# **E-Z CUT INC.** MK6 CARPET CUTTING MACHINE

## **OPERATING MANUAL - version 3.1**



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## **INTRODUCTION**

 $\succ$  Read these instructions carefully and thoroughly so as to ensure that you are familiar with the machine's features, general operating functions and the safety and maintenance requirements.

> Only authorized personnel who are familiar with the machine and its operation should use it. Never allow children near the machine.

▶ Keep the area of operation clear of any and all potential hazards.

> The following procedures are intended to acquaint you with the safe and efficient operation of your E-Z CUT Cutting Machine. Try to abide by the rule: "If at first you don't succeed, try again". This machine is a proven tool for improving your warehouse and cutting efficiency. Take your time, be patient, and enjoy the benefits of this machine for many years to come.

> If assistance is required or if any of the following procedures are unclear, please do not hesitate to contact an E-Z CUT representative directly at 1-800-661-5156.

## **MACHINE'S ARRIVAL AND PREPARATION**

> Using the Lifting Bars, raise each corner of the machine onto its Caster Wheels. Once all 4 wheels are engaged, you can now move the machine to the desired position for operation on your warehouse floor.

➤ The machine should be located in a dry location and operated at a comfortable temperature. Extreme heat and humidity or cold temperatures could lead to electronic problems or even damage to the electronics on your machine. See chart below for approximate temperature (including humidity) ranges.



COLD	35°F Or Lower	2°C Or Lower	May Cause Damage To Electronics
COOL	45°F Or Lower	7°C Or Lower	May Cause Problems With Electronics
OPTIMAL	<b>70°F</b>	21°C	<b>Optimal Operating Temperature</b>
WARM	95°F Or Higher	35°C Or Higher	May Cause Problems With Electronics
HOT	110°F Or Higher	43°C Or Higher	May Cause Damage To Electronics

➢ When you have located the machine to your desired position, use the Lifting Bars to lower the machine back down to its Legs so as to prevent any movement during actual operation.

**NOTE:** When you are ready to lower the machine down onto its wheels, be sure each wheel is facing or is swung **inwards** to the middle of the machine and is **not** resting or jammed facing the outside edge of the machine. This will result in excess stress on the wheel itself and cause damage in a very short time. **Also, do not try to raise or lower the machine when you have a roll of carpet or vinyl on one or both cradles.** 

### FOOT SWITCH TAPE, COMPRESSOR AND ELECTRICAL INSTALLATION

> In the box of accessories provided with the machine, you will find three lengths of Foot Switch Tape - two lengths that are each approx. 11 feet long and one length that is approx. 5 feet long. Once installed, you will be able to activate the machine's rollers by stepping on any section of the Foot Switch Tape. Install these three sections of Foot Switch Tape around the machine as follows:

➤ Lay out the short length of Foot Switch Tape on the floor along the Front of the machine, with the plug end on the right hand side. Plug this section into any one of the two mating plugs located on the right inside edge of the machine's front panel.

> Lay out one of the two longer lengths of Foot Switch Tape on the floor along the Right Side of the machine, with the plug end closest to the front of the machine. Plug this section into the remaining mating plug on the right inside edge of the machine's front panel.

> Lay out the second of the two longer lengths of Foot Switch Tape on the floor along the Left Side of the machine, again with the plug end closest to the front of the machine. Plug this section into the one mating plug located on the left inside edge of the machine's front panel.



**NOTE:** Depending on your operation, the location of the machine, and whether or not you move the machine around on a regular basis, you may want to secure the sections of Foot Switch Tape to the floor with the use of duct or masking tape. By taping the Foot Switch Tape to the floor, you will avoid possible twisting of and reduce potential damage to the Foot Switch Tape. Should you need to move your machine for cleaning purposes, remove the duct/masking tape from the Foot Switch Tape, lift and drape the Foot Switch Tape sections onto the machine, and then re-secure the Foot Switch Tape to the floor with more duct/masking tape when you re-locate the machine. **DO NOT detach the Foot Switch Tape from the plug connections on the machine, as continued plugging/unplugging will cause damage to the plug ends.** 

➤ Connect the white plastic air hose to your Air Compressor & Fitting. Remember, your air supply should meet the following **minimum** specifications:

1.5 H.P. Motor	120 Psi
10 Gallon Tank	5-8 CFM

> Hook-up the machine's power cord into the following power source (Hardwired or Plug).

## 230V (Single Phase) / 60 Hz / 20 Amp

➤ Test the activation of the rollers by turning both Roller Switches to FWD and then press and hold the Jog Button. The rollers should now turn and then stop when you remove your finger from the button. Next, with the Roller Switches still in FWD, step on the Foot Switch Tape. Again, the rollers should turn and then stop when you remove your foot from the Foot Switch Tape.

Check that all 3 speed levels (Low, Medium & High) of the machine are working along with both roller directions (FWD & REV).



➤ Check that the Cutting Bar is working by pushing & holding the Cutter Switch to FWD. Since it is a Two-Way Cutter, you can make your next cut by pushing & holding the Cutter Switch to REV. Your Cutting Bar's Cable may require periodic lubrication. If the Cutter makes a vibrating (humming) sound when running, lightly lubricate the Cutting Bar Cable with a waterbased lubricant such as WD-40. Spray the Cable at the top of the middle pulley just under the Cutting Track. Run the Cutter back and forth a few times to work the lubricant in and then wipe off any excess.

## **IMPORTANT NOTES:**

> The Cutting Bar only takes about 3 seconds to travel the length of the Cutting Track. Should you ever have to stop the Cutter, just release the Cutter Switch and the Cutter will stop immediately. Use extreme caution, care and common sense when operating this Cutter!

**>** Be sure to use <u>extra care and caution</u> when loading/unloading rolls on the Left Hand Side Cradle so as to avoid damaging the two sets of "Shuttle Arms" located in the middle of this Cradle.

➢ It is best to always turn the Rollers Switches "OFF" when the machine is not in use. In addition, your machine is equipped with an "Emergency Stop" button located on the side of the control Panel. By pressing this button, you disable the machine instantly. To re-set the machine, just turn the button until it pops back out.



## MAIN OPERATING PROCEDURES

## LOADING THE ROLL OF CARPET

Place the roll on the Left Hand Side Cradle and ensure that the "Feed Edge" is coming from the Bottom towards the Counter with the "Pile" facing Up. Whenever possible load rolls from the **rear** of the machine to avoid damaging the control panel. **Never measure with the "Pile" facing Down as this will result in inaccurate readings**. For best results turn the Left Hand Side Rollers in Reverse (REV), press the Foot Switch Tape or Jog Button, and allow the roll to rotate a few turns until it tightens

## **PREPARING TO MEASURE**

Lift the Counter Weight Arm to the Up position. Advance the carpet towards the Right Hand Side by switching both the Left and Right Side Rollers to Forward (FWD), and depressing the Foot Switch Tape or Jog Button. You may find it easier to get the roll started by using the Jog Button instead of the Foot Switch Tape. Stop the advancement of the carpet at the Cutting Track and lower the Counter Weight Arm down onto the carpet.





