator. It alerts installer and operators of minimum/maximum air pressure required to operate the case sealer.

## SAFETY INSTRUCTIONS

Connect to compressed air supply:

140 PSI MAX 85 PSI MIN

Figure 1-8 - Safety Instructions Label

The "Safety Instructions" label, shown in Figure 1-9, is attached to the outer column near the operator control panel. The label provides convenient adjusting, servicing and machine lockout procedures for operators and sevice personnel.

## SAFETY INSTRUCTIONS

1. Before adjusting:

- set head to min. or max. helght position. (refer to manual)
- rotate/push/rotate door latch full CW to latch upper head ass'y.
- shut off electric and air supply.

2. Before servicing:

- set head to min. or max. height position. (refer to manual)
- rotate/push/rotate door latch full CW to latch upper head ass'y.
- unplug electric power and disconnect air supply.

3. Do not leave machine running unattended.
4. Refer to instruction manual for complete setup, operating and service information.

## MACHINE LOCKOUT PROCEDURE

A. Set head to min. or max. height position. (reter to manual)
B. Rotate/push/rotate door latch full CW and apply padlock.
C. Shut off pneumatic exhaust valve and apply padiock.
D. Shut off eiectric main switch and apply padiock.

Figure 1-9 - Safety Instructions Label

The following two labels are located on the upper and lower taping heads. Replacement part numbers for these labels are listed below each label.

The "Warning-Sharp Knife" label warns operators and service personnel of the extremely sharp knife used to cut the tape at the end of the box sealing operation. The label, shown in Figure 1-10, is located on the orange blade guard between the applying rolier assembly and the buffing roller assembly. Never operate taping heads with blade guard removed.

Before working with the taping heads or loading/ threading tape, refer to Figures 3-1 and 3-2 in Section II to identify the knife blade location. Keep hands out of these areas except as necessary to service the taping heads or to load/thread tape.


Part Number 78-8070-1335-0

The "Tape Threading Label", shown in Figure 1-11, is attached to the left side of both upper and lower taping heads. This label provides a convenient tape threading diagram. More detailed tape loading and threading information is provided in Section II of this manual.


Part Number 78-8070-1365-7 (Upper Head)
Part Number 78-8070-1364-0 (Lower Head)

Flgure 1-9 - Tape Threading Label

1. Power Requirements:

Electrical - 208-240 VAC, $60 \mathrm{~Hz}, 3$ phase, 6.6 Amps, 1500 watts

Pneumatic - $\mathbf{5 . 8}$ bar gauge pressure [85 PSIG] minimum, 9.5 bar [ 140 PSIG ] maximum, 174 litre/min © $21^{\circ} \mathrm{C}, 1.01$ bar [6.2 SCFM] at 7 boxes per minute

The machine is equipped with four (4) 0.18 HP gearmotors ( 0.72 HP total) and is supplied with a 2.4 meter [ 8 foot] standard neoprene covered power cord. Customer must provide desired plug (NEC L15-20P plug recommended).
2. Operating Rate:

Dependent on box length, width, height and operator dexterity. Rate can be improved when low height boxes are run by limiting upper assembly/taping head travel.

Box drive belt speed is $.45 \mathrm{~m} / \mathrm{s}$ [ 88 FPM ]

## 3. Operating Condltions:

Use in dry, relatively clean environments at $5^{\circ}$ to $50^{\circ} \mathrm{C}\left[40^{\circ}\right.$ to $\left.120^{\circ} \mathrm{F}\right]$ with clean, dry , boxes.

Important - Machine should not be washed down or subjected to conditions causing moisture condensation on components.

## 4. Tape:

Scotch ${ }^{\text {™ }}$ brand pressure-sensitive film box sealing tapes.
5. Tape Width:

50 mm [2 inch] minimum to 75 mm [ 3 inch] maximum

## 6. Tape Roll Diameter:

Up to 405 mm [16 inch] maximum on a 76.2 mm [ 3 inch] diameter core.
(Accommodates all system roll lengths of Scotch ${ }^{\text {" }}$ brand film tapes.)
7. Tape Application Leg Length - Standard:
$70 \mathrm{~mm} \pm 6 \mathrm{~mm}$ [ 2.75 inch $\pm 0.25$ inch]
Tape Applicatlon Leg Length - Optional:
(See "Special Set-Up Procedure", page 27) $50 \mathrm{~mm} \pm 6 \mathrm{~mm}$ [2 inch $\pm 0.25$ inch]
8. Box Board:

Style - regular slotted containers (RSC) 865 Kpa to 1900 Kpa [125 to 275 PSI ] bursting test, single wall or double wall B or C flute.

## Specifications (Continued)

9. Box Weight and Size Capacities:

Box Weight
Maximum - 90 kg [200 lbs]
Minimum $\mathbf{- 2 . 3} \mathbf{~ k g}[5 \mathrm{lb}]$
Packing - contents must be heavy enough to hold box flat on conveyor bed with bottom flaps fully closed.

Contents must provide support along entire length of top flaps.

Contents must not extend beyond top flap score line.

## Box Size

MINIMUM
Length - 380 mm [15 inch]
Width - 205 mm [8 inch]
Height - $305 \mathrm{~mm}[12$ inch ]
MAXIMUM
Length - Not Limited
Width - 760 mm [ 30 inch]
Height - 1270 mm [50 inch]

Special modifications may be avallable for carton sizes not listed above. Contact your 3M Representatlve for informatlon.

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 .5 of less, then several boxes should be test run to assure the proper machine performance.

DETERMINE THE BOX LIMITATIONS BY COMPLETING THIS FORMULA:

Box Length In
Direction Of Seal Should Be Greater Than 5 Box Helght

Any box ratio approaching this limitation should be test run to assure performance.

## 10. Set-Up Recommendations:

- Machine must be installed level.
- Customer supplied infeed and exit conveyors must provide straight and level box entry and exit.
- Ball caster infeed conveyor recommended for long or heavy boxes.
- Exit conveyors (powered or gravity) must convey sealed boxes away from machine.


11. Machine Dimensions:

|  | A | B | C | D | E | F | G |
| :--- | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Minimum | 1213 | 840 | 1720 | 1365 | 1417 | 1745 | 610 |
| $m_{[i n c h e s]}$ | $[47.75]$ | $[33.00]$ | $[67.75]$ | $[53.75]$ | $[55.80]$ | $[68.75]$ | $[24.00]$ |
| Maximum |  |  |  |  |  |  |  |
| mm |  | 840 | 1720 | 1365 | 1417 | 2756 | 914 |
| $[$ inches $]$ | $[47.75]$ | $[33.00]$ | $[67.75]$ | $[53.75]$ | $[55.80]$ | $[108.50]$ | $[36.00]$ |

Weight - 390 kg [860 pounds] crated (approximate)
365 kg [800 pounds] uncrated (approximate)

THIS PAGE IS BLANK

## Recelving And Handling

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

## Machine Set-Up

> Important - Read "Wamings" on page 19 before attempting to set-up the case sealer for operation.

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. Refer to Figure 3-1 and 3-2 to identify the various components and controls of the case sealer.

Note - A tool kit consisting of metric open end and hex socket wrenches is provided with the machine. These tools should be adequate to set-up the machine, however, other tools supplied by the customer will be required for machine maintenance.

## PACKAGING AND SEPARATE PARTS

1. Follow unpacking instructions attached to outside of fiberboard cover.
2. Remove four (4) brackets that secure machine legs to shipping pallet.
3. Remove tie-down straps on lower taping head.
4. Unpack upper column guards and install as shown in Figure 2-1


Figure 2-1 - Upper Column Guards

## MACHINE BED HEIGHT

Adjust machine bed height. The legs can be adjusted to obtain different machine bed heights from 610 mm [ 24 in ] minimum to 855 mm [ 36 in ] maximum.

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

1. Raise and block up the machine frame to allow adequate leg adjustment.

Note - If raising or moving machine with fork lift, be sure forks are long enough to reach across machine (at least 1220 mm [ 48 in ] long).
2. Loosen, but do not remove two $\mathrm{M} 8 \times 16$ socket head screws in one leg. Adjust the leg length for the desired machine bed height. Retighten the two screws to secure the leg. Adjust all four legs equally.


Figure 2-2 - Machine Bed Height

## TAPE DRUM BRACKET (Lower Taping Head)

Check the tape drum bracket assembly to be sure it is mounted at a $45^{\circ}$ angle towards the infeed end of the machine as shown in Figure 2-3.


Figure 2-3 - Tape Drum Bracket, Lower

## TAPE DRUM ALIGNMENT

The upper and lower taping heads are factory set for 72 mm [ 3 in ] wide tape. If narrower tape is going to be run, both upper and lower tape drums must be adjusted to maintain tape web alignment through taping heads.

To adjust tape drums fore narrower width tape, see Section II, "Adjustments - Tape Web Alignment", page 11.

## TAPE LEG LENGTH

Taping heads are pre-set to apply 70 mm [2.75 in], long tape legs. To change tape legs to 50 mm [2 in], see Section II, "Adjustments" - Tape Leg Length", page 13.

## PNEUMATIC CONNECTION

WARNING - Use care when working with compressed alr.

The case sealer requires approximately 14.5 cubic centimeters [ 0.87 SCFM] per cycle at 690 Kpa [100 PSIG]; approximately 100 cubic centimeters [6.1 SCFM] at 7 boxes per minute.

Using customer supplied air hose (8 mm [ $5 / 16 \mathrm{in}]$ I.D.) and clamp provided with machine, connect plant air to barbed fitting on inlet side of "On/Off" valve. See Figure 2-4. Note: If another type of connector Is desired, the barbed fitting can be replaced with the desired 1/4-18 NPT connector.

## Notes

1. Lubricated air is not required. However, if it is used, it should continue to be used as it will have flushed out the original grease installed by the manufacturer.
2. The air valve has provisions for lockout/ tagout according to plant regulations.


Figure 2-4 - Pneumatic Connectlon

## ELECTRICAL CONNECTION

Customer must install desired type of plug (NEC-L15-20P, recommended) on the standard three conductor power cord provided at the bottom of the control panel for 208-240 VAC, $60 \mathrm{~Hz}, 3$ phase, 6.6 Amp electrical service. The receptacle providing this service shall be properly grounded. Before the power cord is plugged into outlet, make sure the red main power switch on the lower right of the control panel is tumed to "O" (Off) and that all packaging materials/tools are removed from machine (refer to Figure 3-2). Do not plug electrical cord into outlet untll ready to run machine.

## Notes

1. If motors run in wrong direction, reverse any two wires at plug.
2. The main power switch (on control panel) has provisions for lockout/tagout according to plant regulations.
3. Machines outside the U.S. may be equipped with 220/240 Volt, 50 Hz systems, or other electrical requirements compatible with local practice.

## INSTALLATION IN LINE/INITIAL START-UP

After completing the above "Installation and Set-Up" procedure, continue through "Operation" for tape loading and start-up to be sure case sealer is properly adjusted to run boxes.

After an initial test run off line, install the machine on line using the following guidelines:

- Machine must be Installed level.
- Infeed/exit conveyors must be straight and level with case sealer bed for a distance equal to maximum box size to be sealed.
- A ball caster infeed conveyor is recommended for long or heavy boxes to enable centering of box.


## THIS PAGE IS BLANK

## Operation

IMPORTANT - Before operating the case sealer, read all the "Safety Labels", pages 3-6, and "Warnings", on page 19, as well as all of the "Operation" instructions.

Refer to Figure 3-1 and 3-2 to acquaint yourself with the various components and controls of the case sealer. Also see Section II, page 6 for taping head components.


Figure 3-1 - Case Sealer Components

Operation (Continued)


Figure 3-2 - Controls, Valves and Switches

## Operation (Continued)

1) Emergency Stop Switch (2)

The emergency stop switches located on both sides of the infeed end of the case sealer, stops both sets of drive motors/belts. After being actuated, the switch button must be turned counterclockwise (out) to enable restart.

Operator Control Panel
The control panel contains all electrical switches and indicators that operate/control the machine except for the emergency stop and door interlock switches.
3) Main Power Switch

Turns electrical power for drive motors/belts and solenoid valves on and off. ("0" if off, " 1 " is on.)

Note - The main power switch has provisions for lockout/tagout according to plant regulations.
(4)Motor Overload Indlcator Illuminates if one or more of the motor circuit breakers has tripped.

Power On Indicator
A visual indicator that main electrical power switch is on.
6. Start Button

Pressing start button prepares machine for case sealing cycle, box stop gate goes up.
(7) Stop/Reset Button

Stops motors, raises upper assembly/taping head to full up position.
(8) Head Down Button

With main power on, momentarily push to lower upper assembly/taping head for tape loading or other service procedures.
(9) Panel Lock

Locks control panel door to keep unauthorized personnel away from high voltage inside control panel.

WARNING - Keep door locked, high voltage inside control panel ls hazardous and could cause severe Injury.
(10) Motor Circult Breakers (2)

Protect drive motors from circuit overioads. If motor overload indicator illuminates, tum off main power ( 0 ), determine cause of overload and correct, wait two minutes, then unlock and open control panel door and reset tripped circuit breaker.
(11) Upper Belts Pressure Regulator Adjusts belt pressure against box depending on weight/contents of box. Pressure must be adequate to grip and convey box without crushing box. The air regulator is adjusted by pulling out and rotating to adjust and pushing in to lock the setting as shown in Figure 3-3.
(12) Lower Belts Pressure Regulator (Same as 11)
(13) Door Interlock Switch

Cuts off electric power (drive belts) to stop machine when access door is opened.

## WARNING - Do not attempt to override door interlock or serlous injury could occur.



Flgure 3-3 - Secondary Air Regulator

## Operation (Continued)

(14) Exhaust Valve Pressure

Regulator/Gauge/Filter - Figure 3-4
This set of pneumatic controls, regulates and filters plant air supply to the separate pneumatic circuits of the case sealer.

Exhaust Valve - On turn to "SUP" (Supply), Off turn to "EXH" (Exhaust). Note: Turning exhaust valve off automatically bleeds air pressure from the case sealer air circuits.

Always turn the air off when machine is not in use, when servicing the machine, or when connecting or disconnecting air supply line.

Note - The air valve has provisions for lockout/ tagout according to plant regulations.

Pressure Regulator regulates main air pressure to the machine. To adjust pressure, pull knob up and turn - push down to lock setting. (Adjust to 6-7 bar [90-100 PSIG])

Filter removes dirt and moisture from plant air before it enters the case sealer pneumatic circuits. If water collects at the bottom of the bowl, lift up on the valve at the bottom of bowl to drain.

Head Down Speed Flow Control Adjust so head down speed is slow enough that box being sealed is not crushed.


Figure 3-4 - Air Regulator, Drive Belts
(16) Head Up Speed Flow Control Adjusts upper assembly/taping head up speed to prevent it from crashing into stop when reset button is pushed.

Head Down Pressure Regulator Provides regulated air to head up/head down flow controls. Adjust in conjunction with the flow controls.
(18) Upper Assembly Lock Pin Mechanically locks the upper assembly when access door is opened. Upper Assembly must be fully up or down to insert lock pin and open door.
(19) Alr On Indicator

The optical indicator located on the upper assembly indicates red when compressed air circuit is on.
(20) Lower Belts Air Pressure Gauge Provides a visual reference of air pressure required to adequately center/convey a certain size/weight box.
21) Upper Belts Alr Pressure Gauge Provides a visual reference of air pressure required to adequately center/convey a certain size/welght box.

## Machine Operating Sequence

1. Main power and air supply "On".
2. Release Emergency Stop switches.
3. Press Stop-Reset.
4. Push Start button - start button indicator light "On", Box Stop Gate up.
5. Feed box into machine - when photocell \#1 is blocked, 30 second cycle timer starts, box gate lowers, lower side belts come in to center box and upper assemblyftaping head descends.
6. When upper taping head box height sensing rollers contact box, head stops, upper side belts come in and all belts start.
7. Box is conveyed through taping heads.
8. After trailing edge of box clears photocell \#1, box stop gate ralses.
9. When box clears photocell \#2, upper belts go out, lower belts go out and upper assembly/ taping head goes up.
10. When cylinder reed switch is made, or if another box is fed into machine while upper head is still rising, head stops and cycle is reset for next box.

