

Conv. Handle  
P/N 100432

**MECHANICAL  
DRY MOUNTING /  
LAMINATING PRESSES**

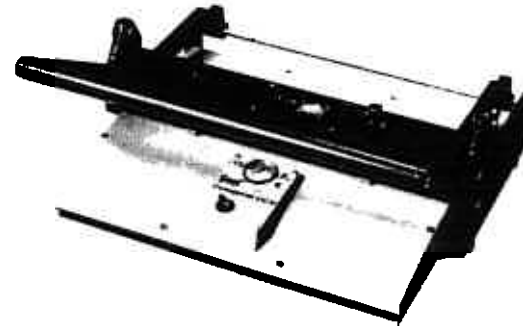
**SEAL™**

**HUNT**

# Owners

Operation and Service

# Manual



Masterpiece® 500T/500T-X

Commercial® 210M/210M-X

Jumbo® 160M

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## IMPORTANT SAFEGUARDS

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**Please read the entire manual and fully understand the proper operating procedures before proceeding to use the press.**

1. Place the dry mounting/laminating press on a sturdy flat level table in a clean work area. The press should be accessible from three sides. The press should not be located in the direct path of air conditioning vents or room cooling fans.
2. Correct pressure adjustment is essential to the safe and proper operation of the press and should be checked prior to every use.
3. Grasp the center of the handle firmly when opening and closing the press. Keep body, head and hands clear of all moving parts and away from the press opening at all times.
4. Objects such as knives, tools, rulers, paper clips and markers should be kept out of the press and away from the press opening at all times.
5. Proper maintenance of the press is easy and essential. The press platen and sponge pad should be kept clean and free of adhesive residue, and all functions should be checked periodically.
6. Turn the power switch off and keep in the closed (but not locked) position when not in use. Do not leave the press on overnight, and unplug the power cord while cleaning or replacing parts.

Contact an authorized Seal dealer, or Seal Technical Service, in the event the press needs service or parts not covered in this Owners Manual.

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## INTRODUCTION

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Welcome to the large, rapidly growing family of Seal press users.

Once you have used the mechanical dry mounting/laminating press, you'll understand exactly why it is of the highest quality in design and manufacture available. With proper care and minimal maintenance you can expect many years of trouble-free operation.

This combined Owners Operation and Service Manual will make you familiar with the features, operating principles, procedures for use and necessary maintenance and troubleshooting of the press.

Proper understanding of this manual will enable you to obtain the level of performance and dependability that has been incorporated into the design of the press.

This basic knowledge will also provide a springboard to new and innovative uses of your Seal press as you gain experience.

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## PRESS FEATURES

- **Fast Operation:** Superior heating system quickly brings the platen to uniform temperature ensuring 100% bonding whether dry mounting, laminating or texturing.
- **Extended Temperature Range:** Thermostat control adjusts from 150-350°F (68-177°C) to cover a wide range of operating temperatures.
- **Temperature Readout:** Incorporates a direct reading thermometer that accurately monitors platen temperature.
- **Oversize Capacity:** Design allows processing of materials larger than the press platen by sliding the work side-to-side or out the front or back of the press.
- **Easy Pressure Adjustment:** Pressure adjusts and locks in seconds to accept materials up to 1" thick.
- **Non-Stick Surface:** Platen surface is specially coated to help keep adhesives from sticking.
- **Free-Floating Platen:** Seats evenly on the work without shifting to provide uniform pressure across the entire surface.
- **Rugged Construction:** Steel cantilevers increase durability and allow maximum pressure on work within the press. Metal top and base construction adds ruggedness.