## **PROGRAMMING THE COUNTER**



- 1) Key in your "PASS CODE" (if required). Press (ENTER).
- 2) Use the number pad to key in the desired "**FEET**". Press  $\underbrace{}^{\textcircled{}}_{\texttt{ENTER}}$  (ENTER).
- 3) Press the  $(\mathbf{RIGHT})$  arrow. Key in the <u>desired</u> "INCHES". Press  $\stackrel{\clubsuit}{\overset{\clubsuit}{\overset{\bullet}}}$  (ENTER).
- 4) Press ► (RIGHT) arrow. Press and hold <sup>SHET</sup> (SHIFT), then press the ▲ (UP) arrow or the ▼ (Down) arrow to select the type of material to be cut. Press <sup>SHER</sup> (ENTER).
- 5) Press **R** (**R**) to reset the counting row to zero.

## Note: Be sure the counter weight arm is lowered back down onto the material.

## STARTING THE ROLL UP PROCESS

With both Rollers in the FWD position and the Counter Weight Arm in the Down position, advance the carpet by depressing the Foot Switch Tape or Jog Button as well as assisting the carpet by hand until it is into the Right Hand Side Cradle and stop it's progress when it advances just past the middle of the Right Hand Side Cradle (approx. 4 to 6 inches). Although it is not necessary, should you require a core, it can be placed on top of the carpet in the Right Hand Side Cradle at this time.

#### **ROLLING UP THE CARPET**

➤ For starters, you are best to keep the machine in Low speed until you get more comfortable and familiar with how the machine works.

➢ With both rollers in FWD, raise the Right Hand Side Cradle up and curl itself over the portion of the carpet sitting in the cradle.

➢ Step on the Foot Switch Tape or press the Jog Button to advance the carpet further into the Right Hand Side Cradle. You will notice that the carpet will curl over and start to re-roll itself. At the same time, apply a small amount of pressure by holding the Cradle Handle in place over the carpet.

Once you have rolled up approximately 3 to 5 feet (3 to 5 turns), you can pull the Right Hand Side Cradle back to its Normal locked position.

> You can now increase the speed to Medium or High, whatever you are more comfortable with at this time.

## **NOTES:**

Once you practice more and become more familiar with the machine, these steps will become more integrated and much easier to perform.

 If the carpet does not seem to want to roll up in the Right Hand Side Cradle immediately, just stop the process, reverse the carpet back a little and start over. You may have to jog/bounce the Right Hand Side Cradle Handle a little bit during the roll-up to assist in getting the carpet started. Also, if you experience "buckling" of the carpet during this process, just turn the Left Hand Side Rollers to OFF for a split-second and then back to FWD once the buckling is removed. Be Patient It Will Work!
 Should you prefer a more loose roll-up of your carpet, just pull the Right Hand Side Cradle Handle back earlier than after 3 to 5 turns or don't even engage the Right Hand Side Cradle at the start. Experiment to see what works best for you.











## IMPORTANT NOTE: IF YOU CONTINUE THE ROLL-UP PROCEDURE BY PRESSING THE JOG BUTTON INSTEAD OF THE FOOT SWITCH TAPE, THE MACHINE WILL NOT STOP AUTOMATICALLY AT YOUR PRE-SET LENGTH. BE SURE TO USE THE FOOT SWITCH TAPE AFTER YOU HAVE GOT THE CARPET STARTED SO THIS FUNCTION CAN PERFORM PROPERLY.

#### **ROLLING UP THE CARPET STRAIGHT**

As long as your floor and machine are level and the main roll on the Left Hand Side Cradle is rolled up relatively straight, then the carpet will roll-up fairly straight on the Right Hand Side. If any of these three factors do not apply, then they should be corrected immediately. Minor coning or telescoping problems can be overcome quite easily. Have the operator move along the Right Hand Side of the machine near the front corner. As the carpet continues to come across and roll-up, the operator can adjust the carpet by hand in the cradle much like he would if he were rolling it up on the floor. This procedure eliminates any serious coning and as long as the carpet rolls up relatively straight on the Right Hand Side, your cut will be straight and square.



## **AUTOMATIC SLOW DOWN**

Your machine has an Automatic Slow Down Mode programmed into the Counter. If you have the machine programmed for **20**', the machine will automatically slow down to Low speed at approximately **18'6'** and will stop automatically at **20'**, **as long as you are advancing the carpet with the Foot Switch Tape and not the Jog Button.** 

**NOTE:** If you wish to give a couple of extra inches to the programmed cut, you can do so by pressing the Jog Button. If you try to step on the Foot Switch Tape, the machine's rollers will not work because they are locked out after the pre-set length is reached. To re-activate the Foot

Switch Tape, press the **R** (**R**) button on the counter.

## PRIOR TO CUTTING

Prior to making your cut, there may be a slight buckle of carpet on the table. To eliminate this, turn the Right Hand Side Rollers into FWD and the Left Hand Side Rollers in REV, and then tap the Jog Button.

#### **CUTTING THE CARPET**

Turn Both Rollers Switches to the "OFF" positions - VERY IMPORTANT!

Clear the area of any potential hazards (i.e. someone may be leaning on the machine or have their hand in the path of the Cutting Bar).

> Push and hold the Cutting Bar's Toggle Switch to FWD.

> Once the Cutter has completed the cut, release the Toggle Switch.



 $\succ$  Because it is a Two-Way Cutter, you do not have to return the Cutting Bar back to the home end of the machine for the next cut.

NOTE: Use extreme caution and common sense when activating the cutting bar. Should you need to stop the cutting bar's progress at any time during a cut, just release the toggle switch immediately.

#### WRAPPING THE ROLLS

To wrap your cut piece, turn the Right Hand Side Rollers to FWD and the Left Hand Side Rollers to OFF. Secure your stretch film or plastic under the edge of the carpet, step on the Foot Switch Tape along the Right Hand Side of the machine, and wrap the roll accordingly. The same can be done to the balance roll on the Left Hand Side by turning the Left Hand Side Rollers in REV and the Right Hand Side Rollers to OFF. See pages 23 and 30 for directions on how to activate the Auto Wrap feature on your Counter.



## **REMOVING/DUMPING ROLLS FROM THE MACHINE**

Once cutting and wrapping is complete, you can now remove the cut piece from the machine's Right Hand Side Cradle without the need of a lift truck. Switch both the Left Hand Side and the Right Hand Side Rollers to OFF. While holding the Right Hand Side Cradle Handle with your right hand, pull up on the Blackhandled Cradle Release Latch (located to the right of the machine's control panel) with your left hand and gently lower the Right Hand Side Cradle to its DOWN position. Push the roll off of the machine and return the Right Hand Side Cradle to its **normal** locked position.

**NOTE:** Heavier rolls and cuts should be removed with a lift truck, and not by way of the Dumping Mechanism, for safety and to avoid damage to your machine.



