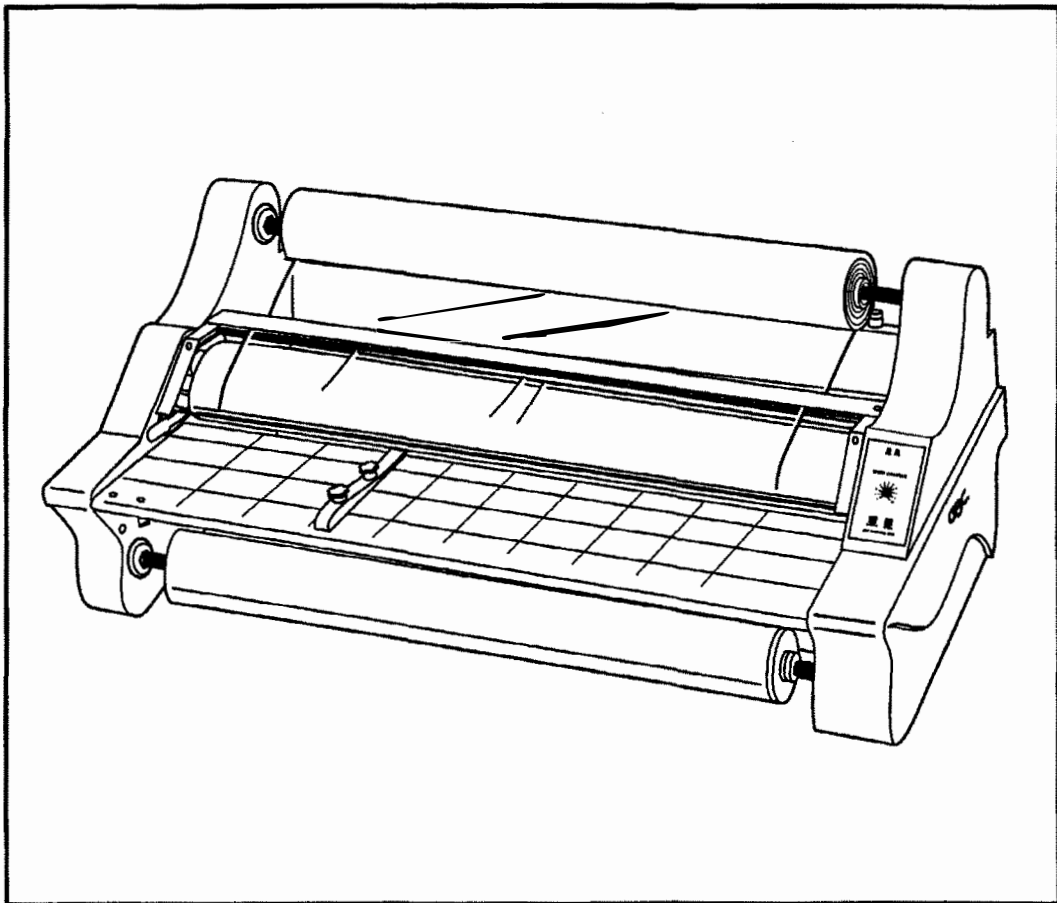


# SERVICE MANUAL

## **GBC.DOCUSEAL® 2700**



### **Final Assembly No.**

#### **Docuseal 2700**

115V	1710801
Europe	1710811
UK	1710821

#### **Docuseal 3100**

115V	1710861
Europe	1710871
UK	1710881

### **Service Manual P/N 6001112**

Australia	1710831
Swiss	1710841
Japan	1710851

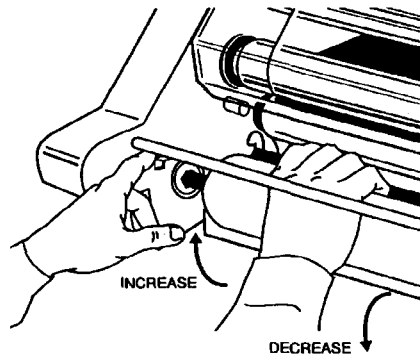
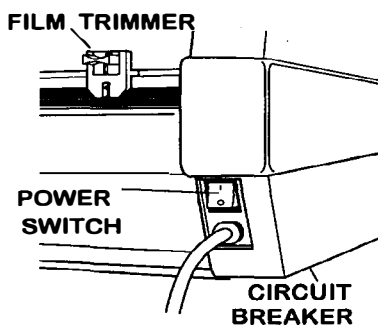
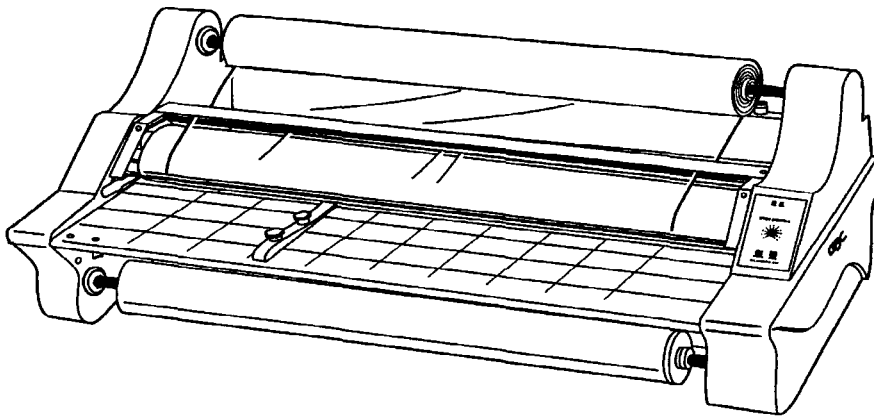
Australia	1710891
Swiss	1710901
Japan	1710911

## **1.0 INTRODUCTION**

This Service Manual covers Specifications, Operation, Troubleshooting and includes an Illustrated Parts List for the Docuseal 2700 (Docuseal 3100 for Australia).

The Docuseal 2700 is a commercial quality, heat shoe type, roll laminator with fixed heat and adjustable speed. It is designed to laminate items using 1.5 mil or 3 mil GBC Nap II laminating film. The Safety Shut Down feature cuts power to the heaters if the laminator is left idle for more than two hours

Before using the Docuseal 2700 carefully read the Operating Instructions. After you have gained familiarity and experience with the operation of the laminator, you will be better able to utilize the remaining sections of this manual to troubleshoot and repair the laminator.



Film Tension Adjustment

## **2.0 SPECIFICATIONS**

<b>ELECTRICAL:</b>	120V +/- 10% @ 60Hz 230V +/- 10% @ 50Hz
<b>POWER CONSUMPTION:</b>	120V - 11.6 Amps 230V - 6 Amps
<b>WARM UP TIME:</b>	15 Minutes
<b>MAXIMUM LAMINATING WIDTH:</b>	27 inches
<b>MAXIMUM LAMINATING SPEED:</b>	9.8 ft/min
<b>MAXIMUM THICKNESS:</b>	3 mil/ 75 micron
<b>HEATING SYSTEM:</b>	Heat Shoes with embedded, electronically controlled infrared heaters.
<b>DIMENSIONS:</b>	20 1/4"W x 34"L x 13 5/8"H
<b>WEIGHT:</b>	120 lbs.
<b>SAFETY AGENCY APPROVALS:</b>	C-UL

### **3.0 INSTALLATION**

**WARNING:** For your protection, do not connect the laminator to electrical power or attempt to operate until you read these instructions completely. Keep operating instructions in a convenient location for future reference. To guard against injury, the following basic safety precautions must be observed in the set up and use of the laminator.

#### **GENERAL SAFEGUARDS**

- Use this laminator only for its intended purposes as according to the specifications outlined in the operating instructions.
- Keep hands, long hair, loose clothing and articles such as necklaces or ties away from the front of the pull rollers to avoid entanglement and entrapment.
- Avoid contact with the heat shoes during operation or shortly after the laminator has been turned off. The heat shoes can reach temperatures in excess of 300° F.
- Keep hands and fingers away from the path of the sharp film cutter blade located at the film exit.
- Do not place the laminator on an unstable cart, stand or table. An unstable surface may cause the laminator to fall resulting in serious bodily injury. Avoid quick stops, excessive force and uneven floor surfaces when moving the laminator on a cart or stand.
- Do not defeat or remove electrical and mechanical safety equipment such as interlocks, shields and guards.
- Do not insert objects unsuitable for lamination.
- Do not expose laminator to liquids.

#### **ELECTRICAL SAFEGUARDS**

- This laminator must be connected to a supply voltage corresponding to the electrical rating as indicated on the serial plate located on the rear of the machine.
- Unplug the laminator before moving it, or when it is not in use for an extended period of time.
- Do not operate the laminator with a damaged power supply cord or plug.
- Do not overload electrical outlets as this can result in fire or shock.

### **3.0 INSTALLATION**

#### **ELECTRICAL SAFEGUARDS**

- Do not alter the attachment plug. This plug is configured for the appropriate electrical supply.
- This unit is intended for indoor use only.
- The receptacle must be located near the equipment and be easily accessible. Do not use an extension cord.

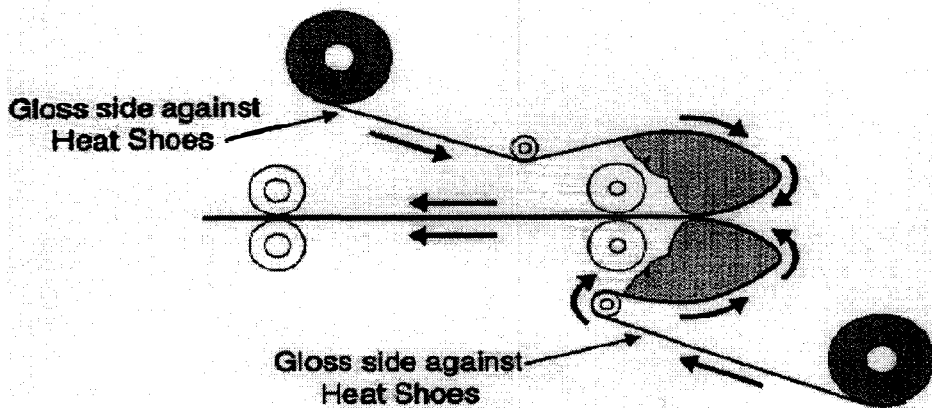
#### **SET UP**

- Shipping damage should be brought to the immediate attention of the delivering carrier.
- Place the laminator on a stable flat surface capable of supporting 125 lbs. The surface should be at least 30" high to assure comfortable positioning during operation. All four rubber feet should be on the supporting surface.
- Connect power cord to an appropriate power source. Avoid connecting other equipment to the same branch circuit to which the laminator is connected as this may cause nuisance tripping of the circuit breaker or blown fuses.
- The laminator should be positioned to allow exiting film to drop freely to the floor. Accumulation of laminate as it exits the laminator may cause film to wrap around the rollers, causing a jammed condition.
- Avoid placing laminator near sources of heat or cold. Avoid locating the laminator in the direct path of forced, heated or cooled air.

