

Microseal Plus

Operators Manual

Rev: MS-Plus 2009



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Features

The new Plus machine use a powerful microprocessor PID (*Proportional plus Integral plus Derivative*) controller utilizing flash memory processors which allow custom features and high standard of temperature accuracy. PID controllers prevent oscillation around the temperature set point and adjust the power output to avoid overshoot and offset, for a more reliable and stable temperature. Dual display of temperature and time dwell. SSR controlled heating element.

Unpacking & Set-up

- Remove the heat press from the packing case and retain all the packing.
- Mount the press on a solid surface ensuring it is located near a mains outlet. We recommended that the machine is fixed down to a solid surface using the two screw holes at the front and rear of the machine base plate.
- Plug the mains cable into the rear of the machine and connect to: - 240 Volt AC, single-phase mains supply (standard wall socket)
- Depress the **on / off** switch and the control will illuminate as below and perform a self diagnostic for a few seconds.

IMPORTANT: THE WIRING IN THIS MAINS LEAD IS COLOURED IN ACCORDANCE WITH THE FOLLOWING CODE: - GREEN & YELLOW- EARTH / BLUE – NEUTRAL / BROWN - LIVE THIS EQUIPMENT MUST BE EARTHED.



The machine will now start to heat up. Please note for the later part of the heating cycle approximately 10°C before the set point the heating cycle will slow down this is the PID control bringing the temperature up by pulsing the element supply to avoid temperature overshoot.



The first line of the controller display (in red) is the current temperature. When the machine is first switched on it will display the temperature of the platen and gradually heat up to the set point. The controller above is indicating 203°C this means the machine is ready to use. The second display (green) line is the timer set point in seconds currently set to 8 seconds.



The machine is delivered be set to standard factory settings as above but you may wish to change these for different materials or marking products.

You may check your settings at any time simply by pressing the **P** key and the temperature set-point will be displayed, press **P** again and the timer set-point will be displayed, press **P** a third time and the control goes back to the standard screen display

To Change the Temperature/ Timer Set Points.....



Press the **P** button once to enter the temperature set point



If you want to alter the **temperature set point** use the arrow keys up & down followed by the **P** key.

Alternatively press the **P** key again to enter the timer set point



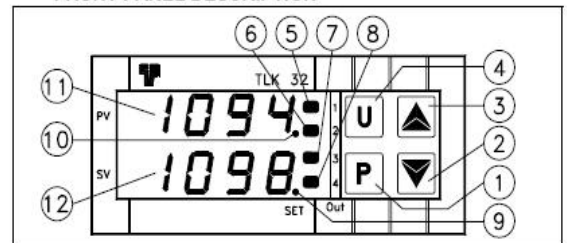
Again if you want to alter the **timer set point** use the arrow keys up & down followed by the **P** key.

Alternatively press the **P** key again to exit to main screen



Your new settings will be displayed back on the main screen and are now the default temperature and timer setting.

FRONT PANEL DESCRIPTION



- 1 - **Key P** : This is used to access the programming parameters and to confirm selection.
- 2 - **Key DOWN** : This is used to decrease the values to be set and to select the parameters. If the key is held down, the user returns to the previous programming level until he exits the programming mode.
- 3 - **Key UP** : This is used to increase the values to be set and to select the parameters. If the key is held down, the user returns to the previous programming level until he exits the programming mode. Outside the programming mode it permits visualisation of the output control power.
- 4 - **Key U** : This is deactivated
- 5 - **Led OUT1** : indicates the state of output OUT1
- 6 - **Led OUT2** : indicates the state of output OUT2
- 7 - **Led OUT3** : indicates the state of output OUT3
- 8 - **Led OUT4** : indicates the state of output OUT4
- 9 - **Led SET** : when flashing, it indicates access to the programming mode.
- 10 - **Led AT/ST** : indicates that the Self-tuning function is activated (light on) or that Auto-tuning (flashing) is in progress.
- 11 - **Display PV** : It normally indicates the process value
- 12 - **Display SV** : It normally indicates the active Set value, however it can be programmed, on par. "diSP", to visualize other values.



To Operate the Hand Press

- Ensure that the temperature & Timer setting are correct.
- You may check your settings at any time simply by pressing the **P** key and the temperature set-point will be displayed, press **P** again and the timer set-point will be displayed, press **P** a third time and the control goes back to the standard screen display
- Place the part of the garment/article to be marked onto the silicone pressure pad.
- Pull the handle forward into the locked position, ensuring the garment is firmly clamped between the heat plate and pressure pad. (Make sure that your hands are away from the heated platen when using the heat press).
- The timer display will now start a countdown.
- After completion of the above the buzzer will sound when the pre-set time has elapsed, the handle should then be lifted back to its full extent.