#### **IMPORTANT NOTES:**

➤ Although the Load Cradle (Left Side) is designed to handle rolls up to 32 inches in diameter, the Roll Up Cradle (Right Side) in its Normal position is designed to accept rolls only up to 24 inches in diameter. However, for larger rolls, you can shift the Right Hand Side Cradle to its Expanded Cradle position and engage the "Support Pin" at the far end of the machine (see Page 14 for details). In this expanded position, the Right Hand Side Cradle can now handle larger rolls (up to 28 inches in diameter). ATTEMPTING TO ROLL UP ROLLS LARGER THAN THIS CAN CAUSE SERIOUS DAMAGE TO THE MACHINE AND IS NOT RECOMMENDED!

> The roll capacities noted above along with the machine's overall performance will vary depending on the roll's weight, how tightly it is rolled, and whether or not it is slightly compressed or oblong around it's circumference.





## **REVERSE ROLLING PROCEDURES**

When REVERSE ROLLING the carpet, follow the instructions listed in the <u>MAIN</u> <u>OPERATING PROCEDURES</u> section for LOADING THE ROLL OF CARPET, PREPARING TO MEASURE and PROGRAMMING THE COUNTER. Follow the instructions below for STARTING THE ROLL UP PROCESS, ROLLING UP THE CARPET and MEASURING THE TAIL END OF THE CARPET because they are done differently than previously listed. Then refer back to ROLLING THE CARPET STRAIGHT, CUTTING THE CARPET and REMOVING THE ROLLS FROM THE MACHINE as previously illustrated in the <u>MAIN OPERATING PROCEDURES</u> section of this manual.

➢ When Reverse Rolling or Back Rolling carpet, a cardboard core (no wider than 4 inches in diameter) must be used.

➤ With both Rollers in FWD, advance the carpet onto the Right Hand Side Cradle bringing the edge of the carpet to rest at about the middle of the cradle.

 $\succ$  Place your core into the cradle and flip the carpet up so it rests on top of and covers the left half of the core.

➤ Engage the Right Hand Side Cradle by raising it up and folding the cradle over the carpet so it pinches the carpet up against the core.



#### **ROLLING UP THE CARPET**

➢ With the carpet pinched in place and the Roller Speed in LOW, switch the Right Hand Side Rollers to REV and keep the Left Hand Side Rollers in FWD.

> Tap the Jog Button until the carpet starts to wrap itself around the core and completes about 3/4 of its first turn.

➤ At this time, lift up on the Reverse Roll Pressure Plates Handle located to the right of the main control panel. This will engage the series of stainless steel plates that run the length of the machine near the middle of the Right Hand Side Cradle.



 $\blacktriangleright$  While gently holding this Handle in place, press the Jog Button to continue the advancement of the carpet. You will only have to hold the Handle in place for 1 or 2 seconds at which time you will see the plates actually force the carpet around the core. Once you see the carpet is starting to wrap around the core, release the Handle to its original position.

**NOTE:** If you are working with a stiffer backed carpet you may get better results by tapping the Jog Button instead of pressing and holding it down.

➤ Continue to press the Jog Button or Foot Switch Tape and hold the Right Hand Side Cradle in the folded up position until you get 3 to 5 turns on the core, then return the Right Hand Side Cradle to it's original **normal** locked position.

Adjust the Roller Speed to whatever you prefer.



#### NOTES:

➤ Remember the difference between using the Jog Button and the Foot Switch Tape with respect to the Pre-set programmed length - using the Jog Button will override this feature.

➢ Again, if the carpet buckles slightly during the initial start-up, you can eliminate this buckling by momentarily stopping the Left Hand Side Rollers and then quickly turning them back to FWD.

> Reverse rolling takes a little more practice and patience, take your time and don't give up.

## MEASURING THE "TAIL END" OF THE CARPET

> You must remember that when measuring a full or partial roll, you have to take into account the last section or "tail end" of carpet that doesn't get measured by the Counter after the material passes over the Counting Wheel. Using a tape, measure the section of material between the back edge of the carpet and the Cutting Track, and add it to the amount that is already recorded on the Counter's Screen.

> To measure a full roll of carpet follow the **"MEASURE ONLY"** instructions on page 24 of this manual.



## VINYL PROCEDURES

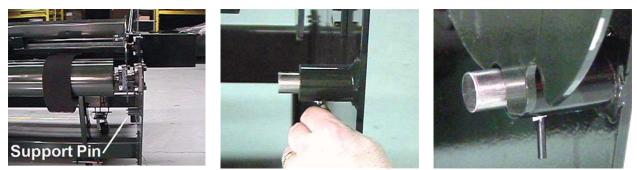
## Although Vinyl flooring can be handled in the same fashion as previously detailed in the carpet procedures, some of these exceptions or options may apply:

> Instead of loading the roll on the Left Hand Side with the edge coming up from the **Bottom**, you can also load the material with the edge coming over the **Top** with the "**Pattern**" facing up. In order to advance the vinyl across to the Right Hand Side, you will have to switch the Left Hand Side Rollers into REV and provide a little more manual assistance to help the material get started. This is a little tougher procedure and takes practice, but will obviously enable you to detect any flaws or damage to the vinyl's surface during operation.

 $\succ$  To avoid damaging your resilient vinyl flooring, we do not recommend using the "Dumping" mechanism on the machine's Right Hand Side. Dropping the roll to the floor from the machine's cradle can cause damage to the flooring, even if it is wrapped correctly. The use of a lift truck or manually by one or two employees is recommended for removing the roll from the machine.

## EXTRA SUPPORT PIN ON ROLL-UP SIDE CRADLE

➤ Your machine is equipped with an engageable "Support Pin" located at the back end of the machine's Roll-Up Side Cradle (Right Side). When engaged, this "pin" will provide additional support to the Roll-Up Side Cradle and help to minimize roll coning or telescoping, especially when handling larger rolls of material.

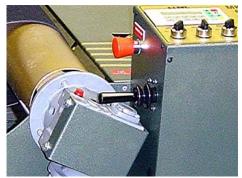


> If you wish to utilize this "pin", it must be engaged immediately after you get the carpet started on the Roll-Up Side Cradle (approx. 3-5 turns). You will not be able to engage the "pin" once a larger/heavier piece has begun to be rolled up! In addition, once the "pin" is engaged, you will no longer be able to fold up the Roll-Up Cradle or use the Roll Dump Mechanism on this cradle. Therefore, depending on your situation and specific needs at the time, you will need to anticipate prior to performing any roll-ups whether or not you wish to engage the "pin".

## **PNEUMATIC SHUTTLE CONTROL**

➢ Your machine is equipped with a "Pneumatic Shuttle Control" feature. You will notice an extra Toggle Switch located on the left side of the Control Panel near the Emergency Stop Button.

➤ When activated, this switch will engage the pneumatically controlled Shuttle Arms located in the middle of the Load Side Cradle. This feature will actually "twist" the roll of carpet that is in the Load Side Cradle so as to shift if from the back of the machine towards the



front, or vice-versa, depending on which direction you move the toggle switch. This process will aid the roll-up of your carpet in the event that you have a roll that tends to walk or telescope.