## 4.0 OPERATING INSTRUCTIONS

### 4.1 Loading Film

- It is recommended that loading and unloading film be performed when the laminator is cold.
- Remove safety shield and feed table.
- If reloading film, remove the old rolls and check the heat shoes and rollers for adhesive residue. This can be easily removed from the heat shoes by wiping them with a damp cloth. Do not use abrasives as they will damage the Teflon coating on the heat shoe. The rollers can be cleaned using the GBC Silicone Roller cleaning kit (GBC p/n 1711515).
- Change the top and bottom roll at the same time.  
GBC laminating film is labeled near the end of each roll with 'Warning - End of Roll'. When this label appears on either the top or bottom roll of film, a new roll of film must be installed as soon as the item presently being laminated exits the laminator.
- Use core adaptors from the previous roll.
- Laminating film must unwind from the bottom of the roll (dull side up). **Shiny side of film should be against the heat shoes.**



- Use the alignment guides on the film shaft to be certain that the top and bottom rolls are aligned properly.
- Move lower idler bar from home position.
- Unwind top and bottom film rolls enough to allow film slack for threading.
- Thread film from upper supply roll under the idler bar and drape film over heat shoes.
- Thread film from lower supply roll around the lower idler bar and drape over heat shoes.
- Reposition the lower idler bar in the "J" channel.
- Position the feed tray so that the safety latch is engaged.
- Reinstall the safety shield.
- Turn the laminator on and select speed "1".
- Slide the threading card (provided with new rolls of GBC film) on the feed table, gently pushing the film into the nip area of the rollers. The threading card should now be guiding both rolls of film through the laminator.
- Push the "off" button when the threading card exits the rear of the laminator.
- Make sure the top and bottom rolls of film are aligned. Misalignment will cause adhesive to contaminate the heat shoes. Adjust alignment if necessary.

## **4.0 OPERATING INSTRUCTIONS**

### **4.2 Laminating Tips**

- Do not attempt to laminate abrasive or metal items such as staples or paper clips as they will damage the heat shoes and rollers.
- Do not force items into the nip area of the pull rollers. An item that is not easily drawn into the laminator by the pull rollers is probably too thick to laminate.
- Wrinkles may result if an attempt is made to reposition an item once it has been grasped by the rollers.
- Do not stop the laminator before an item has completely exited the pull rollers. Even a momentary stop will cause a mark (heat line) to appear on the laminated item.

### **4.3 Speed Adjustment**

Adjust roller speed using the lamination chart located on the feed table as a guide. As a general rule thicker films and media with darker ink coverage will draw more heat and should be run at slower speeds. This gives the film a longer dwell time on the heat shoe. Thinner films extract less heat from the shoes and allow for faster speeds.

### **4.4 Film Tension Adjustment**

Proper film tension is the minimum amount of tension required to eliminate wrinkles in the finished product. The film tension is set at the factory and adjustments should not be necessary. See section 6.0 Adjustments, for film tension adjustment procedure.

### **4.5 Operation**

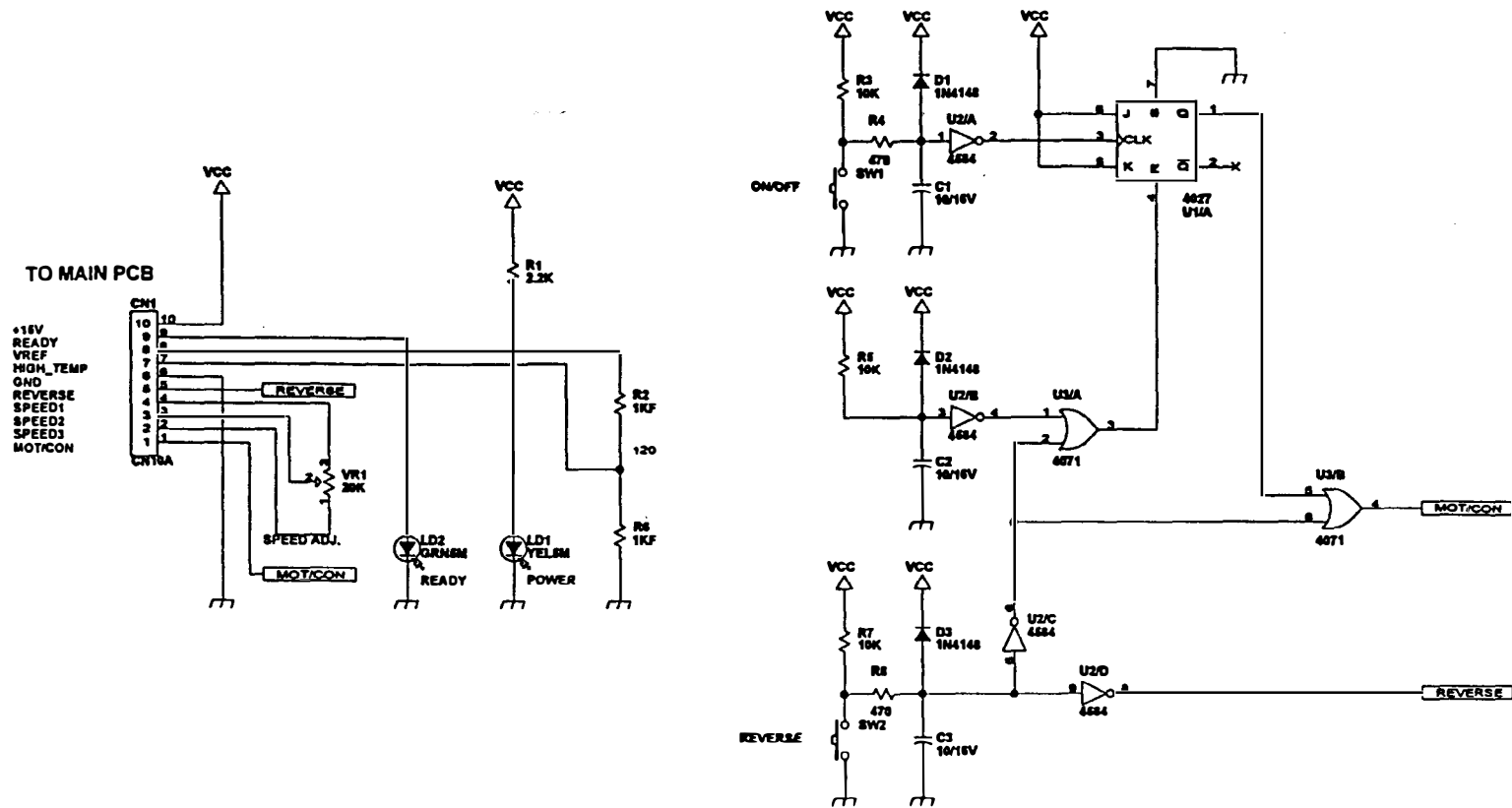
- Turn the power switch on. The power switch is located at the rear of the machine. When the power switch is in the on position, the power indicator light on the control panel will be illuminated. The laminator is now heating.
- Use the Lamination guide located on the feed table, to select the correct speed for your application.
- When the laminator reaches operating temperature, the “ready” light on the control panel will be illuminated.
- Allow laminator to heat for five minutes after the ready light has illuminated.
- Push the “run” button located on the control panel to start laminating.
- When the laminator is left in an idle state for more than two hours it will shut down. To reset the laminator the operator must turn power switch off then on.

### **4.6 Clearing a Film Jam**

- Cut the top and bottom film webs.
- Grasp the loose ends of the web, pull straight out, install the feed tray so the web is on top of the tray.
- Lower the safety shield, hold down the “reverse” button while pulling the wrapped film from the rollers.
- When the film jam is cleared, thread the film using section 4.1 Loading Film instructions as a guide and continue lamination.

