

ADKINS

Beta Maxi Hi-Lift

Rev A - 24/08/18



Operators Handbook

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Preface

Dear User

Welcome to the growing group of Beta Maxi Hi-Lift Press users. The product you have purchased has been carefully designed and manufactured to ensure that you, the user, will gain the maximum benefit.

All A. Adkins & Sons Limited products are specifically designed to ensure ease of use with particular attention to safety requirements.

Should you discover any fault or damage upon receipt of this product, you should immediately contact your local supplier.

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1. Introduction Beta Maxi Hi-Lift Press

The Beta Maxi Hi-Lift Press is a manually operated heat press for transfer printing and material fusing. It is ideal for medium volume production.

The work area of the Beta Maxi Hi-Lift Press is 38 x 50 cm, but machines may have, to special order, optional smaller sized interchangeable worktables of any size and various shapes within these table sizes.

The Beta Maxi Hi-Lift Press is produced nominally in 230 Volts AC for the European market.

The Beta Maxi Hi-Lift Press has a heat plate which swings away from the operating position to clear the worktable for loading and unloading. After loading the work piece, and with the correct settings for temperature, pressure and dwell time, the heat plate is swung to the operating position with the handle provided. The cycle is started by pulling out the handle release knob allowing the handle to be pressed down to the locking position. The micro switch is made which starts the timer. When the set time elapses, the buzzer sounds. The handle-locking knob can then be pulled out to permit the handle to be raised to the vertical locked position. The heat plate may then be swung to the unloading position.

1.1 What did you receive?

The Beta Maxi Hi-Lift Press has been placed in a cardboard box, and held in place with foam and banded onto a pallet. The following articles should have been delivered:

- Beta Maxi Hi-Lift Press complete with mains cable and plug
- Beta Maxi Hi-Lift Press Users' Handbook
- Any extra items ordered

If there is any damage or any article is missing, please contact your supplier immediately.

1.2 Specifications of the Beta Maxi Hi-Lift Press

The Beta Maxi Hi-Lift Press is a manually operated heat press for transfer printing and material fusing. It is ideal for medium volume production.

The work area of the Beta Maxi Hi-Lift is 38 x 50 cm, but machines may have, to special order, optional smaller sized interchangeable worktables of any size and various shapes within these table sizes.

Specification

Power consumption	2500 Watts
Power supply	230-240 Volts AC
Working temperature	70-235°C
Machine height open	65 cm
Machine height closed	35 cm
Machine width	51 cm
Machine width, loading	94 cm
Machine depth	89 cm
Machine depth, loading	120 cm
Net weight	45 kg
Press pad dimensions	38 x 50 cm
Fuses	12.5A
A-weighted noise level	<70dB(A)

1.3 Safety

The Beta Maxi Hi-Lift Press has been equipped with various safety features to ensure operator safety.

- a. **A thermal cut-out** on the heating element shuts off the power to the element if the temperature exceeds $235^{\circ}\text{C} \pm 15^{\circ}\text{C}$ ($500^{\circ}\text{F} \pm 27^{\circ}\text{F}$).
- b. **The time/temperature** controller has a built-in facility giving error messages in the event of faults with the element heating and control system.
- c. **A safety locking system** is fitted so that a handle release knob needs to be operated before the actuating handle can be moved to lower or raise the heat plate.

1.4 Safety Tips

If required, our customer service team can arrange maintenance service.

- ◆ **The Beta Maxi Hi-Lift Press** meets the European Legislation standard. Under normal conditions accidents are rare. However, listed below are some practical points to ensure your safety.
 - **Always switch off** and isolate the mains supply (i.e. remove plug) before undertaking any maintenance work.
 - **Keep other people** away from the machine during use.
 - **Ensure that there is** sufficient space around the machine. Cables and connections must not get jammed. Although the heat radiation of the press is low, there should be enough space for cooling down.
 - **Avoid contact** with the press element.
 - ◆ **DO NOT REMOVE THE TOP COVER UNLESS QUALIFIED TO DO SO** - touching internal parts is dangerous and may cause shock hazard.
 - ◆ **PROTECT THE MAINS CABLE** - damage to the mains cable may cause fire or shock hazard. When unplugging, hold by the plug only and remove carefully. Take care that the mains cable does not come into contact with the heat plate (or moving parts of the mechanism) during operation of the machine.
 - ◆ **OPERATING AMBIENT TEMPERATURE RANGE** - the operating ambient temperature range is 0°C - 35°C ,
-

Safety Tips (cont.)

(32°F - 95°F) and humidity of 20 - 80%. This heat press is fitted with a thermal cut out to ensure that it cannot operate above 235°C ± 15°C (500°F ± 27°F).

- ◆ **MACHINE FUSES** - type: ultra rapid (FF) fuses 1¼". 230 Vac max. 12.5 amps.

- ◆ **WARNING - THIS APPARATUS MUST BE EARTHED (GROUNDED)**

- ◆ **CAUTION**

This machine gets hot whilst operating. Take care not to touch any surfaces that are labelled "Caution this plate is HOT".