#### NOTES:

 $\succ$  Once you learn this feature, you will notice that you do not have to activate this switch for a very long time in order to cause the roll to shift or move in the direction desired.

> Practice with this feature until you become accustomed to how it works prior to employing it during a measure or cut.

> Do not hold and activate this switch for an excessive length of time, especially on larger rolls, as it can cause damage to your machine's motors and drive system.

## **IMPORTANT SAFETY AND MAINTENANCE TIPS**

> USE EXTREME CAUTION AND CARE WHEN OPERATING THE MACHINE AT ALL TIMES. KEEP THE OPERATING AREA CLEAR OF ALL UNAUTHORIZED PERSONNEL AND POTENTIAL HAZARDS. YOUR "E-Z CUT" IS A MACHINE NOT A TOY, NEVER ALLOW CHILDREN NEAR IT!

> WHEN PERFORMING ANY MAINTENANCE WORK ON THE MACHINE, ALWAYS DISCONNECT THE MACHINE FROM BOTH ITS POWER SOURCE AND AIR SUPPLY.

> ALWAYS MAKE SURE THE MACHINE IS LEVEL DURING OPERATION. AN UNLEVEL MACHINE MAY CAUSE CONING AND WALKING OF THE MATERIAL, AND DAMAGE TO THE MACHINE MAY OCCUR.

> DO NOT RAISE THE MACHINE ONTO ITS WHEELS OR MOVE IT WHILE LOADED, DAMAGE TO THE MACHINE MAY OCCUR.

> BE SURE TO USE EXTRA CARE AND CAUTION WHEN LOADING OR UNLOADING ROLLS ON THE LEFT HAND SIDE CRADLE TO AVOID DAMAGING THE SHUTTLE LOCATED IN THE MIDDLE OF THE CRADLE.

> WHEN HANDLING LARGER OR HEAVIER ROLLS, DO NOT USE "HIGH" SPEED. ONLY OPERATE IN THE "LOW" OR "MEDIUM" SPEEDS.

> WHEN THE MACHINE IS NOT IN USE, SWITCH BOTH ROLLERS TO "OFF" AND ENGAGE YOUR "EMERGENCY STOP BUTTON". DISCONNECT THE MACHINE FROM ITS POWER SOURCE WHEN LEFT OVERNIGHT.

> IN THE EVENT OF AN ELECTRICAL STORM, THE MACHINE SHOULD BE UNPLUGGED TO PREVENT POTENTIAL DAMAGE TO THE ON-BOARD ELECTRONIC EQUIPMENT.

> WHEN THE MACHINE IS NOT IN USE, ALWAYS KEEP THE "COUNTER WEIGHT ARM" (LOCATED DIRECTLY ABOVE THE COUNTING WHEEL) IN THE "UP" POSITION.

> THINK BEFORE YOU ACT AND USE COMMON SENSE! SHOULD YOU BE UNSURE WITH ANY OF THE MACHINE'S OPERATING FEATURES, CALL OUR OFFICE DIRECTLY AT TOLL FREE <u>1-800-661-5156</u>.

## **ROUTINE MAINTENANCE SCHEDULE**

## **DAILY**:

Check for any oil leakage from the gearboxes. If there is a leakage, discontinue the use of the machine and call E-Z CUT immediately

Clean out floor covering residue, fibres, and dust build-up from cutting track and surface of machine.

Ensure that the 2 O-rings on the Counting Wheel are in good condition and that the Top Pressure Wheel is putting good downward pressure on the Counting Wheel. See pages 19 and 21.

## **BI-WEEKLY:**

Clean Under Front and Back Cutting Track Cover Plates - remove the cover plates and clean out floor covering residue, fibres, and dust build-up.

> Check that the screws that secure the Bladeholder to its base are always snug.

## <u>SCHEDULE A MAINTENANCE</u>: (Perform Schedule A Maintenance after the first 3 and 6 months of operation and then every 6 months thereafter):

> Use the 1/8-inch and 5/32-inch Set Screw Wrenches (found in the back of this manual) to check that all visible Set Screws are tight. Pay particular attention to each Roller Bearing and each Gearbox Shaft.

➤ The Large Roller located in the centre of the Right Hand Side (Roll-Up Side) of the machine has 2 small holes located at 4 and 12 inches in from the far end of the Roller. Insert the 1/8 inch Set Screw Wrench into these holes and ensure that the Set Screws inside are tight

- Check all Bearing Holder Bolts and Nuts.
- > De-grease Cradle Locking Positions on Roll-Up side.
- ➢ Grease all 4 Caster Wheels.

➢ If the Cutter makes a vibrating (humming) sound when running lightly lubricate the Cutting Bar Cable with a water-based lubricant such as WD-40. Spray the Cable at the top of the middle pulley just under the cutting track. Run the Cutter back and forth a few times to work the lubricant in and then wipe off any excess.

## **<u>SCHEDULE B MAINTENANCE</u>**: (Perform Schedule B Maintenance yearly):

Change the oil in the Gearbox (refer to page 18 of this manual for more information).

➤ Check the Cutter's Cable tension by first positioning the Cutting Bar at the far end of the machine and removing the top cover panel at the front of the machine. Press down on the portion of Cable that is just past the front pulley. There should be about .5 to 1 inch of 'play' in the Cable. If there is more 'play' in the Cable or it appears very loose, contact an E-Z CUT representative immediately.

## NOTES:

> In order to maintain your machine's optimum performance and to ensure any potential machine problems are covered under the "E-Z CUT WARRANTY", the above procedures must be followed and adhered to at all times.

## The Roller Bearings are factory greased and do not require regular greasing. <u>RECORD OF MAINTENANCE</u>

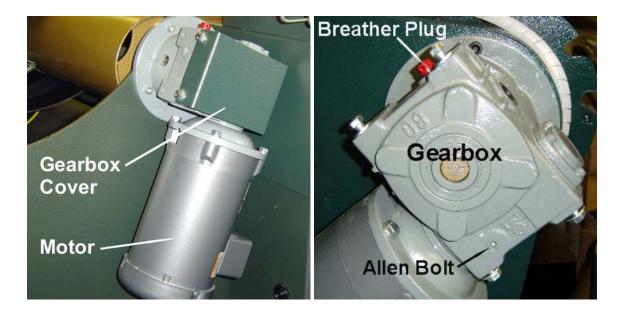
Record Date of De	livery:		
Length Of Time Since Delivery:	Maintenance Required:	Maintenance Performed By:	Date:
3 Months	Schedule A		
6 Months	Schedule A		
1 Year	Schedule A And B		
1 Year 6 Months	Schedule A		
2 Years	Schedule A And B		
2 Years 6 Months	Schedule A		
3 Years	Schedule A And B		
<b>3 Years 6 Months</b>	Schedule A		
4 Years	Schedule A And B		
4 Years 6 Months	Schedule A		
5 Years	Schedule A And B		
5 Years 6 Months	Schedule A		
6 Years	Schedule A And B		
6 Years 6 Months	Schedule A		
7 Years	Schedule A And B		
7 Years 6 Months	Schedule A		
8 Years	Schedule A And B		

## **IMPORTANT NOTES:**

> Always perform the Daily and Bi-Weekly maintenance in addition to following this long-term maintenance schedule

> Continue to perform scheduled maintenance for the life of the machine.