## SPECIFICATIONS

	Masterpiece 500T/500T-X	Commercial 210M/210M-X	Jumbo 160M
Work Capacity:			
one piece:	26" x 34"	18.5" x 23"	18.5" x 15.5"
	66cm x 86cm	47cm x 58cm	47cm x 39cm
sections:	50" (132cm)	36" (91cm)	36" (91cm)
	by any length	by any length	by any length
Dimensions:			
Width:	39" (99cm)	27" (69cm)	19" (48cm)
Depth:	37" (94cm)	23" (58cm)	23" (58cm)
Height:	12" (30cm)	11" (28cm)	11" (28cm)
Open:	26" (66cm)	20" (51cm)	20" (51cm)
Net Weight:	210 lbs.	72 lbs.	52 lbs.
	95 kg	32 kg	24 kg
Power			
Consumption:	1400 watts	1350 watts	1000 watts

## IDENTIFICATION OF CONTROLS



**Power Switch:**

Turns main power on/off.

**Red Power Light:**

Glows to indicate power switch on.

**Amber Heater Light:**

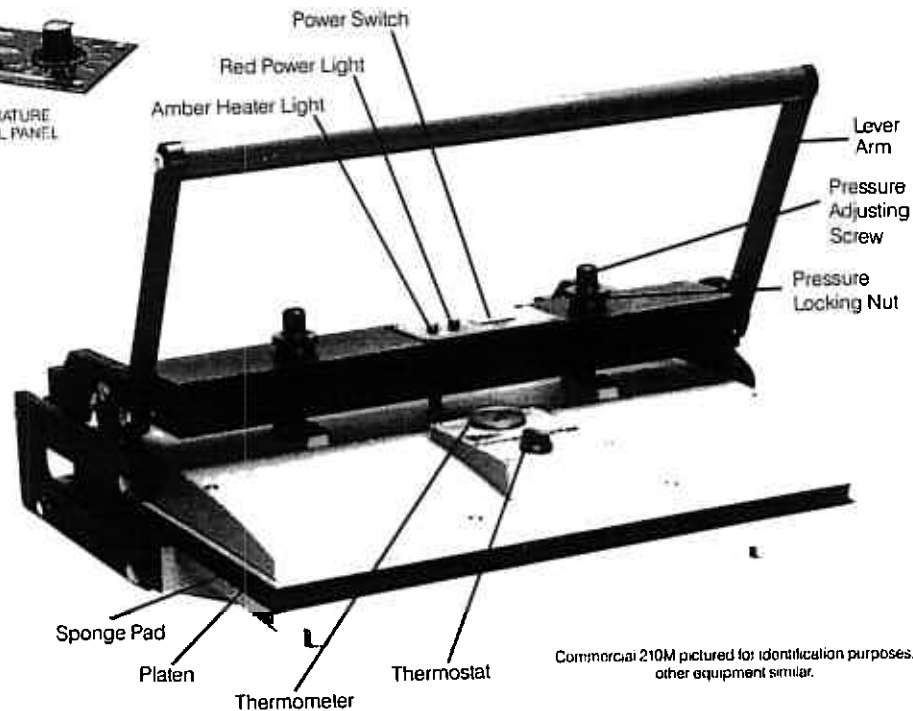
Glows to indicate heater is on, shuts off when temperature reaches thermostat setting.

**Thermometer:**

Indicates temperature of the press platen.

**Thermostat:**

Controls platen temperature, set at 200°F with the power switch on, the platen temperature should rise to 200°F, and cycle within  $\pm 10^\circ\text{F}$  of that setting.



Commercial 210M pictured for identification purposes. other equipment similar.