## 5.0 TROUBLESHOOTING

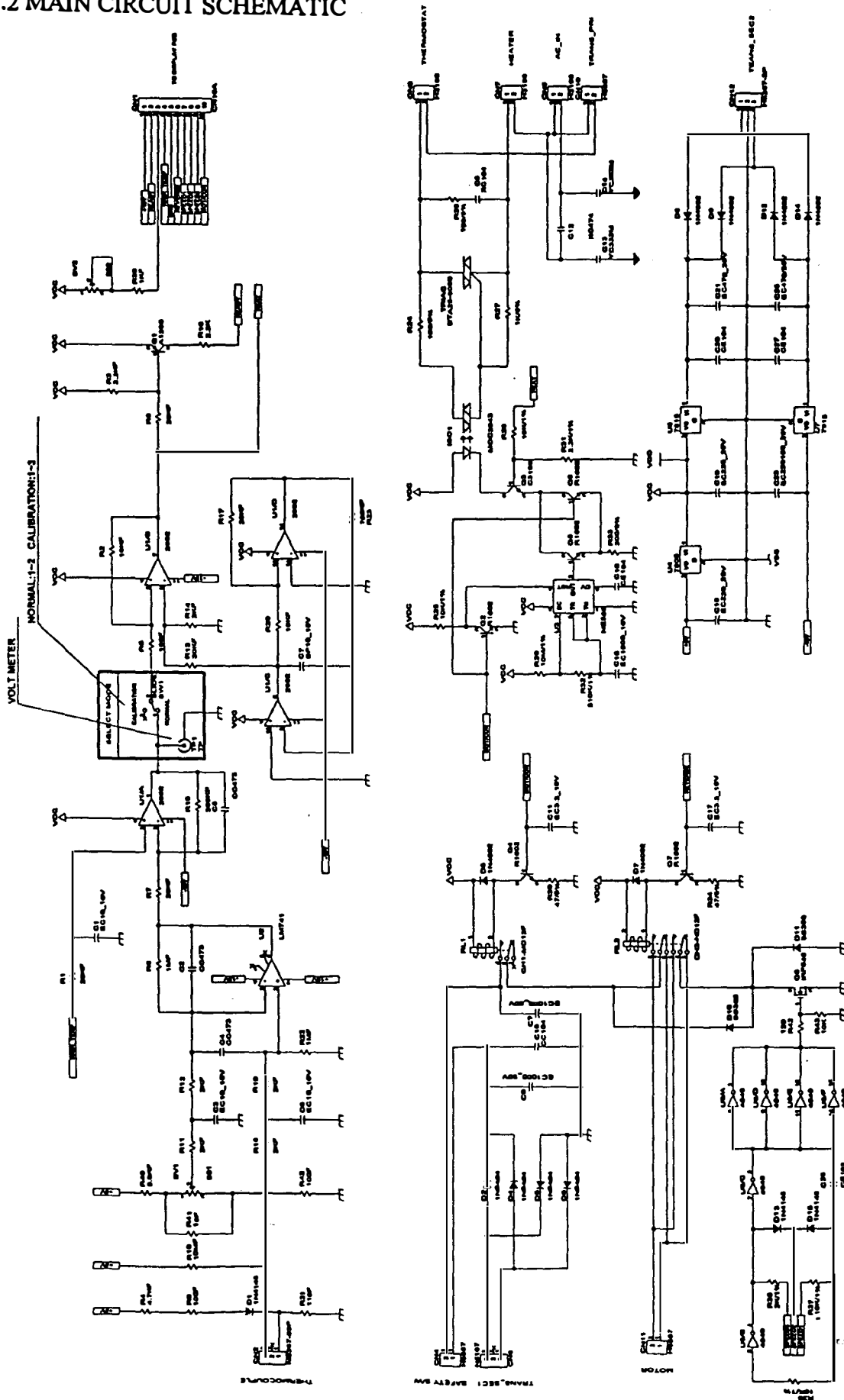
### 5.3 DISPLAY CIRCUIT SCHEMATIC



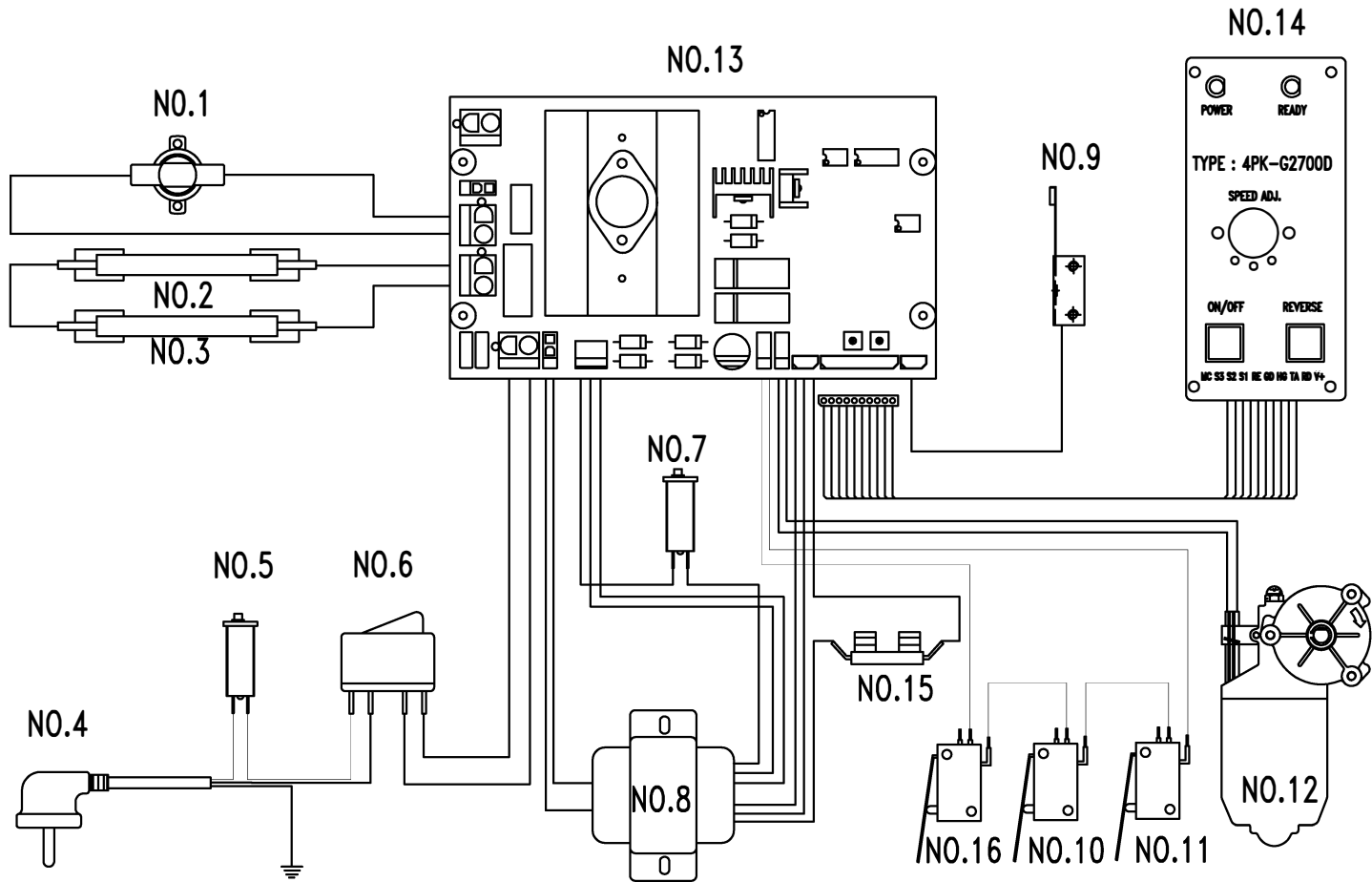


## 5.0 TROUBLESHOOTING


### 5.2 MAIN CIRCUIT SCHEMATIC



H800(GBC2700) WIRING DIAGRAM

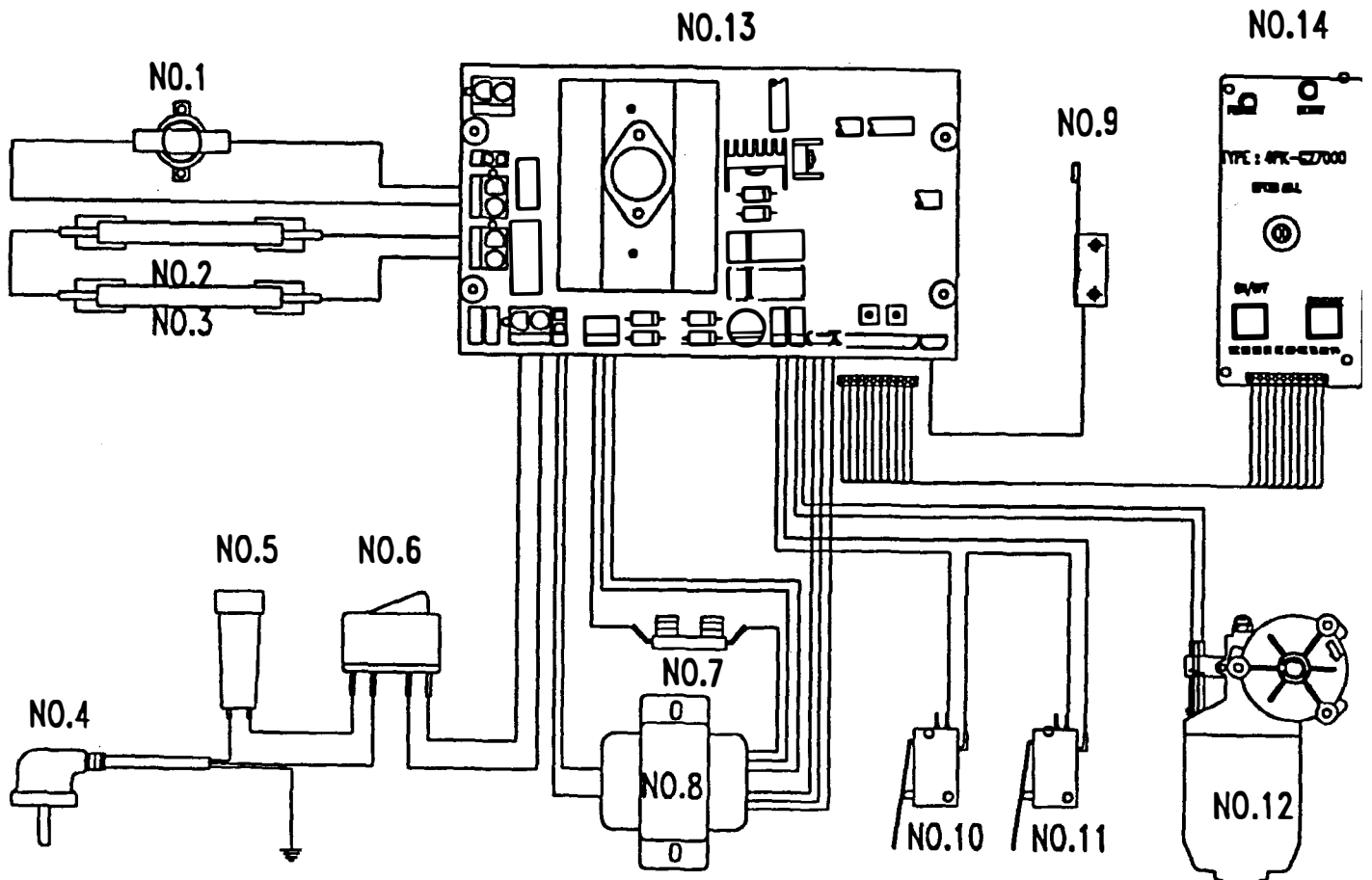


- NO.1 : THERMOSTAT  
NO.2 : UPPER HEATER  
NO.3 : LOWER HEATER  
NO.4 : POWER CORD  
NO.5 : CIRCUIT BRAKER  
NO.6 : POWER SWITCH  
NO.7 : MOTOR FOR CIRCUIT BREAKER  
NO.8 : TRANSFORMER  
(GM7660-XX)  
NO.9 : THERMOCOUPLE  
NO.10 : FRONT PLATE  
MICRO SWITCH  
NO.11 : HEATER MICRO SWITCH  
NO.12 : DC MOTOR(DM-010)  
NO.13 : MAIN PCB (GBC2700M)  
NO.14 : DISPLAY PCB (4PK-G2700D)  
NO.15 : CIRCUIT FOR FUSE HOLDER  
NO.16 : FILM INSERT M/S S/W

			Quantity		Designed	Checked	Approved	Scale	DATE	
			Material					Unit	MODEL	GBC2700 WIRING DIAGRAM
			Sur/finish					Project	PART NAME	
			Tolerance		 GMP CO., LTD				DRAWING No.	
			Chamfer						PART CODE	
	REVISION	DATE	Round							

## 5.0 TROUBLESHOOTING

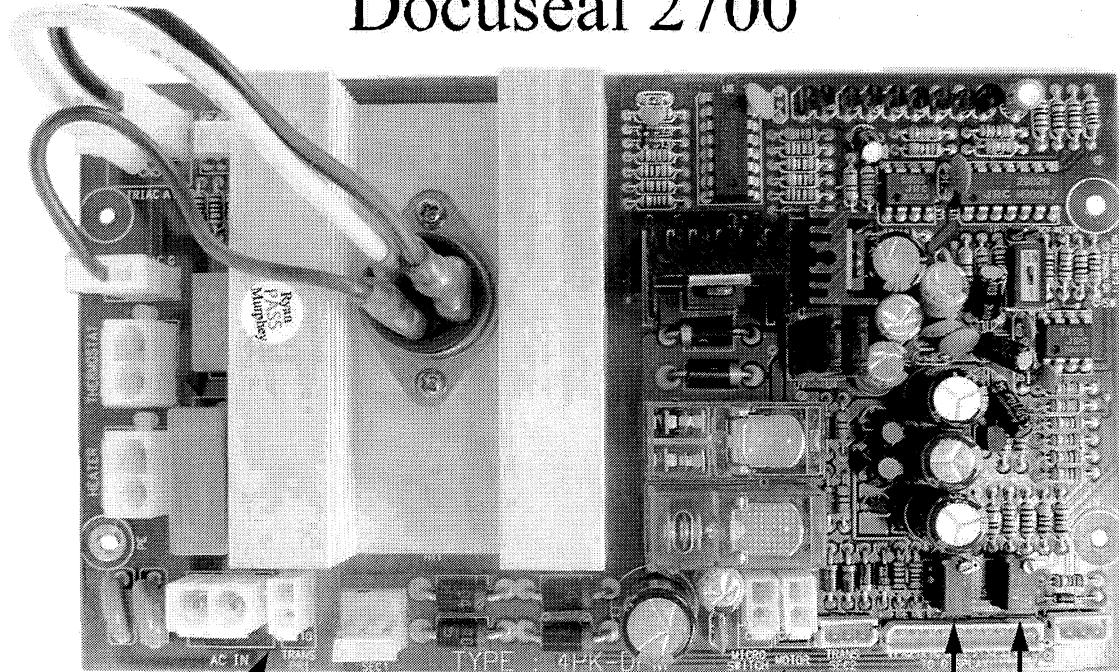
### 5.1 WIRING DIAGRAM



ITEM	DESCRIPTION
1	Thermostat
2	Upper Heater
3	Lower Heater
4	Power Cord
5	Circuit Breaker
6	Power Switch
7	Fuse Block

ITEM	DESCRIPTION
8	Transformer
9	Thermocouple
10	Feed Table Interlock Switch
11	Heater Microswitch
12	DC Motor
13	Main PCB
14	Display PCB

# Docuseal 2700



AC In, Line Voltage

AC In to Transformer

Fig. B

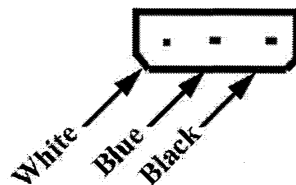
Fig. A

SV2

SV1

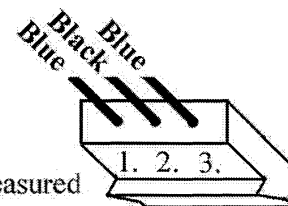
Measure the voltage at the motor output connector on the board with the motor connected. At the slowest speed the voltage should be 8.7 DC. At the highest speed there should be 28 volts