- ◆ **MACHINE OPERATION**

Only suitably trained personnel should operate this machine.

This machine is designed to be operated by one operator only.

For safety use both hands to move the handle up or down.

Keep fingers away from **trapping points** in the arm-lever toggle mechanism. Using both hands on the handle keeps the hands safe.

Do not allow the handle to move upward, by the effect of the spring effect, use both hands to control movement.

Contact your print media suppliers to ascertain whether **fumes** are given off during the process, and if so what precautions are needed for operator safety. These may include **air extraction** and / or masks for personnel.

Please refer to page 14 for an illustration of the Beta Maxi Hi-Lift Press.

2. Installation

2.1 Transport instructions

The machine comes to you, in a cardboard box, and held in place with foam and banded onto a pallet. If you have to transport the machine at any time it is recommended that you use a similar box and packing methods. Please let the machine cool down, lower the handle to the locked position and remove the swing head handle.

2.2 Installing the machine

2.2.1 Remove all packaging from the heat press.

2.2.2 Check to ensure that no damage has been caused to the machine during transit.

2.2.3 Place the machine on a sturdy horizontal surface that is within easy reach of the operator. Due to the weight we recommend that this be a 2-person task. There must be sufficient space for the machine's head to swing to the right until it hits the built-in stop and for the operating handle to be raised to its full extent. Ensure that no items vulnerable to heat radiation are too close to the machine and that local lighting is adequate.

2.2.4 Under some circumstances the machine becomes unstable when the heat plate is swung to the side for loading. A suitable bolt is provided with the machine to allow the machine to be fixed in place using the hole in the front legs casting.

2.3 Electrical requirements

The Beta Maxi Hi-Lift Press should be connected to the mains supply, nominally 230V AC for the European market by the mains cable provided and a suitable plug. A qualified person should carry out this work.

The press is designed for 220-230 volts AC 50/60 hertz and requires exclusive use of a power outlet rated for at least 13 amps (Europe).

Ensure that the supply rating on the machine specification plate corresponds with your local supply and that the correct plug is fitted.

Wiring the plug for a 230-240 VAC machine. The wires in this mains lead are coloured in accordance with the following code:

230 VAC	{	Green and Yellow:	EARTH
		Blue:	NEUTRAL
		Brown:	LIVE

2.3A Wiring the plug for a 230-240 VAC machine

As the colours of the wires in the mains lead of this apparatus may not correspond with the coloured markings identifying the terminals in your plug, proceed as follows:

1. **The wire**, which is, coloured green and yellow must be connected to the terminal in the plug, which is marked by the letter E, or by the safety earth symbol coloured green, or green and yellow.
2. **The wire** coloured blue must be connected to the terminal, which is marked with the letter N, (Neutral connector)
3. **The wire** coloured brown must be connected to the terminal, which is marked with the letter L, (Live connector)

NOTE: Replacement of the mains cable must be done by a competent service engineer.

2.4 Adjusting the pressure

This press is fitted with a pressure-adjusting unit, which enables the heat plate assembly to be raised or lowered by use of a pressure adjustment knob located on the top of the machine:

- a) **To increase pressure** or to use thinner materials turn knob clockwise.
- b) **To decrease pressure** or to raise the heat plate assembly to enable thicker materials to be used, turn the adjustment knob anticlockwise.

NOTE

DO NOT adjust the pressure when the machine is clamped shut

CAUTION

Never increase the pressure to the extent of requiring undue force to lower the toggle/heat plate assembly into the lock position, as this will place excessive stress on the press frame, resulting in permanent damage to the press.

Please refer to page 15 showing the operation of the control unit.

3. How to Operate the Beta Maxi Hi-Lift Press

3.1 Starting with the Beta Maxi Hi-Lift Press

3.1.1. Plug into your supply outlet and switch supply on.

NB Please ensure the mains plug is easily accessible to the operator so that in the event of a fault the machine can be unplugged.

3.1.2 Turn on the Beta Maxi Hi-Lift Press; the on/off switch is on the left side of the swing head. Ensure that the operating handle is in the up position. Set the machine controls as necessary. See instructions for adjusting the pressure, Section 2.4, and the operation of the time temperature unit, page 15. When the set temperature is steady in the display the machine is ready to use.

3.2 Working with Heat Transfer Materials

3.2.1 Ascertain from the supplier of the transfer paper and/or the suppliers of the material, that the material to be used is suitable and has been prepared for transfer printing.

NOTE:

Settings and conditions for the application of “Cotton Type” and “Plastic Type” motif transfers are usually different from the above and details of setting and method of operation must be obtained from the transfer supplier.

3.2.2 Obtain from the supplier of the transfer paper or the material to be used, the recommended temperature, time and pressure settings for the material to be worked on.

Approximate settings are usually within the following:-

180°C - 200°C (356°F - 392°F)	Heat Setting
10 - 30 seconds	Time Dwell Setting

3.2.3 Wait until the set temperature has been reached, signalled by the temperature on the controller display reaching the required figure.