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## INSTALLATION AND PREPARATION

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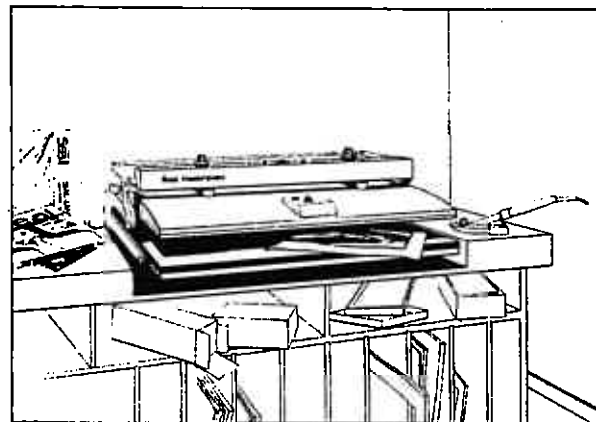
Your press is fully assembled and factory adjusted for immediate use. Install as follows:

1. Position the press squarely on a sturdy flat level table in a clean work area. Make certain that all four feet are resting on the surface. Access to the press from three sides is recommended. Making the adjacent table tops level with the sponge pad will facilitate handling oversize substrates.
2. Locate and identify all function controls (page 5).
3. Turn the power switch off and plug the power cord into an outlet that is rated to supply the electrical current required for the press. See the press Temperature Control Panel for specific information regarding the voltage required for proper electrical hookup.

Masterpiece 500T/500T-X	1400 Watts
Commercial 210M/210M-X	1350 Watts
Jumbo 160M	1000 Watts
4. The press should be cleaned thoroughly before initial use. UnSeal™ adhesive releasing solvent or Seal Platen Cleaner is suggested to fully clean the platen. Normal cleaning solutions can be used on the painted metal components.
5. Prepare a Release Paper cover sheet, Release Folder or Release Board before using the press. Refer to the instructions provided with Seal Easy Peel™ Release Paper and the adhesive or laminate being used.

The press is now ready for use. Check operation by closing (but not locking) the press and turning the power switch on. The power and heater lights should illuminate and the press should begin to warm up (complete warmup takes 20 - 30 minutes).

Please read the entire manual and fully understand the proper operating procedures before proceeding to use the press.

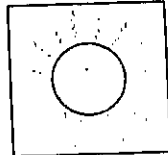


## BASIC OPERATING PRINCIPALS

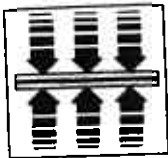
Operation of a Seal mechanical press is easy. Quality dry mounting and laminating results are achieved by following the four steps illustrated below:



**Reduction of moisture level** in materials to be processed (if needed).



**Selection of correct temperature** for the adhesive and materials to be processed.



**Application of uniform pressure** to the materials, after adjustment is made for the thickness of the materials.



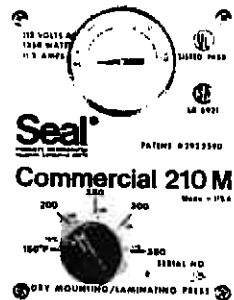
**Processing the materials long enough** to activate the adhesive and form a bond.

The Seal Masterpiece, Commercial and Jumbo presses control the pressure and heating variables to help ensure easy and consistent results. The operator need only select the proper temperature setting, pre-dry the artwork and board (if needed), check the pressure adjustment for the thickness of the materials, and then process them.

To minimize the bowing of mounted materials and increase bond strength it is recommended to allow the materials to cool completely under a Seal Weight (or another heavy, flat material such as 1/4" plate glass, metal, etc.) before bending, flexing, picking at corners, or trimming. This is especially important with the removable dry adhesives that bond while cooling.

## PROCEDURES FOR USE

1. With the press in the closed (but not locked) position, turn the power switch ON. The red power light and amber heater light will illuminate.
2. Normal operating temperatures of the press are 170-225°F (77-107°C). Refer to the specific instructions provided with the adhesive or laminate being used and set the thermostat to stabilize the press at the Recommended Temperature setting.

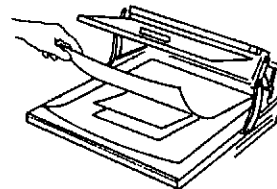


NOTE: When mounting or laminating color photos or delicate materials, a temperature slightly lower than the Recommended Temperature may be used (no less than the Minimum Temperature setting for the specific adhesive or laminate). For heavier or thicker materials, or for faster results, a temperature slightly higher than the Recommended Temperature may be used.

