

MODEL HP-4E

# Thermopress<sup>®</sup> Heat-Seal Machine

## Operation & Maintenance Manual



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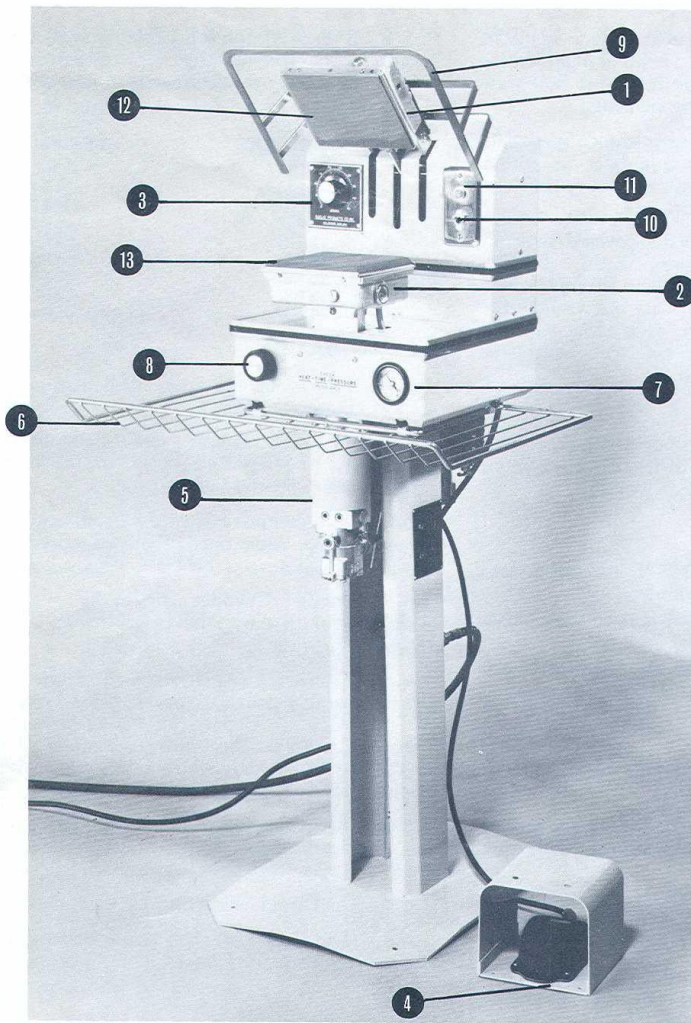
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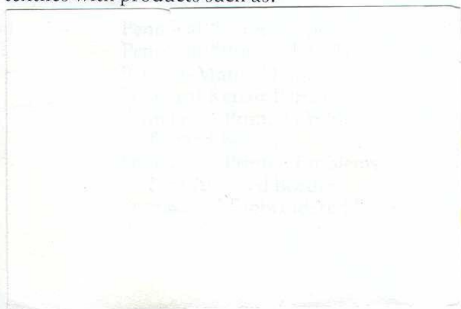


**Photo No. 1**  
 1. Upper Platen  
 2. Lower Platen  
 3. Timer  
 4. Foot Pedal  
 5. Front Cylinder  
 6. Work Tray  
 7. Air Pressure Gauge  
 8. Pressure Control Knob  
 9. Safety Guard Assembly  
 10. On-Off Switch  
 11. Pilot Light  
 12. Upper Iron Shield  
 13. Silicone Sponge Pad

**GENERAL DESCRIPTION**

**1.1 - FUNCTION**

1.1.1 - The Thermopress® Model HP-4E is the latest in a succession of state-of-the-art industrial presses designed for the heat-seal identification and repair of textiles with products such as:



1.1.3 - It is an electrically heated and controlled, free-standing floor model. Pressure is exerted by externally supplied compressed air.

1.1.4 - A major feature is its specially-engineered wide opening throat, which provides a broad view of the work area and facilitates exact placement of work.

**1.2 - POWER REQUIREMENT**

Electricity: 15 amp., 110/120 vac, 60 Hz  
 Compressed Air: 1.5 - 3.0 cfm free air @ minimum 100 psi



### 1.3 - HEAT:

1.3.1 - Both upper and lower platens include standard 5" x 6" (optional 6" x 10") heating irons of high-density aluminum alloy, into which have been cast 400 watt (optional 800 watt) tubular heating elements.

1.3.2 - These are controlled by close-tolerance bi-metallic thermostats, capable of maintaining heat to within 5 degrees F. of any selected temperature within the operating range of the Thermopress.

1.3.3 - The upper iron is normally covered with an adhesion-resistant Teflon-Fiberglass Shield, and the lower platen with a special highly resilient Silicone Sponge Pad Assembly. These components are interchangeable and may be reversed in position, as is often required in the application of embroidered heat-seal emblems to industrial garments. (See Section 6.5)

### 1.4 - TIME

The standard timer is a solid-state device that controls dwell within an adjustable range of 1 to 45 seconds and automatically re-sets at the end of each cycle.

### 1.5 - PRESSURE

1.5.1 - The Thermopress Model HP-4E uses compressed air to power two double-acting cylinders:

- A 2" I.D. Rear Cylinder, which opens and closes the press.
- A 3" I.D. Front Cylinder, which raises the Lower Platen against the Upper Platen, exerting the required inter-platen pressure.

1.5.2 - It contains:

- An air filter/moisture trap and air line lubricator.
- An Air Pressure Gauge.
- An Air Pressure Regulator, located inside the console which provides overall control and is normally factory pre-set to 90 psi.
- An inter-platen Pressure Control Regulator, which may be adjusted by turning the black Pressure Control Knob located at the front of the console.

1.5.3 - The Air Pressure Gauge indicates the level of pressure being supplied to the Front Cylinder and hence directly reflects inter-platen pressure:

<u>GAUGE READING</u>	<u>INTER-PLATEN PRESSURE ON 5" x 6" IRONS</u>
30 PSI	7.1 PSI
40 PSI	9.4 PSI
50 PSI	11.8 PSI
60 PSI	14.2 PSI
70 PSI	16.5 PSI
80 PSI	18.9 PSI
90 PSI	21.2 PSI
100 PSI	23.6 PSI

1.5.4 - Expressed in terms of the inter-platen pressure requirements often specified for a press equipped with 5" x 6" platens by manufacturers of heat-seal products:

<u>INTER-PLATEN PRESSURE REQUIREMENT</u>	<u>ADJUST PRESSURE TO A GAUGE READING OF:</u>
4 PSI	17 PSI
6 PSI	25 PSI
8 PSI	34 PSI
10 PSI	42 PSI
12 PSI	51 PSI
14 PSI	59 PSI
16 PSI	68 PSI
18 PSI	76 PSI
20 PSI	85 PSI

### 1.6 - ACTUATION

1.6.1 - Depressing the Foot Pedal triggers a holding Relay built into the Timer.

1.6.2 - The Relay energizes a series circuit which includes the Timer, the Safety Release Switch, the Safety Guard and the Rear Solenoid Valve.

1.6.3 - If all components of the circuit are closed, the Rear Solenoid Valve opens the compressed air source to the Rear Cylinder as the Timer begins its preset cycle.