**Fig. A**



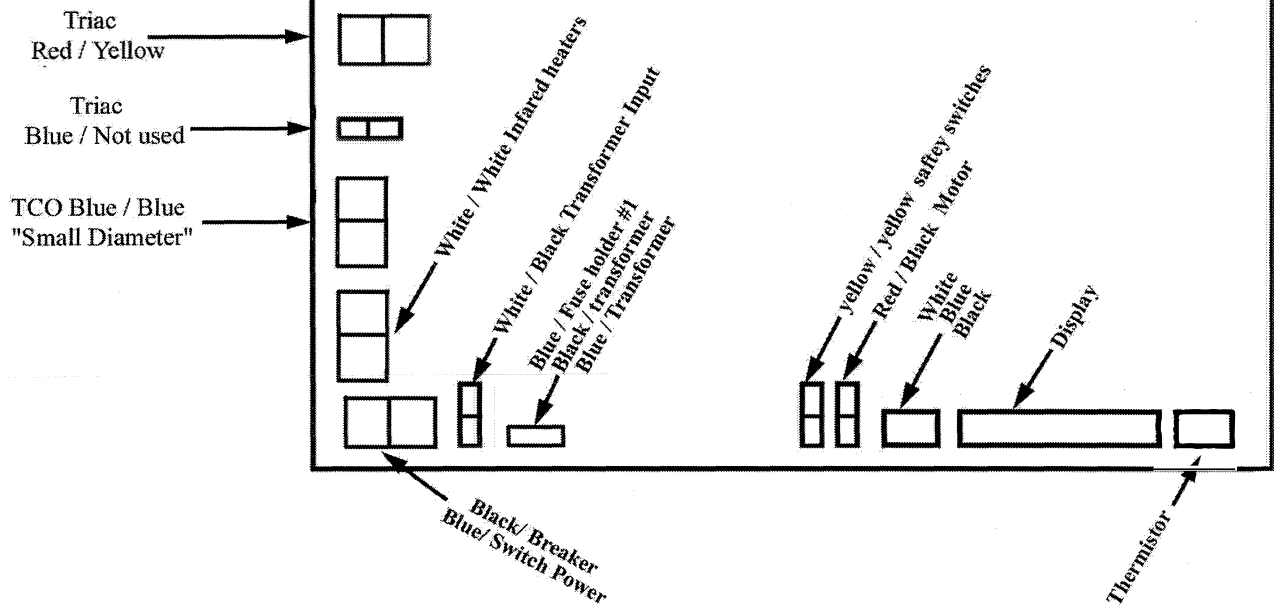
- \* 14 to 15 volts AC when measured at black blue.
- \* 26 to 30 volts AC at black and white.

**Fig. B**



- \* 14.5 volts AC when measured at wire 1 and 2.
- \* 13.8 volts AC when measured at 2 and 3.

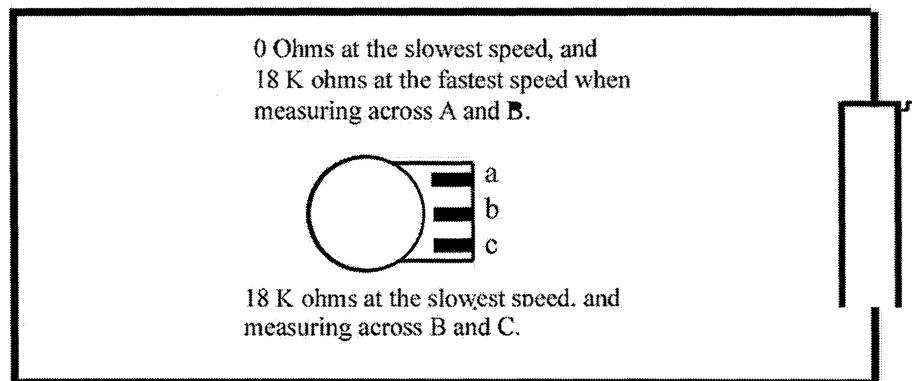
# Docuseal 2700



\*Motor Resistance= 5 ohms

\* Heater Resistance is 18 to 20 ohms when measured the molex connector.

## Control Panel Board



Created By: Ryan Murphey

## **5.0 TROUBLESHOOTING**

### **5.4 Theory of Operation**

This laminator uses heat, roller pressure and film tension to continuously apply adhesive coated laminating film to both sides of sheet type materials simultaneously. Electrical and mechanical properties of this machine are described in this manual. A basic understanding of the theory of lamination is required to service this laminator.

### **5.5 Theory of Lamination**

The product being laminated should be receptive to, and capable of attaining a good bond with molten polyethylene adhesives.

Most paper products can be laminated with a high degree of success. This is because molten polyethylene adhesive bonds to individual fibers of the paper surface. The rougher the surface texture, the more fibers are exposed to adhesive and the better the bond between adhesive and product. Inks and other printing products affect this bond. While good adhesion occurs between most inks and molten adhesive, poor adhesion may exist between some inks and the paper when laminated. Some ink products are heat sensitive and/or lack the ability to be bonded using thermal lamination.

Some paper and card stocks are coated with silicones, wax or varnish which inhibit the ability of molten adhesives to stick tightly to individual paper fibers. In such cases a superficial bond develops which may or may not be adequate, depending upon the intended use of the finished laminate.

Smooth surfaces such as photographic, metallic and plastic are difficult to laminate, since no fibers are exposed for the adhesive to contact. Materials such as these may require an alternate method of lamination.

Products containing moisture will not laminate well. The moisture converts to steam and forms bubbles in the lamination.

### **5.6 Heater Circuit**

The GBC 2700/3100 is a Heat Shoe type laminator that operates at a fixed temperature. The heat shoes are heated by two infrared, rod type heaters that are slid into the shoes. A heat sensor mounted on the lower heat shoe monitors the temperature which is controlled by the Main PCB. A ready indicator on the control panel will illuminate when the laminator reaches operating temperature. A Thermal cutoff is mounted to a bracket on the lower heat shoe and protects the laminator from a runaway overheat condition. If the laminator is left idle for more than two hours it will shut down. The power switch must be turned off then on to reset. The Main PCB must be calibrated when replaced. See section 6.0 Adjustments for calibration procedures.

### **5.7 Motor Circuit**

Power is supplied to the motor circuit when the "Run" button on the control panel is pressed. To stop the rollers the button is pressed a second time. The speed control knob on the control panel will vary the speed of the rollers by increasing/decreasing voltage to the DC motor. The circuit is protected by a 3.6 amp fuse.

## **5.0 TROUBLESHOOTING**

### **5.8 Mechanical Operation**

The upper and lower film webs are pulled over the heat shoes and through the laminator by four rollers. The two lower rollers are chain driven. The upper rollers are driven by the lower rollers. The diameter of the front “pull” rollers is slightly smaller than the “nip” rollers at the rear. This provides tension on the laminate as the film passes through the laminator.

The two film webs are stretched tight as they leave the supply rolls and enter the laminator. The film tension is provided by two adjustable brake assemblies located on the left side frame. The upper and lower brake assemblies restrict or drag the respective supply roll shafts as the shafts revolve.

### **5.9 General Troubleshooting**

Troubleshooting is based on visual observations by the operator and the technician. It is important to know the basic principles of lamination to separate application problems from equipment malfunctions. The cause of the malfunction can be isolated by noting at which point in operating cycle the malfunction occurred. Use the Troubleshooting Guide on the following pages to help pinpoint and correct malfunctions.

**5.0 TROUBLESHOOTING**  
**5.10 Troubleshooting Guide**

<b>PROBLEM</b>	<b>POSSIBLE CAUSE</b>	<b>SOLUTION</b>
No Power	No power at outlet. Power cord disconnected Circuit breaker tripped Defective power switch Loose connection Defective Main PCB	Plug into outlet w/power. Connect power cord Reset circuit breaker Replace power Switch Repair loose connections Replace Main PCB
Power and heat, motor not running.	Speed control in “off” position Feed Table Interlock not closed. Defective feed table interlock switch. Loose connection Drive Chain too tight. Motor fuse blown Defective Motor Defective Main PCB Defective Transformer	Select speed on speed control Install feed table and make sure pin is making switch. Replace interlock switch. Repair loose connection Adjust drive chain tension. Replace fuse Replace Motor Replace Main PCB Replace Transformer
Power, rollers turn, no heat	Loose connection Infrared heater open Defective Heat sensor Defective TCO Defective Main PCB Left idle for 2 hours	Repair connection Replace Infrared heater Replace Heat Sensor Replace TCO Replace Main PCB Reset laminator



## **5.0 TROUBLESHOOTING**

### **5.10 Troubleshooting Guide**

<b>PROBLEM</b>	<b>POSSIBLE CAUSE</b>	<b>SOLUTION</b>
Laminator making squealing noise	Film tension too tight Adhesive build up on heat shoe	Adjust film tension Clean heat shoe with damp, lint free cloth. (Check film alignment)
Rollers Not Turning (motor running)	Drive chain damaged Motor gear or roller gear set screw loose	Repair/replace drive chain Tighten set screw
Insufficient Heat	Laminator running too slow for material being laminated. Infrared heater defective Main PCB not calibrated properly. Main PCB defective	Adjust speed control to faster speed. Replace Infrared heater Calibrate Main PCB to Spec. found in Section 6.0 Replace Main PCB
Running too hot	Laminator running too fast for material being laminated. Main PCB not calibrated properly Main PCB defective	Adjust speed control to slower speed. Calibrate Main PCB to Spec. found in Section 6.0 Replace Main PCB
Unit does not go to ready	Defective LED on control panel Insufficient Heat Defective heat sensor TCO is open Switch on main PCB is in "I" position.	Replace Control Panel PCB Check causes for insufficient heat in Troubleshooting guide. Replace heat sensor Replace TCO (check for excessive heat) Place switch on Main PCB in the "no" position.

## **5.0 TROUBLESHOOTING**

### **5.10 Troubleshooting Guide**

<b>PROBLEM</b>	<b>POSSIBLE CAUSE</b>	<b>SOLUTION</b>
Poor Lamination Quality	Speed setting incorrect for product being laminated.  Media being laminated not suitable for hot lamination  Film brake tension out of adjustment  Roller pressure out of adjustment	Adjust speed setting  Be sure media is compatible with film being used.  Adjust film brake tension  Adjust roller pressure
Finish lamination wavy or distorted	Excessive heat	Adjust speed to faster setting
Finished lamination wrinkled	Film tension not adjusted properly	Adjust film tension
Finished lamination cloudy	Insufficient heat	Adjust speed to slower setting
Finished lamination curls up or down	Uneven film tension	Too much tension on upper roll causes upward curl. Too much tension on lower roll causes downward curl
Bubbles in finished lamination	Media being laminated contains moisture	Cannot laminate media with high moisture content.
Film is wrapping around rollers	Output cannot exit laminator freely.  Roller are contaminated with adhesive residue	Move laminator to allow output to exit freely.  Clean rollers using cleaning kit p/n 1711515

## **6.0 ADJUSTMENTS**

### **6.1 Disassembly / Assembly**

The disassembly of the Docuseal 2700/3100 is described in the following steps. Use section 8.0 as a reference to help you understand the text. Reassemble in reverse order. **Note: Disconnect the unit from the receptacle before performing any disassembly procedures.**

#### **6.1.1 Left and Right Cover Removal**

Remove (5) Phillips head screws from side plate and remove cover.

#### **6.1.2 Rear Pull Roller Removal**

Remove left and right side covers. Remove (4) screws that secure the Slitter Ass'y. Remove (2) upper screws from the rear housing and pivot down. Remove left and right Roller tension ass'y by removing the screw that secures it to side frame. Remove hex head screw and bearing from the end of pull roller. Lift pull roller out of laminator. (To remove the lower pull roller you must first remove the roller drive gear).

#### **6.1.3 Upper Heat Shoe Removal**

Remove left and right side covers and center shield. Disconnect heater wires. Remove screws from the ends of the heat shoe pivot shaft. Lift upper heat shoe out of laminator.

#### **6.1.4 Lower Heat Shoe Removal**

Remove upper heat shoe. Disconnect heater wires and thermostat leads from Main PCB. Loosen thumb screws from either side of pivot ass'y. Remove screws from the ends of the heat shoe pivot shaft. Lift lower heat shoe out of laminator.