1.2.4 Swing the head to the right using the handle on the left of the head. Spread the material to be printed on the worktable, removing all wrinkles. Place the printing paper in the desired location and carefully swing the head back to the pressing position.

Working with Heat Transfer Materials (cont.)

3.2.5 Start the sequence by pulling the handle release knob to unlock the handle from its vertical position. Pull the handle down to the lock position using both hands on the handle. This will make the micro switch, which starts the timer. When the set time has elapsed, the buzzer sounds. The handle is then unlocked and returned to the vertical position again using both hands. The head may then be swung aside for unloading and loading

3.2.6 For safety reasons, it is necessary to push the handle into the locked position after it is lifted. This will ensure against the accidental lowering of the heat platen handle.

3.3 Pressing Pad Assembly

The pressing pad normally supplied with this machine is silicone rubber. Alternatively, a pad of foam with a “Nomex” cover may be supplied to special order. The pressing pad must be maintained in good condition at all times and replaced when showing signs of wear. A worn pressing pad will always affect the quality of printing/fusing. Do not insert items into the machine, which would tend to cut the pressing pad, i.e. buttons, pins, press studs or zips.

Never leave the hot heat plate in contact with the pressing pad when the machine is not in use.

IMPORTANT NOTE:

The pressing pad supplied with the machine is of the correct thickness. Using a thicker pad may invalidate your warranty.

3.4 Shutting Down

To shut down the machine, turn off the green illuminated rocker switch on the operator’s left side of the machine head, and then remove the mains plug from the power supply.

N.B. The handle should be in the up position.

3.5 Fault Diagnosis

The machines have built in fault diagnosis. The display may show the following:

1. H-F

If the element of the heat press, or the thermal cut-out go open circuit, after approximately 20 minutes the display will show

Fault Diagnosis (cont.)

“H-F” and a buzzer will sound. If this display is seen, contact your machine supplier immediately.

2. P-F

If the **probe** goes open circuit, the display will show “P-F” and a buzzer will sound. Contact your machine supplier immediately.

CAUTION

In all fault conditions switch off the power to the machine and unplug the machine from the electrical supply before contacting your machine supplier.

3.6 Hints and Tips

Transfer Printing

Extra care should always be taken to ensure that transfer paper is placed print down onto the article, as mistakes will result in the heat plate becoming soiled with ink and spoiling following work.

When transfer printing, it may be found to be advantageous to cover the press pad with paper to prevent strike-through of surplus ink, particularly when printing thin material as surplus print on the pressing pad cover can also strike back on the following work.

Transfer Paper/Motifs Fail to Print Out Correctly

Check:-

1. **Heat and time** dwell settings are correct.
2. **Article** having transfer applied is locked in contact between pressing pad and heat plate.
3. **Pressing pad** is in good condition, is flat and making complete contact over the whole area of the heat plate. See Pressing Pad details.

“Ghosting” (Double Image) of Transfer Prints

Check:-

1. **Material being used** has been correctly heat set for transfer printing.
 2. **Material being used** does not shrink during printing process, i.e. measure material before and after printing.
 3. **Transfer paper** does not move after printing process upon lift off of the heat plate.
-

Hints and Tips (cont.)

4. **If possible**, use adhesive coated paper, particularly to overcome fabric shrinkage.
5. **By pre-shrinking** of material in press before transfer printing.

4. Maintenance of the Machine

4.1 Daily Maintenance

For good press results it is important to keep the press surfaces clean. Wipe the surface of the heat plate with a dry non-abrasive cloth before use when the plate is cold.

When the heat plate is hot and not in use, keep open position away from the silicone pad.

4.2 Periodic Maintenance

The grease nipple (13 on the exploded diagram - on page 16) in the rear of the base (11) needs to have a small amount of molybdenum grease pumped into it annually.

Put a few drops of oil on the pivot pins and pressure adjustment screw every three months.

Periodically clean the Teflon® coated heat platen with a non-abrasive piece of cloth. Stubborn stains may be cleaned, when platen is cool, with mineral spirits.

4.3 Cleaning

First unplug the machine. Clean the outside of the machine frequently with a clean, moist cloth. This may conveniently be carried out when the machine is cold.