## **GEARBOX OIL REPLACEMENT**



**IMPORTANT NOTE:** The Counter on your machine is programmed to remind you to change the oil after the machine has been used for a set amount of hours. The oil must be changed when this message comes up or once a year - whichever comes first.

Use 9 to 11 ounces of oil per gearbox for your MK-6. Due to the mounting configuration, the window on the gearbox cannot be used to monitor the amount of oil however you must ensure that the gearbox is <u>never more or less then half filled with oil at all times</u>! Quaker State Synthetic Gear Oil is recommended but any brand between 75W to 90W Synthetic Gear Oil or Synthetic High Pressure Gear Oil is acceptable.

- 1. Disconnect the electrical power supply to your machine.
- 2. Remove the gearbox cover. Cover the motor with a rag so oil does not seep into it. Remove the bottom front Allen bolt to drain oil. Ensure that the Allen bolt is put back in place when done draining.
- 3. Remove the red breather plug on top of the gearbox and fill with 9 to 11 ounces of oil. Ensure that the gearbox is about half filled with oil and reinstall the top breather plug and the gearbox cover.
- 4. Repeat steps 1, 2 and 3 to change the oil in the gearbox on the opposite side of the machine.
- 5. Ensure all plugs are in place, remove the rag from both motors and reinstall both gearbox covers before reconnecting power and operating the machine again.

## TROUBLE SHOOTING MEASURING ACCURACY PROBLEMS

> Refer to the Operators Manual to ensure the correct operating procedures are being followed.

> Ensure the Counter is set for the right type of carpet.

> Ensure all operators are using the machine in the same manner and fashion.

Ensure that the 2 black rubber O-rings on the Wood Counting Wheel are both present and in good condition.

➤ Before running the carpet across the Cutting Track, make sure the Top Pressure Wheel is in the down position and putting good downward pressure on the Counting Wheel. If the Top Pressure Wheel is not pressing down on the Counting Wheel follow the instructions on page 21.

> Always measure the material with the Backing Side Down and Pile Side Up.

 $\blacktriangleright$  Make sure to always line up the material with the Cutting Track and reset the Counter to "0.00" (zero) before attempting to measure.

> If you are measuring a full or balance roll, make sure to set the Counter to Measure Only (see page 24) or to add the "Tail End" of the carpet to what the Counter Screen is showing because this "Tail End" amount will not be measured by the Counter once it passes over the Counting Wheel.

#### **IMPORTANT NOTE:**

Please note that your Counter will react slightly different to various material backings (i.e. jute, actionback, rubber, foam (kanga), enhancer, unitary, etc.) and/or thickness. Your Counter has four preprogrammed settings for Residential, Commercial, Kanga and Vinyl. If the carpet you are using doesn't fit into any of these categories you can set it as one of up to four Programmable Options. See page 24 for detailed instructions on Calibrating Your Options.

## **MEASURING ACCURACY TESTS**

If the machine is still not measuring accurately after going through the Trouble Shooting list follow these instructions in order to Benchmark the Accuracy of your Machine:

- 1. Make a Photocopy of tests located on the next page.
- 2. Perform the described tests and **record** your results.
- 3. If the tests indicate a possible problem with the calibration **Fax** the results along with your name, phone number, company name and location to (**204**) **237-9339**.
- 4. After reviewing the results an E-Z Cut representative will get in touch with you to assist you in resolving the problem.

Date:	Phone#:
Company Name and Location:	Your Name:

## ENCODER TEST

1. Make a mark or line on both the Counting Wheel and the Table, and line them up.

## 2. Reset the Counter to "0.00".

- 3. Turn the Counting Wheel by hand one complete rotation so that the marks on the Counting Wheel and the Table line up. Record the length indicated on the Counter Screen in the box below (i.e. 2.00).
- 4. **Reset the Counter to "0"** and repeat step #3 about 15 to 20 times. In each case be sure to **record** the Counter Reading in the box below and then **Reset the Counter to "0"**.

1.	2.	3.	4.
5.	6.	7.	8.
9.	10.	11.	12.
13.	14.	15.	16.
17.	18.	19.	20.

**<u>NOTE</u>**: If the same reading comes up each time, your encoder is operating properly.

## **MEASURING ACCURACY TEST**

- 1. Select a roll of material (35' or longer) that you use most often and unroll it on the floor.
- 2. Using a Tape Measure, start at one end (make sure the end you start from is square) and make a mark on the backing at exactly 5' increments all the way to 30'.
- 3. Roll up the material and load onto the machine.
- 4. Position the starting end of the carpet exactly on the Cutting Track and **Reset the Counter**.
- 5. Set Your Counter to the type of carpet being tested.
- 6. Advance the material and stop with the 5' mark exactly on the cutting track. **Record the Counter reading** in the Table below. Continue for every 5' increment up to and including 30' (make sure the material is rolling up straight).

<b>Record Material</b>	Type An	d Weight:				
5'	,,		20'	,,	,,	
10'	,	••	25'	,,	??	
15'	,		30'	,	>>	

- 1. Re-roll the roll to its starting position with the starting end exactly on the cutting track and **Reset the Counter**
- 2. This time, advance the material but do not stop until the 30' mark is exactly on the Cutting Track. **Record the Counter reading** in the Table below.
- 3. Repeat this five or six times to determine consistency.

1. 30'	,		4. 30'	,,	,,	
2. 30'	,	,	5. 30'	,,	,,	
3. 30'	,		6. 30"	,	,,	

## FAX RESULTS TO 204-237-9339

## **ADJUSTING THE COUNTER PRESSURE WHEEL**

If the Top Pressure Wheel is not pressing down on the Counting Wheel follow these instructions to adjust it into the proper position.

- 1) Disconnect the Machine from the power supply.
- 2) Remove Front Access Panel, and the Allen bolts from the Top Control Panel in order to slide it to the side. This should give you access to the Counter Weight Bracket.
- 3) Use a 7/16" Wrench to loosen the Bolt on the top left side of the Counter Weight Bracket.
- 4) Push the grey Top Pressure Wheel into the down position.
- 5) Insert a large Flathead screwdriver between the right side of the Counter Weight Bracket and the edge of the Wiring Box. This procedure will allow the shock to apply the necessary pressure to the Counting Wheel without hitting the side of the Wiring Box.
- 6) Re-tighten the top Bolt and remove the screwdriver.
- 7) If necessary re-install the Counter, plug in the Wiring Clips, and re-attach the plastic Clip Plates and Phillips screws.