#### **6.1.5 Front Nip Roller Removal**

Remove upper heat shoe. Remove left and right Roller tension ass'y by removing the screw that secures it to side frame. Remove hex head screw and bearing from the end of nip roller. Lift pull roller out of laminator. (To remove the lower nip roller you must first remove the roller drive gear).

#### **6.1.6 Infrared Heater Removal**

Remove heat shoes. Slide heater out of heat shoe.

Disassembly and reassembly of the remaining components is straight forward and requires no special instructions.

## **6.0 ADJUSTMENTS**

### **6.2 Film Tension Adjustment**

The film should be taut. The film roll should not be difficult to turn by hand. The tension should provide a slight drag as the film shaft rotates. Too little tension will cause wrinkles, too much tension will cause stretching and excessive noise as the film passes over the heat shoe. Uneven tension between the top and bottom rolls will cause curling. More tension on the upper roll will cause the film to curl upward. More tension on the lower roll will cause the film to curl downward.

To adjust bottom brake:

1. Push and hold the brake lever, (Figure 1), located on the left side frame by the film roll. Rotate the film roll until the lever engages the mechanism.
2. While holding the lever in place, rotate film roll clockwise to increase film tension or counter clockwise to decrease film tension.
3. Release the lever and check brake tension by rotating the roll of film. Resistance should be slight, not excessive.
4. To adjust top brake repeat steps 1 through 3.
5. Laminate test samples and increase or decrease brake tension as necessary.

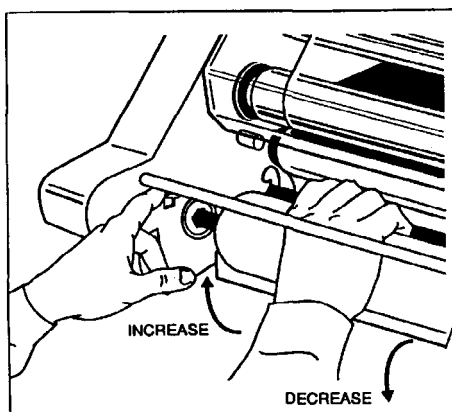


Fig.1

### **6.3 Roller Pressure Adjustment**


Pull roller (rear) and nip roller (front) tension should be equal on the left and right sides. To adjust the front roller pressure, measure  $5/32$ " from the top of the nut to the top of the roller adjustment bolt. To adjust rear roller pressure, measure  $1/8$ " from the top of the nut to the top of the roller pressure adjustment bolt. The roller pressure is set at the factory and should not need adjustment.

## **6.0 ADJUSTMENTS**



### **6.4 Main PCB Calibration**

The Main PCB must be calibrated when replaced. To calibrate the PCB use the Calibration fixture GBC p/n 1700407 and follow the calibration procedure outlined below. Calibration must be performed with the new board installed in the machine.

Tools needed:

- VOM with clips on test leads 
- Calibration Fixture GBC p/n 1700407
- Precision screw driver
- Infrared Temperature Sensor (Non Contact Thermometer)

#### **Calibration Procedure**

1. Calibration must be performed when laminator is cold.
2. Remove center shield to gain access to Main PCB.
3. Locate and preset the trim pots as follows.
  - a. Turn SV-1 and SV2 trim pots fully counter clockwise until you hear a clicking noise.
  - b. Turn SV-1 trim pot clockwise 5 full turns.
  - c. Turn SV-2 trim pot clockwise 10 full turns.
4. Disconnect temperature sensor from Main PCB and connect calibration fixture ( GBC p/n 1700407) in its place.
5. Disconnect the blue thermostat wire from the PCB. 
6. Set VOM to measure DC voltage.
7. Locate test points on PCB and connect clip on leads from VOM to test points (refer to wiring diagram in Section 5.0)
8. Locate the slide switch on the Main PCB and select the 'I' position. This is the calibrate position.
9. Plug the laminator into a suitable 120V 60 Hz outlet.
10. Turn laminator power switch to the 'on' position.
11. Select SV1 on the calibration fixture. Adjust SV1 on the main PCB until you read +13.7 VDC on the Multimeter. ( If you show -VDC on SV1 you must show -VDC on SV2)
12. Select SV2 (DS 400,1200) setting on the calibration fixture. Adjust SV2 on the main PCB until you read + 7.92/+ 7.93 VDC on the Multimeter.
13. Confirm the settings are correct by switching between SV1 and SV2 on the Calibration fixture and looking at the measured DC voltage on the VOM.
14. Switch the laminator to the "Off" position.
15. Move the slide switch to the 'No' position.
16. Disconnect the calibration fixture and reconnect the heat sensor to the PCB.
17. Disconnect VOM.
18. Re-attach blue thermostat lead.
14. Re-install center shield. 

## **6.0 ADJUSTMENTS**

### **6.4 Main PCB Calibration**

Turn the laminator on and allow it to heat up. When the ready light illuminates, wait five minutes for the heat to stabilize. Measure the temperature at the middle of the upper heat shoe with an Infrared temperature sensor. The temperature should be between 135°C (275°F) and 140°C (284°F).

The temperature can be dialed in while the laminator is hot by adjusting SV2. Turn SV2 clockwise to decrease heat and counter clockwise to increase heat. Adjust SV2 in ½ turn increments, then wait 5-10 minutes for the heat to stabilize and check temperature with the Infrared temperature sensor.

### **6.5 Core Adaptor on Supply Shaft**

The Docuseal 2700 will accept film widths of 12", 18" 25" and 27". The supply shaft uses pre drilled registration holes to position the core adaptors. Correct positioning of the core adaptors will insure the top and bottom rolls of film align with each other and prevent adhesive from contaminating the heat shoes and rollers .

## **7.0 MAINTENANCE**

### **7.1 External Cleaning**

Clean external surfaces of the laminator with a soft cloth moistened with a mild solution of detergent (such as dishwashing liquid) and water. Do not use chemical cleaners or solvents, as these may have a harmful effect on the surface.

### **7.2 Rollers**

Excess adhesive should be removed from rollers periodically. The use of the GBC Silicone Roller Cleaning Kit is recommended (p/n 1711515). To gain access to the front rollers it is necessary to move the heat shoes out of the way. The upper heat shoe will pivot upward. Loosen the thumb screws on the left and right sides to lower the bottom heat shoe.

### **7.3 Heat Shoes**

The heat shoes are Teflon coated and can be cleaned with a soft cloth. Abrasive cleaners should not be used to clean the heat shoes.

### **7.4 Inspection.**

Whenever the cover has been removed for cleaning or corrective maintenance, assure that the gears are properly lubricated, aligned and secured to their respective shafts. Inspect roller bearings for wear. Inspect for defects such as loose screws, abraded wires or wire insulation and loose connections. Correct any defects before returning the laminator to service.

### **7.5 Lubrication**

The motor, idler and roller gears should be lubricated with a heat resistant light silicone lubricant.



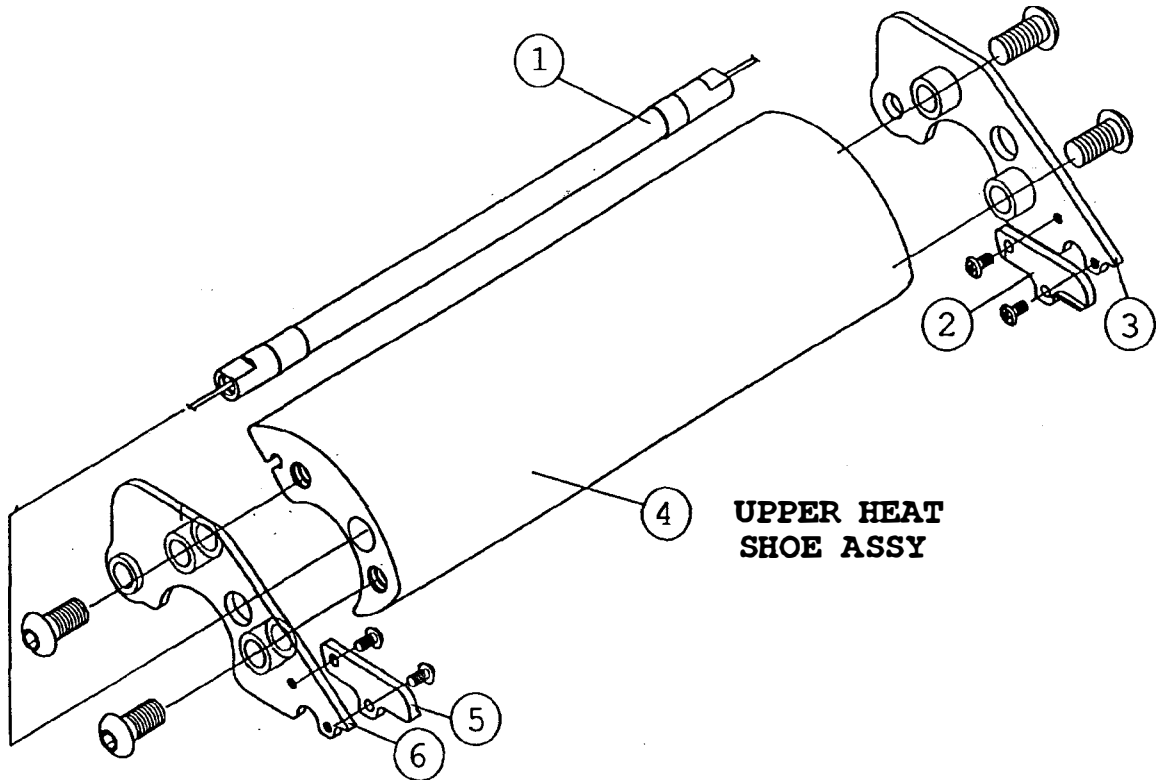
# DOC 2700 Parts List

GBC IS AN ACCO BRANDS COMPANY





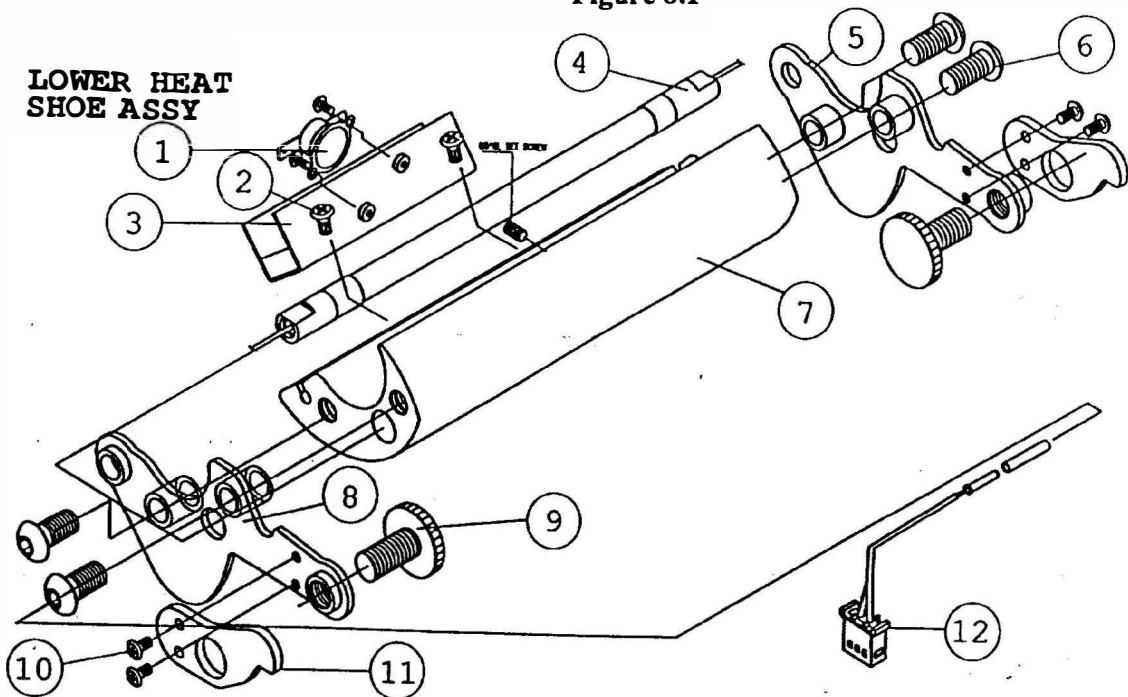
**8.0 PARTS**  
**Figure 8.0**



ITEM NO.	PART NO.	DESCRIPTION	QTY
1	706111507	Infrared Heater	2
2	604020355	Upper Heat Shoe Lever (R)	1
3	601211188	Upper Heat Shoe Guide Plate (R)	1
4	604030417	Heat Shoe	2
5	604020354	Upper Heat Shoe Lever (L)	1
6	601211187	Upper Heat Shoe Guide Plate (L)	1