Before operating the machine at the start of each day carry out a sealing procedure without any garment or transfers this will remove any moisture from the pad

Pressure Pad Assembly

The silicone pressure pad and assembly should be maintained and kept in good condition at all times.

A worn silicone pressure pad will effect the quality of transfer marking / fusing and should be replaced when showing signs of wear. (See parts list).

After a long duration of time it may be found that there is a loss of pressure through the pressure pad assembly, this can be rectified by replacing the pressure springs located under the pressure plate.

Never allow the heat plate to rest on the silicone pressure pad when the press is not in use.

PTFE Heat Plate Cover

A PTFE cover is fitted to the heat plate, which allows the surface to be wiped clean should it become marked.

New PTFE covers may be fitted to the heat plate when **WARM** (not hot) and has been cleaned to remove residue of the old PTFE.

Design Change

With a policy of constant improvement and/or modifications to meet changing conditions, the right is reserved to change the design and/or specifications at any time without prior notification, therefore no guarantee can be given as to the accuracy of the information contained in this instruction book.

Guarantee

This press is guaranteed to be free from defects in materials and workmanship ** for a period of 12 months from the proven date of delivery or installation.

Should, in our opinion, any part of this press be defective in materials or workmanship it will be replaced or repaired free of charge (excluding any travelling costs / carriage costs which will be charged at our discretion) provided that the press has been installed and operated in the correct manner and not subjected to misuse.

A charge will be made for any costs incurred if a reported fault on the press is found to be due to incorrect installation, operation and/or incorrect materials being used, as it is the responsibility of the press user to ensure the suitability of the materials operating through the press.

** Exclusions - Pressure Pad GSW-16-s, PTFE GSW-18

Application details for Wader Products

Your press should have the following settings: -

Temperature: -	204 / 210 °C
Pressure: -	20 PSI
Time Dwell: -	8-10 seconds

The above is only a basic guideline you may need to change settings for special materials. To alter the settings see page 2.

We recommend that THERMAL materials / clothing are not used on this heat press. Contact Sales For Special Material Settings.

Specifications

Supply Voltage 230 / 240 Volt AC. 500watt.

Microprocessor PID Temperature/Timer Control Unit

(Allowances should be made when P.A.T. testing.)

240v Mica plate heating element including 40" leads and earth.

Metal Fabrication.

Maintenance *

Lubricate toggle linkage at regular intervals with light machine oil, this will ensure a long life of the toggle clamp and also a smooth operation.

Keep top PTFE cover in good condition.

Ensure that the silicone pad is in good condition.

Check all fasteners are tightened to the correct torque. This is particularly important with the heat plate fixing as these are under extreme heat and strain.

Before operating the machine at the start of each day carry out a sealing procedure without any garment or transfers this will remove any moisture from the pad.



This machine is designed for application of heat-seal transfers, tape, badges and patches only.

- Please ensure the manufacturers operating instructions are adhered to.
 - A colour copy of this manual plus all the Wader machinery can be downloaded from the website www.wader.co.uk
- We recommend a qualified engineer inspect the machine at six Monthly intervals**



Fault Finding

No Mains light Or Control Display

Check the supply to press and condition of fuses (front panel & plug).
Is the press switched on?
Control Unit Transformer.

Heat plate fails to get warm (refer to fig.2)

Does the element have continuity? *Specifications for this test can be supplied upon request.*
Does the probe have resistance?
Is the relay switching over? (check light on SSR, and coil supply)

RTD Probe.

To test the probe condition, remove completely from press and measure the resistance at room temperature using a multimeter.
Then warm the probe if the resistance changes the probe is working correctly.
Specifications for this test can be supplied upon request.

Sealing Pressure Low.