1.6.4 - The Rear Cylinder actuates the Lever Assembly, which begins to move the Upper Platen Assembly to its closed position.

1.6.5 - A mercury switch attached to one side of the Lever Assembly delivers current to the Front Solenoid Valve just as the Upper Iron Assembly locks into its horizontal position. This opens the compressed air source to the Front Cylinder, which raises the Lower Platen, applying pressure to the work.

1.6.6 - When the Timer reaches the end of its preset dwell cycle, it opens the series circuit, unlatching the Relay, which in turn de-energizes both Solenoid Valves.

1.6.7 - The Front Cylinder lowers the Lower Platen.

1.6.8 - The Rear Cylinder, acting through the Lever Assembly, raises the Upper Platen to its normal open position.

### 1.7 - SAFETY

1.7.1 - A foot pedal initiates the heat-seal cycle. The operator's hands are free to better control the placement of repair and identification materials.

1.7.2 - A fail-safe Proximity Safety Device electronically senses the presence of any part of the human body within approximately 1" of the Platen Guard, and prevents machine closing, allowing the use of both hands in complete safety.

1.7.3 – When triggered, the safety device terminates the dwell cycle, opens the press and re-sets the timer.

#### 1.8 – MANUFACTURER'S WARRANTY:

1.8.1 – The Euclid Products Company, Inc. (*hereinafter referred to as "Euclid"*), the manufacturer of the Thermopress, warrants it to be free from defects in material and workmanship for a period of 90 days from date of delivery to the original purchaser.

1.8.2 – Specifically excluded are such components as resilient pads and covers, which normally wear in use and are considered consumable items.

1.8.3 – During the warranty period, Euclid will repair, or at its option replace, without charge, components that prove to be defective under normal use and service, provided the product involved is returned, shipping charges prepaid, to Euclid or to an authorized Euclid distributor or its agent and that the claimant provides Euclid with any information requested to support the validity of its claim. Labor and transportation costs are not included.

1.8.4 – This warranty does not apply if, in the opinion of Euclid, the product has been damaged due to abuse, misuse, misapplication, accident, or as a result of service or modification by other than an authorized Euclid distributor or its agent.

1.8.5 – No other warranties are expressed or implied, including, but not limited to, any implied warranties of merchantability and fitness for a particular purpose. Euclid shall not be held responsible for any consequential damages or losses arising from the use of this product.

1.8.6 – This warranty applies to Thermopress equipment sold in the United States and Canada only. It may be validated only upon the completion of the Warranty Information Card attached to each machine and its return within ten days of delivery of the machine to the original purchaser.

#### UNPACKING:

##### 2.1 – EXAMINATION & PREPARATION:

2.1.1 – Examine the packing box for any exterior signs of damage. If there are any, immediately draw them to the attention of the carrier.

2.1.2 – Using pliers or other suitable tool, remove the staples from the top of the carton, open it and remove the upper protective packing pieces.

2.1.3 – Withdraw the inside sleeve.

##### 2.2 – REMOVAL:

2.2.1 – The Thermopress may now be withdrawn from the carton, using a hoist attached to the lever arms.

2.2.2 – If no hoist is available, or if ceiling height is insufficient, use the following procedure:

2.2.3 – Lay the carton on its side so that the back of the Thermopress faces the floor.

2.2.4 – Remove the staples from the bottom of the carton and fold the four flaps upward.

2.2.5 – Stand the carton on end again, with the base of the Thermopress now resting on the floor.

2.2.6 – Slide the carton upward and off the Thermopress.

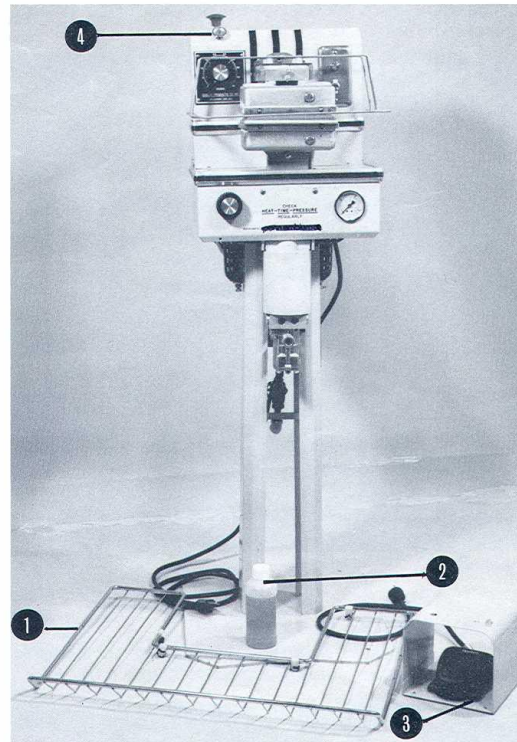


Photo No. 2

1. Work Tray Assembly 2. Lubricator Oil 3. Foot Pedal  
4. Thermometer

##### 2.3 – REMOVAL OF PACKED COMPONENTS:

(Photo No. 2)

2.3.1 – Cut and remove the filament tape retaining the remaining packing pieces and accessories.

2.3.2 – Remove these components, including the Foot Pedal, a container of lubricator oil and the chrome-plated Work Tray Assembly, from the body of the machine.

2.4 – *Important Suggestion:* Retain the carton and all of the packing materials. They will be required in the event that the Thermopress must ever be returned to the factory for service.

2.5 – Inspect the Thermopress for any latent damage and immediately report it in writing to the carrier, with whom a corresponding claim should promptly be filed.



## INSTALLATION:

### 3.1 - SECURITY:

Although the Thermopress may be used temporarily as a free-standing unit, it is recommended that it be bolted to the floor, through the holes provided at each corner of the stand, with the back of the press at least 24" from any wall or obstruction.

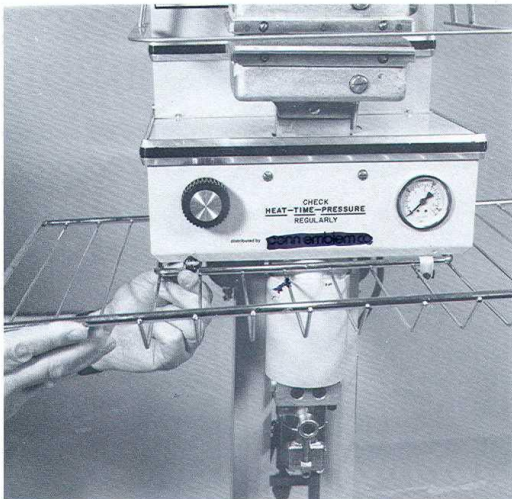


Photo No. 3

### 3.2 WORK TRAY:

Attach the Work Tray to the lower edge of the Console with the plastic fasteners provided. (Photo No. 3.)