# 8.0 PARTS

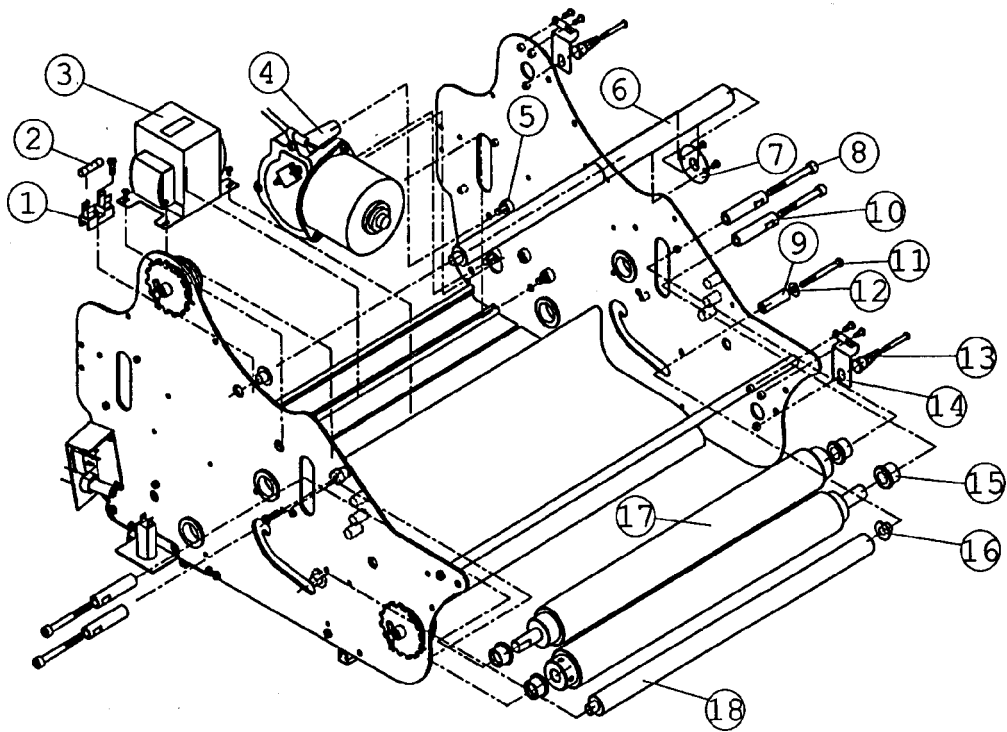
Figure 8.1



ITEM NO.	PART NO.	DESCRIPTION	QTY
1	704150103	130° C Thermostat	1
2	701109114	Screw	2
3	601211180	Thermostat Bracket	1
* 4	706111507	Infrared Heater- w/o wires	2
5	601211190	Heat Shoe Guide Plate,(RH) Lower	1
6	701107621	Screw	8
7	604030417	Heat Shoe	2
8	601211189	Heat Shoe Guide Plate,(LH) Lower	1
9	613011014	Heat Shoe Clamping Bolt	2
10	701104903	Screw	4
11	604020356	Heat Shoe Lever (lower)	2
12	706040212	Sensor Assy.	1

\* When ordering new heaters, you must order new heater wires.  
Infrared heater wires P/N# 638001913 & 638001914

**8.0 PARTS**  
**Figure 8.2**



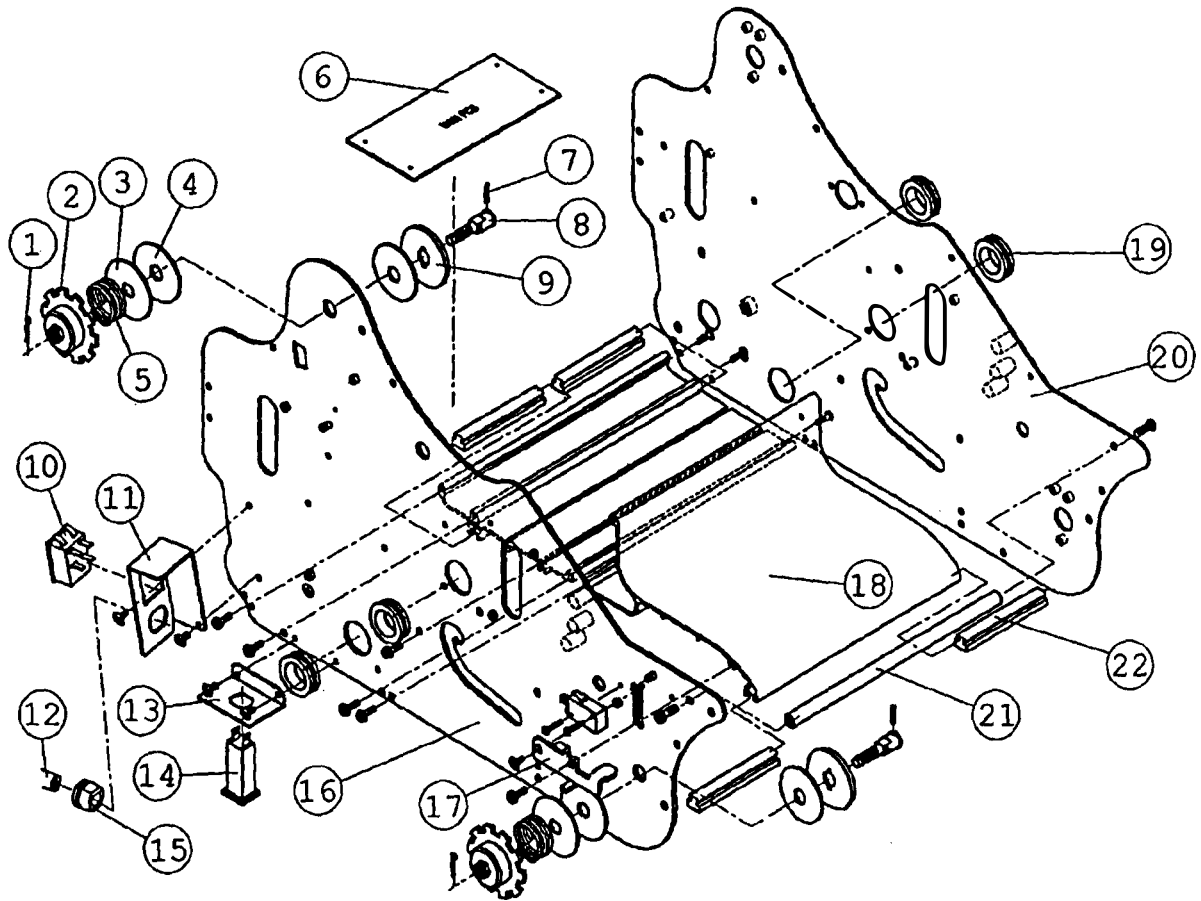
## 8.0 PARTS

Figure 8.2

ITEM NO.	PART NO.	DESCRIPTION	QTY
1	704120201	Fuse holder	1
* 2	704130117	3.6 amp fuse (For Older Machines)	1
3	610011901	120v Transformer	1
3	610011902	230v Transformer	1
4	6090202	DC Gear Motor	1
5	701107404	Motor Mounting Bolt	3
6	613030161	Upper Idler Roller	1
7	601230804	Upper Idler Housing	1
8	701107416	Shoulder Bolt ,Roller	4
9	613030540	Idler Centered Pin	1
10	613030539	Centered Pin, Roller	4
11	701101628	Shoulder Bolt, Idler	2
12	701110204	Washer	2
13	701090158	Supply Shaft Tension Spring	2
14	601230802	Film Shaft Support Plate	2
15	613040131	Roller bushing	8
16	701050234	Bearing Flange	4
17	607040561	Front Roller	2
18	613030162	Lower Idler Roller	1

\* NOTE: P/N# 704091041 4 AMP CIRCUIT BREAKER (FOR NEW MACHINES).

8.0 PARTS  
Figure 8.3



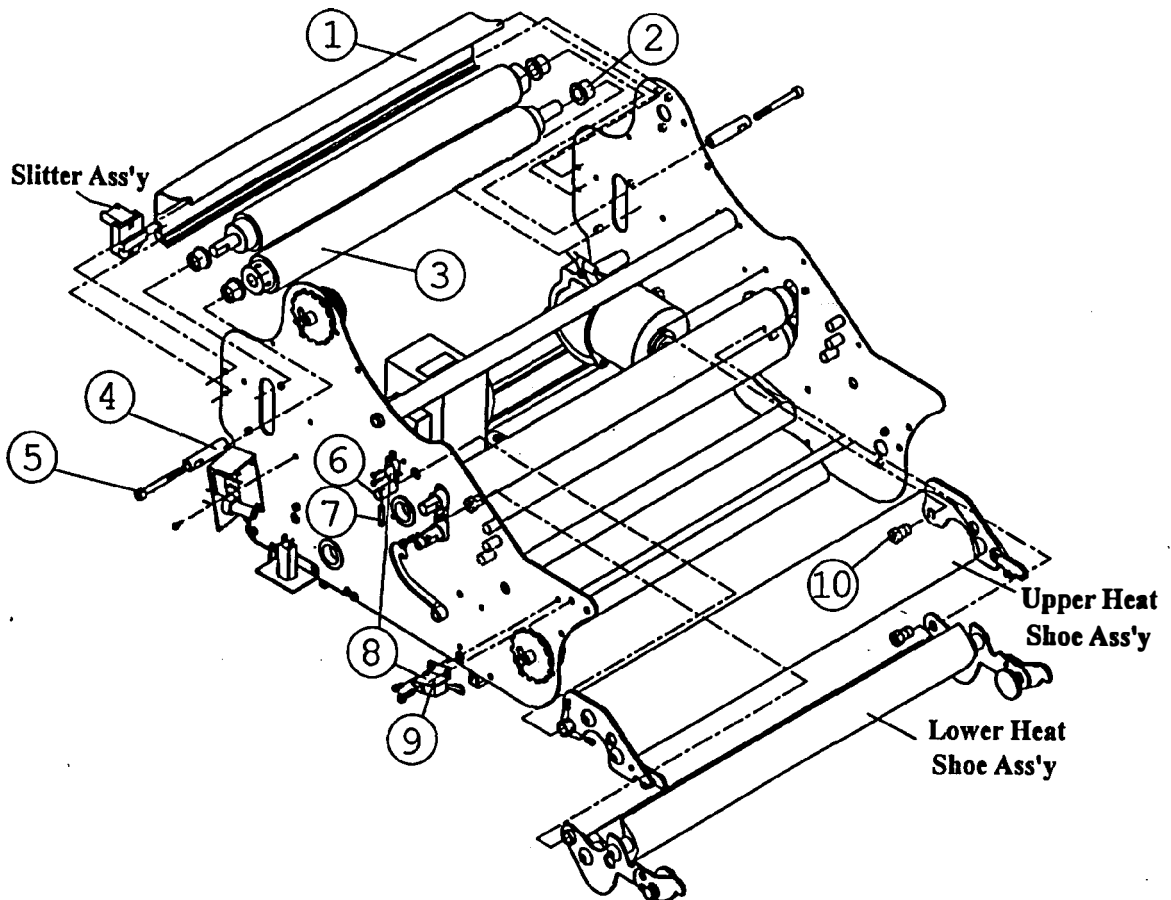
## 8.0 PARTS

Figure 8.3

ITEM NO.	PART NO.	DESCRIPTION	QTY
1	701091102	Locking Clip	2
2	601310512	Tension Adjust Plate	2
3	601230702	Inside Tension Disc	2
4	703070101	Friction Disc	4
5	701090142	Film Tension Spring	2
6	706011021	Main PCB	1
7	701090832	Roll Pin	2
8	613030537	Film Tension Bolt	2
9	601230713	Outside Tension Disc	2
10	704090102	Power Switch	1
11	601310506	Power Switch Bracket	1
12	704031015	Power Cord ,120v	1
12	704031116	Power Cord, 230v	1
13	601310507	Circuit Breaker Bracket	1
14	704091046	Circuit Breaker 12 amp(120v)	1
14	704091043	Circuit Breaker 12 amp (240v)	1
15	704140403	Strain Relief	1
16	601210236	Left Side Plate	1
17	601310505	Film Tension Adjust Lever	2
18	604034897	Front Base Plate	1
19	703010209	Rubber Bushing	4
20	601210237	Right Side Plate	1
21	613030151	Tie Bar	1
22	703010111	Rubber Foot	4