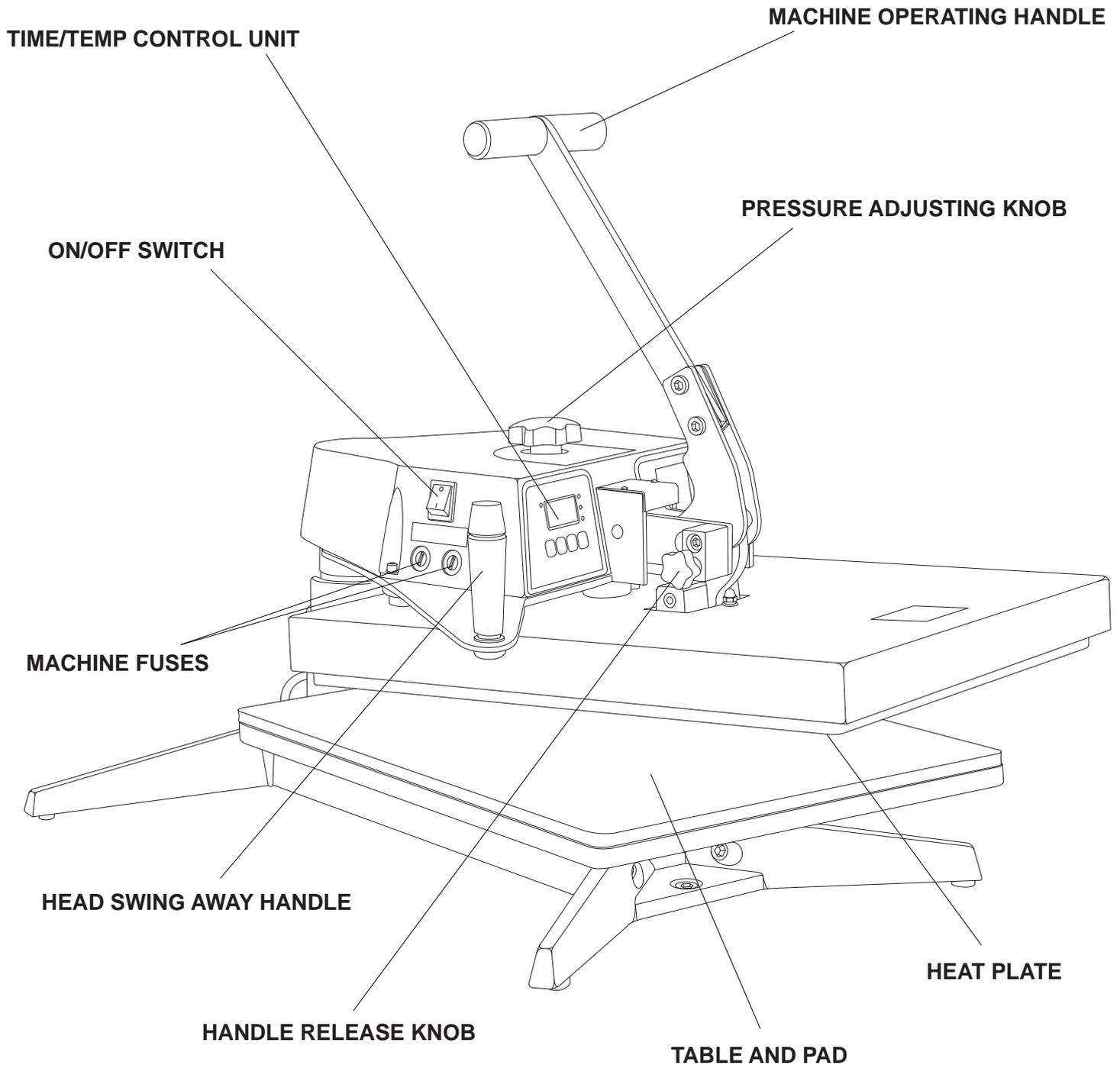
To prevent soiling of substrate, periodic wiping of entire exterior machine, including platens, with a clean rag is recommended. If necessary, use mineral spirits for cleaning a cold machine. Since mineral spirits are flammable, use precautions at all times and keep away from sparks, flames or hot heat platen.

5. Machine Drawings, Diagrams and Declarations

On the following pages are the schematic diagrams for the Beta Maxi Hi-Lift Press machine.

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5.2	Control Unit – Operation.....	Page 15
5.3	Exploded Diagram and Parts List.....	Page 16
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5.1 General Layout of the Beta Maxi Hi-Lift Heat Press Machine



5.2 Operation of Control Unit, Setting Time and Temperature

(The head must always be in the up position before the controller is set)



Setting Temperature

1. Switch on Press; Display and 'TEMP' indicator will light up.
2. Press 'MODE' button to select 'Set' on indicator.
3. The Display will start flashing.
4. Use the 'UP' and 'DOWN' arrow buttons to set the required temperature.
5. When you have set the required temperature the Display will stop flashing and the 'SET' indicator will go out.
6. Press the 'ON/OFF' button to start the Press heating to the selected temperature. The 'ACT' indicator will light up.

