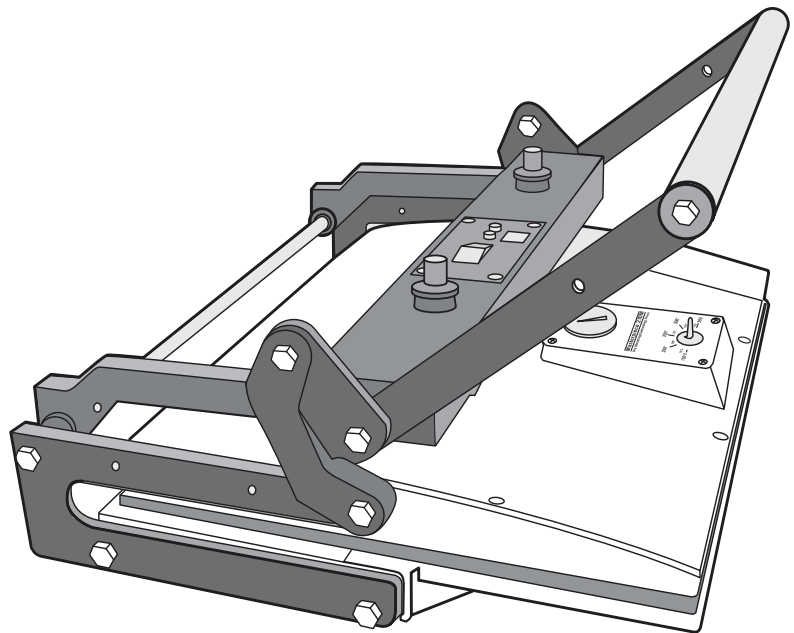


# OWNERS MANUAL

## Expression Masterpiece® 500T/210M/160M Mechanical Dry Mounting/Laminating Press

### Operation and Service



Masterpiece 210M



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## PRESS FEATURES AND SPECIFICATIONS

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- **Fast Operation:** Superior heating system quickly brings the platen to uniform temperature ensuring 100% bonding.
- **Extended Temperature Range:** Thermostat control adjusts from 150°F to 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.
- **Extra-Wide Opening:** Opens a full 20" (51cm) to provide easy access to platen surface.
- **Easy Pressure Adjustment:** Pressure adjusts and locks in seconds to accept materials up to 1" (25mm) 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.

# IMPORTANT SAFEGUARDS

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

1. Place the heat 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.

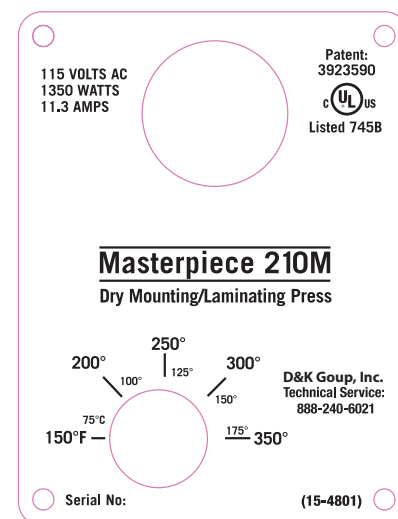
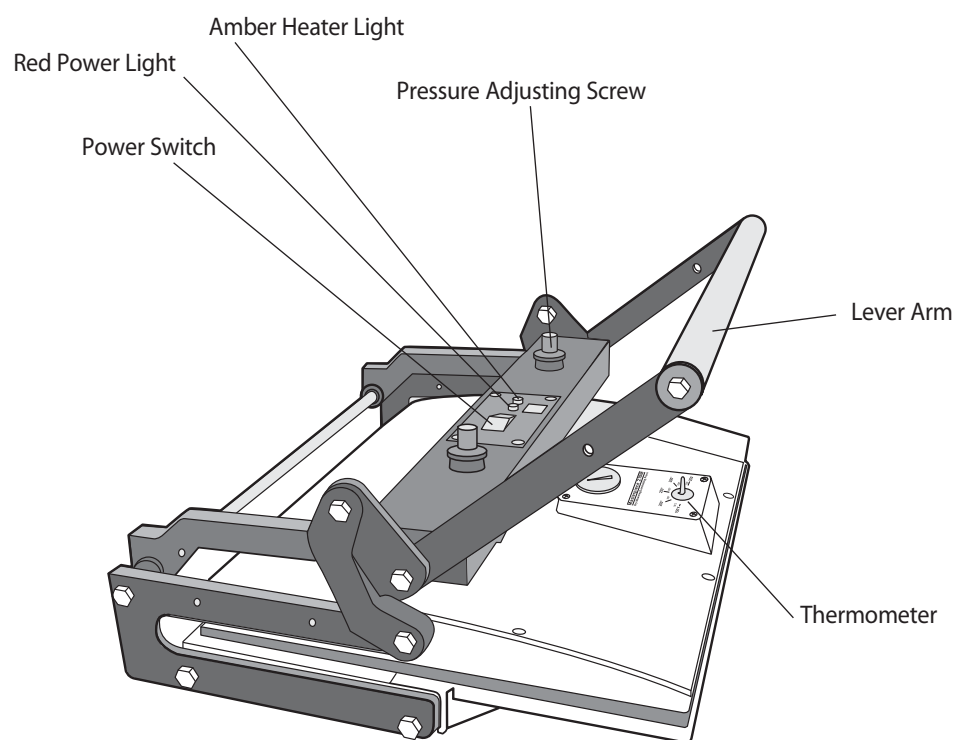
6. Turn the power switch off and keep in the closed (but not locked) position when not in use. Do not leave the press on overnight, and unplug the power cord while cleaning or replacing parts.