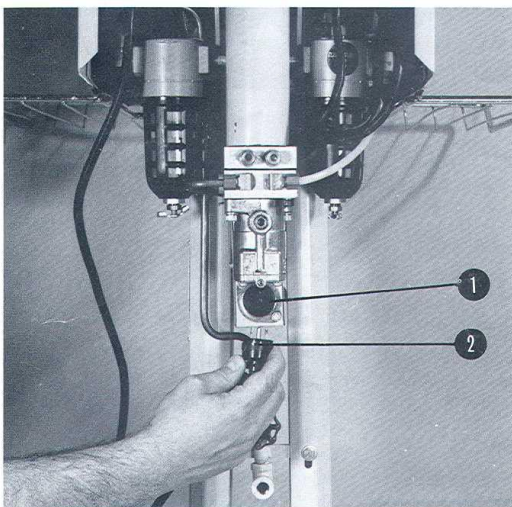


Photo No. 4

1. Receptacle 2. Three-Prong Male Connector

### 3.3 - FOOT PEDAL:

Connect the three-prong male connector from the Foot Pedal Assembly into the corresponding female receptacle at the back of the Rear Cylinder Assembly and twist clockwise to lock it in place. (Photo No. 4.)

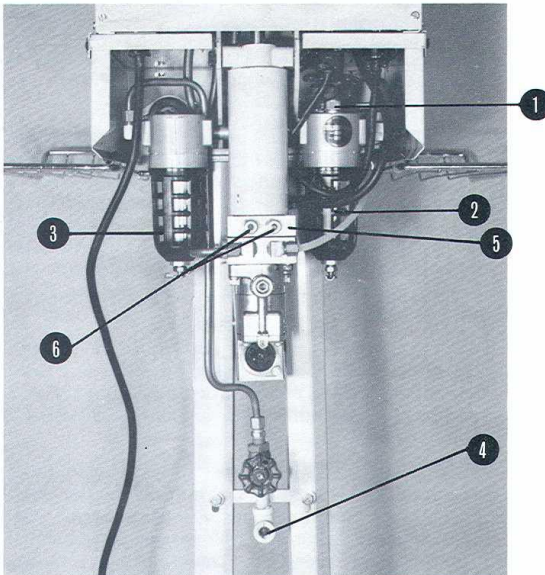


Photo No. 5

1. Filler Plug 2. Air Line Lubricator 3. Moisture Trap/Air Filter 4. 1/4" NPT Female Fitting 5. Throttle Block Assembly 6. Speed Adjusting Knobs, Upper Platen

### 3.4 - AIR LINE LUBRICATOR: (Photo No. 5)

3.4.1 - Remove the filler plug from the automatic Air Line Lubricator, located at the rear right-hand side of the machine. A pair of pliers may be required.

3.4.2 - Using a small plastic funnel or a simple funnel wound from kraft paper, fill the lubricator reservoir with non-detergent SAE 20 lubricating oil. The initial supply is packed with the machine.

3.4.3 - Replace the filler plug, tightening it firmly.

### 3.5 - COMPRESSED AIR FILTER:

Note that there is a moisture trap/air filter located next to the lubricator at the rear of the machine, just beneath the console. This should be drained daily or as necessary.

### 3.6 - COMPRESSED AIR CONNECTION:

Connect a source of clean, dry compressed air at a minimum pressure of 100 psi to the 1/4" NPT female fitting (Photo No. 5) at the rear of the machine.



### 3.7 - ELECTRICAL CONNECTION:

Connect the U-Ground electrical plug to a source of 15 amperes of 120 vac 60 Hz current.

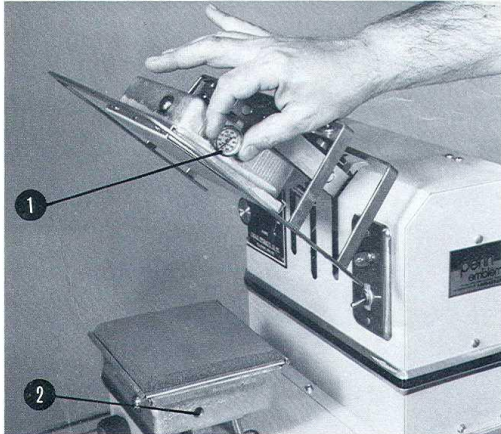


Photo No. 6  
1. Stem Thermometer 2. Opening for Stem Thermometer, in Lower Platen

### 3.8 - THERMOMETER

Unscrew the Stem Thermometer from its threaded receptacle (Photo No. 7) located on the console just above the Timer, and insert it into the opening provided on the right side of the Upper Platen. (Photo No. 6.)

### 3.9 - UPPER IRON TEMPERATURE CHECK:

3.9.1 - Switch the machine "On" and check the pilot light to confirm this condition.

3.9.2 - Allow the Thermopress to heat for at least 15 minutes.

3.9.3 - The Upper Platen temperature should stabilize at about 410 degrees F. If it does not, follow procedures described in section 5.5: "ADJUSTING IRON TEMPERATURE".

### 3.10 - LOWER IRON TEMPERATURE CHECK:

3.10.1 - With the Upper Iron temperature stabilized at 410 degrees F., remove the Stem Thermometer and insert it into the opening provided in the Lower Platen. **CAUTION:** The thermometer is hot! Handle it with protective gloves.

3.10.2 - The Lower Platen should normally operate at approximately 350 degrees F.

### 3.11 - CARE AND USE OF THERMOMETER:

3.11.1 - When the proper operating temperature of both platens has been ensured, replace the Stem Thermometer in its storage receptacle. The Stem Thermometer will suffer premature failure if left in one of the platens while the Thermopress is being operated.

3.11.2 - **NOTE:** It is recommended that the temperature of both platens be checked once daily.

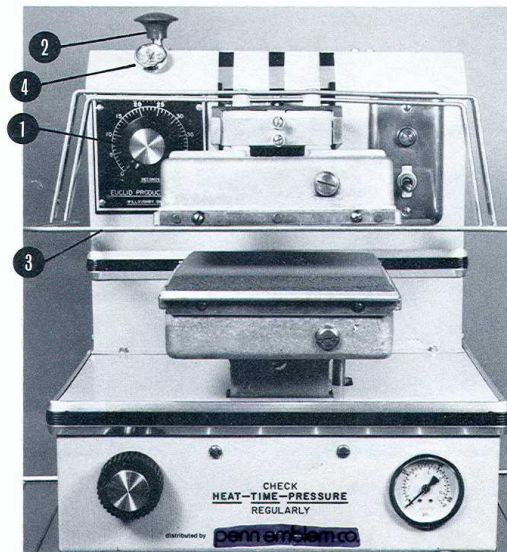


Photo No. 7  
1. Timer 2. Safety Release Switch 3. Electronic Safety Shield  
4. Stem Thermometer in Receptacle

### 3.12 - TIMER:

3.12.1 - Set the Timer to 10 seconds.

3.12.2 - Depress the Foot Pedal. The Thermopress platens should close, maintain a 10 second sealing cycle, then open.

### 3.13 - SAFETY SYSTEM:

3.13.1 - If depressing the Foot Pedal does not set the machine into motion, push once and release the red knob of the double-acting Safety Release Switch located at the top left-hand side of the console, and try again.

3.13.2 - If it still does not operate, follow the procedures outlined in section 5.1, "ADJUSTING THE ELECTRONIC SAFETY SYSTEM".