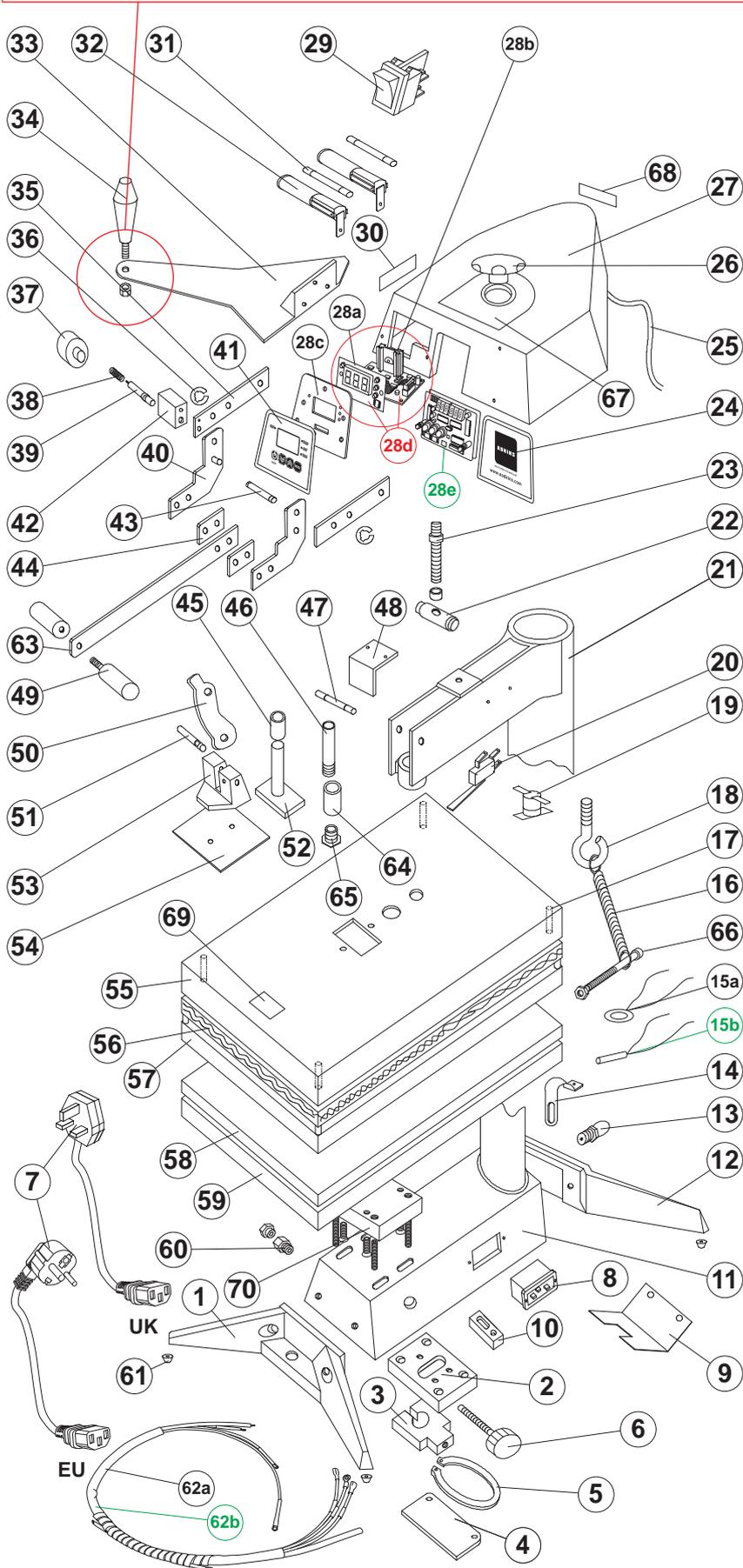


Setting Time

1. Switch on Press; Display and 'TEMP' indicator will light up.
2. Press 'MODE' button twice to select 'SET' and 'TIME' on indicator.
3. The display will start to flash.
4. Use the 'UP' and 'DOWN' arrow buttons to set the required time.
5. When you have selected the required time the Display will stop flashing and the 'SET' and 'TIME' indicators will go out.
6. Press the 'ON/OFF' button to start the Press. The 'ACT' indicator will light up.