## WARNINGS

1. Turn electrical and alr supply off when machine is not In use.
2. Turn electrical and alr supply off and dlsconnect before servicing taping heads or performing any adjustments or malntenance on the machine.
3. Before turning machine on, be sure no tools or other objects are on the machine bed.
4. Be aware of the pneumatically controlled movement of the upper assembly and upper and lower box centering/drive belts. Keep away from these components when air and electrical supplies are on.
5. Keep hands and loose clothing away from moving belts.
6. DO NOT run boxes less than 380 mm [ 15 In$] \ln$ length.
7. Never attempt to remove Jammed boxes from the machine while machine is running.
8. Machine access door must be closed when machine is running. DO NOT ATTEMPT TO OVERRIDE DOOR INTERLOCK SWITCH.
9. Both the upper and lower taping heads utilize extremely sharp knife blades for tape cut-off. The blades are located under the orange blade guard which has the "WARNING - SHARP KNIFE" label. Before loading tape, refer to Section II, Figures 3-1 and 3-2 on page 6, to identify the blade location. Keep hands out of thls area except as necessary to service the taping heads.
10. Fallure to comply with these warnings could result in severe personal injury and/or equipment damage.

## Tape Loading/Threading

## LOWER TAPING HEAD

1. Tum Main Power switch to $\mathbf{1}$ (on) and Exhaust Valve to SUP (supply).
2. Press Stop/Reset button - upper assembly/ taping head will go to raised position. Press again if head up position has been limited by moving reed switch down for smaller boxes.
3. Unlatch and open access door.
4. Remove lower taping head by pulling straight up.

ACAUTION - Taping head with full roll of 72 mm ( 3 in ) wide tape weighs approximately 13.6 kg [ 30 lbs ]. Use correct body posture when lifting taping head to prevent injury.
5. Load/thread tape as explained in Section II, pages 7 and 8.
6. After loading tape and replacing taping head, close door, latch and press Start button.
7. Press Star//Reset button - upper assembly/ taping head will go to raised position ready for case sealing.

UPPER TAPING HEAD

1. Turn Main Power switch to 1 (on) and Main Air Valve to SUP (supply).
2. Press and hold Head Down button - upper assembly/taping head will descend to lowered position.
3. Unlatch and open access door.
4. Load/thread tape as explained in Section II, pages 7 and 8.
5. After loading/threading tape, close door, latch, and press Start.
6. Press Start/Reset button - upper assembly/ taping head will go to raised position ready for case sealing.

## Operatlon (Continued)

## Case Sealing

1. Turn Main Power switch to $\mathbf{1}$ (on) and Exhaust Valve to SUP (supply).
2. Check both Emergency Stop switches to be sure they are released, access door is closed securely and upper assembly/taping head Lock Pin is released.
3. Press Stop-Reset button.
4. Push Start button - Start button will illuminate and Box Stop Gate will raise.
5. Feed box into machine until box touches Box Stop Gate. Machine will start its cycle. (Operator must keep upper flaps folded and down and also help center box when lower drive belts come in.)

> WARNING - Operator must stay away from drive belts or serlous injury could occur. DO NOT attempt to run boxes less than 380 mm [15 in] in length.

At end of cycle, Box Stop Gate raises, upper belts retract, lower belts retract and upper assembly/taping head retums to raised position ready for another box.

Note - Because the photocells operate on reflected light, product labels or tape should not be placed near the level of the photocells.
6. Turn electric and air supplies off when machine is not in use.
7. Reload and rethread tape as necessary.
8. Be sure machine is cleaned and lubricated according to recommendations in "Maintenance" section of this manual.

## Notes

1. Machine or taping head adjustments are described in "Adjustments", Section I for machine or Section II for taping heads.
2. Box drive motors are designed to run at a moderate temperature of $40^{\circ} \mathrm{C}\left[104^{\circ} \mathrm{F}\right]$. In some cases, they may feel hot to the touch.

## Box Jams

If a box jam occurs:

1. Press Stop-Reset - drive belts will stop and upper assembly will raise. Press Stop-Reset again if head up position has been limited by moving reed switch down.
2. Unlatch and open access door.
3. Carefully remove jammed box from machine.
4. Determine cause of jam and make corrections to prevent from occurring again.
5. Close and latch access door and press Start button to restart machine.

## Machine Operating Adjustments

See "Adjustments", page 25 for machine operating adjustments such as:
a. Upper assembly/taping head maximum height
b. Side belt pressure - upper belts

- lower belts
c. Head down position

The case sealer 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 and disconnect air and electrical supplies before beginning malntenance. If electrical power is not dlsconnected, severe injury to personnel could result.

## Cleaning

Note - Never attempt to remove dirt from taping heads 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 molsture 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.

## Lubrication

Like most other equipment, the taping head 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. Drive motors are also permanently lubricated and do not require additional lubrication.

Note - Wipe off excess oil and grease. It will attract dust and dirt 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.

## MACHINE LUBRICATION

Refer to Flgure 4-1 for machine lubrication requirements.

## TAPING HEAD LUBRICATION

See Section II, "Maintenance-Lubrication", page 10.


Flgure 4-1-800rks Lubrication Points

WARNING - Turn off and
disconnect air and electrical supplies before beginning maintenance. If electrical power cord is not disconnected, severe injury to personnel could resulf.

## Blade Replacement, Taping Head

See Section II, "Maintenance-Blade Replacement", page 9.

Drive Belts, Upper
Note - 3M recommends the replacement of drive belts in pairs, especially if belts are unevenly worn.

REPLACEMENT - SEE STEPS 1 THRU 7 TENSION ADJUSTMENT - SEE STEPS 1, 2, 6\& 7

1. Push Down button to lower upper assembly, latch and open access door.
2. Remove screw (A), washer (B), and belt tensioner cover (C), Figure 4-2.
3. Tum belt adjustment screws (D) counterclockwise on both upper and lower tension assemblies until belt is loose. See Figure 4-2. Slip belt down off drive rollers and discard beit.
4. Insert pin in new belt and install belt up onto drive rollers. Pin must not extend beyond edge of belt.

Important - Before installing new drive belt, check the inside surface of the belt for drive direction arrows and install belt accordingly. If no arrows are shown, the belt may be installed either way.
5. To adjust drive belt tension, turn adjustment screws (D) equally on both the upper and lower tension assemblies. Tum screws clockwise to increase tension or counterclockwise to decrease tension. See Figure 4-3.

Use a force gauge to pull the belt outward 25 mm [ 1 in ] at midspan, as shown in Figure $4-6$, with a puling force of $3.5 \mathrm{~kg}[7 \mathrm{lbs}]$.
6. Replace belt tensioner cover and repeat the above procedure on other belt.
7. Close and latch door and turn on air and electrical supplies. Push Stop-Reset button and upper assembly will retum to its raised position.


Figure 4-2 - Drive Belt, Upper

Maintenance (Continued)


Figure 4-3 - Drive Belt Tension AdJustment, Upper

Drlve Belts, Lower

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

REPLACEMENT - SEE STEPS 1 THRU 11 TENSION ADJUSTMENT - SEE STEPS 1-5 \& 9-11

1. With upper assembly/taping head in raised position, latch and open access door.
2. Remove screw (A) and special washer (B) from front and rear arm assembly pivots. Figure 4-4.
3. Lift belt drive assembly (C) up off pivots and place on 100-150 mm [4-6 in] blocks on machine bed.

WARNING - Each drive assembly weighs approximately 20.4 kg [ 45 lbs ]. To prevent injury, drive assembly should be lifted by two people, one at the front and one at the rear.
4. Remove five screws (D) and side cover (E) from drive assembly. Figure 4-4.


Figure 4-4 - Drive Belt, Upper

## Maintenance (Continued)

5. Loosen, but do not remove the lock nut (F) on both upper and lower belt tension assemblies. See Figure 4-5.
6. Turn belt adjustment screws (G) clockwise on both the upper and lower tension assemblies to loosen belt.
7. Remove and discard old drive belt.
8. Install new drive belt around drive rollers and install pin as shown in Figure 4-5. Pin must not extend beyond edge of belt.

Important - Before installing new drive belt, check the inside surface of the belt for drive direction arrows and install belt accordingly. If no arrows are shown, the belt may be installed either way.
9. To adjust drive belt tension, turn adjustment screws (G) equally on both the upper and lower tension assemblies. Tum screws counterclockwise to increase tension or clockwise to decrease tension.

Use a force gauge to pull the belt outward 25 mm [ 1 in ] at midspan, as shown in Figure 4-6, with a pulling force of 3.5 kg [ 7 lbs$]$.
10. Tighten lock nut (F) on both tension assemblies to secure the tension setting.
11. Replace side cover and screws, place drive assembly on pivots and secure in place with special washers and screws.


Figure 4-5 - Box Drive Belt, Lower


Figure 4-6 - Drive Belt Tension Adjustment, Lower

## Adjustments

> WARNING - Turn off and disconnect alr and electrical supplies before beginning adjustments. If power cord is not disconnected, severe injury to personnel could result.

## Drive Belt Tension

Tension adjustment of the drive belts may be required during normal operation. Belt tension must be adequate to positively move the box through the machine and belts should run fully on the surface of the pulleys at each end of the drive assembly. The idler pulleys on the infeed end are adjusted in or out to provide proper belt tension. Each belt is adjusted separately.

To adjust belt tension, see "Maintenance - Drive Belts', pages 22 thru 24.

## Drive Belt Side Pressure

Adjust so box is conveyed securely without crushing.

## Upper Assembly/Taping Head, Down Positlon

Adjust so taping head is flush to $\mathbf{6 ~ m m}[0.25 \mathrm{in}]$ above the box. This can be influenced by:
a. Sensor adjustment inside upper assembly.
b. Head down flow control.
c. Head balancing pressure.

## Upper Assembly/Taping Head, Maximum Helght

Use when all boxes are below machine maximum box height capacity.
a. Measure height of tallest box (flaps closed).
b. Subtract this dimension from 1145 mm [ 45 in ].
c. Loosen and slide the reed switch down by this amount.
d. Test run boxes to ensure proper performance.

> WARNING - Use care when working near tape cut-off blades on taping heads as blades are extremely sharp. If care if not taken, severe InJury could result.

## Taping Head AdJustments

TAPE WEB ALIGNMENT -
Section II, Page 11

TAPE DRUM FRICTION BRAKE Section II, Page 11

APPLYING MECHANISM SPRING Section II, Page 11

ONE-WAY TENSION ROLLER -
Section II, Page 12

TAPE LEG LENGTH ADJUSTMENT Section II, Page 13

## Adjustments (Continued)

## Factory Set Points

Upper side drive cylinder flow controls: A - "drives in speed" full open, B - "drives out speed" 3 turns from closed.


Lower side drive flow controls: A - "drives out speed" turn out 5-1/2 turns from closed, B - "drives in speed ${ }^{\text {4 }}$ tum out 12 turns from closed.

Upper cylinder port balance pressure set to 2.4 bar [35 psi].

Upper side belt pressure set to 2.8 bar [ 40 psi]. Lower side belt pressure set to 2.8 bar [ 40 psi ].

Flow control "head down speed" 7 turns from closed.
Flow control "head up speed" 7-1/2 tums from closed.

Box height sensor set to actuate when wheel is 15.9 mm [ 0.62 in ] below frame. Total height is 25 mm [ 1 in ]. ( 9.5 mm [ 0.38 in ] travel causes actuation.)

Reed switch set at 25 mm [ 1 in ] below lower edge of upper cylinder head. Measure to reed switch clamp bracket. Results in 1295 mm [51 in] opening.

All cylinder cushions set to 1/8-1/4 turn from full closed.

## Special Set-Up Procedure

Changing the Tape Leg Length
(From 70 to 50 mm [ 2.75 to 2 in ])
No adjustments are necessary on the machine frame, only the taping heads must be adjusted.

Remove taping heads from machine and follow instructions given in Section II, 'Adjustments- Tape Leg Length", page 13.

THIS PAGE IS BLANK

The Troubleshooting Guide lists some possible machine problems, causes and corrections. Also see Section II "Troubleshooting", pages 15 and 16 for taping head problems.

## Troubleshooting Gulde

| 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 |
|  | Insufficient side belt pressure | Increase pressure regulator setting(s) |
| 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 tripped out (Motor overload indicator on) | Determine cause, reset circuit breaker |
| Drive belts break | Worn belt | Replace belt |
|  | Excessive belt tension | Adjust belt tension |
| The blade does not cut tape or the tape end is jagged or shredded | Upper head is not coming down close enough to box | Head must be 6 mm [ 0.25 in ] maximum from box surface. Adjust head down flow control or box height sensor Upper flaps must be held closed by operator. |
| Taping head rollers push into the box and jam | Flaps aren't supporting tape head pressure | Add filler material to packaging. Contents must support flaps. |
| Upper head assembly goes up very rapidly and impacts against stop | Incorrect setting of counterpressure and head up flow control | Adjust, See "Adjustments". |
| Drive belts track off pulley and jam | Insufficient Belt Tension | If center V-guide is worn, replace belt. <br> Adjust belt tension equally on top and bottom so that $3.5 \mathrm{~kg}[7 \mathrm{lbs}$ ] is required to deflect belt 25 mm [1 in] at midspan |

800rks Solenoid Valves
(Looking at machine from exit end)


Pneumatic/Electrical Diagrams (Continued)


## Pneumatic/Electrical Diagrams (Continued)



## Spare Parts/Tools

## Recommended Spare Parts

A spare parts kit can be ordered, part number 78-8098-8902-1 which includes the following recommended spare parts. In addition, refer to the parts illustrations to identify other spare parts according to plant policy.

| Oty. | Sectlon/Ref. No. | Part Number | Descrlption |
| :--- | :--- | :--- | :--- |
| 2 | $\mathrm{II} / 2949-15$ | $78-8057-6181-0$ | Roller - Applying |
| 2 | $\mathrm{II} / 2950-5,2955-5$ | $78-8057-6180-2$ | Roller - Buffing |
| 1 | $\mathrm{I} / 2950-10$ | $78-8070-1274-1$ | Spring - Upper Extension (Silver) |
| 2 | $\mathrm{I} / 2952-2$ | $78-8028-7899-7$ | Blade - 89 mm $/ 3.5$ Inch |
| 4 | $\mathrm{I} / 2952-12$ | $78-8052-6602-6$ | Spring - Cutter |
| 1 | $\mathrm{I} / 2955-10$ | $78-8070-1273-3$ | Spring - Lower Extension (Black) |
| 2 | $\mathrm{I} / 2952-6$ | $78-8070-1390-5$ | Spring - Torsion |
| 2 | $\mathbf{I} / 4955-62$ | $78-8076-5452-6$ | Belt - Drive, Upper |
| 2 | $\mathbf{I} / 4956-66$ | $78-8054-8841-4$ | Belt - Drive, Lower |

## Label Klt

A label kit, part number 78-8095-1393-6, is available as a stock item. It contains all the safety labels used on the 800rks Case Sealer. Labels can also be purchased separately, see Parts Drawing/List, pages 70-71.