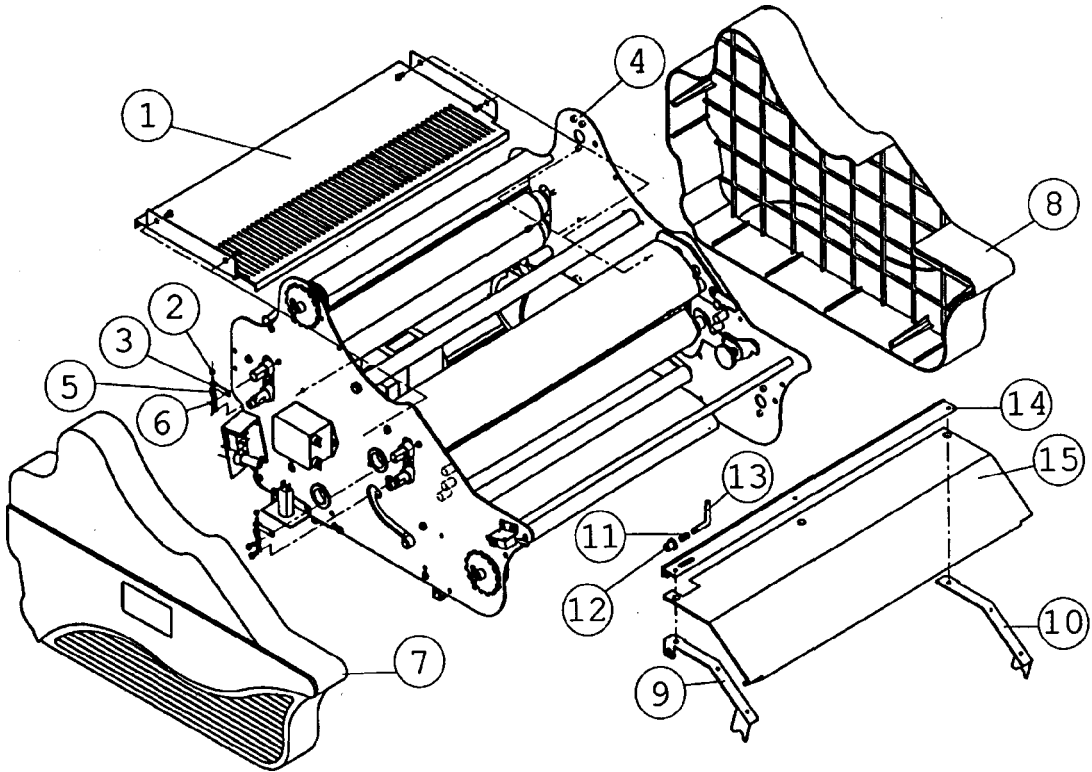
## 8.0 PARTS

Figure 8.4



ITEM	PART	DESCRIPTION	QTY
1	604034892	Blade Rail	1
2	613040131	Roller Bushing	8
3	607040562	Rear Roller	2
4	613030539	Centered Pin, Rear Roller	2
5	701107416	Hex Head Bolt	2
6	613030325	Shoe Hinge Pin	1
7	701090845	Roll Pin	1
8	704090414	Microswitch	2
9	601310508	Microswitch Bracket	1
10	613011310	Shoe Support Pin	3

**8.0 PARTS**  
**Figure 8.5**





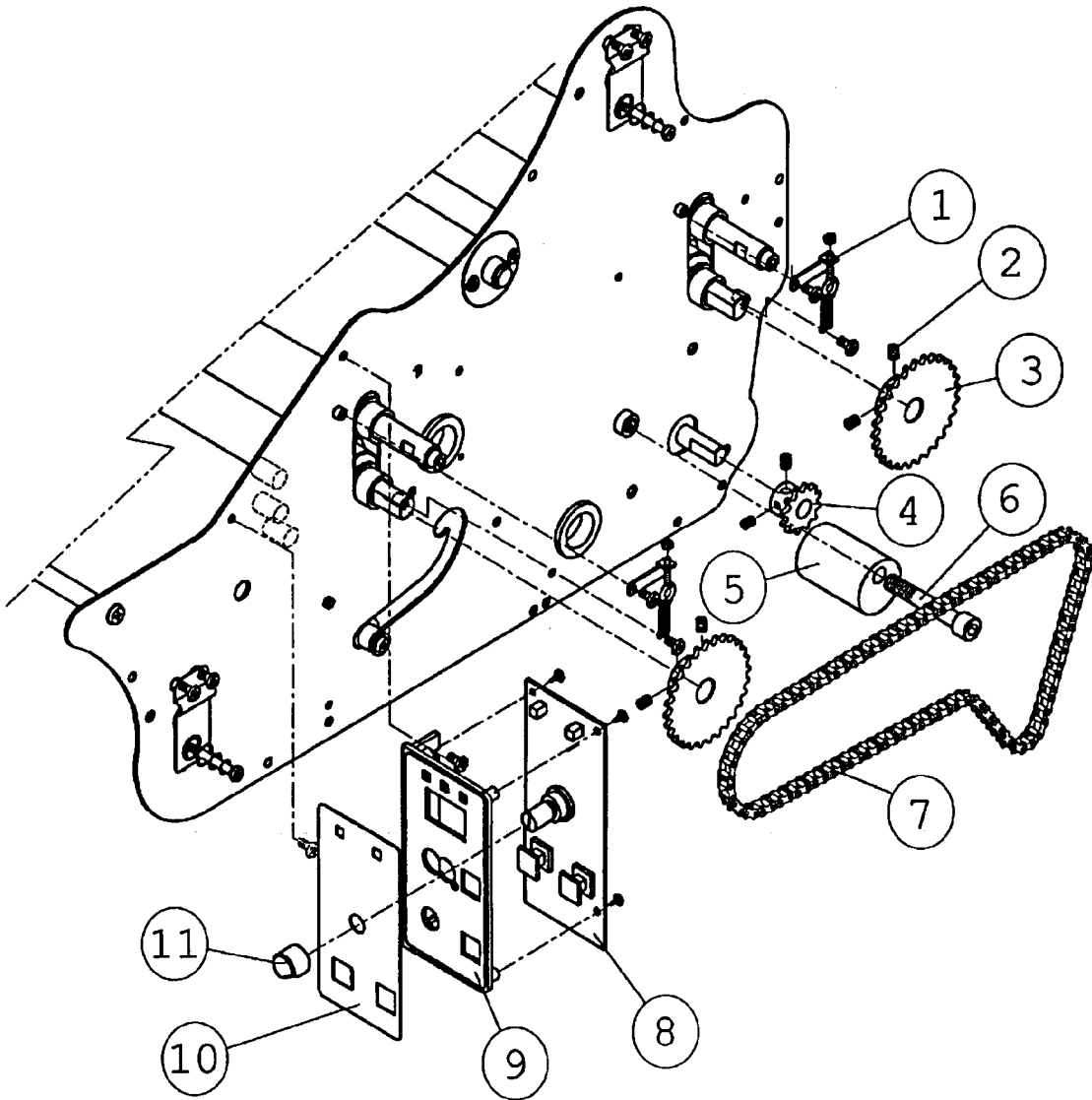
## 8.0 PARTS

Figure 8.5

ITEM NO.	PART NO.	DESCRIPTION	QTY
1	601230992	Film Screen Guide	1
2	701110105	Roller Tension Nut	4
3	601310509	Roller Tension Lever (L)	2
4	601310510	Roller Tension Lever (R)	2
5	613030538	Roller Tension Bolt	4
6	701090157	Roller Tension Spring	4
7	604020351	Side Cover (L)	1
8	604020352	Side Cover (R)	1
9	601211115	Shoe Cover Bracket (L)	1
10	601211116	Shoe Cover Bracket (R)	1
11	701090156	Spring	1
12	613030614	Lever Cap	1
13	613011317	Shoe Cover Lever	1
14	604034874	Shoe Cover Support (2700)	1
15	601230454	Shoe Cover (2700)	1

## 8.0 PARTS

Figure 8.6



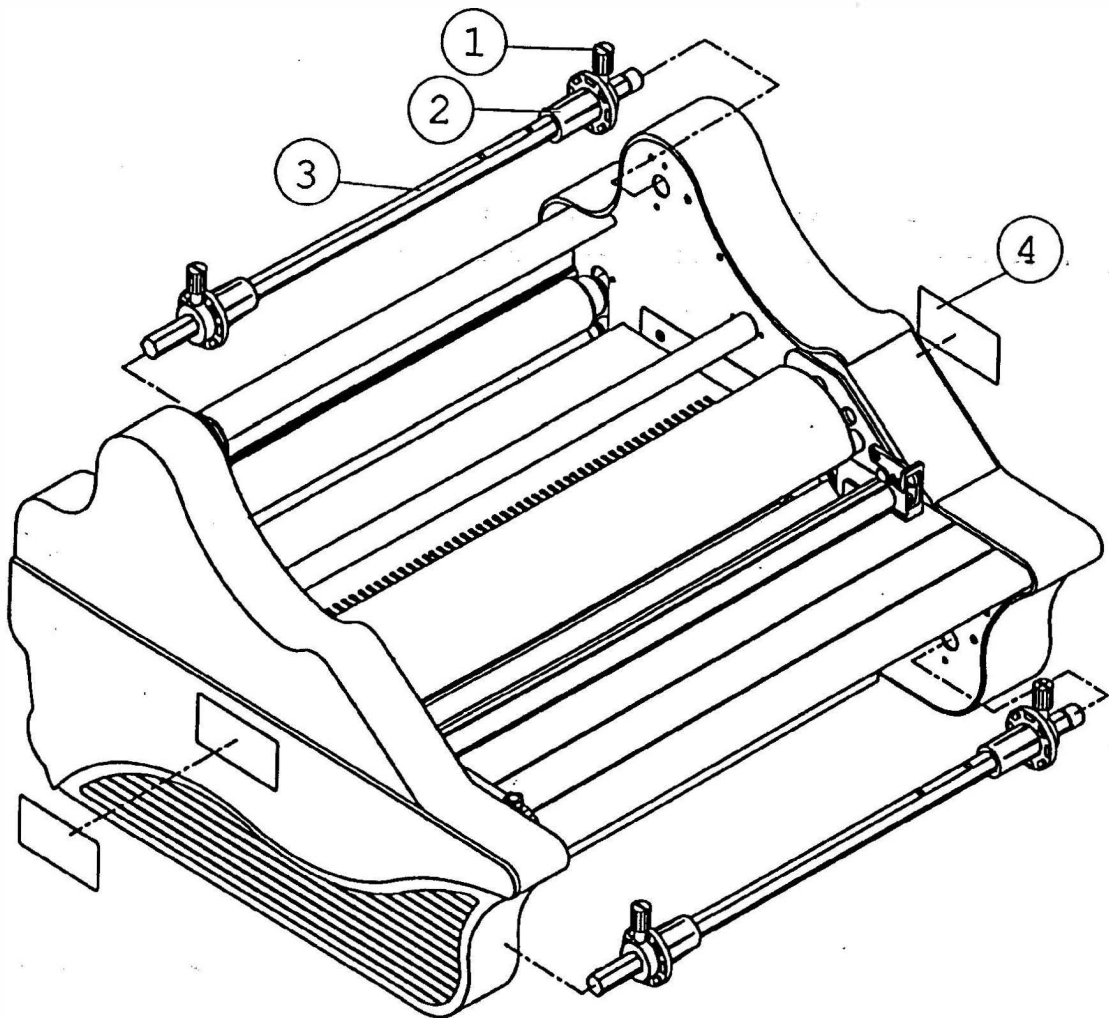
P/N# 638001907 Ribbon Cable From Display P.C.B. To Main P.C.B.