Contact an authorized D&K dealer or D&K Technical Service (1-888-240-6021) in the event the press needs service or parts not covered in this Owners Manual.

# SPECIFICATIONS

COMMERCIAL	500T	210M	160 M
Work Capacity:			
One piece	26" x 34" 66cm x 86cm	18.5" x 23" 47cm x 58cm	18.5" x 15.5" 47cm x 39cm
Sections	50" (132cm) by any length	36" (91cm) by any length	36" (91cm) 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. (95 kg)	72 lbs. (32 kg)	52 lbs (24 kg)
Power Consumption	1,400 watts	1,350 watts	1,000 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, goes out when temperature reaches thermostat setting.

**Thermometer:** Indicates temperature of the press platen.

**Pressure Adjustment Screw:** Turn each pressure adjusting screw clockwise to lower the lever arms and decrease pressure, or counter clockwise to raise the lever arms and increase the pressure.

# 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.
3. Turn 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 Temperature Control Panel for specific information regarding the voltage required for proper electrical supply.

500T	120V	12 Amp	1,350 Watts
Commercial 210M	115V	11.3 Amp	1,350 Watts
160M	115V	8.3 Amp	1,000 Watts
(Recommendation: Verify proper amperage before powering up)			

4. The press should be cleaned thoroughly before initial use. Expression® UnStik™ Adhesive Releasing Solvent is suggested to fully clean the platen. Normal cleaning solutions can be used on the painted metal components. Clean only when press is cool and in a well-ventilated area.

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 warm-up takes 20-30 minutes).

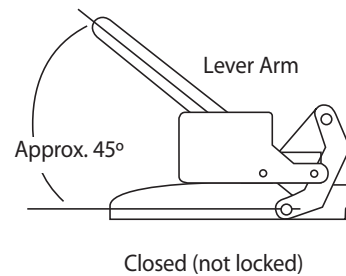
Please read the entire manual and fully understand the proper operating procedures before proceeding to use the press.

# 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 supplies 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 for use in approximately 20-30 minutes. 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. Pre-dry the artwork and substrate (if needed) and assemble the materials to be processed. Refer to the specific instructions for the supplies 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 an Expression® Weight to reduce bowing and improve the bond strength.

## 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 substrate (i.e. foam board) 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 they do not bend or flex.

- When processing in sections, it is recommended to start in the center of the work and then out towards the edges.

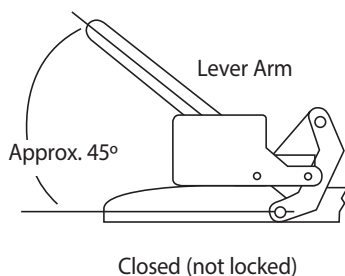
### Predrying materials

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 or between 2 pieces of Kraft paper, and process for a short time.

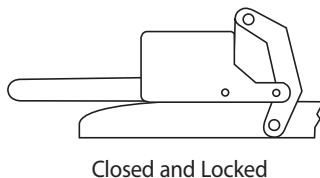
# PRESSURE ADJUSTMENT PROCEDURES

Materials up to 1" (25mm) 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.

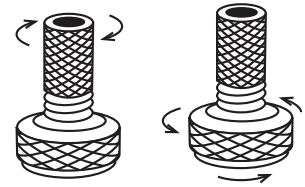


2. Close and lock the press, leaving the materials to be processed inside (or materials of equal thickness).



3. Loosen the knurled pressure locking nuts – 2 on the 500T & 210M, one on the 160M – (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).
4. Return the press to the closed (but not locked) position.