## Tool Kit

A tool kit, part number 78-8098-8883-8, containing the following spare parts and tools listed below is available as a stock item.

| Part Number | Description | Qty. |
| :---: | :---: | :---: |
| 78-8028-7899-7 | Blade - $89 \mathrm{~mm} / 3.5 \mathrm{Inch}$ | 2 |
| 78-8052-6602-6 | Spring | 8 |
| 78-8070-1274-1 | Spring - Upper Extension (Silver) | 1 |
| 78-8070-1273-3 | Spring - Lower Extension (Black) | 1 |
| 78-8076-4726-4 | Threading Tool | 1 |
| 78-8076-4522-7 | Tube Wrench - 17 mm | 1 |
| 78-8076-5279-3 | Allen Wrench - 6 mm | 1 |
| 78-8076-5278-5 | Allen Wrench - 5 mm | 1 |
| 78-8076-5277-7 | Allen Wrench - 4 mm | 1 |
| 78-8076-5276-9 | Allen Wrench - 3 mm | 1 |
| 78-8033-0518-0 | Allen Wrench - 2 mm | 1 |
| 78-8091-0405-8 | Open End Wrench - 25 mm | 1 |
| 78-8076-5280-1 | Open End Comb. Wrench - 7-8 mm | 1 |
| 78-8076-5281-9 | Open End Comb. Wrench - 10-13 mm | 1 |

# THIS PAGE IS BLANK 

## Replacement Parts - Iliustrations and Parts Lists

800rks Random Case Sealer, Type 19500
With AccuGlide ${ }^{\text {TM }}$ II STD (3 Inch) TapIng Heads

1. Refer to first illustration, 800rks Assembly, for the Figure Number that identifies a specific portion of the machine.
2. Refer to the Figure or Figures to determine the individual parts required and the parts reference number.
3. The replacement parts list, that follows each illustration, includes the part number and part description for the parts in that illustration.

Note - The complete description has been included for standard fasteners and some commercially avallable components. This has been done to allow obtaining these standard parts locally, should the customer elect to do so.
4. Refer to first page inside front cover for replacement parts ordering information.

IMPORTANT - Not ali the parts listed are normally stocked Items. Some parts or assembles shown are avallable only on a special order basis. Contact 3M/Tape Dlspenser Parts to conflrm Item avallability.

## THIS PAGE IS BLANK




Figure 4949

| Ref. No. | 3M Part No. | Descriptlon |
| :---: | :---: | :---: |
| 4949-1 | 78-8094-6281-1 | Bed - Conveyor |
| 4949-2 | 78-8094-6282-9 | Leg Assembly - R/H |
| 4949-3 | 78-8094-6283-7 | Leg Assembly - L/ H |
| 4949-4 | 78-8094-6284-5 | Leg-R/H |
| 4949-5 | 78-8094-6285-2 | Leg-L/H |
| 4949-6 | 78-8094-6286-0 | Lag Assembly - Inner |
| 4949-7 | 78-8094-6287-8 | Label - Leg Adjustment |
| 4949-8 | 78-8052-6679-4 | Pad - Foot |
| 4949-9 | 26-1003-5842-8 | Screw - Hex Hd, M8 x 20 |
| 4949-10 | 26-1004-5507-5 | Washer - M8 |
| 4949-11 | 78-8017-9313-0 | Nut - Self-Locking, M8 |
| 4949-12 | 78-8052-6677-8 | Clamp - Inner |
| 4949-13 | 26-1003-7963-0 | Screw - Soc Hd, M8x 16 |
| 4949-14 | 26-1003-7964-8 | Screw - Soc Hd, Hex Soc Dr, M8 x 20 |
| 4949-15 | 78-8094-6288-6 | Crossbar - Front/Rear |
| 4949-16 | 78-8094-6289-4 | Crossbar - Side |
| 4949-17 | 78-8017-9318-9 | Washer - Plain, 8 mm |
| 4949-18 | 78-8094-6290-2 | Support - Frame |
| 4949-19 | 26-1003-7957-2 | Screw - Soc Hd Hex Hd, M6 x 16 |
| 4949-20 | 26-1000-0010-3 | Washer - Flat, M6 |
| 4949-21 | 78-8094-6291-0 | Frame - Lower, R/H |
| 4949-22 | 78-8094-6292-8 | Frame - Lower, LH |
| 4949-23 | 78-8054-8867-9 | Spacer - Valve Holder |
| 4949-24 | 78-8010-7169-3 | Screw - Hex Hd, M6x 12 |
| 4949-25 | 78-8094-6293-6 | Cover - Chain |
| 4949-26 | 78-8094-6294-4 | Cylinder - SMC, MGQM $/ 40 \mathrm{~mm}$ Bore Stroke 50 mm |
| 4949-27 | 78-8091-0509-7 | Regulator - Speed |
| 4949-28 | 78-8091-0656-6 | Screw - Hex Soc Hd, M8 $\times 12$ |
| 4949-29 | 78-8094-6295-1 | Gate - Stop |
| 4949-30 | 78-8094-6296-9 | Roller Assembly |
| 4949-31 | 78-8094-6297-7 | Plate - Roller |
| 4949-32 | 78-8094-6210-0 | Screw - Soc Hd Hex Hd, M4 x 10 |
| 4949-33 | 78-8017-9018-5 | Washer - Plain, SPEC, M4 |
| 4949-34 | 78-8094-6298-5 | Conveyor - Front |
| 4949-35 | 78-8094-6299-3 | Conveyor - Rear |
| 4949-36 | 26-1003-7949-9 | Screw - Soc Hd Hex Soc, M5 x 12 |
| 4949-37 | 78-8076-5059-9 | Strap - Wire |
| 4949-38 | 78-8060-7803-2 | Rivet - / 4 |
| 4949-39 | 78-8060-7630-9 | Tube Lock |
| 4949-40 | 78-8010-7157-8 | Screw - Hex Hd, M4 x 10 |
| 4949-41 | 78-8005-5740-3 | Washer - Plain, 4 mm |
| 4949-42 | 26-1003-6914-4 | Nut - Plastic Insert, M4 |
| 4949-43 | 78-8091-0612-9 | Plate-L/H |
| 4949-44 | 78-8091-0613-7 | Shaft - Valve |
| 4949-45 | 26-1003-6916-9 | Nut - Locking, Plastic Insert, M6 |
| 4949-46 | 78-8094-6300-9 | Plate - Filter Mount |
| 4949-47 | 78-8060-7876-8 | Cover Plug - Lateral |
| 4949-48 | 78-8028-8208-0 | Screw -6PX9,5 |
| 4949-49 | 78-8060-7873-5 | Plug - Female |
| 4949-50 | 78-8094-6301-7 | Support - Switch, R/H |
| 4949-51 | 78-8094-6302-5 | Support - Switch, L/H |
| 4949-52 | 78-8094-6303-3 | Support - Photocell |
| 4949-53 | 78-8094-6304-1 | Plate - Wire |
| 4949-54 | 78-8076-5056-5 | Photocell - Omron, PNP E3F R2 B4 /18 |
| 4949-55 | 78-8076-5057-3 | Reflector - Omron, E39-R1 |
| 4949-56 | 78-8060-7758-8 | Fairlead-/20 |
| 4949-57 | 78-8094-6177-1 | Cap |
| 4949-58 | 78-8094-6305-8 | Plate - Gauge |
| 4949-59 | 78-8060-8087-1 | Screw - M5 x 10 |
| 4949-60 | 78-8005-5741-1 | Washer - Plain, M5 |
| 4949-61 | 26-1005-6859-6 | Nut - Self-Locking, M5 |
| 4949-62 | 78-8070-1665-0 | Stud - Hex, "AccuGlide" II 3 Inch |



Figure 4950

| Ref. No. | 3M Part No. | Description |
| :---: | :---: | :---: |
| 4950-1 | 78-8094-6180-5 | Arm Assembly - Front, R/H |
| 4950-2 | 78-8094-6181-3 | Arm Assembly- Front, L/H |
| 4950-3 | 78-8094-6182-1 | Arm Assembly - Rear, R/H |
| 4950-4 | 78-8094-6183-9 | Arm Assembly - Rear, L/H |
| 4950-5 | 78-8060-7522-8 | Bushing |
| 4950-6 | 78-8060-7534-3 | Washer |
| 4950-7 | 78-8060-7521-0 | Lock Ring |
| 4950-8 | 78-8060-7524-4 | Stud - Tension Rod |
| 4950-9 | 26-1003-6918-5 | Nut - Plastic Insert, Hex Flange, M10 |
| 4950-10 | 78-8052-6566-3 | Washer - Friction |
| 4950-11 | 78-8076-4793-4 | Ball Joint - KA 10 D |
| 4950-12 | 78-8076-4794-2 | Bail Joint - KAL 10 D |
| 4950-13 | 78-8017-9313-0 | Nut - Self-Locking, M8 |
| 4950-14 | 78-8017-9318-9 | Washer - Plain, 8 mm |
| 4950-15 | 78-8060-7525-1 | Nut - Right Flat, M10 |
| 4950-16 | 78-8094-6184-7 | Rod |
| 4950-17 | 78-8060-7546-7 | Nut - Left Flat, M10 |
| 4950-18 | 78-8094-6185-4 | Chain - 3/8,80 Pitch Long |
| 4950-19 | 78-8055-0718-9 | Chain - $3 / 8$ Inch Pitch, 55 Pitch Long |
| 4950-20 | 78-8054-8788-7 | Chain Connector |
| 4950-21 | 78-8054-8786-1 | Chain Connector |
| 4950-22 | 78-8060-7520-2 | Screw - M3 $\times 20$ |
| 4950-23 | 78-8059-5517-2 | Nut - Self-Locking, M3 |
| 4950-24 | 78-8054-8785-3 | Rod - Threaded, Right/Left |
| 4950-25 | 78-8010-7418-4 | Nut - Hex, M6 |
| 4950-26 | 78-8054-8784-6 | Block - Chain |
| 4950-27 | 78-8054-8787-9 | Chain Link |
| 4950-28 | 78-8056-3945-3 | E-Ring - M4 |
| 4950-29 | 78-8060-7519-4 | Screw-M3 $\times 25$ |
| 4950-30 | 78-8054-8783-8 | Washer - Special |
| 4950-31 | 78-8060-7531-9 | Stud - Cylinder |
| 4950-32 | 78-8060-7532-7 | Nut - Self-Locking, M12 |
| 4950-33 | 78-8017-9059-9 | Washer - Flat For M12 Screw |
| 4950-34 | 78-8056-3965-1 | E-Ring - M8 |
| 4950-35 | 78-8060-7538-4 | Bushing - Cylinder |
| 4950-36 | 78-8060-7533-5 | Lock Ring |
| 4950-37 | 78-8060-7535-0 | Screw - Soc Hd Hex Soc, M10 x 60 |
| 4950-38 | 78-8060-7541-8 | Washer |



Figure 4951 (page 1 of 2)

| Ref. No. | 3M Part No. | Description |
| :--- | :--- | :--- |
| $4951-1$ | $78-8094-6178-9$ | Regulator - Pressure, SMC, EAR 3060 |
| $4951-2$ | $78-8091-0315-9$ | Elbow - Legris, 3199.08.13 |
| $4951-3$ | $78-8054-8838-0$ | Gauge - Wika, Air |
| $4951-4$ | $78-8094-6179-7$ | Valve Assembly |
| $4951-5$ | $78-8094-6273-8$ | Valve Assembly - SMC, EVV-5F2-01FD1 |
| $4951-6$ | $78-8060-7753-9$ | Elbow - Aerpress, T Mfi-RA-025-1/4 Inch - 1/4 Inch |
| $4951-7$ | $78-8094-6274-6$ | Reducer - RA 014 1/4-1/8 |
| $4951-8$ | $78-8094-6275-3$ | Pressure Switch - SMC, IS1000 FO1X201 |
| $4951-9$ | $78-8076-4886-6$ | Muffler - General Sint, 1/4 Inch |
| $4951-10$ | $26-1005-6890-1$ | Muffler - General Stint, 1/4 Inch |
| $4951-11$ | $78-8055-0756-9$ | Union - Rotating, Legris, MR41-06-14 |
| $4951-12$ | $78-8094-6276-1$ | Cap - Aerpress, 1/4 Inch |
| $4951-13$ | $78-8010-7165-1$ | Screw - Flat Hd Soc, M5 x 25 |
| $4951-14$ | $78-8028-8214-8$ | Washer |
| $4951-15$ | $26-1005-6859-6$ | Nut - Self-Locking, M5 |
| $4951-16$ | $78-8094-6277-9$ | Union - Legris, TE, 31040800 |
| $4951-17$ | $78-8060-7530-1$ | Speed Regulator - Festo |
| $4951-18$ | $78-8060-7529-3$ | Nut - Festo, GRM 3/8 Inch |
| $4951-19$ | $78-8094-6075-7$ | Union - Legris, Straight |
| $4951-20$ | $78-8076-4679-5$ | Union - Legris, Tee |
| $4951-21$ | $78-8091-0424-9$ | Filter/Regulator Assembly - SMC |
| $4951-22$ | $78-8076-4668-8$ | Filter - SMC, Pressure Regulator |



Figure 4951 (page 2 of 2)

| Ref. No. | 3M Part No. | Description |
| :--- | :--- | :--- |
| $4951-23$ | $78-8060-7899-0$ | Nipple - Aerpress, RA 012, 1/4 Inch-1/4 Inch |
| $4951-24$ | $78-8091-0715-0$ | Valve - SMC, EVHS-4500 F02-X116 |
| $4951-25$ | $78-8060-7900-6$ | Union - Aerpress, RA 022, 1/4 Inch-1/4 Inch |
| $4951-26$ | $26-1005-6897-6$ | Hose Connector - Aerpress |
| $4951-27$ | $78-8076-4670-4$ | Reducer - Aerpress, 3/8 Inch-1/8 Inch |
| $4951-28$ | $78-8091-0422-3$ | Elbow - SMC, KQW08-02S |
| $4951-29$ | $78-8076-4891-6$ | Union - SMC, Straight KQH04-01S |
| $4951-30$ | $78-8076-4672-0$ | Union - Legris, Straight, Female |
| $4951-31$ | $78-8076-4535-9$ | Bracket |
| $4951-32$ | $78-8057-6170-3$ | Tee - Legris, Tubing 6 mm |
| $4951-33$ | $78-8094-6278-7$ | Pressure Reducer - SMC, 1/4 EAR |
| $4951-34$ | $26-1005-6901-6$ | Union - Legris, Straight |
| $4951-35$ | $26-1005-5909-0$ | Elbow - Legris |
| $4951-36$ | $78-8094-6279-5$ | Cylinder - SMC, C95, 50 mm Bore x 210 mm Stroke |
| $4951-37$ | $78-8060-7724-0$ | Nut - M22X1,5 |
| $4951-38$ | $78-8091-0510-5$ | Regulator - Legris, Speed |
| $4951-39$ | $78-8060-8033-5$ | Tubing - Mazzer, 5M Skein, D4/3 |
| $4951-40$ | $78-8060-8034-3$ | Tubing - Mazzer, 5M Skein, D6/4 |
| $4951-41$ | $78-8076-4911-2$ | Tubing - Mazzer, 5 MT, D8X6 |
| $4951-42$ | $78-8094-6280-3$ | Solenoid Valve - SMC, EVF S2100-5F2 |