## MAINTENANCE

4.1.1 - Wipe the upper Iron Shield with a dry cloth at least once each hour of operation to prevent the accumulation on it of starch and excess adhesive, which will seriously impair the bond strength of items being heat-sealed.

4.1.2 - Examine the Silicone Sponge Pad daily. It should provide 8-14 pounds of resistance per square inch at 25% deflection. A compacted or excessively soft pad should be replaced.

4.1.3 - Check the temperature of upper and lower irons daily.

4.1.4 - Drain the Air Line Filter weekly - more frequently in warm, moist environments.



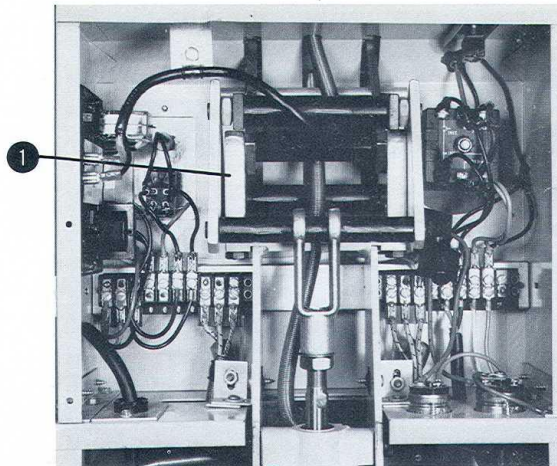


Photo No. 8  
1. Lever Arm Assembly

4.1.5 – Lubricate sparingly the pivot points of the Lever Arm Assembly every 80 hours of operation. (Photo No. 8.)

## ADJUSTMENTS AND REPAIRS

### 5.1 ADJUSTING THE ELECTRONIC SAFETY SYSTEM:

NOTE: A full wiring diagram is printed on the inside of the rear cover.

5.1.1 – The operator and others in the area of the Thermopress Model HP-4E are protected from injury or burn by a highly sophisticated electronic safety device. The machine will not function when *any* hand or other part of the body is left between the platens, or approaches within approximately 1" of the Safety Guard Assembly, nor when the safety device has been removed.

5.1.2 – It should be noted that the safety device will be more sensitive to the presence of two hands in its immediate area than to one. The operator should be cautioned that when holding the work being heat-sealed during the press cycle, the hands should be kept far enough away from the guard to permit completion of the full sealing cycle.

5.1.3 – Under normal operating conditions, the factory adjustment of the safety control should be adequate. However, in any of the following three situations, some re-adjustment may prove necessary:

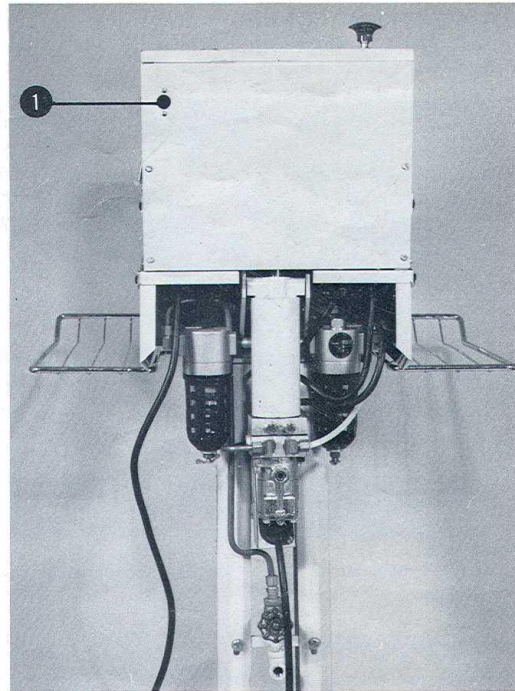


Photo No. 9  
1. Red LED

- a) Damage or mis-handling during shipment or installation.
- b) Installation of a different size of platen from that supplied with the press.
- c) Reversal or transposition (i.e. top-to-bottom) of the Teflon-Fiberglass Iron Shield and the Silicone Sponge Pad Assembly.

5.1.4 – With the Thermopress at operating temperature, check the proper operation of the safety mechanism.

5.1.5 – NOTE: In the small window in the left side of the rear cover, there is a red LED (light) visible. (Photo No. 9.) It must remain lit for the machine to operate.

5.1.6 – If the Safety Release has been checked (ref. Sec 3.13.1), yet the Thermopress does not operate at a touch of the foot pedal, or if the press dwell cycle is found to be erratic, check the LED. If it does not remain lit continually, some adjustment may be required, as follows:



5.1.7 – Remove the Rear Cover.

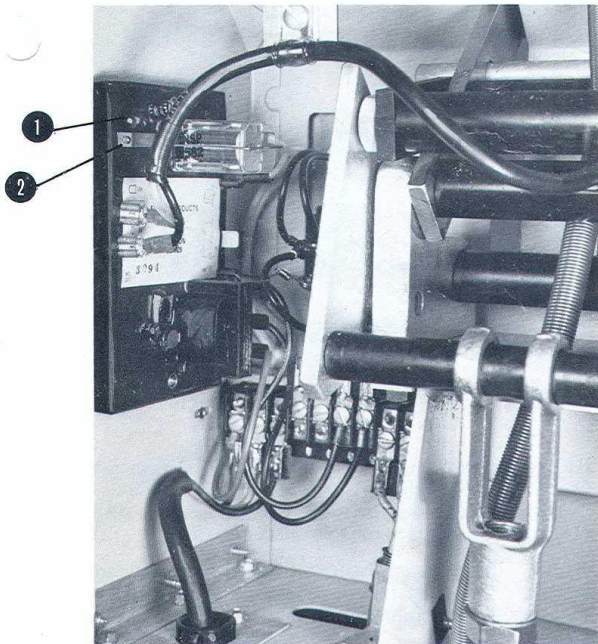


Photo No. 10  
1. Red LED 2. Potentiometer Adjusting Screw

5.1.8 – Locate the Potentiometer Adjusting Screw, located on the circuit board fastened to the left inside panel of the console. (Photo No. 10.)

5.1.9 – Turn the adjusting screw a few degrees clockwise *very slowly*, waiting a few seconds between successive adjustments, until the light comes on, then continue another 1/8 to 1/4 turn to set the required sensitivity.

5.1.10 – It is best to test machine operation after each adjustment increment.

5.1.11 – NOTE: If the adjusting screw is turned too far clockwise, the machine will not close properly and will exhibit excessive sensitivity. To correct, turn the adjusting screw counterclockwise until the light goes off, then repeat step 5.1.9.

**5.2 – HOW TO REPLACE THE IRON SHIELD**

5.2.1 – Remove the two screws retaining the Iron Shield. (Photo No. 12.)

5.2.2 – Loosen the four 6-32 binding head screws holding the Safety Guard Assembly. (Photo No. 11.)

5.2.3 – Tilt the Safety Guard Assembly to the side. (Photo No. 12.)

5.2.4 – Slide the Iron Shield off the Iron.