5. Turn each pressure adjusting screw clockwise to lower the lever arms and decrease pressure, or counter clockwise to raise the lever arms and increase the pressure. Make sure that the screws are adjusted so each arm is at the same 45° angle.



6. 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" (5mm) foam board and 100 pt. card stock).

1. Set the pressure adjustment for the thicker of the two substrates (3/16" (5mm) foam board), using the preceding procedure.
2. Find a firm board that is equal to the difference in thickness between the two substrates (approximately 1/8" (3mm)) in this example). Cut this board (to be used as a shim) the size of the pressure board beneath the sponge pad in the press.
3. Slide the shim under the pressure board when processing materials the thickness of the thinner board (100 pt. card stock). Remove the shim when using the thicker of the two substrates (the 3/16" (5mm) foam board). Or you can adjust to the thinner material and remove the pressure board when processing thicker applications.

# REPLACEMENT PARTS

	Commercial 210M	160M	500T
Thermostat Kit	TS100897KIT	TS100897KIT	TS100897 KIT
Thermostat Knob Kit	TS6299010	TS6299010	TS6299010
Thermometer Kit	TS6299011	TS6299011	TS6299011
Power Switch	TS1302053 KIT	TS1302053 KIT	TS1302053 KIT
Electrical Kit 115V	TS6299038	TS6299038	TS6299037
Heater Kit 115V	TS6299013	TS6299014	TS6299012
Platen Kit	TS6299019	TS6299020	TS6299018
Sponge Pad	TS143222	TS130107	TS153260
Lever Art – Right	TS100223-1	TS100223-1	TS100170
Lever Arm – Left	TS100224-1	TS100224-1	TS100171
Foot Kit	TS6299022	TS6299022	TS6299021
Toggle Plate/Bolt Kit	TS6299024	TS6299024	See Below
Crossbeam Bolt Kit	TS6299026	TS6299027	TS6299025
Handle Kit	TS6299029	TS6299030	TS6299028
Pressure Adj. Kit	TS6299032	TS6299033	TS6299031
Convenience handle	TS100434	TS100434	TS100432
Toggle Bolt Kit - 500T			TS6299023
Toggle Plates - 500T			TS100155 (4) each

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

# PERIODIC MAINTENANCE

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The Expression® Masterpiece 500T, 210M and 160M Mechanical Presses have 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. Expression® UnStik™ adhesive-releasing solvent 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 to verify calibration of the thermostat and thermometer settings. To recalibrate or replace call an authorized Expression dealer or D&K Technical Services.

4. Lubricate all pivot points twice a year with a Teflon® or silicone dry lubricating spray. 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.