Figure 4952/1 of 2

| Ref. No. | 3M Part No. | Description |
| :---: | :---: | :---: |
| 4952-1 | 78-8094-6319-9 | Column Assembly - R/H |
| 4952-2 | 78-8094-6320-7 | Column Assembly - L/H |
| 4952-3 | 78-8094-6321-5 | Column - R/H |
| 4952-4 | 78-8094-6322-3 | Column - L/H |
| 4952-5 | 78-8094-6323-1 | Guide - Column |
| 4952-6 | 78-8076-4503-7 | Screw - M6x 12 |
| 4952-7 | 78-8094-6324-9 | Stud-Blocking |
| 4952-8 | 78-8094-6325-6 | Stroke End - Blocking |
| 4952-9 | 78-8070-1269-1 | Bumper |
| 4952-10 | 78-8094-6326-4 | Spring - Blocking |
| 4952-11 | 78-8094-6327-2 | Washer |
| 4952-12 | 78-8070-1549-6 | Knob - VTR-B-M10 |
| 4952-13 | 26-1003-7964-8 | Screw - Soc Hd Hex Soc Dr, M8 x 20 |
| 4952-14 | 78-8094-6227-4 | Washer - Special, /8 |
| 4952-15 | 78-8076-5474-0 | Plate Assembly - Column Mount |
| 4952-16 | 78-8054-8821-6 | End-Cap |
| 4952-17 | 78-8094-6328-0 | Crossbar - Column |
| 4952-18 | 78-8094-6329-8 | Reinforcement - R/H |
| 4952-19 | 78-8094-6330-6 | Reinforcement - L/H |
| 4952-20 | 78-8017-9318-9 | Washer - Plain, 8 mm |
| 4952-21 | 78-8017-9313-0 | Nut - Self-Locking, M8 |
| 4952-22 | 78-8094-6331-4 | Column Assembly - Inner, R/H |
| 4952-23 | 78-8094-6332-2 | Column Assembly - Inner, L/H |
| 4952-24 | 78-8094-6333-0 | Column - Inner, R/H |
| 4952-25 | 78-8094-6334-8 | Column - Inner, L/H |
| 4952-26 | 78-8059-5625-3 | Bearing |
| 4952-27 | 78-8076-4815-5 | Screw - Bearing |
| 4952-28 | 26-1000-4350-9 | Bearing - 6002-2RS |
| 4952-29 | 78-8076-4816-3 | Bushing - Eccentric |
| 4952-30 | 78-8076-5070-6 | Spacer |
| 4952-31 | 26-1003-7957-2 | Screw - Soc Hd Hex Hd, M6x 16 |
| 4952-32 | 26-1003-6916-9 | Nut - Locking, Plastic Insert, M6 |
| 4952-33 | 78-8094-6335-5 | Stud - Cylinder |
| 4952-34 | 78-8076-5086-2 | Spacer |
| 4952-35 | 78-8056-3965-1 | E-Ring-M8 |



Figure 4952/2 of 2

Figure 4952 (page 2 of 2)

| Ret. No. | 3M Part No. | Description |
| :---: | :---: | :---: |
| 4952-36 | 78-8094-6336-3 | Air Cylinder - SMC, C92LADB-40-1000 |
| 4952-37 | 78-8057-5747-9 | Mount - Cylinder Rod End |
| 4952-38 | 78-8094-6337-1 | Stud - Threaded |
| 4952-39 | 78-8094-6338-9 | Nut - Self-Locking, M16 |
| 4952-40 | 78-8094-6339-7 | Washer - Flat, M16 |
| 4952-41 | 78-8060-7532-7 | Nut - Sell-Locking, M12 |
| 4952-42 | 78-8017-9059-9 | Washer - Flat For M12 Screw |
| 4952-43 | 78-8094-6340-5 | Crossbar - Column |
| 4952-44 | 26-1001-9843-6 | Screw - Flat Soc Hd, M6 $\times 16$ |
| 4952-45 | 78-8094-6341-3 | Cover |
| 4952-46 | 78-8076-5255-3 | Screw - Phillips Hd, M4 x 12 |
| 4952-47 | 78-8005-5740-3 | Washer - Plain, 4 mm |
| 4952-48 | 78-8094-6342-1 | Bracket Assembly - Tape Drum |
| 4952-49 | 78-8091-0605-3 | Bracket - Core Holder |
| 4952-50 | 78-8070-1568-6 | Cap - Bracket |
| 4952-51 | 78-8017-9169-6 | Nut - M18 $\times 1$ |
| 4952-52 | 78-8076-4732-2 | Tape Drum Assembly - 3 Inch Head |
| 4952-53 | 78-8060-8462-6 | Shaft - Tape Drum 3 Inch Head |
| 4952-54 | 78-8076-4731-4 | Tape Drum Assembly - 3 Inch Wide |
| 4952-55 | 78-8054-8815-8 | Tape Drum Assembly |
| 4952-56 | 78-8054-8816-6 | Leaf Spring |
| 4952-57 | 26-1002-5753-9 | Screw - Self-Tapping |
| 4952-58 | 78-8060-8172-1 | Washer - Friction |
| 4952-59 | 78-8052-6271-0 | Washer - Tape Drum |
| 4952-60 | 78-8054-8826-5 | Spring |
| 4952-61 | 78-8060-7851-1 | Ring Nut - Adjusting |
| 4952-62 | 78-8032-0375-7 | Screw - Hex Hd, M6x 16 |
| 4952-63 | 26-1000-0010-3 | Washer - Flat, M6 |
| 4952-64 | 78-8060-7900-6 | Union - Aerpress, RA 022, 1/4 Inch-1/4 Inch |
| 4952-65 | 78-8094-6075-7 | Union - Legris, Straight |
| 4952-66 | 78-8094-6343-9 | Elbow - Legris, 32990613 |
| 4952-67 | 78-8094-6344-7 | Elbow - Legris, 32990813 |
| 4952-68 | 78-8094-6345-4 | Clamp Kit - SMC, F.M.C. BT-03 |
| 4952-69 | 78-8094-6346-2 | Limit Switch - SMC, 24V CC 5-5-D A53L. |



| Ref. No. | 3M Part No. | Description |
| :---: | :---: | :---: |
| 4953-1 | 78-8094-6224-1 | Cross Bar Assembly |
| 4953-2 | 78-8094-6225-8 | Bracket - R/H |
| 4953-3 | 78-8094-6226-6 | Bracket-L/H |
| 4953-4 | 26-1003-7965-5 | Screw - Soc Hd Hex Soc, M8 x 25 |
| 4953-5 | 78-8094-6227-4 | Washer - Special, /8 |
| 4953-6 | 78-8094-6228-2 | Rod - /20X453.5 |
| 4953-7 | 26-1003-5841-0 | Screw - M8 x 16 |
| 4953-8 | 26-1003-5842-8 | Screw - Hex Hd, M8x 20 |
| 4953-9 | 78-8017-9318-9 | Washer - Plain, 8 mm |
| 4953-10 | 78-8094-6229-0 | Support - Bushing |
| 4953-11 | 78-8094-6230-8 | Bushing - Ball, KH2030/P |
| 4953-12 | 78-8094-6231-6 | Grease Nipple |
| 4953-13 | 78-8094-6232-4 | Plate - Chain |
| 4953-14 | 78-8094-6233-2 | Plate - Chain/Cylinder |
| 4953-15 | 78-8094-6234-0 | Sprocket Assembly |
| 4953-16 | 78-8076-5368-4 | Sprocket - Z=15, 3/8 Inch |
| 4953-17 | 78-8060-7830-5 | Lock Ring - /28 |
| 4953-18 | 78-8059-5625-3 | Bearing |
| 4953-19 | 78-8094-6235-7 | Spacer - Sprocket |
| 4953-20 | 78-8094-6236-5 | Stud |
| 4953-21 | 78-8076-5477-3 | Washer - Special /6.5X20X4 |
| 4953-22 | 78-8060-8179-6 | Screw - Flat Hd Hex, M6x 20 |
| 4953-23 | 26-1003-6918-5 | Nut - Plastic Insert, Hex Flange, M10 |
| 4953-24 | 78-8060-8452-7 | Washer - M10 |
| 4953-25 | 78-8094-6237-3 | Block - Cylinder |
| 4953-26 | 26-1003-7969-7 | Screw - Soc Hd Hex Soc, M8 x 45M |
| 4953-27 | 78-8017-9174-6 | Screw - Set, Allen, M6 x 30 |
| 4953-28 | 78-8094-6238-1 | Air Cylinder - C95 /40X330+50 |
| 4953-29 | 78-8057-5747-9 | Mount - Cylinder Rod End |
| 4953-30 | 78-8094-6239-9 | Stud - Cylinder |
| 4953-31 | 78-8094-6240-7 | Stud |
| 4953-32 | 78-8094-6241-5 | Ring - Stop, $/ 8$ |
| 4953-33 | 78-8094-6242-3 | Chain - 3/8, 105 Pitch Long |
| 4953-34 | 78-8054-8788-7 | Chain Connector |
| 4953-35 | 78-8060-7520-2 | Screw - M3 x 20 |
| 4953-36 | 78-8059-5517-2 | Nut - Seli-Locking, M3 |
| 4953-37 | 78-8057-5809-7 | Set Screw - M6 x 25 |
| 4953-38 | 78-8094-6243-1 | Washer - Special, /6 |
| 4953-30 | 78-8060-7900-6 | Union-Aerpress, RA 022, 1/4 Inch-1/4 Inch |
| 4953-40 | 78-8091-0510-5 | Regulator - Legris, Speed |
| 4953-41 | 78-8094-6244-9 | Cover |
| 4953-42 | 78-8055-0871-6 | Screw - Hex Hd, M6x 10 |
| 4953-43 | 26-1000-0010-3 | Washer - Flat, M6 |
| 4953-44 | 26-1002-5949-3 | Screw - Hex Hd, M8 x 60 |
| 4953-45 | 78-8017-9313-0 | Nut - Self-Locking, M8 |



| Ref. No. | 3M Part No. | Description |
| :---: | :---: | :---: |
| 4954-1 | 78-8094-6245-6 | Frame - Upper, R/H |
| 4954-2 | 78-8094-6246-4 | Frame - Upper, L/H |
| 4954-3 | 26-1003-5841-0 | Screw - M8 $\times 16$ |
| 4954-4 | 78-8017-9318-9 | Washer - Plain, 8 mm |
| 4954-5 | 26-1000-1347-8 | Nut - Hex, M8 |
| 4954-6 | 78-8010-7169-3 | Screw - Hex Hd, M6 $\times 12$ |
| 4954-7 | 26-1000-0010-3 | Washer - Flat, M6 |
| 4954-8 | 78-8010-7418-4 | Nut - Hex, M6 |
| 4954-9 | 78-8094-6247-2 | Spacer |
| 4954-10 | 78-8076-4665-4 | Indicator - SMC, Visual, VR 3100-1 |
| 4954-11 | 26-1005-5909-0 | Elbow |
| 4954-12 | 78-8076-4535-9 | Bracket |
| 4954-13 | 78-8054-8838-0 | Gauge - Wika, Air |
| 4954-14 | 78-8076-4672-0 | Union - Legris, Straight, Female |
| 4954-15 | 78-8060-8087-1 | Screw - M5 x 10 |
| 4954-16 | 78-8094-6248-0 | Support - Sensor |
| 4954-17 | 78-8094-6249-8 | Proximity Switch - Omron TL-X5MB1-GE |
| 4954-18 | 78-8094-6250-6 | Shaft - Roller |
| 4954-19 | 78-8094-6251-4 | Spacer |
| 4954-20 | 78-8052-6641-4 | Roller |
| 4954-21 | 78-8094-6252-2 | Plate - R/H |
| 4954-22 | 78-8094-6253-0 | Plate - L/H |
| 4954-23 | 78-8094-6254-8 | Shaft - 10X150 |
| 4954-24 | 78-8060-8035-0 | E-Ring - 7DIN6799 |
| 4954-25 | 78-8094-6255-5 | Shaft - 10X46 |
| 4954-26 | 78-8094-6256-3 | Sleeve |
| 4954-27 | 78-8094-6257-1 | Wheel |
| 4954-28 | 78-8094-6258-9 | Bushing |
| 4954-29 | 78-8042-2919-9 | Washer - Triple, M6 |
| 4954-30 | 26-1003-5832-9 | Screw - Hex Hd, M6x 25 |
| 4954-31 | 78-8094-6259-7 | Plate |
| 4954-32 | 78-8094-6260-5 | Plate - W/Hole |
| 4954-33 | 26-1005-6859-6 | Nut - Self-Locking, M5 |
| 4954-34 | 78-8005-5741-1 | Washer - Plain, M5 |
| 4954-35 | 78-8060-7785-1 | Fairlead-/22 |
| 4954-36 | 78-8076-4881-7 | Pull Box |
| 4954-37 | 26-1003-5707-3 | Screw - Phillips Dr, M4 x 16 |
| 4954-38 | 78-8076-4968-2 | Terminal |
| 4954-39 | 78-8091-0434-8 | Screw - Self-Tapping, 4.2X19 |
| 4954-40 | 78-8094-6261-3 | Cover - Rear |
| 4954-41 | 78-8094-6262-1 | Cover - Front |
| 4954-42 | 78-8094-6263-9 | Cover - Central |
| 4954-43 | 26-1002-5753-9 | Screw - Self-Tapping |
| 4954-44 | 78-8005-5740-3 | Washer - Plain, 4 mm |
| 4954-45 | 78-8060-7918-8 | Screw - Flat Soc Hd, M6 x 25 |
| 4954-46 | 78-8076-5477-3 | Washer - Special, /6.5X20X4 |
| 4954-47 | 78-8094-6264-7 | Spacer |



Flgure 4955/1 of 2

Figure 4955 (page 1 of 2)

| Ref. No. | 3M Part No. | Description |
| :---: | :---: | :---: |
| 4955-1 | 78-8094-6265-4 | Drive - Upper, R/H, W/O Motor |
| 4955-2 | 78-8094-6266-2 | Drive - Upper, L/H, W/O Motor |
| 4955-3 | 78-8094-6267-0 | Guide - Lower, R/H |
| 4955-4 | 78-8094-6268-8 | Guide - Lower, L/H |
| 4955-5 | 78-8094-6269-6 | Guide - Upper, R/H |
| 4955-6 | 78-8094-6270-4 | Guide - Upper, L/H |
| 4955-7 | 78-8055-0661-1 | Spacer |
| 4955-8 | 26-1003-5828-7 | Screw - Hex Hd, M6x 12 |
| 4955-9 | 26-1000-0010-3 | Washer - Flat, M6 |
| 4955-10 | 78-8091-0714-3 | Roller - Drive, 800a-E |
| 4955-11 | 78-8076-5441-9 | Roller - Drive |
| 4955-12 | 78-8052-6713-1 | Ring - Polyurethane |
| 4955-13 | 78-8055-0669-4 | Shaft - Pulley Keyed |
| 4955-14 | 78-8057-5739-6 | Key - M5 x $5 \times 30 \mathrm{~mm}$ |
| 4955-15 | 78-8091-0382-9 | Washer - Belleville, 116 |
| 4955-16 | 78-8055-0668-6 | Washer - 15/26X1 |
| 4955-17 | 78-8076-5442-7 | Flange Assembly |
| 4955-18 | 26-0001-5862-1 | Screw - Flat Hd Soc, M5 x 12 |
| 4955-19 | 78-8054-8877-8 | Washer - 5,5/20X4 |
| 4955-20 | 78-8046-8135-7 | Key - $5 \times 5 \times 12 \mathrm{~mm}$ |
| 4955-21 | 78-8060-8136-6 | Drive Pulley Assembly - Keyed |
| 4955-22 | 78-8054-8886-9 | Pulley - Keyed |
| 4955-23 | 78-8054-8889-3 | Support - Pulley Keyed |
| 4955-24 | 26-1000-6036-2 | Bearing - 6003-2RS |
| 4955-25 | 78-8060-7547-5 | Spacer |
| 4955-26 | 78-8028-8244-5 | Key - $4 \times 4 \times 10 \mathrm{~mm}$ |
| 4955-27 | 78-8060-8005-3 | Sprocket-3/8 Inch, 11 Teeth |
| 4955-28 | 78-8042-2919-9 | Washer - Triple, M6 |
| 4955-29 | 78-8060-8134-1 | Wrap Pulley Assembly |
| 4955-30 | 78-8060-8135-8 | Pulley - Wrap 12A |
| 4955-31 | 78-8023-2410-9 | Bearing - 6000-2RS |
| 4955-32 | 78-8023-2544-5 | Bearing - 6203-2RS |
| 4955-33 | 78-8055-0665-2 | Shaft - Pulley Wrap |
| 4955-34 | 78-8016-5855-6 | E-Ring - 10 mm |
| 4955-35 | 78-8032-0375-7 | Screw - Hex Hd, M6 x 16 |
| 4955-36 | 78-8017-9313-0 | Nut - Self-Locking, M8 |