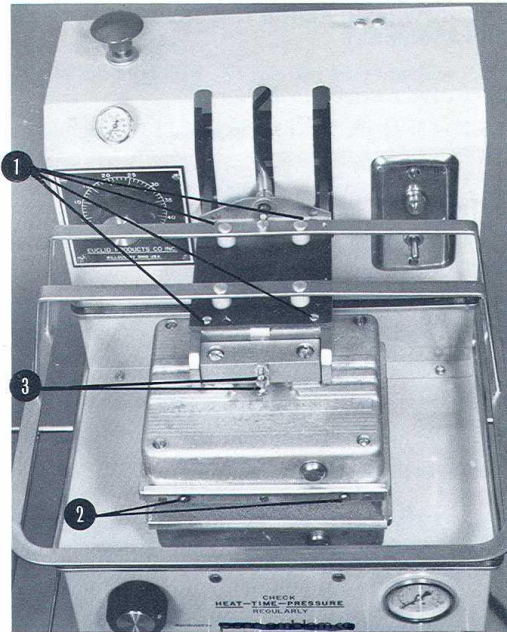


Photo No. 11  
1. 6-32 Screws, Safety Guard Assembly 2. Retaining Screws, Iron Shield 3. Swivel Block Adjustment Screws

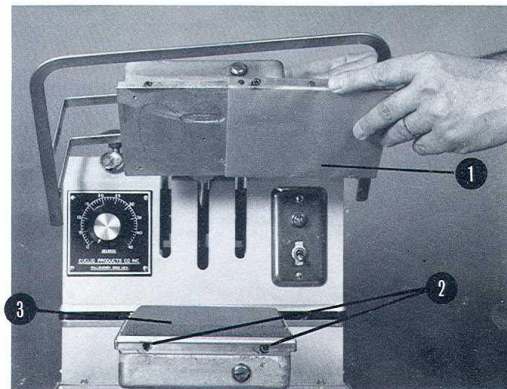


Photo No. 12  
1. Iron Shield 2. Retaining Screws, Silicone Sponge Pad Assembly 3. Silicone Sponge Pad

5.2.5 – Slide a new Iron Shield onto the iron.

5.2.6 – Re-install the two screws retaining the Iron Shield.

5.2.7 – Re-tighten the four screws holding the Safety Guard Assembly.



### 5.3 - HOW TO REPLACE THE SILICONE SPONGE PAD ASSEMBLY

5.3.1 - Remove the two screws which hold the Silicone Sponge Pad Assembly to the Iron.

5.3.2 - Slide the Silicone Sponge Pad Assembly off the Iron.

5.3.3 - Slide a new Silicone Sponge Pad Assembly onto the Iron.

5.3.4 - Re-install the two screws retaining the Silicone Sponge Pad.

### 5.4 - TEST FOR BROKEN OR EXCESSIVELY WORN LEVER ASSEMBLY

5.4.1 - Remove the Iron Shield.

5.4.2 - Remove the Silicone Sponge Pad.

5.4.3 - Set pressure at 55 psig.

5.4.4 - Set the Timer at 45 seconds.

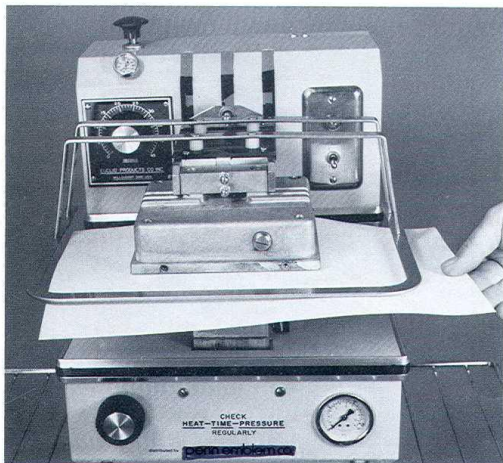


Photo No. 13

5.4.5 - Insert a sheet of bond paper between the platens. (Photo No. 13.)

5.4.6 - Touch the foot pedal to close the platens.

5.4.7 - With the Thermopress closed, attempt to pull the bond paper from between the platens, tugging at all four corners.

5.4.8 - The paper should not be moveable. Any observed movement of the paper from between the platens justifies detailed examination of the Lever Assembly mounting bolts, front and rear Cylinder Assemblies and related components.

### 5.5 - ADJUSTING IRON TEMPERATURE

5.5.1 - Remove the Thermostat Cover Plug located at the front of the iron, exposing the slotted stem of the Thermostat.

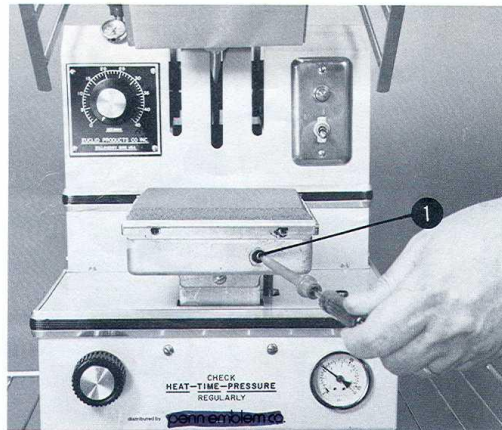


Photo No. 14  
1. Thermostat

5.5.2 - Using a medium blade screwdriver, turn the Thermostat Stem clockwise to increase and counter-clockwise to decrease temperature. (Photo No. 14.) 1/16 turn equals approximately 30 degrees F.

5.5.3 - Allow at least 5 minutes between adjustments and cycle the press several times to ensure that the temperature has stabilized.

5.5.4 - Replace the Thermostat Cover Plug.

5.5.5 - If full clockwise adjustment of the Thermostat stem to its stop does not result in adequate temperature increase (maximum recommended: 450 degrees F.), it may be necessary to recalibrate the Thermostat.

5.5.6 - Before recalibrating the Thermostat, ensure that the Iron is in proper operating condition.

5.5.7 Insert an extremely fine screwdriver (1/16" blade) into the hollow adjusting stem of the Thermostat, where an additional small adjusting screw is located.

5.5.8 - Turn the adjusting screw 1/4 turn, then repeat steps 5.5.3, 5.5.4 & 5.5.5.

### 5.6 - TO ADJUST THE DEGREE TO WHICH THE UPPER PLATEN CAN TILT FORWARD AND BACKWARD ABOUT ITS CENTRAL AXIS

5.6.1 - It is intended that the Upper Platen be free to tilt forward and backward two to three degrees about its central axis.

5.6.2 - In combination with the resiliency of the Silicone Sponge Pad Assembly, this rotation provides some inter-platen compensation for uneven or irregular materials.

5.6.3 - Loosen the nuts which lock the two adjustment screws which protrude from the front of the Swivel Block. (Photo No. 11.)

5.6.4. Loosen both screws two full turns.

5.6.5 - Set the Timer at a 45 second dwell cycle.

5.6.6 - Touch the Foot Pedal to close the platens.



5.6.7 – Turn the upper screw clockwise until it meets some resistance.

5.6.8 – Using a screwdriver to prevent further rotation of the screw, tighten the lock nut against it.

5.6.9 – To prevent inadvertent injury, it is suggested that only one screw initially be adjusted and that the Thermopress then be re-activated for a full 45 second cycle to allow enough time to adjust the second screw.