**8.0 PARTS**  
**Figure 8.6**

ITEM	PART NO.	DESCRIPTION	QTY
1	601310510	Tension Lever (R)	1
2	701106303	Set Screw	6
3	701080233	20 T Chain Gear	2
4	701080265	12 T Chain Gear	1
5	703040206	Chain Take Up	1
6	701107511	Shoulder Bolt	1
7	701070156	Chain	1
8	706011024	Control Panel PCB	1
9	604020353	Plastic Control Panel	1
10	802102411	Control Panel Label	1
11	703021001	Knob	1

## 8.0 PARTS

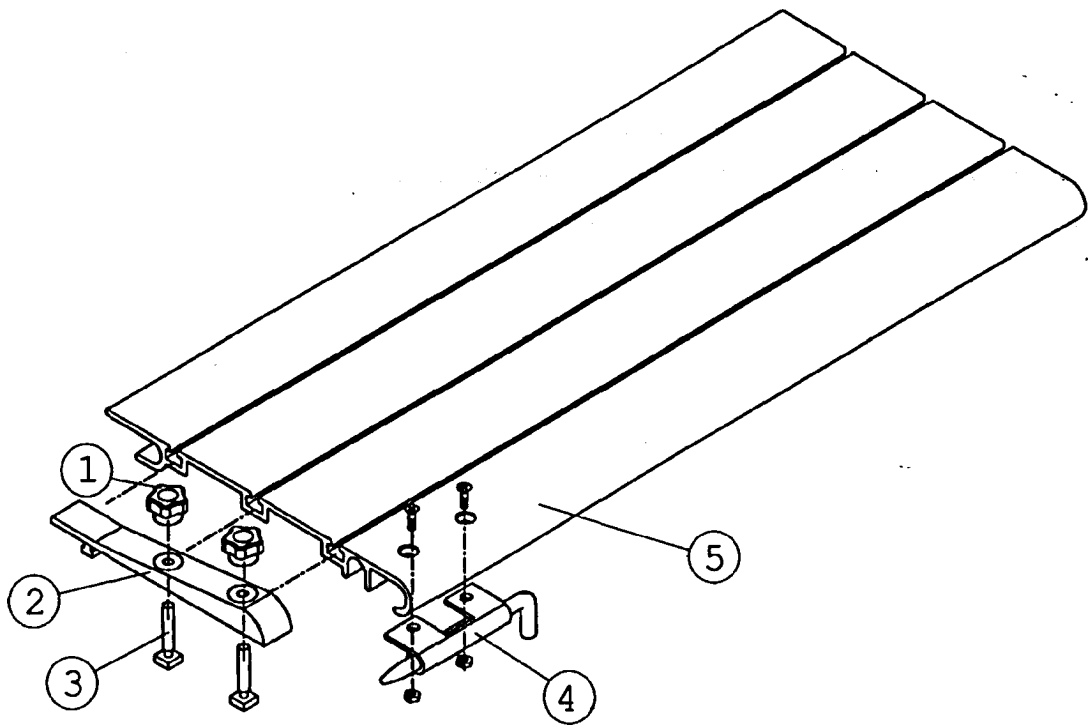
Figure 8.7



ITEM NO.	PART NO.	DESCRIPTION	QTY
1	613030527	Core Adaptor Bolt	4
2	604037021	1" Core Adaptor	4
3	613030211	Film Shaft	2
4	802026712	Side Cover Sticker	2

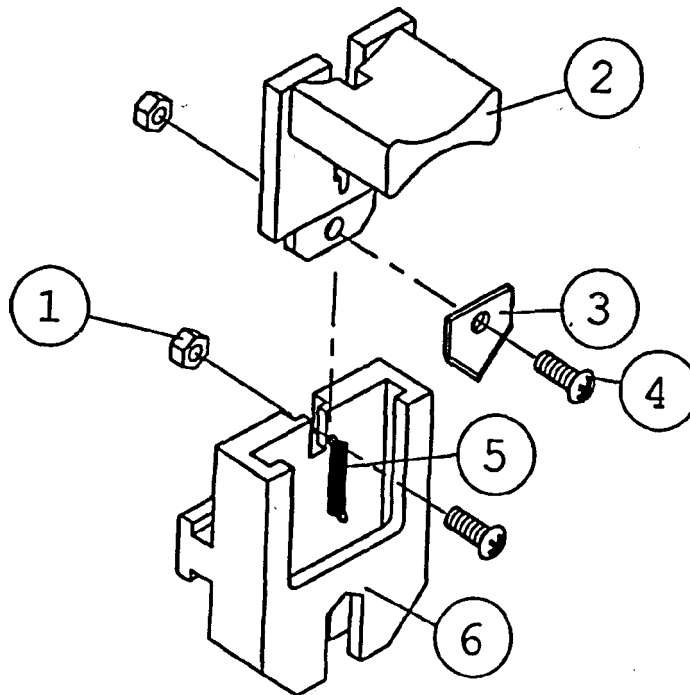
**COVER SCREWS # 8 SHEET METAL FLAT HEAD**

**8.0 PARTS**  
**Figure 8.8**



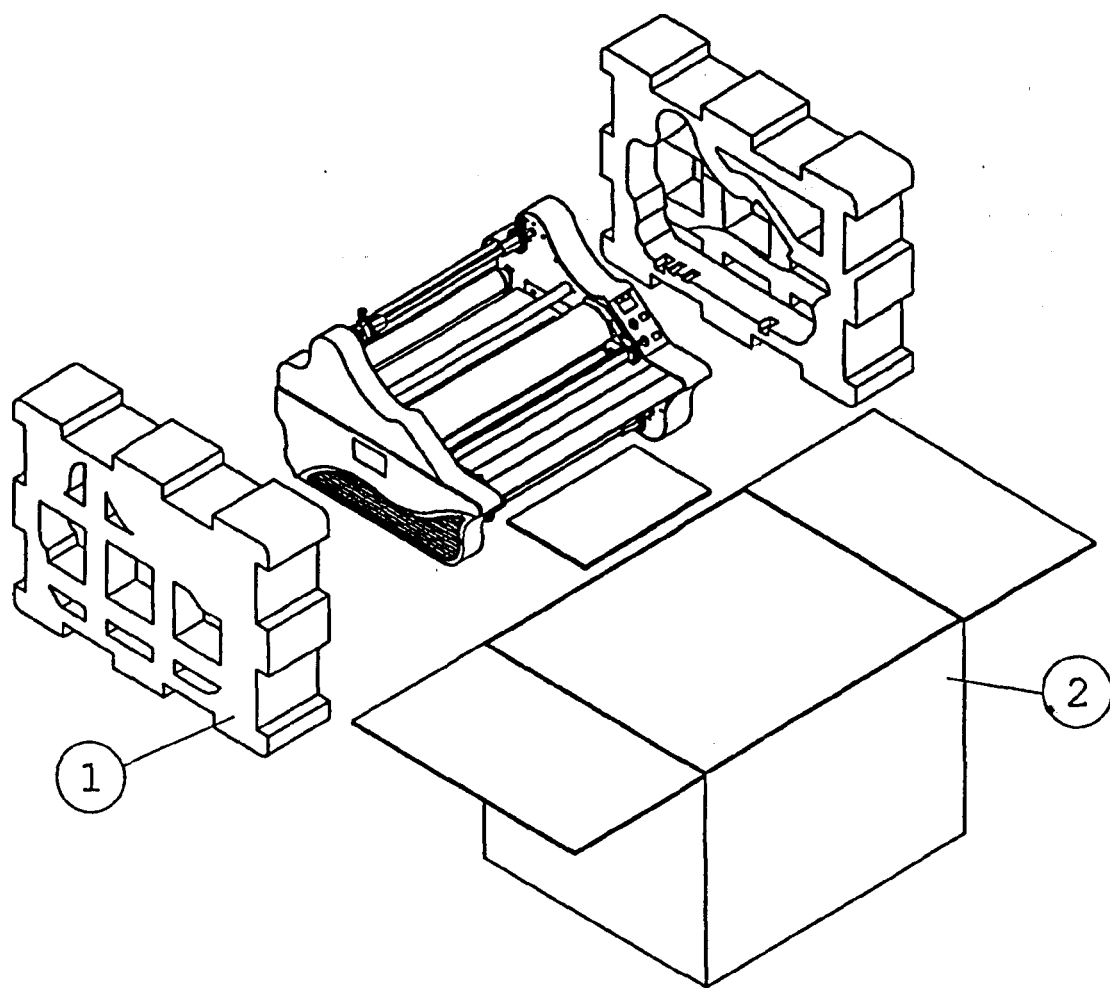
ITEM NO.	PART NO.	DESCRIPTION	QTY
1	604022032	Paper Guide Knob	2
2	6040220310	Paper Guide	1
3	701108131	Paper Guide Bolt	2
4	613030613	Feed Table Latch	1
5	604036017	Feed Table	1

**8.0 PARTS**  
**Figure 8.9**



ITEM NO.	PART NO.	DESCRIPTION	QTY
1	701110101	Nut	2
2	604022034	Slitting Lever	1
3	613050221	Slitter Blade	1
4	701104803	Screw	2
5	701090159	Spring	1
6	604022033	Slitter Housing	1

8.0 PARTS  
Figure 8.10



ITEM NO.	PART NO.	DESCRIPTION	QTY
1	8010425	End Cap	2
2	801010722	Carton	1
Not Shown	1722300	Docuseal 2700 Instruction Video	1

## **9.0 RECOMMENDED SPARE PARTS**

<b>PART NUMBER</b>	<b>DESCRIPTION</b>	<b>QTY. PER MACHINE</b>
706111507	Infrared Heater Ass'y	2
604030417	Heat Shoe	2
706040212	Sensor Ass'y	1
704130117	3.6 Amp Fuse	1
610011901	120v Transformer	1
610011902	230v Transformer	1
6090202	DC Gear Motor	1
607040561	Front Roller	2
703070101	Friction Disc	4
704091046	Circuit Breaker 12 amp (120v)	1
704091043	Circuit Breaker 12 amp (240v)	1
704090102	Power Switch	1
703070111	Rubber Foot	4
613040131	Roller Bushing	8
607040562	Rear Roller	2
704090414	Microswitch	2
701070156	Chain	1
706011024	Control Panel PCB	1
701080233	20T Chain Gear	2
701080265	12T Chain Gear	1
613050221	Slitter Blade	1
706011021	Main PCB Ass'y	1