8) Re-install the Front Access Panel and the Top Control Panel.

This photo of a Machine (with the Counter and Switches removed) shows the Counter Weight Bracket (#1) lined up with the Shock (#2) at a 45 degree angle. This is what the assembly should look like with the Counter Weight Wheel in the UP position.



This photo shows the position the Counter Weight Bracket (#1) should be in with the Counter Weight Wheel in the **DOWN** position. To make your adjustment loosen the Bolt (#2) and put your Counter Weight Wheel Down so the Bracket is in this vertical position.

## **BLADEHOLDER INSTRUCTIONS**

- 1) Remove the Setscrews with the 5/32 Allen wrench found at the back of the operating manual.
- 2) Lift and remove the top portion of the Bladeholder
- 3) Remove the Blades by sliding them out of the slots.
- 4) With the Blades removed, clean out any carpet debris or fibers from both, the top and bottom portions of the Bladeholder.
- 5) Rotate the old Blades to a fresh corner or dispose of them and replace with new Blades.
- 6) Re-position the top portion of the Bladeholder and re-secure it into place with the Setscrews.

#### NOTES:

Due to the configuration of the Bladeholder, you should be able to use all four corners of each Blade before disposing of them.

➤ The Setscrews on the Bladeholder should be checked to ensure that they are tight at least once a day. Activation of the Bladeholder coupled with numerous cuts can cause the Setscrews to loosen over time, which would result in your Bladeholder not performing as intended.



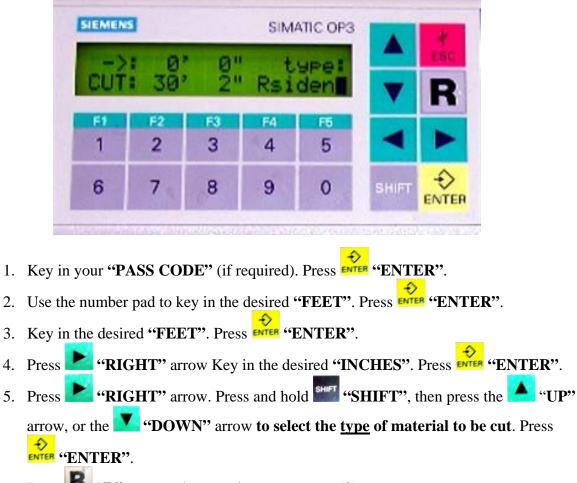






## **BASIC COUNTER INSTRUCTIONS**

## > PRE-SETTING A CUT



6. Press **R** "**R**" to reset the counting row to zero (0).

## > AUTOMATIC WRAP



#### > MEASURE ONLY

Press and hold <b>SHIFT</b> "SHIFT", then press	" <b>F1</b> ".
Display reads: ->: 0' 7" type: MEASURE ONLY Rsident (8 options)	STEMENS STMATIC OP3 STMATIC O
> MULTIPLE CUTS	
<ul> <li>next cut length.</li> <li>4) Continue until all preset lengths are entere</li> <li>5) Press <b>* * * * * * * * * *</b></li></ul>	ng steps noted above. own to the next <b>"PRESET"</b> position. Key in the d. en. <b>5 "F5"</b> to toggle through the preset cut lengths.
Display reads: Multiple Presets Pre1 0' 0'' Res >> (8 options)	SIEMENS       SIMATIC OP3         Multiple       Presets         Pre1       0'       0"       Res       >>         F1       F2       F3       F4       F5

## > CALIBRATING OPTIONS ON YOUR COUNTER

This feature allows you to automatically Calibrate an Option for up to four specific carpet types of your choosing. This ensures exact measurements on the Calibrated carpet every time. These **"Programmable Options"** are in addition to the four Factory Presets (Residential, Vinyl, Commercial and Kanga). It is strongly recommended that a record of the types of carpet that have been Calibrated be kept.

## **<u>1)</u>** Prepare the type of carpet that you would like to Calibrate:

- 1. Measure out at least a 35' piece of the carpet on the floor and make a mark at exactly 30'.
- 2. Load the roll on the machine, advance the edge to the cutting track and lower the counter weight arm.

## 2) Follow these steps to get to the Calibration Screen:

- 1. Press "ESC" until you are at the Main "E-Z CUT PRESS ENTER" Screen.
- 2. Press **"ENTER"** to get to the "PASS CODE DISABLED" Screen.
- 3. While on this screen (it only displays for a few seconds) press and hold the **"SHIFT"** button and then press **"F1"**. If you miss it simply press **"ESC"** to start at step 1 again.
- 4. When at the "MASTER CODE" Screen key in "1-2-3-4" and then press "ENTER".
- 5. Now press the "DOWN ARROW" (4 times) until you reach the Calibration Screen.

The Calibration Screen looks like this:

##' ##'' To End Shift Option1 0 & F5 
 SIEMENS
 SIMARCOP3

 30'
 0"
 To
 End
 Shift

 Option1
 0 & f5

If the Screen you are on does not look like this keep pressing the "DOWN" Arrow until it comes up.

## 3) From the Calibration Screen follow these steps to Calibrate each Option:

1. Key in **30' 0"** and press **"ENTER"**.

2. Press the **"DOWN"** Arrow to move the curser to the bottom row. Press and hold the **"SHIFT"** while pressing the **"DOWN"** Arrow to select an Option Number (1, 2, 3 or 4).

3. Reset the counter to zero by pressing the "**R**" button, and run the roll through the machine until the **30**' mark on the carpet is lined up exactly with the cutting track.

4. Press and hold **"SHIFT"** and then press **"F5"** to lock in the Calibration. The Option you have chosen will now be set for this type of material.

5. Record the type of material that has been Calibrated for the Option Number in an "OPTIONS LOG" such as the one found on the next page.

6. Press the **"ESC"** button to return to the "Main Screen" when done.

## 4) Check and Verify:

1. Roll the carpet back to the Load (Left) side of the machine.

2. Hold down "SHIFT" and select the Option Number that you have Calibrated for this carpet.

3. Advance the edge of the carpet up to the cutting track. Lower the counter weight arm and reset the counter to zero.

4. Run the carpet up to the 30' mark to ensure it is measuring correctly.

## **NOTE:** Calibrated Options may be lost if the machine is without power for more than 48 hours.

PROGRAMMABLE OPTIONS LOG			
OPTION NUMBER	TYPE OF CARPET	OPERATOR	DATE
OPTION 1			
OPTION 2			
OPTION 3			
OPTION 4			

## > CHANGING UNIT OF MEASURE (Imperial $\Leftrightarrow$ Metric)

- 1) From the **PASS CODE DISABLED** screen press and hold **SHIFT** (SHIFT), then press **2** (F2)
- 2) Press (ESC) to take you to the "PASS CODE DISABLED" screen.