5.6.10 – Repeat with the lower screw.

5.6.11 – If additional axial movement is required for special purposes, the adjustment screws may be loosened an additional half turn.

5.6.12 – **CAUTION:** Excess Upper Platen axial slack may result in improper inter-platen interface and premature failure of the Silicone Sponge Pad Assembly.

### 5.7 – REPLACING THE UPPER PLATEN THERMOSTAT

5.7.1 – Disconnect the line cord from the electrical supply.

5.7.2 – Remove the four screws which secure the Safety Guard Assembly to the Safety Switch Box.

5.7.3 – Remove the Safety Guard Assembly, exposing the Terminal Block inside the Safety Switch Box.

5.7.4 – Loosen the two screws on the Terminal Block, freeing the leads to the Platen.

5.7.5 – Remove the two Platen mount bolts, which are accessible at the top of the Swivel Block, allowing the platen to drop.

5.7.6 – Remove the screws located at each of the four corners of the Platen Cover.

5.7.7 – Lift the Platen Cover away from the Iron, exposing the Thermostat. (Photo No. 15.)

5.7.8 – Remove the two terminal screws from the Thermostat, noting the position of each lead.

5.7.9 – Remove the two screws which secure the Thermostat to the Iron.

5.7.10 – Remove and discard the Thermostat.

5.7.11 – Install a new Thermostat.

5.7.12 – Re-install and tighten securely the two screws which secure the Thermostat.

5.7.13 – Re-install the two Thermostat leads and secure with the terminal screws.

5.7.14 – Secure the Platen Cover to the Iron with the four screws.

5.7.15 – Lift the Platen to the Swivel Block and secure it with the two Iron Mount Bolts.

5.7.16 – Re-fit each iron lead to a terminal on the Safety Switch Box Terminal Block and tighten the screw.

5.7.17 – Re-install the Safety Guard Assembly.

5.7.18 – Connect the line cord to an electrical source, switch the press “On” and allow it to heat for 15 minutes.

5.7.19 – Check the Upper Platen temperature and, if necessary, follow temperature adjustment procedure (Section 5.5).

### 5.8 – REPLACING THE LOWER PLATEN THERMOSTAT

5.8.1 – Disconnect the line cord from the electrical supply.

5.8.2 – Remove the Silicone Sponge Pad (See Section 5.3).

5.8.3 – Unscrew and remove the pivot bolt which secures the Lower Platen to the Front Cylinder.

5.8.4 – Gently turn the Platen, taking care not to damage connecting wires or excessively stretch the Cord Guard.

5.8.5 – Remove the screws located at each of the four corners of the Platen Cover.

5.8.6 – Lift the Platen Cover away from the Iron, exposing the Thermostat.

5.8.7 – Remove the two terminal screws from the Thermostat, noting the position of each lead.

5.8.8 – Remove the two screws which secure the Thermostat to the Iron.

5.8.9 – Remove and discard the Thermostat.

5.8.10 – Install a new Thermostat.

5.8.11 – Re-install and tighten securely the two screws which secure the Thermostat.

5.8.12 – Re-install the two Thermostat leads and secure with the terminal screws.

5.8.13 – Secure the Platen Cover to the Iron with the four screws.

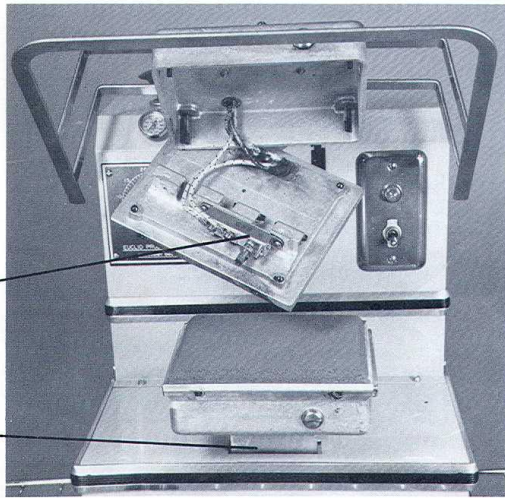


Photo No. 15  
1. Thermostat 2. Pivot Bolt

5.8.14 – Reverse the Platen and re-install the pivot bolt with its nut and lock washer.

5.8.15 – Re-install the Silicone Sponge Pad.

5.8.16 – Connect the line cord to an electrical source, switch the press “On” and allow it to heat for 15 minutes.

5.8.17 – Check the Lower Platen temperature and, if necessary, follow adjustment procedure (Section 5.5).

### 5.9 - ADJUSTING THE OPENING AND CLOSING SPEED OF THE UPPER PLATEN

5.9.1 – Facing the rear of the Thermopress, note the location of two knurled knobs in the Throttle Block Assembly, positioned between the Rear Cylinder and the Solenoid Valve Assembly. (Photo No. 5.)

5.9.2 – Holding the knob to prevent turning, loosen the left-hand locking nut with an open-end wrench.

5.9.3 – Turn the knob clockwise until it seats, then withdraw it 1/2 turn.

5.9.4 – Touch the pedal to close the Thermopress and note the speed of closing. It may be increased by turning the adjusting knob counter-clockwise in small increments, or slowed by turning it clockwise.

5.9.5 – When the desired closing speed has been attained, hold the knob while re-tightening the locking nut.

5.9.6 – The same procedure may be followed with the right-hand knob to adjust the speed at which the Upper Platen opens.

## APPLICATION INSTRUCTIONS

### 6.1 - NORMAL SETTINGS

6.1.1 – Manufacturers of industrial and institutional heat-seal identification and repair products generally call for application conditions within the following range:

Temperature:	400–425 degrees F.
Inter-platen Pressure:	8 – 14 pounds per square inch
Time:	5 – 15 seconds

6.1.2 – Accordingly, common settings for the Thermopress Model HP-4E which will usually result in successful application of patches and labels to light and medium weight garments and linens are:

Upper Iron	
Temperature:	410 degrees F.
Lower Iron	
Temperature:	350 degrees F.
Pressure at Gauge:	60 psi
Time:	10 seconds

### 6.2 - LIGHTER SETTINGS

6.2.1 – Lightweight percales and sheetings may usually be sealed at a dwell of 7-8 seconds, at these “standard” heat and pressure settings.

6.2.2 – Similarly, heat transfers such as PennMark brand may be applied on the Thermopress Model HP-4E in 3-5 seconds.

### 6.3 - HEAVIER SETTINGS

6.3.1 – The proper bonding of heavier mending and label materials and certain special products such as emblems, even to normal weight garments, may call for a longer dwell or higher inter-platen pressure. For example:

### 6.4 - DAMP MENDING

6.4.1 – The above settings relate to fabrics with only a minor level of residual moisture.

6.4.2 – Heat-seal bonding of wet fabric is to be discouraged. However, “damp” mending may be successfully accomplished by first driving off moisture from the area to be repaired.

6.4.3 – Set the Timer at a 12-15 second dwell cycle and close the press on the area to be mended.

6.4.4 – When the press opens, the heat-seal repair material may be applied in the usual manner.