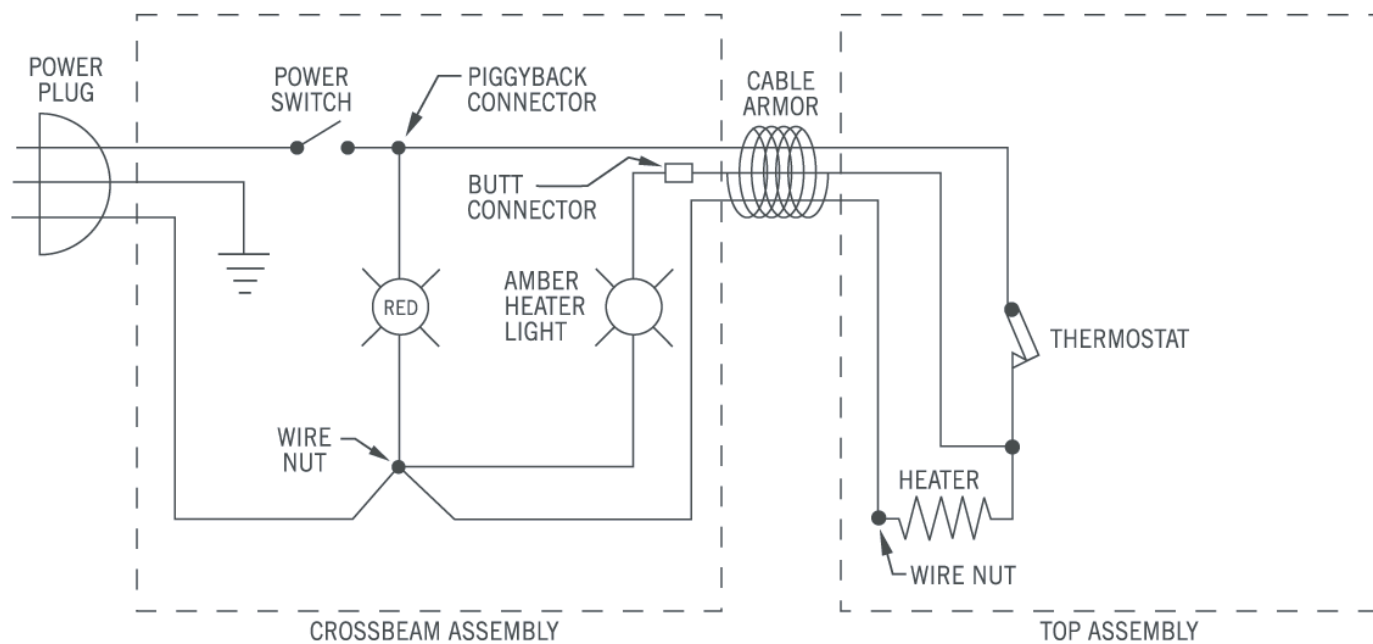
## Disclaimer

The information contained herein is based upon our research and believed to be accurate, but the accuracy and completeness of our recommendations is not guaranteed. The user shall determine the suitability of the product for their intended use, before using the product, and the user assumes all risk and liability whatsoever in connection with the use of the product. Neither seller nor manufacturer shall be liable for any injury, loss or damage, direct or consequential, arising out of the use of or inability to use the product. The following is made in lieu of all warranties, express or implied. Seller's and manufacturer's only obligation shall be to repair, replace or credit such quantity of the product proved to be defective.

# TROUBLESHOOTING GUIDE

SYMPTOM	PROBABLE CAUSE	ACTION
No heat, all lights off	Not plugged in Power supply off Power switch off Power switch inoperative Power cord inoperative	Check power cord Check circuit breaker in building Check switch Replace switch Replace cord
No heat, power light on, heater light off	Thermostat inoperative Heater inoperative	Call Technical Service/Replace Thermostat Call Technical Service/Replace Thermostat
No heat, power light on, heater light on	Heater inoperative	Call Technical Service/Replace Heater
Uncontrolled heat (overheating)	Thermostat inoperative Wiring incorrect	Replace thermostat Check wiring diagram
Thermostat setting does not agree with thermometer reading	Thermostat not correctly calibrated Thermometer inaccurate	Call D&K Technical Service for calibrating instructions
Pits in work	Cleanliness	Clean platen
Bumps under work	Cleanliness	Remove dust, debris from between materials
Bubbles, non-adhesion	Improper adhesive Inadequate time Low pressure Low/uneven pressure  Low/high temperature High moisture content Substrate quality	Check specifications Reprocess longer See Pressure Adjustment Procedure Check sponge pad See Pressure Adjustment Procedure Check specifications Pre-dry materials or reprocess longer Check specifications
Lines from edge of press	High pressure	See Pressure Adjustment Proced. and/or use Release Board or buffer sheet

# WIRING DIAGRAM-210M



# LIMITED WARRANTY

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D&K Group, Inc. warrants to the original consumer purchaser that each new Expression® equipment product which proves defective in materials or workmanship within the applicable warranty period will be repaired or, at our option, replaced without charge upon its return, postpaid, as outlined below. The applicable warranty shall be one year from date of purchase. "Original consumer purchaser" means the person who first purchased the product covered by this warranty other than for purposes of resale.

D&K Group, Inc. liability for breach of any warranty express or implied shall be limited to the repair or replacement, at D&K's option, of the defective item. D&K shall not be liable for damages, including but not limited to incidental or consequential damages, arising out of or in connection with the use or performance of any Expression product.

To get performance under this warranty, contact D&K Technical Support (1-888-240-6021) for assistance or to obtain a Return Authorization. If it is to be returned, pack the product securely to prevent damage in transit and send the product, postpaid or freight prepaid, with a description of the defect or malfunction and proof of the date of purchase to D&K Group, Inc. Attn: RA Number. D&K is not responsible for damages from mishandling and abuse in transit, in which case a claim should be filed with the carrier.

This warranty extends to and is enforceable only by the original consumer purchaser, and only for the period (during applicable term) during which the product remains in the possession of the original consumer purchaser.

Warranty Department • D&K Group 80 Bond St. Elk Grove Village 60007

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