3. The press will reach the selected operating temperature and be ready to use in approximately 30 minutes for the Masterpiece, or 20 minutes for the Commercial and Jumbo. The amber heater light will remain on until the operating temperature is reached. Enough time

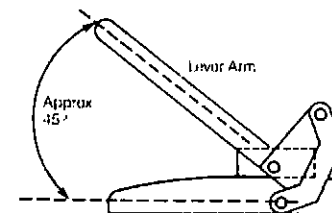
should be allowed for it to go off and on two or three times before initial use to be certain that the platen temperature has stabilized.

4. Predry the artwork and substrate (if needed) and assemble the materials to be processed. Refer to the specific instructions for the adhesive or laminate being used.



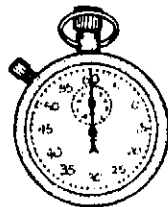
5. Check the pressure adjustment of the press by placing the assembled materials inside and closing (but not locking) the press. The lever arms should be at a 45° angle. Adjust the pressure, if needed, and then close and lock the press.

NOTE: See following section on Pressure Adjustment Procedures for proper pressure adjusting directions.

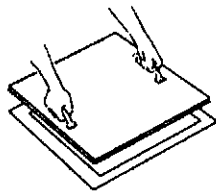




6. Leave the assembly in the press for long enough to heat the materials to at least the Minimum Temperature indicated on the instructions provided with the adhesive or laminate being used (refer to the Time Chart in the instructions with the adhesive or laminate being used).



7. Open the press, remove the assembled materials, and cool them under a flat weight to reduce bowing and improve the bond strength.



For more information on specific applications, refer to **The Sealection Guide** (a slide chart), or **MOUNTING, LAMINATING AND TEXTURING**, Seal's 96 page comprehensive illustrated source on methods, techniques and applications.

#### **Processing Oversize Materials:**

Materials substantially larger than the press platen can often be processed in multiple sections using the following precautions:

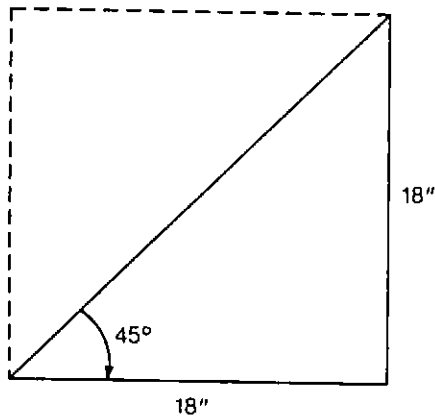
- Check that the pressure adjustment has been made to accommodate the thickness of materials.
- In the case of impressionable substrates (i.e. foam core) a Release Board or other buffer sheet slightly larger than the press platen may be placed over the materials. This helps prevent the possibility of platen lines appearing on the materials.
- Materials extending out of the press should be supported so that they do not bend or flex.
- When processing in sections, it is recommended to start in the center of the work, and then work out towards the edges.

#### **Predrying materials:**

In humid, moist or damp conditions, certain porous materials absorb water and need to be predried. This removes the excess moisture that would otherwise possibly interfere with good bonding or affect the finished appearance of the results. To predry, place the materials inside a folder of smooth porous paper and process for a short time.

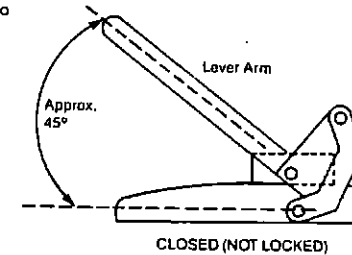
## PRESSURE ADJUSTMENT PROCEDURES

**Pressure Adjustment Directions:** Use the following procedure to check and set the pressure adjustment of the press. No tools are needed, however a 45° right triangle is helpful to check the adjustment. If one is not available, cut a square piece of scrap board (approx. 18" x 18"). Score the board from corner to corner and fold on the score. The result is a 45° right triangle.