5.3 Exploded Diagram & Parts List

Please tighten nut with a 16 mm spanner before using machine

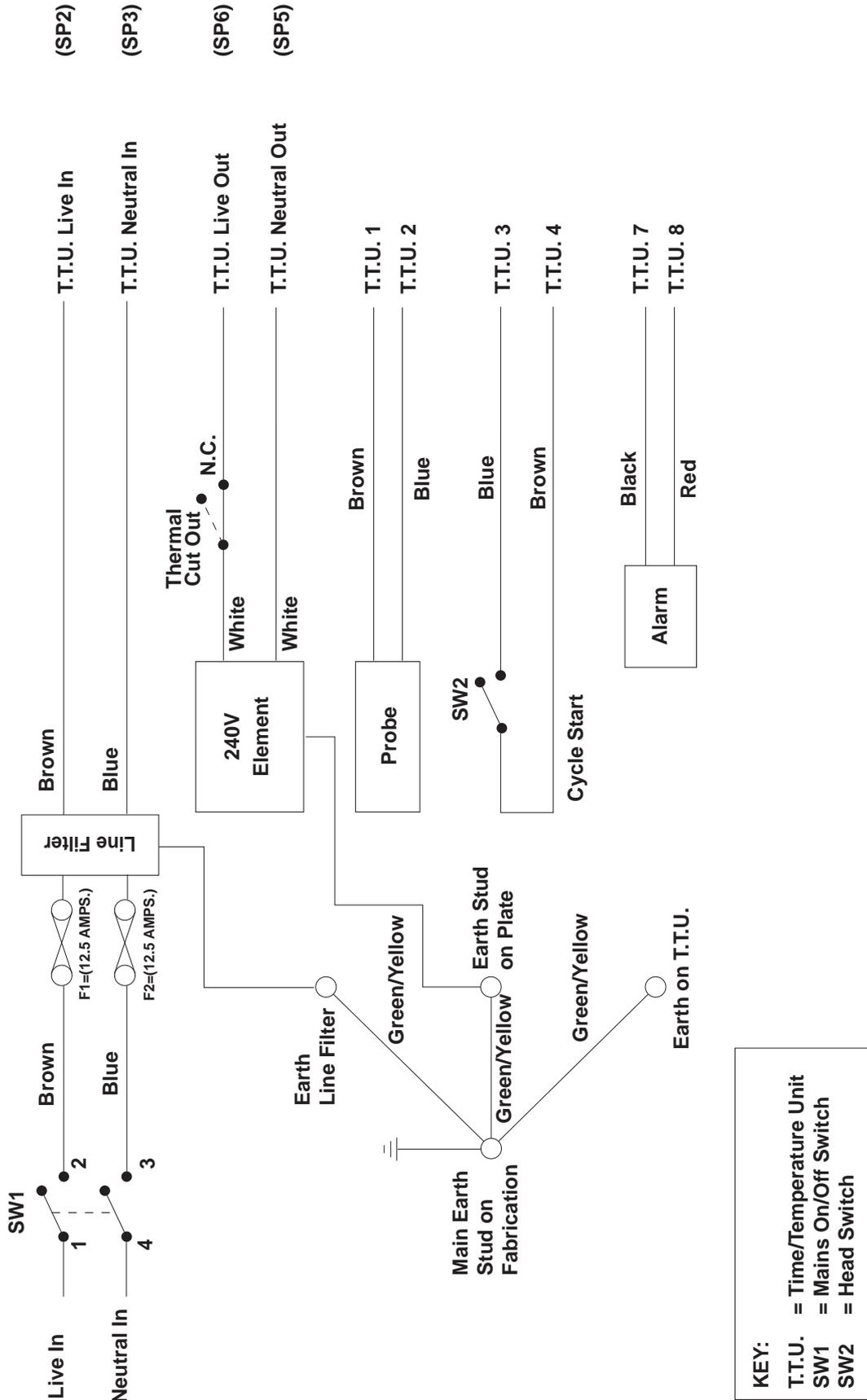


No.	Description	Part No.	Qty.
1	Front foot	BMC13	1
2	Detachable base plate no.2	BMC613	1
3	Detachable top plate no.3	BMC614	1
4	Retaining Plate	BM345	1
5	External circlip	BMC207	1
6	Detachable table knob	BMC506	1
7	Mains mains lead 3 pin	BMC617	1
	Mains mains lead 2 pin	BMC619	1
8	Socket for mains lead	BMC426	1
9	Base terminal cover	BMC616	1
10	Adjustable stop blocks	BMC612	1
11	Base	BMC12/B	1
12	Rear foot	BMC14	1
13	1/8 BSP grease nipple	BMC201	1
14	P clip	BMC242	1
15a	PTFE ring probe	FP3057/5	1
15b	PTFE bullet probe	BM478/PTFE	1
16	Heat plate spring	BM346	1
17	PTFE pillar	AMC207	4
18	Screw eye	BMC477	1
19	Thermal cut out	BM338	1
20	Micro switch	BMC462	1
21	Extended Fab Arm	BMC467	1
22	Thrust bar	BMC19/B	1
23	Adjusting stud and lock ring complete	BMC19/C	1
24	Overlay R/H Adkins fascia	BM630	1
25	Mains cable	MAINSABLE	1
26	Scalloped hand wheel	BMC507	1
27	Instrument cover	BME10	1
28a	Front controller LED (buzzer board)	BMC322/A	1
28b	Back controller power board	BMC322/B	1
28c	Controller back plate	BMC322-C	1
28d	Controller complete	BMC322/COMP	1
28e	Green button controller	BM322/YF	1
29	Green rocker switch	BM448	1
30	Caution live fuse label	BMC470	1
31	12.5 amp fuse	BM356	2
32	Standard fuse holder	BME468	2
	Fuse holder 16 amp (A2 machine only)	BME468/A	2
33	Cast swing arm	BMC11	1
34	Swing arm handle	BMC508	1
35	L/H and R/H pivot arms (pair)	BMC19/K	2
36	Circlip	BM352	2
37	Knurled knob	BM224	1
38	Pressure spring	BM225	1
39	Stop bar	BMC19/F	1
40	Pivot plate (pair)	BMC19/J	2
41	Overlay L/H touch pad fascia	BME541	1
42	Stop block	BMC19/G	1
43	Outer pin	BMC19/A	1
44	Spacer (pair)	BMC19/E	2
45	Oilite bush	BMC321/S	1
46	20 mm conduit cable post	BMC436/A	1
47	Inner pin	BMC19/D	1
48	Toggle cover	BMC19/N	1
49	3 piece handle	BMC19/H	1
50	Toggle cam	BMC19/L	1
51	Yoke Pin	BMC22/C	1
52	Solid guide post	BMC348	1
53	Yoke	BMC15	1
54	Jacking plate	BMC491	1
55	Insulation cover (dark grey)	BMC26	1
56	Rock wool	BMC228	1
57	15 x 20 heat plate (inc loom)	BMC460/COMP	1
58	Non adhesive silicone pad 38 x 50 cm	BMC341	1
	Self adhesive silicone pad 38 x 50 cm	BM341	1
59	Cast table 38 x 50 cm	BMC17	1
60	Gland	AMC307	1
61	Rubber foot	SW33	4
62a	Loom complete with ring probe	LOOMCR	1
62b	Loom complete with bullet probe	LOOMCB	1
63	Lever arm	BMC19/M	1
64	Coupling	BM361	1
65	Bush	BM360	1
66	M5 x 40 socket cap head with nut	M5X40SCH	1
67	Pressure adjust label	BM486	1
68	Live electrical connection label	MPC6549	1
69	Caution hot label	MPC6548	1
70	25 mm aluminium block	BM584	1