### 6.5 - SPECIAL PROCEDURE — EMBROIDERED EMBLEMS

6.5.2 – Remove the Iron Shield from the Upper Platen and the Silicone Sponge Pad Assembly from the Lower Platen, following procedures detailed in sections 5.2 and 5.3.

6.5.3 – Install the Iron Shield on the Lower Platen.

6.5.4 – Install the Silicone Sponge Pad on the Upper Platen.

6.5.5 – Re-adjust settings as follows:

Upper Iron	
Temperature:	350-375 degrees F.
Lower Iron	
Temperature:	410 degrees F.
Pressure at Gauge:	80 psi
Time:	12 seconds

6.5.6 – These settings will be found suitable for bonding embroidered emblems to normal weight garments. The dwell setting may be increased to 14 seconds for heavier weight fabrics and decreased to 10 seconds for bonding to very lightweight materials.





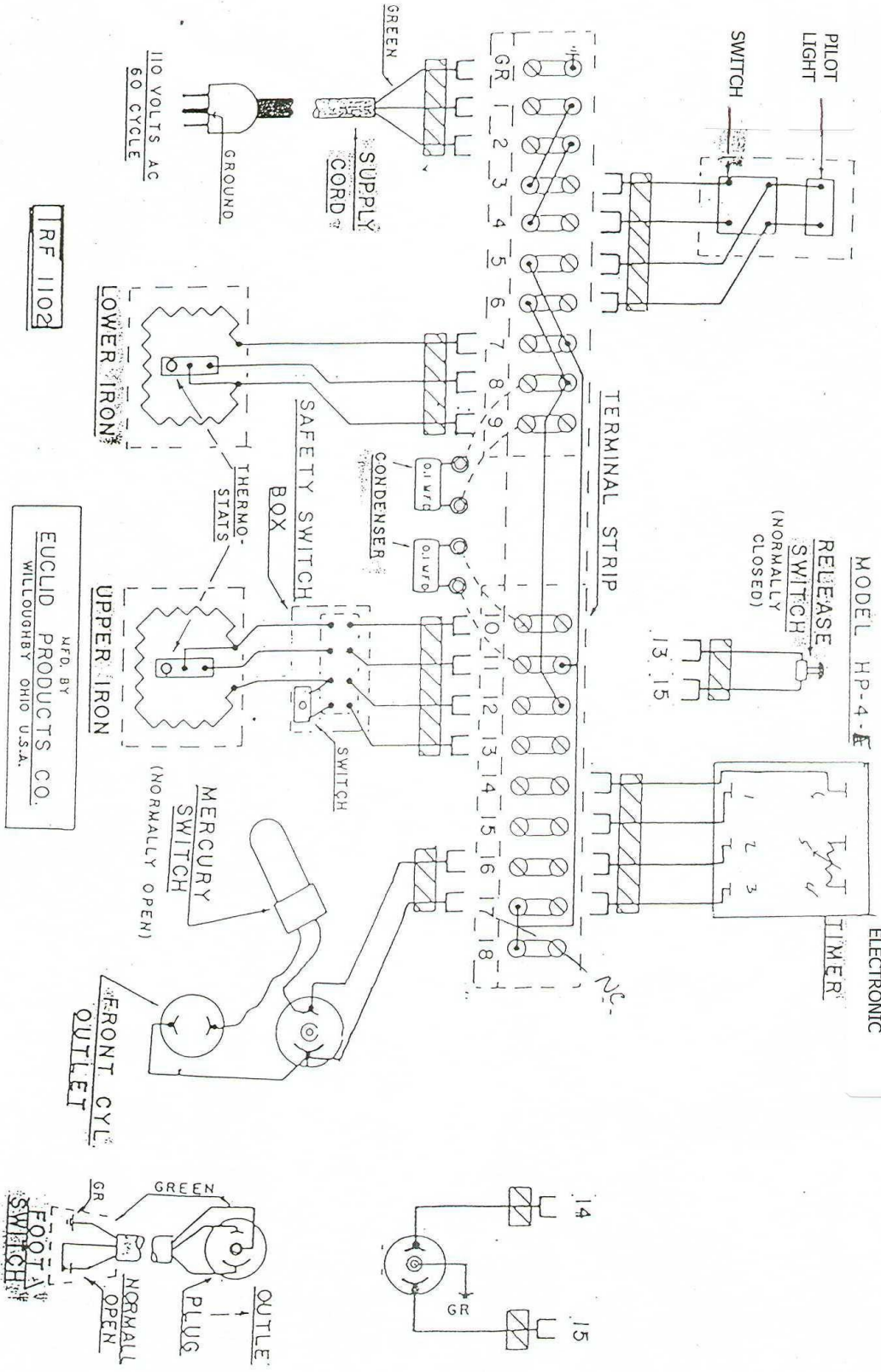
Diagram applicable only for machines utilizing a 6 pin solid state timer assembly. Contact Euclid Product @ 800-542-6150 with any questions.

# THERMOPRESS

TRADE MARK

MODEL HP-4-E

ELECTRONIC



RF 1102

MFD. BY  
**EUCLID PRODUCTS CO.**  
 WILLOUGHBY OHIO U.S.A.



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## **Additional Notes**

### **SAFETY ITEMS**

**NEVER OPERATE THIS MACHINE WITHOUT THE SAFETY LEVER IN WORKING  
CONDITION**

**TEST THE SAFETY LEVER AND EMERGENCY RELEASE SWITCH PRIOR TO  
OPERATING THE MACHINE**

**DO NOT RUN THE IRON TEMPERATURES ABOVE 500° F -- 260° C**

**NEVER SUPPLY MORE THAN 125 PSI AIR TO THE MACHINE -- (LOW PRESSURE  
AIR)**

**USE PROPER SUPPLY VOLTAGE FOR YOUR AREA -- 120V OR 240V**

### **NOTICE**

**THE WARNINGS, CAUTIONS AND INSTRUCTIONS DISCUSSED IN THIS  
INSTRUCTION**

**MANUAL, CANNOT COVER ALL POSSIBLE CONDITIONS AND SITUATIONS THAT  
MAY OCCUR.**

**IT MUST BE UNDERSTOOD BY THE OPERATOR THAT COMMON SENSE AND  
CAUTION ARE FACTORS**

**WHICH CANNOT BE BUILT INTO THIS PRODUCT, BUT MUST BE SUPPLIED BY THE  
OPERATOR.**

**THERMOPRESS MODEL HP4 – OPERATING INSTRUCTION**



## 1. UNPACKING & FINAL ASSEMBLY

- REMOVE ALL PACKING MATERIAL FROM THE MACHINE
- ATTACH THE SAFETY LEVER ASSEMBLY TO THE MACHINE AS PER INSTRUCTIONS ATTACHED TO THE SAFETY LEVER

## 2. AIR SUPPLY

- ATTACH THE AIR HOSE PROVIDED TO A LOW PRESSURE AIR LINE
- DO NOT RUN THIS MACHINE WITH AIR PRESSURE HIGHER THEN 125 POUND PER SQUARE INCH
  - CAREFUL WHEN ATTACHING AIR TO THE MACHINE THE TOP IRON WILL RAISE UP TO ABOUT A 45° ANGLE
- WHEN OPERATING THE MACHINE, SET THE PRESSURE ON THE GAUGE BETWEEN THE FOLLOWING----