Figure 4955 (page 2 of 2)

| Ref. No. | 3M Part No. | Description |
| :---: | :---: | :---: |
| 4955-37 | 26-1004-5507-5 | Washer - M8 |
| 4955-38 | 78-8018-7881-6 | Belt Timing - 21 L050 |
| 4955-39 | 78-8091-0523-8 | Pulley Assembly - Jockey |
| 4955-40 | 78-8091-0524-6 | Pulley - Jockey |
| 4955-41 | 78-8060-8008-7 | Bearing - 6004-2RS |
| 4955-42 | 78-8060-8010-3 | Snap Ring - 42 mm Shaft |
| 4955-43 | 78-8091-0525-3 | Shatt - Pulley |
| 4955-44 | 78-8017-9061-5 | Snap Ring - For 20 mm Shaft |
| 4955-45 | 78-8094-6050-0 | Spacer - Motor |
| 4955-46 | 26-1005-4758-2 | Screw - Flat Hd, M5 x 20 |
| 4955-47 | 78-8060-8073-1 | Washer - Motor |
| 4955-48 | 78-8060-8015-2 | Pulley-17XL050 |
| 4955-49 | 26-1003-8816-9 | Screw - Set, M5 x 6 |
| 4955-50 | 78-8060-8016-0 | Belt - Timing 190XL050 |
| 4955-51 | 78-8076-5443-5 | Pulley Assembly - Idler |
| 4955-52 | 78-8055-0660-3 | Roller - Idler |
| 4955-53 | 78-8076-5444-3 | Shaft - Idler Pulley |
| 4955-54 | 12-7997-0272-0 | E-Ring - M-25 |
| 4955-55 | 78-8076-5445-0 | Tensioning - Belt |
| 4955-56 | 78-8076-5447-6 | Screw - Special, M8×70 |
| 4955-57 | 78-8017-9318-9 | Washer - Plain, 8 mm |
| 4955-58 | 78-8076-5446-8 | Washer - Shaft |
| 4955-59 | 78-8076-5448-4 | Cover - Belt Tensioning |
| 4955-60 | 78-8055-0850-0 | Screw - Cap, M4 x 6 |
| 4955-61 | 78-8005-5740-3 | Washer - Plain, 4 mm |
| 4955-62 | 78-8076-5452-6 | Belt - Box Drive |
| 4955-63 | 78-8060-8019-4 | Sprocket - $3 / 8$ Inch, 28 Teeth |
| 4955-64 | 78-8057-5835-2 | Centering Washer |
| 4955-65 | 78-8057-5834-5 | Tab Washer |
| 4955-66 | 78-8060-8020-2 | Chain - $3 / 8$ Inch Pitch L=50 |
| 4955-67 | 78-8054-8891-9 | Screw - Special |
| 4955-68 | 78-8076-5258-7 | Cover - Chain |
| 4955-69 | 26-1003-7948-1 | Screw - Soc Hd Hex Soc, M5 x 10 |
| 4955-70 | 78-8094-6271-2 | Support - Upper Drive, R/H |
| 4955-71 | 78-8094-6272-0 | Support - Upper Drive, L/H |



Figure 4956/1 of 2

Figure 4956 (page 1 of 2)

| Ref. No. | 3M Part No. | Description |
| :---: | :---: | :---: |
| 4956-1 | 78-8094-6306-6 | Drive - BTM, R/H, W/O Motor |
| 4956-2 | 78-8094-6307-4 | Drive - BTM, L/H, W/O Motor |
| 4956-3 | 78-8094-6308-2 | Guide - Lower, R/H |
| 4956-4 | 78-8094-6309-0 | Guide - Lower, L/H |
| 4956-5 | 78-8094-6310-8 | Guide - Upper, R/H |
| 4956-6 | 78-8094-6311-6 | Guide - Upper, L/H |
| 4956-7 | 78-8091-0500-6 | Bushing - Side Drive |
| 4956-8 | 78-8060-7995-6 | Pin - Roller |
| 4956-9 | 78-8060-7996-4 | Roller |
| 4956-10 | 78-8094-6312-4 | Plate - Roller, R/H |
| 4956-11 | 78-8094-6313-2 | Plate - Roiler, L/H |
| 4956-12 | 78-8076-5109-2 | Plate - Roller |
| 4956-13 | 26-1002-5753-9 | Screw - Self-Tapping |
| 4956-14 | 78-8005-5740-3 | Washer - Plain, 4 mm |
| 4956-15 | 78-8076-4855-1 | Washer - Special, /4.5-9X1.5 |
| 4956-16 | 78-8054-8910-7 | Spacer - Hexagonal |
| 4956-17 | 78-8010-7169-3 | Screw - Hex Hd, M6x 12 |
| 4956-18 | 26-1000-0010-3 | Washer - Flat, M6 |
| 4956-19 | 78-8054-8891-9 | Screw - Special |
| 4956-20 | 78-8060-8000-4 | Drive Pulley Assembly |
| 4956-21 | 78-8076-5105-0 | Pulley Assembly - Drive |
| 4956-22 | 78-8052-6713-1 | Ring - Polyurethane |
| 4956-23 | 78-8054-8878-6 | Shaft - Pulley Keyed |
| 4956-24 | 78-8057-5739-6 | Key-M5 5 x 30 mm |
| 4956-25 | 78-8054-8879-4 | Washer - /20,5 mm |
| 4956-26 | 78-8017-9096-1 | Nut - Special, M18 $\times 1$ |
| 4956-27 | 78-8060-7648-1 | Bearing - Flanged |
| 4956-28 | 26-0001-5862-1 | Screw - Flat Hd Soc, M5 $\times 12$ |
| 4956-29 | 78-8054-8877-8 | Washer - 5,5/20X4 |
| 4956-30 | 78-8060-8037-6 | Cap - Flange |
| 4956-31 | 78-8046-8135-7 | Key-5x 512 mm |
| 4956-32 | 78-8060-8003-8 | Drive Pulley Assembly - Keyed |
| 4956-33 | 78-8055-0825-2 | Pulley - Keyed |
| 4956-34 | 78-8054-8889-3 | Support - Pulley Keyed |
| 4956-35 | 78-8060-7547-5 | Spacer |
| 4956-36 | 26-1000-6036-2 | Bearing - 6003-2RS |
| 4956-37 | 78-8028-8244-5 | Key - $4 \times 4 \times 10 \mathrm{~mm}$ |
| 4956-38 | 78-8060-8005-3 | Sprocket - 3/8 Inch, 11 Teeth |
| 4956-39 | 78-8042-2919-9 | Washer - Triple, M6 |
| 4956-40 | 78-8094-6314-0 | Jockey Pulley Assembly |
| 4956-41 | 78-8094-6176-3 | Roller - Belt Tensioning |
| 4956-42 | 26-1000-4350-9 | Bearing - 6002-2RS |
| 4956-43 | 78-8094-6315-7 | Spacer |
| 4956-44 | 78-8094-6316-5 | Stud |



Figure 4956/2 of 2

Figure 4956 (page 2 of 2)

| Ref. No. | 3M Part No. | Description |
| :---: | :---: | :---: |
| 4956-45 | 78-8017-9079-7 | Ring - Snap For 15 mm Shaft |
| 4956-46 | 78-8017-9313-0 | Nut - Selt-Locking, M8 |
| 4956-47 | 26-1004-5507-5 | Washer - M8 |
| 4956-48 | 78-8060-8011-1 | Wrap Pulley Assembly |
| 4956-49 | 78-8076-5106-8 | Pulley Assembly - Idier |
| 4956-50 | 78-8023-2544-5 | Bearing - 6203-2RS |
| 4956-51 | 78-8023-2410-9 | Bearing - 6000-2RS |
| 4956-52 | 78-8054-8887-7 | Shaft - Pulley Wrap |
| 4956-53 | 78-8016-5855-6 | E-Ring - 10 mm |
| 4956-54 | 78-8032-0375-7 | Screw - Hex Hd, M6x 16 |
| 4956-55 | 78-8094-6317-3 | Belt - Timing, 225 LO75 |
| 4956-56 | 78-8094-6050-0 | Spacer - Motor |
| 4956-57 | 26-1005-4758-2 | Screw - Flat Hd, M5 x 20 |
| 4956-58 | 78-8060-8073-1 | Washer - Motor |
| 4956-59 | 78-8060-8015-2 | Pulley - 17XL050 |
| 4956-60 | 26-1003-8816-9 | Screw - Set, M5 $\times 6$ |
| 4956-61 | 78-8094-6318-1 | Belt - Timing, 210XL050 |
| 4956-62 | 78-8060-8014-5 | Idler Roller Assembly |
| 4956-63 | 78-8052-6710-7 | Roller - Idler |
| 4956-64 | 78-8054-8913-1 | Shaft - Roller |
| 4956-65 | 12-7997-0272-0 | E-Ping - M-25 |
| 4956-66 | 78-8054-8841-4 | Drive Belt |
| 4956-67 | 78-8076-4864-3 | Tensioning - Belt |
| 4956-68 | 26-1000-1347-8 | Nut - Hex, M8 |
| 4956-69 | 78-8017-9318-9 | Washer - Plain, 8 mm |
| 4956-70 | 26-1003-6918-5 | Nut - Plastic Insert, Hex Flange, M10 |
| 4956-71 | 78-8052-6566-3 | Washer - Friction |
| 4956-72 | 78-8054-8903-2 | Block - Belt |
| 4956-73 | 78-8010-7210-5 | Screw - Soc Hd Hex Soc, M6 x 20 |
| 4956-74 | 78-8054-8904-0 | Screw - Belt Adjustment |
| 4956-75 | 78-8060-8019-4 | Sprocket - $3 / 8$ Inch, 28 Teeth |
| 4956-76 | 78-8057-5835-2 | Centering Washer |
| 4956-77 | 78-8057-5834-5 | Tab Washer |
| 4956-78 | 78-8060-8020-2 | Chain - $3 / 8$ Inch Pitch, L=50 |
| 4956-79 | 78-8076-5112-6 | Cover - Chain |
| 4956-80 | 26-1003-7948-1 | Screw - Soc Hd Hex Soc, M5 x 10 |
| 4956-81 | 78-8076-5110-0 | Cover - Right |
| 4956-82 | 78-8076-5111-8 | Cover - Left |
| 4956-83 | 78-8054-8897-6 | Guard - Belt |
| 4956-84 | 78-8076-4870-0 | Plate |
| 4956-85 | 26-1002-4955-1 | Screw - Self Tap, 8PX13 |
| 4956-86 | 78-8054-8577-4 | Washer - Special |
| 4956-87 | 26-1001-9843-6 | Screw - Flat |



| Ref. No. | 3M Part No. | Descriptlon |
| :--- | :--- | :--- |
| $4957-1$ | $78-8054-8955-2$ | Clamp - Bracket |
| $4957-2$ | $26-1003-5820-4$ | Screw - Hex Hd, M5 x 12 |
| $4957-3$ | $78-8094-6186-2$ | Spring - Strap |
| $4957-4$ | $78-8005-5741-1$ | Washer - Plain, M5 |
| $4957-5$ | $26-1005-6859-6$ | Nut - Self-Locking, M5 |
| $4957-6$ | $78-8060-7630-9$ | Tube Lock |
| $4957-7$ | $78-8010-7157-8$ | Screw - Hex Hd, M4 x 10 |
| $4957-8$ | $78-8005-5740-3$ | Washer - Plain, 4 mm |
| $4957-9$ | $26-1003-6914-4$ | Nut - Plastic Insert, M4 |
| $4957-10$ | $78-8060-7631-7$ | Connector - 3/8 Inch |
| $4957-11$ | $78-8060-8028-5$ | Sleeving - /12, 0,930 M |
| $4957-12$ | $78-8076-5113-4$ | Union - PG11, /12 |
| $4957-13$ | $78-8060-7877-6$ | Plug Housing - Vertical |
| $4957-14$ | $78-8060-7875-0$ | Plug - Male |
| $4957-15$ | $78-8060-7626-7$ | Connector - PG 11/12 |
| $4957-16$ | $78-8060-8181-2$ | Sleeving - 0,710 MT |
| $4957-17$ | $78-8060-8052-5$ | Cable - 4X1,5 5MT 3PH |
| $4957-18$ | $78-8094-6187-0$ | Motor - 220V, 60HZ, 3 Phase, H63 |
| $4957-19$ | $78-8076-5226-4$ | Fan - Motor, F.63 |



Figure 4958

| Ref. No. | 3M Part No. | Description |
| :--- | :--- | :--- |
| $4958-1$ | $78-8091-0600-4$ | Housing - Wire |
| $4958-2$ | $26-1003-7963-0$ | Screw - Soc Hd, M8 x 16 |
| $4958-3$ | $78-8094-6177-1$ | Cap |
| $4958-4$ | $78-8094-6188-8$ | Spring - Strap |
| $4958-5$ | $78-8010-7163-6$ | Screw - Hex Hd, M5 x 10 |
| $4958-6$ | $78-8005-5741-1$ | Washer - Plain, M5 |
| $4958-7$ | $78-8010-7417-6$ | Nut - Hex, M5 |
| $4958-8$ | $78-8094-6189-6$ | Bracket - Clamp |
| $4958-9$ | $78-8076-4520-1$ | Union - PG13, Sleeve /16 |
| $4958-10$ | $78-8094-6190-4$ | Sleeving - Wire |
| $4958-11$ | $78-8060-8029-3$ | Clamp - 140X3,5 |
| $4958-12$ | $78-8076-5118-3$ | Cover - Channel |
| $4958-13$ | $26-1003-5810-5$ | Screw - Hex Hd, M4 x 8 |
| $4958-14$ | $78-8017-9018-5$ | Washer - Plain, SPEC M4 |
| $4958-15$ | $78-8052-6659-6$ | Grommet |



| Ref. No. | 3M Part No. | Description |
| :---: | :---: | :---: |
| 4959-1 | 78-8094-6191-2 | Jamb Assembly - Front, R/H |
| 4959-2 | 78-8094-6192-0 | Jamb Assembly - Front, L/H |
| 4959-3 | 78-8094-6193-8 | Jamb Assembly - Rear, R/H |
| 4959-4 | 78-8094-6194-6 | Jamb Assembly - Rear, L/H |
| 4959-5 | 26-1003-7963-0 | Screw - Soc Hd, M8 x 16 |
| 4959-6 | 26-1003-7964-8 | Screw - Soc Hd Hex Soc Dr, M8 $\times 20$ |
| 4959-7 | 78-8017-9318-9 | Washer - Plain, 8 mm |
| 4959-8 | 78-8094-6195-3 | Cap |
| 4959-9 | 78-8094-6196-1 | Plate - Front |
| 4959-10 | 78-8094-6197-9 | Plate - Side |
| 4959-11 | 26-1003-7957-2 | Screw - Soc Hd Hex Hd, M6 x 16 |
| 4959-12 | 26-1000-0010-3 | Washer - Flat, M6 |
| 4959-13 | 78-8094-6198-7 | Plate - Clamp |
| 4959-14 | 78-8094-6199-5 | Panel Assembly |
| 4959-15 | 78-8094-6200-1 | Panel - Control, Board |
| 4959-16 | 78-8094-6201-9 | Panel Assembly - Rear |
| 4959-17 | 78-8094-6202-7 | Door Assembly |
| 4959-18 | 78-8094-6203-5 | Door |
| 4959-19 | 78-8060-7807-3 | Handle |
| 4959-20 | 78-8094-6204-3 | Plate |
| 4959-21 | 78-8076-4931-0 | Drawbar - Lock |
| 4959-22 | 26-1005-5316-8 | Screw - Flat Hd Hex Dr, M5 x 16 |
| 4959-23 | 78-8076-4916-1 | Hinge |
| 4959-24 | 26-0001-5862-1 | Screw - Flat Hd Soc, M5 x 12 |
| 4959-25 | 78-8010-7209-7 | Screw - Soc Hd, M6x 12 |
| 4959-26 | 78-8017-9074-8 | Washer - Nylon, 15 mm |
| 4959-27 | 78-8076-4932-8 | Lock - Wing |
| 4959-28 | 78-8076-4929-4 | Security Switch - Schmersal AZ15ZVR |
| 4959-29 | 26-1003-7951-5 | Screw - Soc Hd Hex Soc, M5 x 20 |
| 4959-30 | 78-8005-5741-1 | Washer - Plain, M5 |
| 4959-31 | 78-8076-4532-6 | Union |
| 4959-32 | 78-8094-6205-0 | Cover |
| 4959-33 | 78-8010-7210-5 | Screw - Soc Hd Hex Soc, M6 x 20 |
| 4959-34 | 78-8042-2919-9 | Washer - Triple, M6 |
| 4959-35 | 78-8076-4547-4 | Cap-/18 |