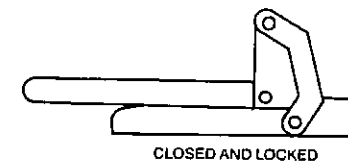


Materials up to 1" thick can be handled if the following pressure adjustment procedures are used:

1. Check the pressure adjustment of the press by placing the assembled materials inside and closing (but not locking) the press. The lever arms should be at a 45° angle to the top of the table as shown. If not, proceed to adjust the pressure.



2. Close and lock the press, leaving the materials to be processed inside (or materials of equal thickness).



- Loosen the knurled pressure locking nuts (two on the Masterpiece and Commercial, one on the Jumbo).

\*If the locking nuts do not loosen easily, open the press, insert an extra thickness of materials, close and lock the press, and then loosen the locking nuts. Remove the extra materials before proceeding to adjust the pressure.



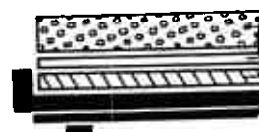
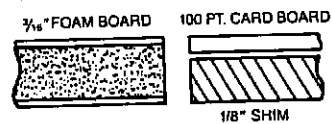
- Return the press to the closed (but not locked) position.
- Turn each pressure adjusting screw clockwise to lower the lever arms and decrease pressure, or counter-clockwise to raise the lever arms and increase pressure. Make sure that the screws are adjusted so each arm is at the same 45° angle.



- Return the press to the locked position and tighten each locking nut finger tight.

**Alternative Pressure Adjustment Method:** A shim can be made to simplify adjustment between two different thickness substrates that are commonly used (example: 3/16" foam board and 100 pt. card stock).

- Set the pressure adjustment for the thicker of the two substrates (3/16" foam board), using the preceding procedure.
- Find a firm board that is equal to the difference in thickness between the two substrates (approx. 1/8" in this case). Cut this board (to be used as a shim) the size of the pressure board beneath the sponge pad in the press.
- Slide the shim under the pressure board when processing materials the thickness of the thinner board (the 100 pt. card stock). Remove the shim when using the thicker of the two substrates (the 3/16" foam board).



SPONGE PAD  
PRESSURE BOARD  
SHIM

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## PERIODIC MAINTENANCE

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The Seal mechanical press has been specifically engineered to require a minimum level of maintenance. The following guidelines were designed to keep the press in prime operating condition throughout its lifetime.

1. **Clean the platen** regularly. UnSeal adhesive releasing solvent or Seal Platen Cleaner should be used to dissolve and remove difficult deposits as needed. Do not use abrasive materials such as steel wool or gritty cleaners.
2. **Check the sponge pad** periodically for cleanliness and uniform resiliency. If the pad shows any areas of soft or "dead" spots it should be replaced. Uniform pressure is essential for quality results when mounting or laminating. Replace the sponge pad as necessary when soiled or uneven.
3. **Check the platen temperature** periodically using Seal Temperature Indicator Strips to verify calibration of the thermostat and thermometer settings. Recalibrate or replace as necessary.
4. **Lubricate all pivot points** twice a year with a Teflon or silicone dry lubricating spray such as "Dry Slide". Oil or graphite lubricants are not recommended.