60 PSI TO 100 PSI

4 BAR TO 7 BAR

## 3. ELECTRICAL SUPPLY

- ATTACH THE SUPPLY CORD TO A 120VAC / OR / 240VAC POWER SUPPLY DEPENDING ON YOUR AREA VOLTAGE

## 4. TESTING THE MACHINE

- TURN THE MACHINE ON, IF POWER IS SUPPLIED THE SUPPLY SWITCH WILL BE LITE IN AMBER
  - SET THE TIMER TO ABOUT 10 SECONDS
  - CYCLE THE MACHINE BY DEPRESSING THE FOOT SWITCH
  - WITH THE MACHINE CLOSED, PULL UP ON THE SAFETY LEVER SLIGHTLY FROM ANY SPOT, THE MACHINE SHOULD OPEN
  - STEP ON THE FOOT SWITCH AGAIN, THE MACHINE SHOULD NOT OPERATE
  - TO GET THE MACHINE TO OPERATE, PRESS THE BLACK RESET KNOB ON THE TOP BACK OF THE SAFETY LEVER
  - THE MACHINE SHOULD NOW OPERATE
  - NOW CLOSE THE MACHINE AGAIN

- NOW PUSH THE RED KNOB ON THE TOP OF THE MACHINE, IT SHOULD AUTOMATICALLY OPEN THE MACHINE
- TRY TO CYCLE THE MACHINE, IT SHOULD NOT OPERATE
- PRESS THE RED KNOB AGAIN TO RE SET THE MACHINE, RE CYCLE, IT SHOULD NOW OPERATE

TESTING THE SAFETY LEVER & EMERGENCY RELEASE SWITCH SHOULD BE DONE DAILY BEFORE OPERATING THE MACHINE

#### 5. IRON SETTINGS

- THE IRONS ARE PRESET AT THE FACTORY FOR THE MOST EFFICIENT OPERATION
  - TOP IRON 400° F / 204° C
  - BOTTOM IRON 410° F / 210° C

#### 6. DO NOT ATTEMPT TO SEAL ANY ITEMS UNTIL THE THERMOMETER SHOWS THE ABOVE TEMPERATURES

#### 7. DWELL TIME -- THE TIME THE MACHINE STAYS CLOSED WHEN CYCLED

- A GOOD STARTING POINT IS 7 TO 8 SECONDS ON THE TIMER
- THE MATERIAL USED, THE THICKNESS OF THE MATERIAL, AND THE SIZE WILL DETERMINE THE DWELL TIME
  - TAKE SOME SAMPLE PIECES AND RUN SOME TESTS WITH DIFFERENT TIMES, UNTIL SEALING IS SATISFACTORY
  - HEAT SEAL THE ITEMS, LET THEM COOL COMPLETELY
  - THEN TRY TO PULL THEM APART, YOU SHOULD NOT BE ABLE TO PULL THEM APART WITHOUT A LOT OF EFFORT

#### 8. GENERAL INFORMATION

- IF THE MACHINE DOES NOT FUNCTION PROPERLY, CONTACT THE MANUFACTURER



THERMOPRESS MODEL HP4  
WITH DIGITAL TEMPERATURE CONTROLLERS

1. ELECTRICAL POWER REQUIREMENTS

- |  |              |
|--|--------------|
| - 5" X 6" IRONS -- 120 VOLT / 8 AMPS / 50-60 HZ<br>AMPS / 50-60 HZ   | 240 VOLT / 4 |
| - 6" X 10" IRONS -- 120 VOLT / 16 AMPS / 50-60 HZ<br>AMPS / 50-60 HZ | 240 VOLT / 8 |
| - 4" X 14" IRONS -- 120 VOLT / 16 AMPS / 50-60 HZ<br>AMPS / 50-60 HZ | 240 VOLT / 8 |

2. AIR REQUIREMENTS

- COMPRESSED AIR – OUTSIDE SOURCE
- 1.5 TO 3.0 cfm @ MINIMUM OF 100 PSI AND MAXIMUM OF 125 PSI INCOMING

3. HEAT

- THE IRONS ARE CONTROLLED BY BI-METALLIC THERMOSTATS FOR EACH IRON.
- THE TOP IRON AND BOTTOM IRON ARE PRE SET TO 410° F BY THE MANUFACTURER.

4. TIME

- THE STANDARD TIMER IS A SOLID STATE TIMER THAT CONTROLS DWELL TIME FOR ANYWHERE FROM  
1 TO 45 SECONDS, (OR 1 TO 45 MINUTES, OPTIONAL) AND AUTOMATICALLY RESETS AT THE END OF EACH CYCLE.

5. PRESSURE

- THE REAR CYLINDER, 2" ID, OPENS AND CLOSES THE MACHINE.
- THE FRONT CYLINDER, 3" ID, RAISES THE LOWER PLATEN WHICH EXERTS THE PRESSURE BETWEEN PLATENS.
- THE AIR SYSTEM CONTAINS THE FOLLOWING:
  - AIR LINE FILTER, OR MOISTURE TRAP WHICH NEEDS PERIODIC DRAINING
  - AIR LINE LUBRICATOR
  - ADJUSTABLE PRESSURE REGULATOR

- PRESSURE GAUGE

- THE PRESSURE MAY BE ADJUSTED BY TURNING THE BLACK REGULATOR KNOB UNTIL THE GAUGE SHOWS THE DESIRED PRESSURE.
- TYPICAL GAUGE READING TO ACTUAL PLATEN PRESSURE IS AS FOLLOWS FOR 5" X 6" IRONS:

- 30 PSI GAUGE	7.1 PSI PLATEN
- 60 PSI GAUGE	14.2 PSI PLATEN
- 100 PSI GAUGE	23.5 PSI PLATEN

6. SAFETY

- A MECHANICAL SAFETY CAGE IS SUPPLIED, AND MUST BE INSTALLED IMMEDIATELY UPON RECEIVING THE MACHINE.
- THIS MACHINE SHOULD NEVER BE OPERATED, UNDER ANY CIRCUMSTANCES, WITH OUT THIS SAFETY DEVICE INSTALLED AND IN PROPER OPERATING CONDITION.
- THIS SAFETY IF ACTUATED, IMMEDIATELY OPENS THE MACHINE, AND WILL NOT ALLOW IT TO BE RECYCLED.
- TO OPERATE THE MACHINE AGAIN, YOU MUST RE SET THE SAFETY.
- ON THE TOP LEFT HAND SIDE OF THE MACHINE IS A RED KNOB, AN EMERGENCY RELEASE SWITCH, THAT IF PUSHED WILL AUTOMATICALLY OPEN THE MACHINE.
- IF THE EMERGENCY RELEASE SWITCH IS USED, THE MACHINE WILL NOT OPERATE AGAIN UNTIL THE SWITCH IS PUSHED AGAIN TO RE SET THE MACHINE.
- TEST THE SAFETY UNIT AND THE EMERGENCY RELEASE SWITCH DAILY, BEFORE STARTING TO RUN PRODUCTION TO BE SURE IT IS OPERATING PROPERLY.