Figure 4960

Figure 4960

Ref. No. 3M Part No. Description

| 4960-1 | 78-8094-6206-8 | Box - Control Board |
| :---: | :---: | :---: |
| 4960-2 | 78-8094-6207-6 | Plate - Mounting, BTM |
| 4960-3 | 78-8094-6208-4 | Plate - Mounting, Top |
| 4960-4 | 26-1003-7957-2 | Screw - Soc Hd Hex Hd, M6 x 16 |
| 4960-5 | 26-1000-0010-3 | Washer - Flat, M6 |
| 4960-6 | 78-8094-6209-2 | Bracket |
| 4960-7 | 78-8076-5356-9 | Spacer - Mounting |
| 4960-8 | 78-8010-7209-7 | Screw - Soc Hd, M6 x 12 |
| 4960-9 | 78-8076-5057-3 | Reflector - E39-R1 |
| 4960-10 | 78-8094-6210-0 | Screw - Soc Hd Hex Hd, M4 x 10 |
| 4960-11 | 78-8094-6211-8 | Hinge |
| 4960-12 | 78-8060-8087-1 | Screw-M5 $\times 10$ |
| 4960-13 | 78-8005-5741-1 | Washer - Plain, M5 |
| 4960-14 | 26-1003-6916-9 | Nut - Locking, Plastic Insert, M6 |
| 4960-15 | 78-8094-6212-6 | Plate - Mounting |
| 4960-16 | 78-8060-7814-9 | Spacer - Electric Box |
| 4960-17 | 78-8010-7169-3 | Screw - Hex Hd, M6 x 12 |
| 4960-18 | 78-8010-7418-4 | Nut - Hex, M6 |
| 4960-19 | 78-8094-6213-4 | Cover - Control Board |
| 4960-20 | 78-8094-6214-2 | Bolt - Door |
| 4960-21 | 78-8094-6215-9 | Bolt - Door |
| 4960-22 | 78-8094-6216-7 | Omron PLC - C20H-C6DR-DE |
|  | 26-1011-8612-5 | Output Relay Repl - Omron, G6B-1174-P-FD-US (not shown) |
| 4960-23 | 78-8076-5218-1 | Feeder - Indel, 24V CC 3A |
| 4960-24 | 78-8076-4877-5 | Switch - TLM, On/Off, 2,5-4 A |
| 4960-25 | 78-8094-6217-5 | Block - TLM, Contacts |
| 4960-26 | 78-8094-6218-3 | Switch - TLM, GB2-CB07 |
| 4960-27 | 78-8094-6219-1 | Switch - TLM, GB2-CB12 |
| 4960-28 | 78-8094-6220-9 | Contactor - Allen-Bradley, CA4-9C-10 24V AC |
| 4960-29 | 78-8076-5217-3 | Transiormer - Legrand, 63VA |
| 4960-30 | 78-8091-0410-8 | Lock - Allen-Bradley |
| 4960-31 | 78-8091-0414-0 | Terminal - Allen-Bradley, VUPE 4-4 |
| 4960-32 | 78-8091-0412-4 | Terminal - Allen-Bradley, VU 4-2.5 |
| 4960-33 | 78-8091-0415-7 | Cover - Allen-Bradley Terminal |
| 4960-34 | 78-8091-0413-2 | Plate - Allen-Bradley, VT 4-2.5/4 |
| 4960-35 | 78-8091-0416-5 | Terminal - Allen-Bradley, VUET 4-4L |
| 4960-36 | 78-8091-0417-3 | Plate - Allen-Bradley, VAET 4-4 |
| 4960-37 | 78-8091-0411-6 | Plate - Allen-Bradley, VA 4-2.25/4 |
| 4960-38 | 78-8091-0777-0 | Switch - Allen-Bradley, On/Off, LA2-16 |
| 4960-39 | 78-8076-5199-3 | Push Button - Allen-Bradley, DT 3-L-G |
| 4960-40 | 78-8076-5230-6 | Contact - Allen-Bradley, DE3-10 |
| 4960-41 | 78-8094-6221-7 | Button - Allen-Bradley, DT3-L-Y, Yellow |
| 4960-42 | 78-8076-5195-1 | Contact - Allen-Bradley, DE 3-01 |
| 4960-43 | 78-8094-6222-5 | Button - Allen-Bradley, DT3-L-B Blue |
| 4960-44 | 78-8076-5202-5 | Cap - Allen-Bradley, Lamp, White |
| 4960-45 | 78-8076-5203-3 | Contact - Allen-Bradley, Lamp |
| 4960-46 | 78-8060-7611-9 | Lamp - Allen-Bradley. BA9S 36V 2W |
| 4960-47 | 78-8076-5204-1 | Cap - Allen-Bradley, Lamp, Red |
| 4960-48 | 78-8076-5194-4 | Box-Allen-Bradley |
| 4960-49 | 78-8076-5193-6 | E-Stop, Allen-Bradley, DN3-P-01 |
| 4960-50 | 26-1003-7943-2 | Screw - Soc Hd, M4 $\times 12$ |
| 4960-51 | 78-8076-4715-7 | Cord Grip |
| 4960-52 | 78-8076-5211-6 | Set Nut - GMP13.5 |
| 4960-53 | 78-8076-4605-0 | Cable-2X1, 5M |
| 4960-54 | 78-8060-8029-3 | Clamp - 140X3,5 |
| 4960-55 | 78-8094-6223-3 | Cable - SJTO 16/4 |



## 800rks Safety and Information Labels

A label kit, part number 78-8095-1393-6, is available as a stock item. It contains all the safety and information labels used on the case sealer, or labels can be ordered separately from the following list.

| Ref. No. | 3M Part No. | Description | Qty |
| :---: | :--- | :--- | :--- |
|  | $78-8095-1393-6$ | Label Kit (Includes items 1-22) |  |
| 1 | $78-8095-1140-1$ | Label - Air Supply, 85 PSI | 1 |
| 2 | $78-8098-8834-6$ | Label - Head Down Speed | 1 |
| 3 | $78-8098-8835-3$ | Label - Head Up Speed | 1 |
| 4 | $78-8098-8833-8$ | Label - Upper/Lower Belt Pressure | 1 |
| 5 | $78-8098-8836-1$ | Label - Control Panel \#1 | 1 |
| 6 | $78-8098-8837-9$ | Label - Control Panel \#2 | 1 |
| 7 | $78-8098-8838-7$ | Label - Upper Belt Pressure | 1 |
| 8 | $78-8098-8839-5$ | Label - Lower Belt Pressure | 1 |
| 9 | $78-8070-1329-3$ | Label - Warning | 1 |
| 10 | $78-8094-6287-8$ | Label - Leg | 4 |
| 11 | $78-8095-1141-9$ | Label - Stop | 2 |
| 12 | $78-8070-1421-8$ | Label - Caution | 2 |
| 13 | $78-8098-8915-3$ | Label - Safety Information | 1 |
| 14 | $78-8070-1629-6$ | Label - Belt Tensioning | 2 |
| 15 | $78-8098-8983-1$ | Label - 3M | 2 |
| 16 | $78-8070-1336-8$ | Label - Waring | 2 |
| 17 | $78-8068-3859-1$ | Label - Service and Spares | 1 |
| 18 | $78-8068-3852-6$ | Label - Ground Symbol | 1 |
| 19 | $78-8098-9121-7$ | Label - Warning | 2 |
| 20 | $78-8098-8914-6$ | Label - Warning | 4 |
| 21 | $78-8098-8913-8$ | Label - Warning | 1 |
| 22 | $78-8062-4266-1$ | Label - Product | 1 |

## 3м

## Instructions and Parts List

## AccuGlide"II STD 3 Inch

Upper and Lower Taping Heads

Type 39600

Serial No.
For reference, record taping head(s) serial number(b) here.

## Replacement Parts and Service Information

## To Our Customers:


#### Abstract

This is the 3M-Matic ${ }^{\text {TM }} /$ AccuGlide ${ }^{\text {TM }} /$ Scotch $^{\text {TM }}$ brand equipment you ordered. It has been set up and tested in the factory with "Scotch" brand tapes. If technical assistance or replacement parts are needed, call or Fax the appropriate number listed below.


Included with each machine is an Instructions and Parts List manual.

## Technical Assistance:

3M-Matic ${ }^{\text {TM }}$ Helpline - 1-800/328 1390. Please provide the customer support coordinator with the machine number, machine type/model and serial number. If you have a technical question that does not require an immediate response, you may Fax it to 715/381 0248.

## Replacement Parts and Additional Manuals

Order parts by part number, part description and quantity required. Also, when ordering parts and/or additional manuals, 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 involce on returned parts.
Note : Outside the U.S., contact the local 3M subsidiary for parts ordering information.

## To Our Customers:

This is the 3M-Matic ${ }^{\text {TM }} /$ AccuGlide ${ }^{T M} /$ Scotch $^{\text {TM }}$ 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.

Included with each machine is an Instructions and Parts List manual.

## SERVICE, REPLACEMENT PARTS AND ADDITIONAL. MANUALS AVAILABLE DIRECT FROM:

Order parts by part number, part description and quantity required. Also, when ordering parts and/or additional manuals, include machine name, number and type.

3M Packaging Systems Division

## Instruction Manual

## AccuGllde" II STD 3 Inch Upper and Lower Taping Heads Type 39600

## Table of Contents

Equlpment Warranty and Limited Remedy ..... ij
Taping Head Contents ..... ii
Intended Use ..... 1
Important Safeguards ..... 2
Specifications ..... 3-4
Dimensional Drawing ..... 4
Installation ..... 5
Receiving and Handling ..... 5
Installation Guidelines ..... 5
Tape Leg Length ..... 5
Tape Widith Adjustment ..... 5
Operation ..... 6-8
Tape Loading - Upper Taping Head ..... 7-8
Tape Loading - Lower Taping Head ..... 7-8
Maintenance ..... 9-10
Knife Replacement ..... 9
Knlfe Guard ..... 9
Knife Oiler Pad ..... 9
Cleaning ..... 9
Lubrication ..... 10
Applying/Buffing Roller Replacement ..... 10
Adjustments ..... 11-13
Tape Web Alignment ..... 11
Tape Drum Frictlon Brake ..... 11
Applying Mechanism Spring ..... 12
One-Way Tension Roller ..... 12
Tape Leg Length ..... 13
Leading Tape Leg Length Adjustment ..... 13
Changing Tape Leg Length From 70 to 50 mm [2-3/4 to 2 Inch] ..... 13
Troubleshooting ..... 15-16
Troubieshooting Guide ..... 15-16
Spare Parts/Service Information ..... 17
Recommended Spare Parts ..... 17
Replacement Parts and Service ..... 17Replacement Parts Illustrations and Parts ListYellow Section 18-35

Equipment Warranty and Limited Remedy: THE FOLLOWING WARRANTY IS MADE IN LEU OF ALL OTHER WARRANTIES, EXPRESS OF IMPLIED, INCLUDING, BUT NOT LIMITED TO, THE IMPLIED WARRANTY OF MERCHANTABLLITY, 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 AccuGlide" II STD 3 Inch Upper and Lower Taping Heads, Type 39600 with the following warranties:

1. The Taping Head knife, 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. 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 3 M . A part will be presumed to have become defective after the warranty period unless the part is received or 3 M 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 3 M , 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 3 M and seller.

## Taping Head Contents

## AccuGllderin STD 3 Inch Upper and Lower Taping Heads consist of:

| Qty. | Part Name |
| :--- | :--- |
| 1 | Taping Head Assembly |
| 1 | Tape Drum and Bracket Assembly |
| 1 | Hardware and Spare Parts Kit |
| 1 | Threading Tool |

Accuclide", Scotch", and 3M-Matic" are Trademarks of 3M, St. Paul, Minnesota 55144-1000

## Intended Use

The intended use of the AccuGlide ${ }^{\text {TM }}$ II STD 3 Inch Upper and Lower Taping Heads is to apply a "C" clip of Scotch ${ }^{\text {TM }}$ brand pressure-sensitive film box sealing tape to the top and/or bottom center seam of regular slotted containers.

These taping heads are incorporated into most standard 3 M -Matic ${ }^{\text {M }}$ case sealers. The compact
size and simplicity of the taping head also makes it suitable for mounting in box conveying systems other than 3M-Matic ${ }^{\text {TM }}$ case sealers. This includes replacement of other types of taping, gluing or stapling heads in existing case sealing machines. The Accuclide ${ }^{\text {TM }}$ II STD Taping Heads have been designed and tested for use with Scotch ${ }^{\text {™ }}$ brand pressure-sensitive film box sealing tape.


AccuGllde ${ }^{\text {TM }}$ II STD 3 Inch Upper Taping Head, Type 39600

## This safety alert symbol identifies important safety messages in this manual. READ AND UNDERSTAND THEM BEFORE INSTALLNG OR OPERATING THIS EQUIPMENT.

Important - in the event the following safety labels are damaged or destroyed, they must be replaced to ensure operator safety. See Parts Drawing/Lists, pages 18-35 for label part numbers.

The "Waming-Sharp Knife" label wams operators and service personnel of the extremely sharp knife used to cut the tape at the end of the box sealing operation. The label shown in Figure $1-1$ is located on the orange knife guard between the applying roller assembly and the buffing roller assembly. Never operate taping heads with knife guard removed.

Before working with the taping heads or loading/ threading tape, refer to Figures 3-1 and 3-2 (page 6) to identify the knife location. Keep hands out of these areas except as necessary to service the taping heads or to load/thread tape.

The "Tape Threading Label", shown in Figure 1-2, is attached to the left side of both the upper and lower taping heads. This label provides a convenient tape threading diagram. More detailed tape loading and threading information is provided in the "Operation" section this manual.

Tumn air and electrical supplies "Off" before servicing the taping heads.


Figure 1-1 - Knife Waming Label


Figure 1-2 - Tape Threading Label

## Specifications

1. Tape:

For use with "Scotch" brand pressure-sensitive film box sealing tapes.

## 2. Tape Width:

48 mm [2 inches] minimum to 72 mm [3 inches] maximum.

## 3. Tape Roll Diameter:

Up to 405 mm [ 16 inches] maximum on a 76.2 mm [ 3 inch] diameter core. (Accommodates all system roll lengths of "Scotch" brand film tapes.)
4. Tape Appication Leg Length - Standard:
$70 \mathrm{~mm} \pm 6 \mathrm{~mm}[2-3 / 4$ inches $\pm 1 / 4$ inch $]$
Tape Application Leg Length - Optional:
$50 \mathrm{~mm} \pm 6 \mathrm{~mm}$ [2 inches $\pm 1 / 4 \mathrm{inch}]$ (See "Adjustments - Tape Leg Length", page 13.)
5. Box Size Capacities:

For use with center seam regular slotted containers.

| Minimum |  | Maximum |
| :---: | :---: | :---: |
| Length - | 150 mm [6 inches] | Unlimited |
| Height - | 120 mm [4-3/4 inches] (most "3M-Matic" Case Sealers) 90 mm [ $3-1 / 2$ inches] (with optional 2 inch leg length) | Limited by Case Sealer |
| Width - | 150 mm [6 inches] |  |

When upper and lower taping heads are used on "3M-Matic" case sealers, refer to the respective instruction manual specifications for box weight and size capacities.