Mode of	Measurment	
Selec		1

IEMENS	SIMATIC OP
	of Measurment ect METERS

## > DATE AND TIME

From the PASS CODE DISABLED SCREEN press and hold (SHIFT), then press (F3).
 Press and hold (SHIFT), then press (F1).
 Move the blinking cursor using the (LEFT) or (RIGHT) arrow keys to select the field to be changed.
 Press and hold (SHIFT), then press the (UP) arrow or the (DOWN) arrow to change the field value.
 Press (ENTER) to lock in the value and then use the (LEFT) or (RIGHT) arrow keys to move to the next field.
 When finished, press and hold (SHIFT) and then press (F5) to return to the date/time.
 Press (ESC) to take you to the "PASS CODE DISABLED" screen.

Date: Month Day, Year Time: AM/PM Current Time

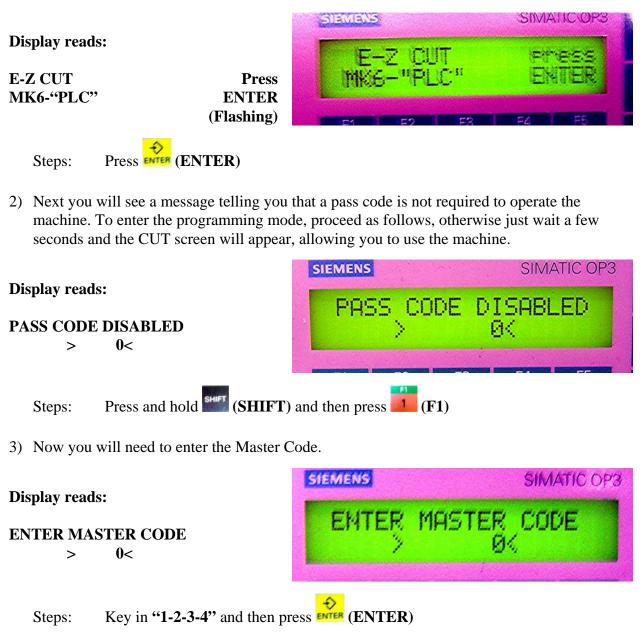
Date:	JAN.	01,2090 <sup>0</sup>
Time:	AM	12:00:00

## **TO RETURN TO THE CUT SCREEN (at any time)**

Press **"ESC"** which will take you to the **"PASS CODE DISABLED"** screen.

## **ADVANCED COUNTER INSTRUCTIONS**

1) When you first turn on your machine, you should see the following MAIN screen



**IMPORTANT NOTE:** You must first enter the Master Code and then scroll through each of the Advanced Features in order every time you want to access them.

## **\*\*YOU MAY NOW SELECT FROM THE FOLLOWING FEATURES\*\***

## **1. CHANGE OPERATOR CODE**

**Display reads:** 

Change Operator Code Disable=0 0>>



Feature: This screen allows you to enter a pass code for safety and security reasons. The machine will not be operable unless this Operator Code is keyed in. **DO NOT** FORGET YOUR PASS CODE IF YOU CHOOSE TO USE ONE!

Steps: Key in your preferred code (up to 7 numbers) and press **ENTER** (ENTER). If you

key in "**0**", this feature will remain disabled. Press the **M** (**DOWN**) arrow key to advance to the next feature.

## 2. CHANGE MASTER CODE

**Display reads:** 

Change Master Code CAUTION 1234>>

	177
Chan9e	Master Code
CAUTION	1234 >>

Feature: This screen is set at the factory for "1234" and can be changed by following the same steps as changing the Operator Code (above). This is a higher level of security than the Operator Code and it is highly recommended that you leave

this feature enabled as is. Press the (DOWN) arrow key to advance to the next feature.

#### 3. ENABLE WRAP FEATURE

#### **Display reads:**

Enable Wrap Feature CAUTION ENABLED>>



- Feature: This feature allows control of the roll-up (right side) rollers of the machine to allow hands/feet free operation during the wrapping operation. By stepping on the foot switch tape momentarily the rollers will run continuously for 30 seconds or until you step on the foot switch tape again.
- Steps: Press and hold **SHIFT** (SHIFT) and then press the (UP) arrow or the (DOWN) arrow to select your desired setting. Press **ENTER** (ENTER) to lock in

your selection. Press the **(DOWN)** arrow key to advance to the next feature.

#### 4. AUTO SHUT OFF

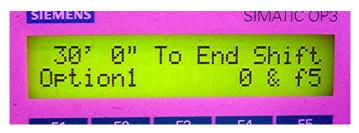
	SIEMENS		SIMATIC OP3	
Display reads: Auto Shut Off Time 1-250 Minutes 10>>	Auto 1-250	Shut Off Minutes	Time 10 >>	

- Feature: This screen allows you to set how long the machine will stay on before it automatically shuts off if it is not used. The factory setting is 10 minutes.
- Steps: Key in your preferred time in minutes (up to 250) and then press **ENTER** (ENTER). Press the **(DOWN)** arrow key to advance to the next feature.

#### 5. PROGRAMMING YOUR OPTIONS

**Display reads:** 

0' 0'' To End Shift Option1 0 & F5



#### NOTE: See page 24 for more detailed Programming Your Options Instructions.

- Feature: This feature allows you to automatically calibrate and lock in the calibration on a specific type of material so as to ensure exact measurements on that type of material every time. You can set these four **Programmable Options** at any time by following the steps below. We strongly recommend keeping a record of your individual settings in the **PROGRAMMABLE OPTIONS LOG**. These four **Programmable Options** are in addition to the four factory presets (residential, vinyl, commercial, kanga back) that can not be change.
- Steps: Measure out a piece of material, at least 35' long, on the floor and make a mark at exactly 30'. Key in "30' 0" on the display and load your roll onto the machine. Advance the front edge to the cutting track, lower the counter weight arm, reset the counter to zero (0) by pressing the (R) button on the keypad, and run the roll through the machine until the 30' mark you made is lined up exactly with the cutting track. Press and hold (SHIFT) and then press (F5) to lock in this calibration setting. Option 1 will now be set for this type of material. Repeat for more options if required. Press the (DOWN) arrow key to advance to the next feature.

#### 6. MOTOR RUN TIME

		SIEMENS	SIMATIC OP3
Display read L-ROLL R-ROLL	s: 0.0 HOURS 0.0 HOURS	L-Roll R-Roll	0.5 Hours 0.6 Hours
Feature:	This screen shows the hours of motor run-time on both the left and right side rollers. You cannot change these values.		
Steps:	Press the (UP) arrow key to scroll back through the previous features or press (ESC) to take you to the "PASS CODE DISABLED" screen.		