5. **Inspect the power cord** for breaks and cuts. Make sure there are no severe bends or crimps in the cord. The cord should not be pinched between the table, press or wall. Replace as necessary.
6. **Check the overall press** occasionally for levelness, loose screws, or damaged components. Adjust, tighten or fix as necessary.
7. **Keep on hand** the following recommended spare parts to minimize down time and emergency repair problems due to normal component wear:

Description	Part Number
Thermostat Kit	100897KIT (500T, 210M, 160 only)
Power Switch	1302053

## TROUBLESHOOTING GUIDE

SYMPTOM	PROBABLE CAUSE	ACTION
No heat, all lights off	<ul style="list-style-type: none"> <li>• Not plugged in</li> <li>• Power supply off</li> <li>• Power switch off</li> <li>• Power switch inoperative</li> <li>• Power cord inoperative</li> </ul>	<ul style="list-style-type: none"> <li>• Check power cord</li> <li>• Check circuit breaker in building</li> <li>• Check switch</li> <li>• Replace switch</li> <li>• Replace cord</li> </ul>
No heat, power light on, heater light off	<ul style="list-style-type: none"> <li>• Thermostat inoperative</li> <li>• Heater inoperative</li> </ul>	<ul style="list-style-type: none"> <li>• Replace thermostat</li> <li>• Replace heater</li> </ul>
No heat, power light on, heater light on	<ul style="list-style-type: none"> <li>• Heater inoperative</li> </ul>	<ul style="list-style-type: none"> <li>• Replace heater</li> </ul>
Uncontrolled heat (overheating)	<ul style="list-style-type: none"> <li>• Thermostat inoperative</li> <li>• Wiring incorrect</li> </ul>	<ul style="list-style-type: none"> <li>• Replace thermostat</li> <li>• Check wiring diagram</li> </ul>
Thermostat setting does not agree with thermometer reading	<ul style="list-style-type: none"> <li>• Thermostat not correctly calibrated</li> <li>• Thermometer inaccurate</li> </ul>	<ul style="list-style-type: none"> <li>• Call Seal Technical Service for calibrating instructions</li> <li>• Check with Seal Temperature Indicator Strips</li> </ul>
Pits in work	<ul style="list-style-type: none"> <li>• Cleanliness</li> </ul>	<ul style="list-style-type: none"> <li>• Clean platen</li> </ul>
Bumps under work	<ul style="list-style-type: none"> <li>• Cleanliness</li> </ul>	<ul style="list-style-type: none"> <li>• Remove dust, debris from between materials</li> </ul>
Bubbles, non-adhesion	<ul style="list-style-type: none"> <li>• Improper adhesive</li> <li>• Inadequate time</li> <li>• Low pressure</li> <li>• Low/uneven pressure</li> </ul>	<ul style="list-style-type: none"> <li>• Check specifications</li> <li>• Reprocess longer</li> <li>• See Pressure Adjustment Procedure</li> <li>• Check sponge pad</li> <li>• See Pressure Adjustment Procedure</li> <li>• Check specifications</li> <li>• Predry materials, or reprocess longer</li> <li>• Check specifications</li> </ul>
Lines from edge of press	<ul style="list-style-type: none"> <li>• Low/high temperature</li> <li>• High moisture level</li> <li>• Substrate quality</li> </ul>	<ul style="list-style-type: none"> <li>• See Pressure Adjustment Procedure, and/or use Release Board or buffer sheet.</li> </ul>

## REPLACEMENT PARTS

	Masterpiece 500T	Commercial 210M	Jumbo 160M
Thermostat Kit	100897KIT (500T only)	100897KIT (210M only)	100897KIT
Electronic Thermostat	1410-1	1407-1	Not Available
Thermostat Knob Kit	6299010	6299010	6299010
Thermometer Kit	6299011	6299011	6299011
Power Switch	1302053	1302053	1302053
Electrical Kit 115V	6299037	6299038	6299038
Electrical Kit 230V	6299039	6299040	6299040
Heater Kit 115V	6299012	6299013	6299014
Heater Kit 230V	6299015	6299016	6299017
Platen Kit	6299018	6299019	6299020
Sponge Pad	153260	143222	130107
Lever Arm - Right	100160	100223-1	100223-1
Lever Arm - Left	100161	100224-1	100224-1
Foot Kit	6299021	6299022	6299022
Toggle Plate/Bolt Kit	6299023	6299024	6299024
Crossbeam Bolt Kit	6299025	6299026	6299027
Handle Kit	6299028	6299029	6299030
Pressure Adj. Kit	6299031	6299032	6299032
Screw Kit	6299034	6299035	6299036
Output module	1408005		

Kits listed above contain the components and instructions necessary for normal replacement of the effected item. This precludes the necessity of identifying and ordering individual parts and helps ensure all the necessary parts are on hand.