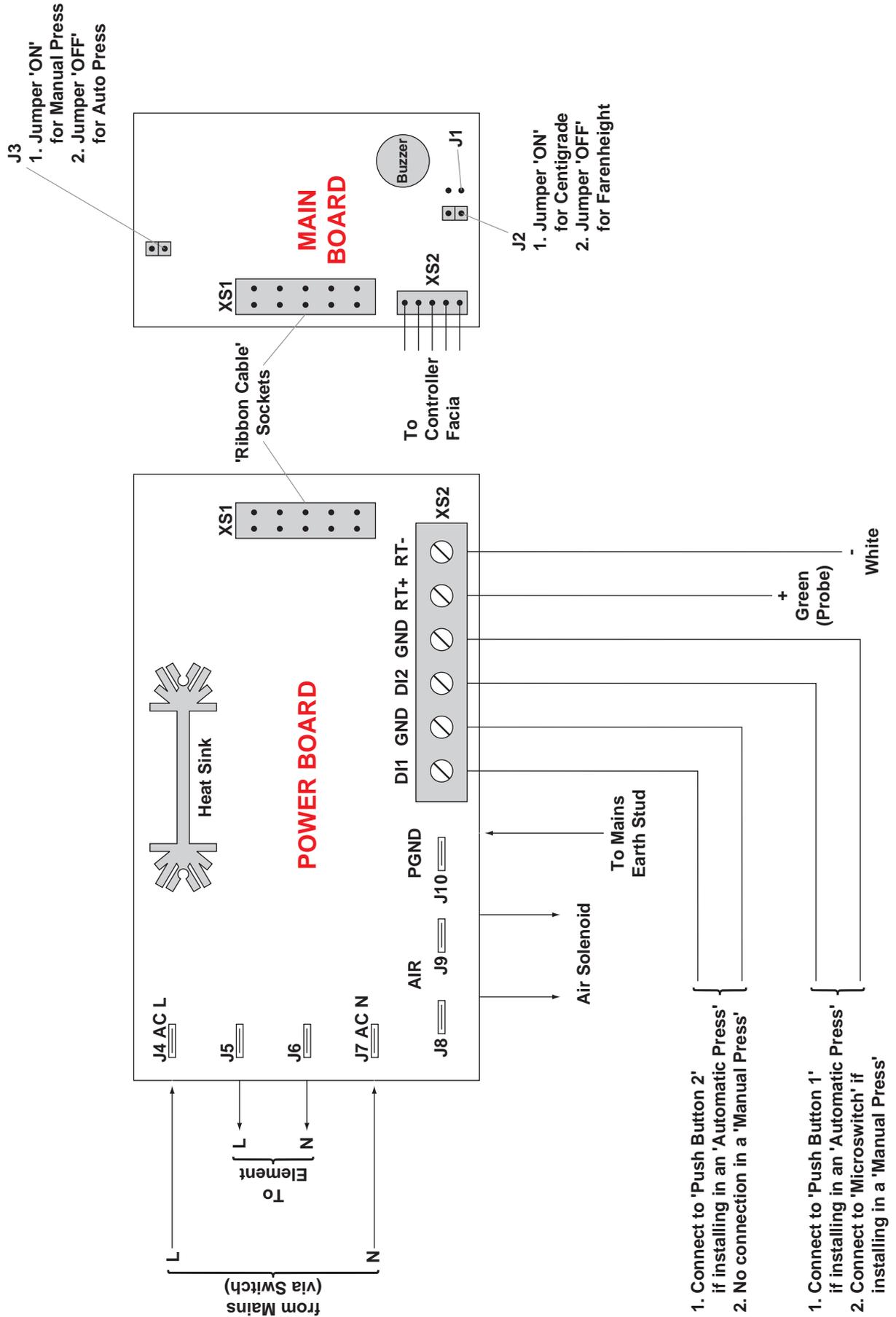
* Parts for older machines

* Controller complete

5.4 Electrical Diagram



5.5 Controller Electrical Diagram



6. Design Change

With the policy of constant improvement and/or modification to meet changing conditions, the right is reserved to change the design and/or specifications at any time without prior notification, and therefore specifications may vary and not be in accordance with this manual.

7. Guarantee (Limited Warranty)

A. Adkins & Sons Limited warrants that the press is free from defects in material and workmanship (excluding Pressing Pad Assembly) for a period of 12 months from the date of supply. The machine comes with a lifetime warranty on the heating element, one year warranty on parts and 90 days labour.

This warranty covers all parts to repair the defects, except when damage results from misuse or abuse, accident, alteration or negligence or when a machine has been improperly installed.

If a press covered by warranty should need to be returned to the factory for examination and repair, if on-site component replacement is not possible, A. Adkins & Sons Limited will make every effort to repair the customers press. The warranty will only be effective when A. Adkins & Sons Limited authorises the original purchaser to return the machine to the factory and only when the product upon examination has proven to be defective.

Should in our opinion any part of this press be defective in materials or workmanship, it will be replaced or repaired free of charge, provided that the press has been installed and operated in the correct manner and not subjected to misuse. If A. Adkins & Sons Limited authorise a replacement press, the warranty of the replacement press shall expire on the anniversary date of the original machines invoice to the customer.

In order for this warranty to be effective, no return of machine or parts may be made without prior factory authorisation. (This will exclude any travelling and/or carriage costs which will be charged at our discretion).