## 6. Operating Rate:

Conveyor speeds up to $0.40 \mathrm{~m} / \mathrm{s}$ [ 80 FPM ] maximum.

## 7. Operating Conditions:

Use in dry, relatively clean environments at $5^{\circ}$ to $40^{\circ} \mathrm{C}\left[40^{\circ}\right.$ to $\left.105^{\circ} \mathrm{F}\right]$ with clean dry boxes.
Important - Taping heads should not be washed down or subjected to conditions causing moisture condensation on components.

## 7. Taping Head Dimensions:

| Length | - | $457 \mathrm{~mm}[18$ inches] |
| :--- | :--- | :--- |
| Height | - | $560 \mathrm{~mm}[22$ inches] (with tape drum) |
| Width | - | $130 \mathrm{~mm}[5-1 / 8$ inches $]$ (without mounting spacers) |
| Weight | - | Packaged: $8.6 \mathrm{~kg}[19$ ibs.] Unpackaged: $7.7 \mathrm{~kg}[17 \mathrm{lbs}]$ |



Figure 2-1 - Dimensional Drawing


#### Abstract

WARNING - Taping Heads are equipped with an extremely sharp tape cut-off knife. The knife is located under the orange knife guard which has the "Warning - Sharp Knite" label. Before working with the taplng heads or loading tape, refer to Figures 3-1 and 3-2 on page 6 and identify the knife location. Keep hands out of these areas except as necessary to service the taping heads.


## Receiving And Handling

After the taping head assembly has been unpackaged, examine the unit for damage that might have occurred during transit. If damage is evident, file a damage claim Immediately with the transportation company and also notify your 3M Representative.

## Installation Guidalines

The taping head assembly can be used in converting existing or in custom made machinery. It can be mounted for top taping or bottom taping. Refer to box size specifications on page 3, and Figure 2-1 on page 4, for the following points in making such installations:

## CAUTION - Taping head weighs

 approximately 7.7 kg [17 lbs] without tape. Remove tape roll before removing taping head from machine to minimize woight. Use proper body mechanics when installing or removing taping head.1. The box conveying system must positively propel the box in a continuous motion, not exceeding $0.40 \mathrm{~m} / \mathrm{s}$ [ 80 feet per minute], past the taping head assembly since the box motion actuates the taping mechanism.
2. If a pusher or cleated conveyor is being used, steps should be taken in the conveyor design to prevent the pusher from contacting the applying or buffing roller arms resulting in damage to the taping head.
3. Figure 2-1 illustrates the typical mounting relationship for opposing taping head assemblies to allow taping of box heights down to 90 mm [ $3-1 / 2$ inches]. To tape box heights down to 70 mm [2-3/4 inches], the taping heads must be completely staggered so only one tape seal is being applied at one time.

Note - AccuGlide ${ }^{\text {TM }}$ II STD taping Heads are supplied with a buffing amm guard. This guard may have to be removed to install the taping head into some older design 3M-Matic ${ }^{\text {TM }}$ case sealers. If this is the case, remove the four guard mounting screws, remove the guard and then install the taping head.
4. Mounting studs are provided with the taping head, but special installations may require altemate means for mounting.
5. Box hold-down or guide skis should be provided and the taping head mounted so that the side plates are 6 mm [ $1 / 4$ inch] maximum away from the ski surface on which the box rides.

## Tape Leg Length

Taping heads are factory set to apply standard 70 mm [ $2-3 / 4$ inch] tape legs. The heads can be converted to apply 50 mm [2 inch] tape legs if desired but both upper and lower heads must be set to apply the same tape leg length. See
"Adjustments - Changing Tape Leg Length From 70 to 50 mm [2-3/4 to 2 Inches]", page 13.

Also, the conveyor speed at which the product moves through the taping heads, affects the leading and trailing tape leg length. See, "Adjustments Leading Tape Leg Length Adjustment", page 13.

## Tape Width AdJustment

Taping heads are factory set to apply 72 mm [ 3 inch] wide tape. If it is necessary to align the tape or to apply narrower tapes, refer to "Adjustments - Tape Web Alignment', page 11 for set-up procedure.

## Operation



Figure 3-1 - Taping Head Components/Threading Diagram, Upper Head (Left Side View)


Flgure 3-2 - Taping Head Components/Threading Diagram - Lower Head (Left Side View)

## A

## WARNINGS

1. Turn air and electrical supplies off and disconnect before servicing taping heads.
2. Never attempt to work on the taplng heads or load tape when the box drive system is running.
3. Taping heads are equipped with an extremely sharp cut-off knite. Before working with the taping heads or attempting to load/thread tape, refer to Figures 3-1 and 3-2 and identify the knife location. Keep hands out of these areas except as necessary to service the taping heads.
4. Failure to comply with these warnings can result in severe personal injury and/or equipment damage.

It is recommended that the detalled instructions and sketches in this manual be referred to the first few times the taping head is ioaded/threaded until the operator becomes thoroughly familiar with the tape loading operation.

CAUTION - Taping head weighs approximately 7.7 kg [17 pounds] without tape. Use proper body mechanics when removing or installing taping head.

## Tape LoadIng - Upper Taping Head

1. Raise the upper taping head to a convenient working position.
2. Use the plastic threading needle (provided) and follow the loading procedures (Figures 3-3 to 3-5) to complete the tape threading.

If threading needie is not available, install tape roll and fold a tape tab approximately 455 mm [18 in] long on leading edge of tape for threading.

## Tape Loading - Lower Taping Head

1. For ease in loading, first remove the lower taping head from the conveyor bed.
2. The lower taping head is loaded and threaded in the same manner as the upper head. Follow the upper taping head tape loading/threading procedure.

Figure 3-3
Insert threading needie through rollers in direction indicated by arrows.


Figure 3-3 - Tape Loading/Threading

Figure 3-4
Place tape roll on tape drum to dispense tape with adhesive side forward. Seat tape roll fully against back flange of drum. Adhere tape lead end to threading needle as shown.

Figure 3-5

> WARNJNG - Use care when working near tape cut-off knife as knife is extremely sharp. If care is not taken, severe personal injury 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 3-4 - Tape Loading/Threading


Figure 3-5 - Tape Loading/Threading

## WARNINGS

1. Turn air and electrical supplles off and disconnect before beginning maintenance.
2. Use care when working near tape cut-off knife as knife is extremely sharp.
3. Failure to comply with these warnings could result in severe personal injury or equipment damage.

The Accuclide ${ }^{\text {Tw }}$ STD 113 Inch Taping Head has been designed for long, trouble free service. The taping head will perform best when it receives routine maintenance and cleaning. Taping head components that fail or wear excessively should be promptly repaired or replaced to prevent damage to other portions of the head or to the product.

Knife Replacement, Upper and Lower Taping Heads - Figure 4-1

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

Note - Check the knife position to insure proper clearance between knife and guard by slowly pivoting the knife guard back.


## Knife Guard

The knife guard covers the knife whenever a box is not being taped. Periodically check to be sure the knife guard is functioning properly and retuming to cover the knife. Replace any defective parts.

## Knife Oller Pad

The taping heads are equipped with a felt oiler pad that has been pre-lubricated at the factory to provide a film of oil on the cutting edige of the knite to reduce adhesive build-up. Apply SAE \#30 nondetergent oil as needed. Saturate felt oiler pad.

Should tape adhesive build-up occur on knife, carefully wipe clean with an oily cloth.

## Cleaning

Regular slotted containers produce a great deal of dust and paper chips when conveyed through taping heads. If this dust is allowed to build-up on the heads, it can cause wear on the moving parts. Excessive dirt build-up should be wiped off with a darme cloth. Cleaning should be done once per month, depending on the number and type of boxes used. If the boxes used are dity, or if the environment in which the heads operate is dusty, cleaning on a more frequent basis may be necessary.

Note - Never attempt to remove dirt from taping heads by blowing it out with compressed air. This can cause the dirt to be blown inside the components onto sliding surfaces. Dirt in these areas can cause serious equipment damage. Never wash down or subject taping heads to conditions causing moisture condensation on components. Serious equipment damage couid result.

Figure 4-1 - Knife Replacement

## WARNINGS

1. Turn air and electrical supplies off and disconnect before beginning malntenance.
2. Use care when working near tape cut-off knife as knife is extremely sharp.
3. Fallure to comply with these warnings could result in severe personal injury or equipment damage.

## Lubrication

Like most other equipment, the taping head must be property lubricated to insure long, trouble free service.

Figure 4-2 illustrates points which should be lubricated every 3 months or 150,000 machine cycles, whichever comes first. Lubricate the rotating and pivoting points noted by the arrows ( $\Rightarrow$ ) with SAE \#30 non-detergent oil. At the same time, a small amount of multipurpose grease should be applied to the guides and to the end of each spring where the loop is secured at an eyelet, post, or hole noted by arrows ( $\Rightarrow$ ).

Note - Wipe off excess oil and grease. It will attract dust and dirt 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.


Figure 4-2 - Lubrication Points, Upper and Lower Taping Heads

## Applying/Butting Roller Replacement

Replacing rolier requires removal of shaft and mounting screws. With no area on the shaft to grip, the shaft often turns when attempting to remove the second screw.

To ease removal of second screw, a 4 mm hex socket has been provided at the bottom of the threads in both ends of the shaft. Insert a 4 mm hex key wrench into this socket after removing one screw to hold the shaft for removal of the second screw. See Figure 4-3.


Figure 4-3 - Section View of Roller Shaft

AWARNING - Turn alr and elactrical supplies off and disconnect before beginning adjustments. Fallure to comply with this waming could result in severe personal injury and/or equipment damage.

## Tape Web Alignment - Figure 5-1

The STD tape drum assembly is pre-set to accommodate 72 mm [ 3 inch] wide tape. The tape drum assembly 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:

1. L.oosen the locking hex nut behind tape drum bracket on tape drum shaft. Use an adjustable wrench or 25 mm open end wrench.

Note - To set up 72 mm tape drum for 48 mm tape, disassemble tape drum from bracaket and instail lock nut between tape dum and bracket as shown in inset, Figure 5-2.
2. Tum 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 on each taping head is pre-set for normal operation to prevent tape roll over travel. Should tension adjustment be required, turn the self-locking nut on the shaft to vary compression of the spring. Tum the nut clockwise to increase the braking force, and counterclockwise to decrease the braking force. Adjust brake to minimum tension to prevent excessive tape roll over travel.

Note - Excess braking force will cause poor tape application and may lead to tape tabbing on the trailing tape leg.


Figure 5-1 - Tape Web Alignment


Figure 5-2 - Tape Drum Friction Brake

A
WARNING - Turn air and electrical supplies off and disconnect before beginning adjustments. Failure to comply with this warning could result in severe personal injury and/or equipment damage.

## Applying Mechanism Spring

To obtain access to the spring, remove the taping head cover (four mounting screws). Replace cover when finished.

The applying mechanism spring, shown in Figures 3-1 and 3-2, controls applying and buffing rolier pressure on the box and returns the mechanism to the reset position. The spring pressure is pre-set, as shown in Figure 5-3A 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 trom the spring holder and placing loop in other holes provided, as shown in Figure 5-3B, will adjust the spring pressure.

## One-Way Tension Roller

Figure 5-4
The one-way tension roller is factory set. When replacing this assembly, the roller must have $0,5 \mathrm{~kg}$ [1 lb.$]$ minimum tangential force when tuming.

## To Adjust Tension:

1. 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.
3. Tum the adjusting nut with the socket wrench provided, until a force of approximately 0.5 kg to 0.9 kg [ 1 to 2 lbs .] is required to tum the roller by pulling on the spring scale.


Figure 5-3-Applying Mechanism Spring


Figure 5-4 - One-Way Tension Roller

WARNING - Turn alr and electrical supplies off and disconnect before beginning adjustments. Fallure to comply whth this warning could result in severe personal injury and/or equipment damage.

## Tape Leg Length

WARNING - Use care when working near cut-off knife as knife is extremely sharp. If care is not taken, severe Injury could result.

## LEADING TAPE LEG LENGTH ADJUSTMENT -

Figure 5-5
The one-way tension roller position is adjustable to control the leading tape leg length.

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

CHANGING TAPE LEG LENGTH FROM 70 to 50 mm [2-3/4 TO 2 INCHES] - Figure 5-6

Note - When changing tape leg length, both upper and lower heads must be adjusted to apply the same leg lengths.

1. Remove and retain two hex head screws and remove the brush from normal position " $A$ " on side frame.
2. Remount and secure brush in position "A-A" on side frame forward of normal location using original fasteners.
3. Remove cut-off bracket extensions from position " $\mathrm{B}^{\prime}$.
4. Remount cut-off bracket extensions in forward position " $B-B^{n}$.
5. Remove and retain the one-way tension roller assembly from siot " $C$ " in frame.
6. Remount tension roller assembly near top of slot "C-C" in frame using original fasteners.
7. Adjust tension roller according to "Leading Tape Leg Length Adjustment" above.


Figure 5-5 - Leading Tape Leg Length


Figure 5-6 - Changing Tape Leg Length

THIS PAGE IS BLANK

## 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 rolier 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 alignments |
|  | The one-way tension rolier is not correctly positioned | Position the roller in its mounting slot so that the tape extends just beyond the centerline of the applying roller |
|  | Taping head is not set up properly | Check leg length adjustments |
| The knife does not cut tape or the tape end is jagged or shredded | The knife is duil and/or has broken teeth | Replace the knife |
|  | Tape tension is insufficient | Increase tape tension by adjusting the one-way tension roller |
|  | Adhesive has built up on the knife | Clean and adjust the knife |
|  | The knife is not positioned properly | Make sure the knife is bottomed out against the mounting bolts |
|  | The knife is dry | Lubricate the knlfe oiler pad on the knife guard |
|  | The knife is in backwards | Mount the knlfe so that the beveled edge is away from the entrance of the head |
|  | One or both cutter springs are missing or stretched | Replace the defective spring(s) |
|  | 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 rolier or replace roller. |

Troubleshooting (Continued)

## Troubleshooting Guide

| Problem | Cause | Correction |
| :---: | :---: | :---: |
| Tape is tabbing on the trailing 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 |
|  | Roilers 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 knife is not culting tape properly | Refer to tape cutting problems |
|  | The tape is threaded incorrectly | Rethread the tape |
|  | Applying mechanism spring has too lititle tension | Move spring hook to next tighter hole |
| The tape end does not stay in application position in front of the applying roller | The tape is incorrectly threaded | Rethread the tape |
|  | Flanged knurled roller overruns on retum of applying mechanism to its rest position | Adjust tension roiler position in mounting slot to lengthen tape leg |
|  | Applying roller overruns on retum 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 rolier in it mounting slot so that tape end extends beyond centerline of applying rollier |
|  | The one-way tension roller is defective | Replace the one-way tension roller |
| Tape not centered on box seam | Tape drum not centered | Reposition tape drum |
|  | Centering guides not centered | Adjust centering guides |
|  | Box flaps not of equal length | Check box spectifations |

## Spare Parts/Service Information

## Recommended Spare Parts

A set of spare parts that will periodically require replacement due to normal wear is supplied with the taping heads. The set includes the following which should be reordered when used to keep the taping heads in production:

| AccuGlide ${ }^{\text {TM }}$ II STD 3 Inch Upper Taping Head |  |  |  |
| :---: | :---: | :---: | :---: |
| Qty. | Ref. No. | Part Number | Description |
| 4 | 2948-22 | 78-8076-4500-3 | Stud - Mounting |
| 1 | 2950-10 | 78-8070-1274-1 | Spring - Upper Extension (Silver) |
| 1 | 2952-2 | 78-8028-7899-7 | Knife - $89 \mathrm{~mm} / 3.5$ Inch |
| 2 | 2952-12 | 78-8052-6602-6 | Spring - Cutter |
| 1 | - | 78-8076-4726-4 | Tool - Tape Threading |

AccuGlide ${ }^{\text {TM }}$ II STD 3 Inch Lower Taping Head

| Oty. | Ref. No. | Part Number | Description |
| :--- | :--- | :--- | :--- |
| 1 | $2952-2$ | $78-8028-7899-7$ | Knife - 89 mm/3.5 Inch |
| 2 | $2952-12$ | $78-8052-6602-6$ | Spring - Cutter |
| 4 | $2954-22$ | $78-8076-4500-3$ | Stud - Mounting |
| 1 | $2955-10$ | $78-8070-1273-3$ | Spring - Lower Extension (Black) |
| 1 | - | $78-8076-4726-4$ | Tool - Tape Threading |

In addition to the above set of spare parts supplied with the taping head, it is suggested that the following spare parts be maintained which will require replacement under normal wear of the taping head.

| Qty. | Ref. No. | Part Number | Description |
| :--- | :--- | :--- | :--- |
| 1 | $2949-15$ | $78-8057-6181-0$ | Roller - Applying |
| 1 | $2950 / 2955-5$ | $78-8057-6180-2$ | Roller - Buffing |
| 1 | $2952-18$ | $78-8113-7030-9$ | Spring - Torsion |

## Replacement Parts and Service

Refer to the first page of this instruction manual "Replacement Parts and Service Information".