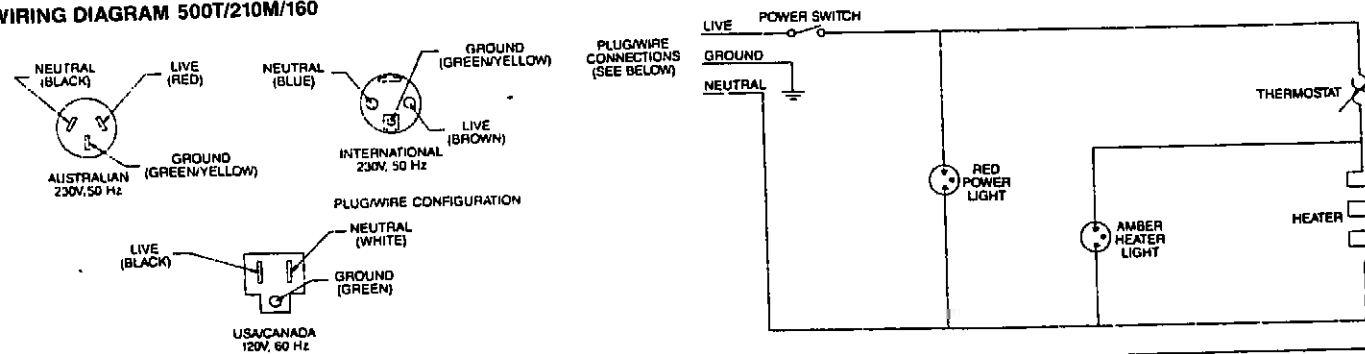
little pc Board  
Temp Control

2304081-1

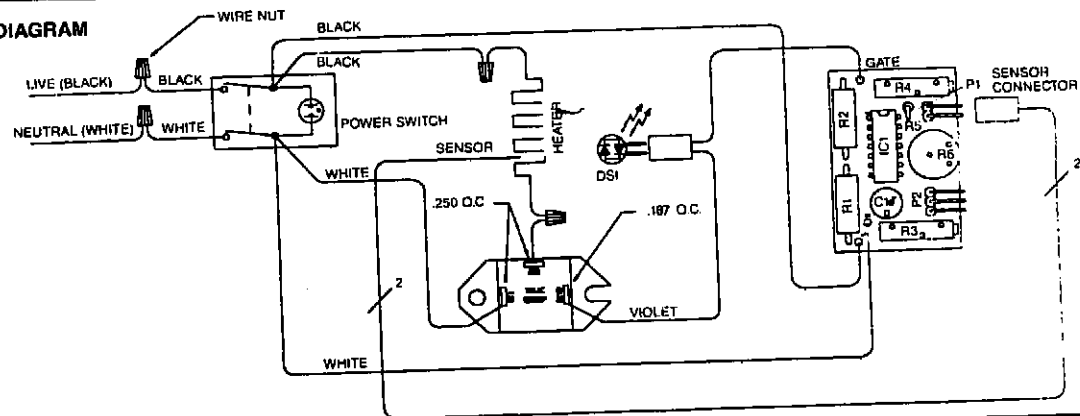
506TX SAME AS Thermostat

# WIRING DIAGRAM

WIRING DIAGRAM 500T/210M/160



ELECTRONIC THERMOSTAT WIRING DIAGRAM 500T-X/210M-X



# SEAL™

Seal Products, Inc.,

550 Spring St. • Naugatuck, CT USA 06770-9985

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