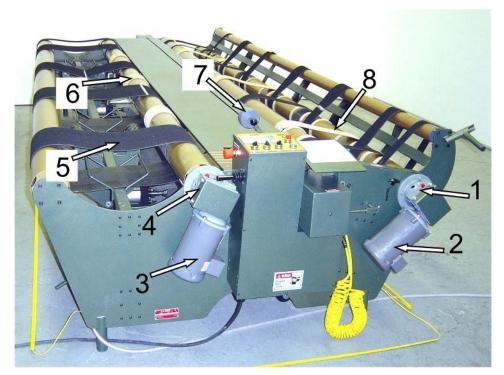
## MK-6 PARTS LIST

## **Control Panel**



KEY	PART NUMBER	QTY	DESCRIPTION
1	9040-00054-A	1	Jog Button, Siemens
2	9040-00051-A	1	Right Roller Switch, Siemens, Locking
3	9040-00051-A	1	Roller Speed Selector Switch, Siemens, Locking
4	9040-00051-A	1	Left Roller Switch, Siemens, Locking
5	03053768	1	Pneumatic Shuttle Control Handle
6	9040-00055-A	1	Emergency Stop Button, Siemens
7	OP3	1	Counter, Siemens, OP3
8	9040-00050-A	1	Cutter Switch, Siemens, Spring

Front And Top Of Machine - Motors And Belts

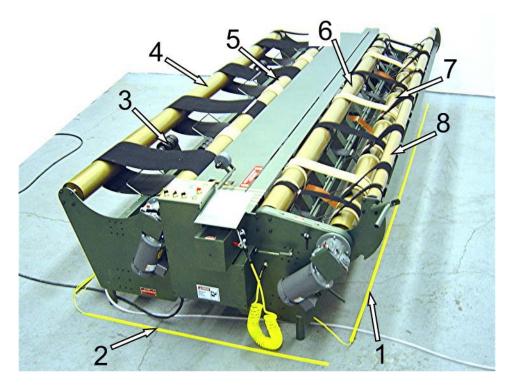


KEY	PART NUMBER	QTY	DESCRIPTION
1	EOVM50-50	1	Right Side Gearbox, 50:1
2	VM3112	1	Right Side Motor, Baldor, 3/4hp, 220v
3	VM3112	1	Left Side Motor, Baldor, 3/4hp, 220v
4	EOVM50-60	1	Left Side Gearbox, 60:1
5	See Belt List	17	Black Laced Belts, Right And Left Sides Of Machine
6	See Belt List	25	Tan Glued On Belts, Right And Left Sides Of Machine
7	N/A	1	Counter Weight Wheel
8	See Belt List	3	Tan Laced Belts, Right Side Of Machine Only

## Belt List – Measure Belt On Machine To Confirm Length And Width

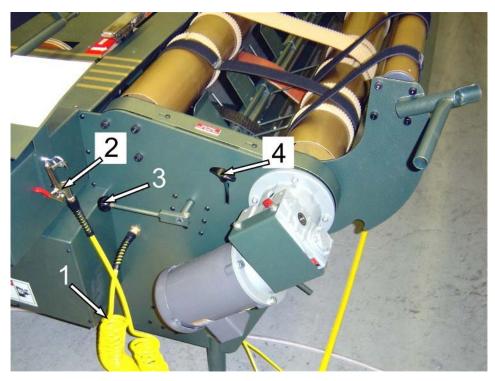
PART NUMBER	QTY	SIZE AND DESCRIPTION OF BELTS
CPUL12X69	4	Left Side Black Laced Belt, 12" Wide And 69" Long
CPUL4X69	1	Left Side Black Laced Belt, 4" Wide And 69" Long
CPUL4X51.25	3	Right Side Black Laced Belt, 4" Wide And 51.25" Long
CPUL2X51.25	2	Right Side Black Laced Belt, 2" Wide And 51.25" Long
CPUL4X36	5	Right Side Black Laced Belt, 4" Wide And 36" Long
CPUL2X36	2	Right Side Black Laced Belt, 2" Wide And 36" Long
RTL4X51.25	3	Right Side Tan Laced Belt, 4" Wide And 51.25" Long
RT6X19.125	3	Left Side Tan Glued On Belt, 6" Wide And 19.125" Long
RT1X17.5	22	Right Side Tan Glued On Belt, 1" Wide And 17.5" Long

## Front And Top Of Machine – Tapeswitch And Rollers

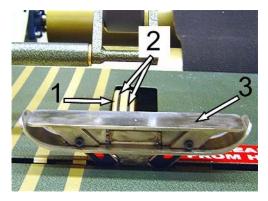


KEY	PART NUMBER	QTY	DESCRIPTION
1	9040-00002-A	2	11' Tapeswitch Pieces, Along Both Sides Of Machine
2	9040-00001-A	1	5' Tapeswitch Piece, Along Front Of Machine
3	N/C	2	Shuttle Assembly, 1 In Front, 1 In Back
4	ROLLER-#1	1	Outside Roller On Left Side
5	ROLLER-#2	1	Inside Roller On Left Side, Connected To Motor
6	ROLLER-#3	1	Inside Roller On Right Side
7	ROLLER-#4	1	Outside Roller On Right Side, Connected To Motor
8	ROLLER-#5	1	Small Rollup Roller On Right Side

## Front Right Side Of Machine



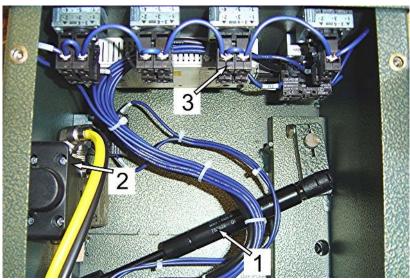
KEY	PART NUMBER	QTY	DESCRIPTION
1	9010-00054-A	1	25' Coiled Yellow Air Hose
2	9010-00047-A	1	Compressed Air Blow Gun
3	B-6	1	Reverse Roll Pressure Plates Screw On Knob
4	DK-75	1	Right Hand Side Cradle Release T-Handle



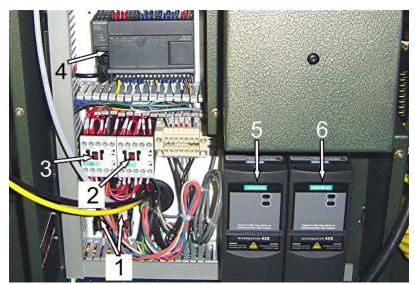
## **Top Of Machine - Bladeholder And Counting Wheel**

KEY	PART NUMBER	QTY	DESCRIPTION
1	4010-	1	Counter Wheel
	00004-A		
2	ORING	2	O-Rings
3	BH-	1	Bladeholder
	MK6/100		

## Wiring Of Machine, Top And Bottom Views



KEY	PART NUMBER	QTY	DESCRIPTION
1	752622	1	150N Gas Spring Shock For Counter Weight Arm
2	9010-00044-A	1	Manual Shuttle Air Valve
3	Check # On Block	Varies	Contact Block For Switch, Siemens



KEY	PART NUMBER	QTY	DESCRIPTION
1	N/C	2	Fuses, Check Amperage On Each Fuse
2	Check # On Relay	1	CF Relay, Cutter Forward
3	Check # On Relay	1	CR Relay, Cutter Reverse
4	PLC/224	1	PLC Controller, Siemens
5	MM420-0.75HP	1	Left Roller Drive, Siemens 3/4hp
6	MM420-0.75HP	1	Right Roller Drive, Siemens 3/4hp