## Replacement Parts Illustrations and Parts Lists

AccuGlide ${ }^{\text {TM }}$ II STD 3 Inch Upper Taping Head, Type 39600
Accuclide ${ }^{\text {TM }}$ II STD 3 Inch Lower Taping Head, Type 39600

1. Refer to Taping Head Assemblies Figure, page 19 to find all the parts illustrations identified by figure numbers.
2. Refer to the figure or figures to determine the individual parts required and the parts reference number.
3. The replacement parts list, that follows each illustration, includes the part number and part description for the parts in that illustration.

Note - The complete description has boen included for standard fasteners and some commercially available components. This has been done to allow obtaining these standard parts locally, should the customer elect to do so.
4. Refer to the first page of this instruction manual "Replacement Parts and Service information" for replacement parts ordering information.

IMPORTANT - Not all the parts listed are normally stocked items. Some parts or assemblies shown are available only on a special order basis. Contact 3M/Tape Dispenser Parts to confirm item availability.


Taping Head Assemblies - AccuGlide ${ }^{\text {T4 }}$ II STD 3 Inch


Figure 2948 - Upper Head

Figure 2948 - Upper Head

| Ref. No. | 3m Part No. | Description |
| :---: | :---: | :---: |
| 2948-1 | 78-8070-1386-3 | Frame - Tape Mount Upper Assembly |
| 2948-2 | 78-8070-1387-1 | Frame - Front Upper Assembly |
| 2948-3 | 78-8068-4143-9 | Guide - \#1 |
| 2948-4 | 78-8068-4144-7 | Guide - \#2 |
| 2948-5 | 83-0002-7336-3 | Screw - Hex Hd, M4 $\times 14$ |
| 2948-6 | 78-8010-7416-8 | Nut - Hex Jam, M4 |
| 2948-7 | 78-8076-4735-5 | Spacer - Spring |
| 2948-8 | 78-8055-0694-2 | Spacer - $10 \times 10 \times 115 \mathrm{~mm}$ |
| 2948-9 | 78-8060-7939-4 | Spacer - $10 \times 115$ W/Slots |
| 2948-10 | 78-8060-7936-0 | Brush Assembly |
| 2948-11 | 78-8054-8796-0 | Shaft - Tension Roller |
| 2948-12 | 78-8054-8798-6 | Shatt - Wrap Roller |
| 2948-13 | 26-1003-5829-5 | Screw - Hex Hd, M6x 12 |
| 2948-15 | 78-8100-1009-6 | Washer - Special |
| 2948-16 | 78-8054-8797-8 | Roller - Top Tension |
| 2948-17 | 78-8052-6566-3 | Washer - Friction |
| 2948-18 | 78-8052-6567-1 | Spring - Compression |
| 2948-19 | 78-8017-9077-1 | Nut - Self Locking, M10 $\times 1$ |
| 2948-20 | 78-8054-8799-4 | Roiler - Wrap |
| 2948-21 | 26-1000-1613-3 | Ring - Retaining, Tru-Arc \#1-420-0120-100 |
| 2948-22 | 78-8076-4500-3 | Stud - Mounting |
| 2948-23 | 78-8060-7937-8 | Spacer - 6,5/14 $\times 12,5$ |
| 2948-24 | 78-8060-7938-6 | Screw - Low Protile, M6 x 25 |
| 2948-25 | 78-8076-5242-1 | Stop - Cut-Off Frame |
| 2948-26 | 78-8060-8179-6 | Screw - Flat Head Hex, M6 x 20 |
| 2948-27 | 78-8076-5477-3 | Washer - Special, $6.5 \times 20 \times 4$ |
| 2948-28 | 78-8100-1049-2 | Guard - Head |
| 2948-29 | 78-8060-8087-1 | Screw - M5 x 10 |
| 2948-30 | 78-8005-5741-1 | Washer - Flat, M5 |
| 2948-31 | 78-8076-4734-8 | Bumper |
| 2948-32 | 78-8070-1365-7 | Label - Threading, English Language |



Figure 2949 - Upper and Lower Heads

## Figure 2949 - Upper and Lower Heads

| Ref. No. | 3M Part No. | Description |
| :--- | :--- | :--- |
| $2949-1$ | $78-8100-0982-5$ | Arm - Applying, R/H |
| $2949-2$ | $78-8100-0983-3$ | Arm - Applying, L/H |
| $2949-3$ | $78-8070-1292-3$ | Plate - Back-Up |
| $2949-4$ | $78-8076-4736-3$ | Shaft Roller |
| $2949-5$ | $78-8076-4737-1$ | Roller Assembly - Knurled |
| $2949-6$ | $78-8076-4738-9$ | Roller - Wrap |
| $2949-7$ | $78-8054-8806-7$ | Spacer |
| $2949-8$ | $78-8017-9082-1$ | Bearing - Special, 30 mm |
| $2949-9$ | $78-8017-9106-8$ | Screw - Bearing Shoulder |
| $2949-10$ | $78-8054-8801-8$ | Shatt - 10 x 85, W/Hexagon |
| $2949-11$ | $78-8017-9074-8$ | Washer - Nylon, 15 mm |
| $2949-12$ | $78-8052-6566-3$ | Washer - Friction |
| $2949-13$ | $78-8052-6567-1$ | Spring - Compression |
| $2949-14$ | $78-8060-8396-6$ | Bushing - Applying Rolier |
| $2949-15$ | $78-8057-6181-0$ | Roller - Applying |
| $2949-16$ | $26-1003-5829-5$ | Screw - Hex Hd, M6 x 12 |



Figure 2950 - Upper Head

Figure 2950 - Upper Head

| Ref. No. | 3M Part No. | Description |
| :--- | :--- | :--- |
| 2950-1 | $78-8070-1392-1$ | Buffing Arm - Sub Assernbly |
| $2950-2$ | $78-8070-1391-3$ | Buffing Arm - Sub Assembly |
| $2950-3$ | $78-8091-0799-4$ | Shaft - 10 x 85, W/Hexagon |
| $2950-4$ | $78-8054-8807-5$ | Bushing - Buffing Roller |
| $2950-5$ | $78-8057-6180-2$ | Roller - Buffing |
| $2950-7$ | $78-8076-4739-7$ | Spacer - Spring |
| $2950-8$ | $78-8028-7885-6$ | Shaft - 10 x 115 mm |
| $2950-9$ | $26-1003-5829-5$ | Screw - Hex Hd, M6 x 12 |
| $2950-10$ | $78-8070-1274-1$ | Spring - Upper (Silver) |
| $2950-11$ | $78-8070-1244-4$ | Holder - Spring |



Figure 2951 - Upper and Lower Heads

Figure 2951 - Upper and Lower Heads
Ref. No. 3M Part No. Description

| $2951-1$ | $78-8070-1388-9$ | Link - Arm Bushing Assembly |
| :--- | :--- | :--- |
| $2951-2$ | $78-8070-1389-7$ | Link - Arm Bushing Assembly |
| $2951-3$ | $78-8076-4740-5$ | Shaft - Pivot |
| $2951-4$ | $78-8017-9082-1$ | Bearing - Special 30 mm |
| $2951-5$ | $78-8017-9106-8$ | Screw - Bearing Shoulder |
| $2951-6$ | $26-1003-5829-5$ | Screw - Hex Hd, M6 x 12 |



Figure 2952 - Upper and Lower Heads

| Ref. No. | 3M Part No. | Description |
| :---: | :---: | :---: |
| 2952-1 | 78-8070-1283-2 | Frame - Cut-Off |
| 2952-2 | 78-8028-7899-7 | Knife - $89 \mathrm{~mm} / 3.5$ Inch |
| 2952-3 | 26-1002-5817-2 | Screw - Hex Hd, M5 $\times 8$ |
| 2952-4 | 78-8076-4741-3 | Knife Guard Assembly - W/English Language Label |
| 2952-5 | 78-8054-8813-3 | Shaft - Knlie Guard |
| 2952-7 | 26-1005-4758-2 | Screw - Flat Hd, Soc Dr, M4 x 10 |
| 2952-8 | 78-8060-7941-0 | Pin - Spring Holder W/Slots |
| 2952-9 | 78-8052-6600-0 | Spacer |
| 2952-10 | 78-8070-1269-1 | Bumper |
| 2952-11 | 26-1005-4757-4 | Screw - Flat Hd, Soc Dr, M5 x 20 |
| 2952-12 | 78-8052-6602-6 | Spring - Cutter |
| 2952-13 | 78-8017-9132-4 | Pivot - Cutter Lever |
| 2952-14 | 26-1003-5828-7 | Screw - Spec, Hex Hd, M6×10 |
| 2952-15 | 78-8070-1216-2 | Slide - Extension |
| 2952-16 | 26-1008-6574-5 | Screw - Flat Hd, Phil Dr, M4 x 10 |
| 2952-17 | 78-8113-7060-6 | Bushing - 83.7 mm Long |
| 2952-18 | 78-8113-7030-9 | Spring - Torsion |
| 2952-19 | 78-8070-1335-0 | Label - Warning, English |



Figure 2953 - Upper and Lower Heads

Figure 2953 - Upper and Lower Heads

| Ref. No. | 3M Part No. | Description |
| :--- | :--- | :--- |
| $2953-1$ | $78-8070-1395-4$ | Bracket - Bushing Assembly |
| $2953-2$ | $78-8060-8462-6$ | Shaft - Tape Drum, 3 Inch Head |
| $2953-3$ | $78-8017-9169-6$ | Nut - M18 x 1 |
| $2953-4$ | $78-8076-4731-4$ | Tape Drum Assembly - 3 Inch Wide |
| $2953-5$ | $78-8054-8815-8$ | Tape Drum Assembly |
| $2953-6$ | $78-8054-8816-6$ | Leaf Spring |
| $2953-7$ | $26-1002-5753-9$ | Screw - Self Tapping |
| $2953-8$ | $78-8060-8172-1$ | Washer - Friction |
| $2953-9$ | $78-8052-6271-0$ | Washer - Tape Drum |
| $2953-10$ | $78-8100-1048-4$ | Spring - Core Holder |
| $2953-11$ | $78-8017-9077-1$ | Nut - Self Locking, M10 $\times 1$ |
| $2953-12$ | $78-8100-1050-0$ | Spacer - Bracket |
| $2953-13$ | $26-1003-5829-5$ | Screw - Hex Hd, M6 $\times 12$ |
| $2953-14$ | $78-8076-4732-2$ | Tape Drum Assembly - 3 Inch Head |
| $2953-15$ | $26-1004-5510-9$ | Washer - Plain, M10 |




Figure 2954 - Lower Head

Figure 2954 - Lower Head
Ref. No. 3m Part No. Description

| 2954-1 | 78-8070-1369-9 | Frame - Tape Mount Lower Assembly |
| :---: | :---: | :---: |
| 2954-2 | 78-8070-1370-7 | Frame - Front Lower Assembly |
| 2954-3 | 78-8068-4144-7 | Guide - \#2 |
| 2954-4 | 78-8068-4143-9 | Guide - \#1 |
| 2954-5 | 83-0002-7336-3 | Screw - Hex Hd, M4 x 14 |
| 2954-6 | 78-8010-7416-8 | Nut - Hex, M4 |
| 2954-7 | 78-8076-4735-5 | Spacer - Spring |
| 2954-8 | 78-8055-0694-2 | Spacer-10 $\times 10 \times 115 \mathrm{~mm}$ |
| 2954-9 | 78-8060-7939-4 | Spacer - $10 \times 115$, W/Slots |
| 2954-10 | 78-8060-7936-0 | Brush Assembly |
| 2954-11 | 78-8054-8796-0 | Shaft - Tension Roller |
| 2954-12 | 78-8054-8798-6 | Shaft - Wrap Roller |
| 2954-13 | 26-1003-5829-5 | Screw - Hex Hd, M6x 12 |
| 2954-15 | 78-8100-1009-6 | Washer - Special |
| 2954-16 | 78-8054-8817-4 | Roller - Tension Bottom |
| 2954-17 | 78-8052-6566-3 | Washer - Friction |
| 2954-18 | 78-8052-6567-1 | Spring - Compression |
| 2954-19 | 78-8017-9077-1 | Nut - Self Locking, M10 $\times 1$ |
| 2954-20 | 78-8054-8799-4 | Roller - Wrap |
| 2954-21 | 26-1000-1613-3 | Fing - Retaining, Tru-Arc \#1-420-0120-100 |
| 2954-22 | 78-8076-4500-3 | Stud - Mounting |
| 2954-23 | 78-8060-7937-8 | Spacer-6,5/14 $\times 12,5$ |
| 2954-24 | 78-8060-7938-6 | Screw - Low Profile, M6 x 25 |
| 2954-25 | 78-8076-5242-1 | Stop - Cut-Off Frame |
| 2954-26 | 78-8060-8179-6 | Screw - Flat Head Hex, M6 x 20 |
| 2954-27 | 78-8076-5477-3 | Washer - Special $/ 6.5 \times 20 \times 4$ |
| 2954-28 | 78-8100-1049-2 | Guard - Head |
| 2954-29 | 78-8060-8087-1 | Screw - M5 x 10 |
| 2954-30 | 78-8005-5741-1 | Washer - Flat, M5 |
| 2954-31 | 78-8076-4734-8 | Bumper |
| 2954-32 | 78-8070-1364-0 | Label - Threading, English Language |



Figure 2955 - Lower Head

Figure 2955 - Lower Head
Ref. No. 3M Part No. Description

| $2955-1$ | $78-8070-1391-3$ | Buffing Arm Sub Assembly |
| :--- | :--- | :--- |
| $2955-2$ | $78-8070-1392-1$ | Buffing Arm Sub Assembly |
| $2955-3$ | $78-8091-0799-4$ | Shaft - 10 x 85, W/Hexagon |
| $2955-4$ | $78-8054-8807-5$ | Bushing - Buffing Roller |
| $2955-5$ | $78-8057-6180-2$ | Roller - Butfing |
| $2955-7$ | $78-8076-4739-7$ | Spacer - Spring |
| $2955-8$ | $78-8028-7885-6$ | Shaft - 10 $\times 115 \mathrm{~mm}$ |
| $2955-9$ | $26-1003-5829-5$ | Screw - Hex Hd, M6 x 12 |
| $2955-10$ | $78-8070-1273-3$ | Spring - Lower (Black) |
| $2955-11$ | $78-8070-1244-4$ | Holder - Spring |