This is the sole warranty given by the company; there are no warranties, which extend beyond the description on the face hereof. The seller disclaims any implied warranty of merchantability and/or any implied warranty of fitness for a particular purpose; the buyer agrees that the goods are sold "as is". A. Adkins & Sons Limited does not warrant that the functions of the press will meet the customer's requirements or expectations. The entire risk as to use, quality and performance of the press lies with the customer. (No claim of any kind shall be greater than the sale price of the product or part to which the claim is made).

In no event will A. Adkins & Sons Limited be liable for any injury, loss or damage, including loss of profits, destruction of goods or any special, incidental, consequential or indirect damages arising from the use of the press or accompanying materials. This limitation will apply even if A. Adkins & Sons Limited or its authorised agent had been advised of the possibility of such damage.

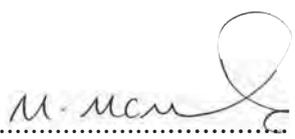
A. ADKINS & SONS LIMITED
DECLARATION OF CONFORMITY



<p>Application of Council Directives:</p> <p>Standards to which Conformity is Declared:</p>	<p>Machinery, Low Voltage. E.M.C.</p> <p><u>BS EN ISO 12100:2010</u> - Safety of machinery: Basic Technology, Principles of Design. <u>BS EN 60204-1:2006+A1:2009</u> - Safety of machinery: Electrical Equipment of Machines <u>BS EN 60529:1992-A2:2013</u> - Degree of protection provided by enclosures. <u>BS EN ISO 13850:2015</u> - Safety of Machinery: Emergency Stops. <u>BS EN ISO 141211:2007</u> - Safety of Machinery: Principles for Risk Assessment. <u>BS EN 55011:2016+A1:2017</u> - Class A Group 2 Equipment - EMC Emissions. <u>BS EN ISO 61000-6-4:2007+A1:2011</u> - EMC Conducted Emissions. <u>BS EN ISO 61000-6-2:2005</u> - EMC Immunity. <u>Low Voltage Directive 2014/35/EC</u> - Including DIN EN 61557-1, -4 and -5. <u>Electro Magnetic Interference Directive 2014/30/EC</u> - Including DIN EN 61000-6 series of standards.</p>
<p>Manufacturer's Name:</p>	<p><u>A. Adkins & Sons Limited</u></p>
<p>Manufacturer's Address:</p>	<p>High Cross, 18 Lancaster Road, Hinckley, Leicester, LE10 0AW, United Kingdom.</p>
<p>Type of Equipment:</p>	<p>Beta Maxi Hi-Lift Heat Press</p>
<p>Standards Compliance:</p>	
<p>Model Number:</p>	<p>.....</p>
<p>Serial Number:</p>	<p>.....</p>
<p>Year of Manufacture:</p>	<p>.....</p>

I, the undersigned, hereby declare that the equipment specified above conforms to the above directives and standards.

Place: Hinckley, United Kingdom

Signature: 

Date:

Full Name: Marie McMahon
 Position: General Manager