Badly worn pad
Over compressed springs
Toggle assembly worn

Timer Buzzer

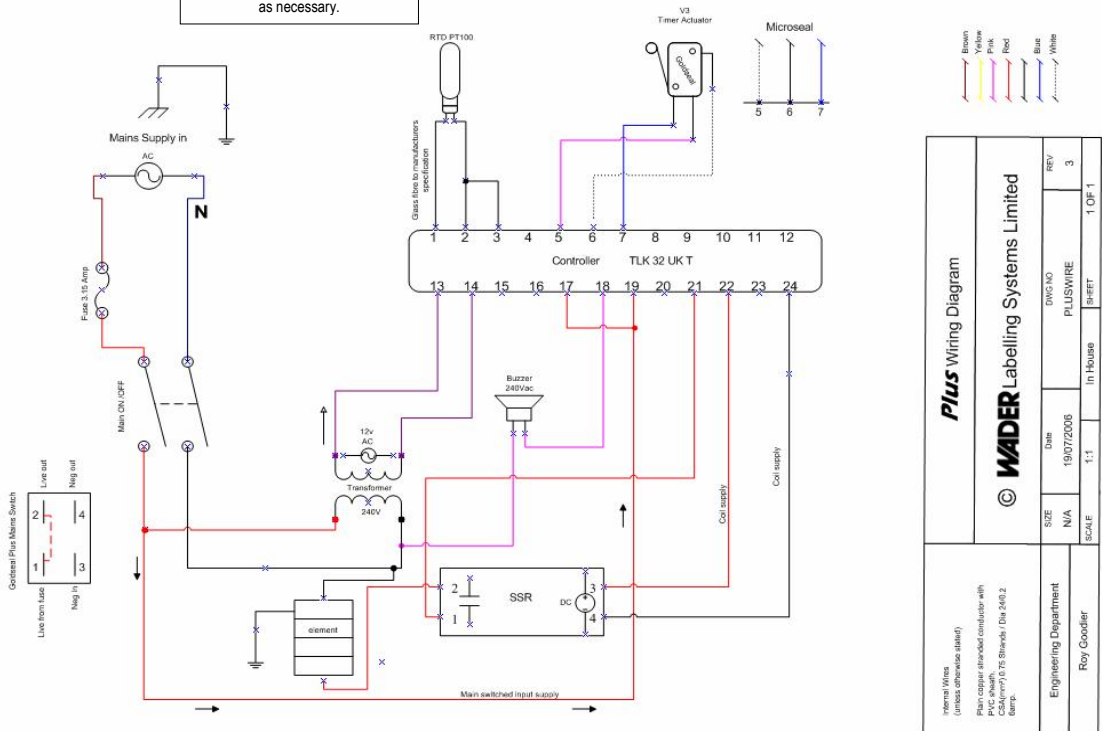
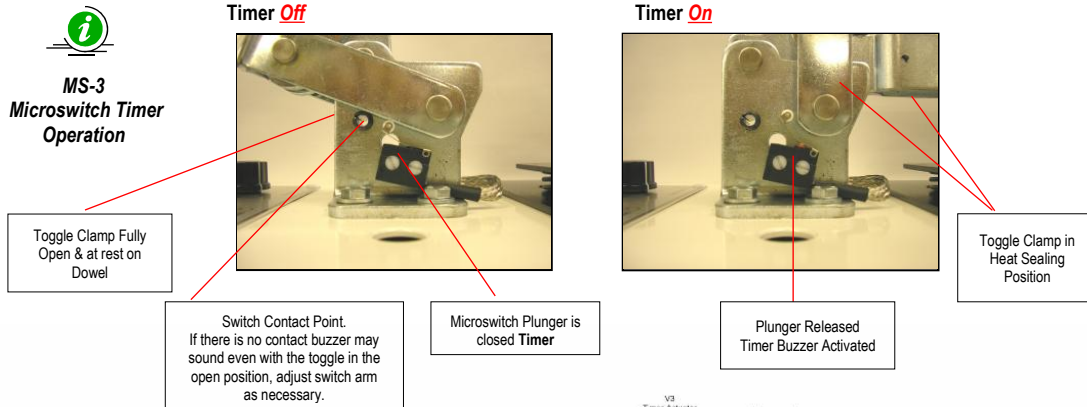
Toggle arm not making contact with micro-switch *see below*
Faulty micro-switch, check switching with meter.
buzzer faulty check AC power supply to buzzer 230VAC

Controller Error Codes

Error	Reason	Action
---	Probe interrupted	Verify the correct connection between probe and instrument and then verify the correct functioning of the probe
uuuu	The measured variable is under the probe's limits (under-range)	
oooo	The measured variable is over the probe's limits (over-range)	
ErAt	Auto-tuning not possible because the process value is higher (with "Func" =HEAT) than [SP- SP/2] or lower (with "Func" =CooL) than [SP+ SP/2].	Swap the instrument to OFF control (OFF) and then to automatic control (rEG) in order to make the error message disappear. Once the error has been found, try to repeat the auto-tuning.
noAt	Auto-tuning not finished within 12 hours	Check the functioning of probe and actuator and try to repeat the auto-tuning.
LbA	Loop control interrupted (Loop break alarm)	Check the working of probe and actuator and swap the instrument to (rEG) control
ErEP	Possible anomaly of the EEPROM memory	Push key "P"

Safety First

When working on the heat press remember to always **DISCONNECT** the mains supply before removing covers or guards. Never allow your hands to be in a position that they may be trapped by the heat plate when you bring the handle down



<p>Plus Wiring Diagram</p> <p>© WADER Labelling Systems Limited</p>		REV	3
Dim	DWG/NO	PLUSWIRE	
SIZE	N/A	19/07/2006	
SCALE	1:1	In House	1 OF 1
<p>Internal Wires (unless otherwise stated) Plain copper stranded conductor with PVC sheath. Solenoid/STS Brands Dia 2x0.2 Size</p>		Engineering Department	Roy Goodier

