

Microseal Plus

Operators Manual

Rev: MS-Plus 2020 (K32)



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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.
- 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.



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.

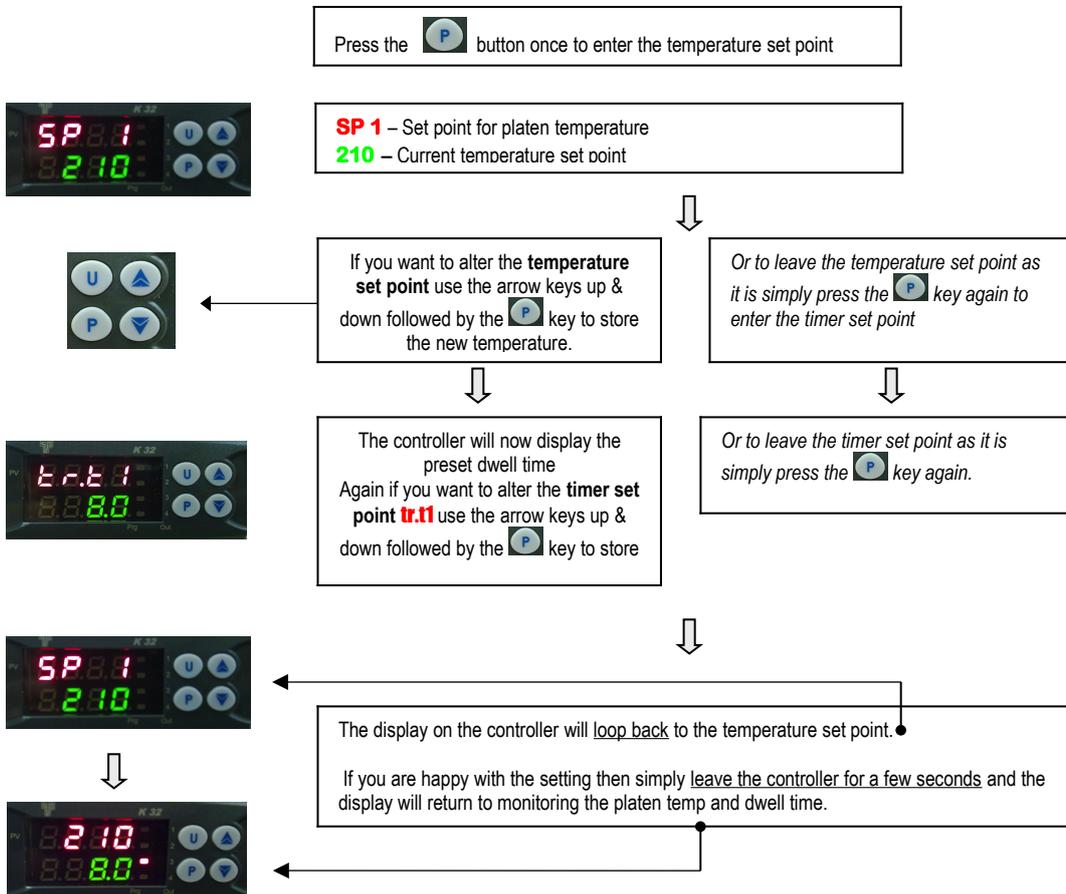


The controller on the left is indicating 210°C [204°C 2018 machines onwards] this means the machine is ready to use. The second display (green) line is the timer set point in seconds currently set to 8 seconds.

The machine is delivered 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 will loop back to the temp set point simply leave the control for a few seconds and display will revert to monitoring the temperature of the machine.

To Change the Temperature & Timer Set Points





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 operation of the toggle action maybe stiff when the machine is new this is perfectly normal and will ease with use.*
- The timer display will now start a countdown.



After completion of the above the buzzer will sound when the pre-set time has elapsed and **t.End** (timer end) will be displayed, the handle should then be lifted back to it 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 °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.

It is also recommended not to apply heat seal labels to existing garment labels.

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

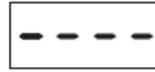
Controller Error Codes

Out of range signals

The upper display shows the OVER-RANGE and UNDER-RANGE conditions with the following indications:



The sensor break will be signalled as an out of range



NOTE: When an over-range or an under-range is detected, the alarms operate as in presence of the maximum or the minimum measurable value respectively.

To check the out of span Error condition, proceed as follows:

- 1) Check the input signal source and the connecting line.
- 2) Make sure that the input signal is in accordance with the instrument configuration.
Otherwise, modify the input configuration

3) If no error is detected, send the instrument to your supplier to be checked.
ErAT - Fast Auto-tune can't start. The measure value is too close to the set point.

Push the P button in order to delete the error message.

NoAt - Auto-tune not finished within 12 hours.

ErEP- Possible problem of the instrument memory.

The messages disappears automatically.

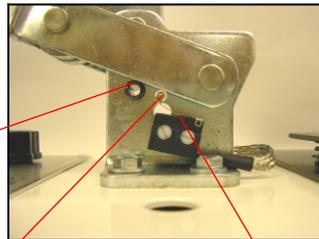
When the error continues send the instrument to your supplier

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

MS-3 Microswitch Timer Operation

Timer **Off**

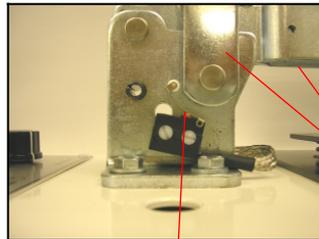


Toggle Clamp Fully Open & at rest on Dowel

Switch Contact Point.
If there is no contact buzzer may sound even with the toggle in the open position, adjust switch arm as necessary.

Microswitch Plunger is closed **Timer**

Timer **On**

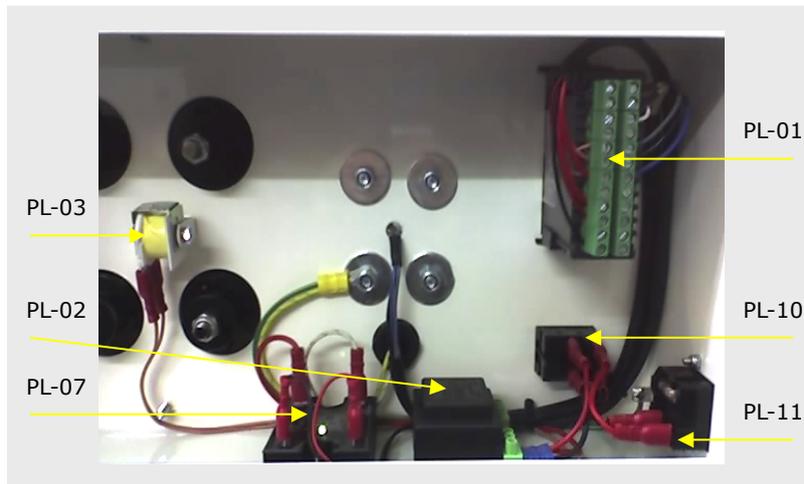


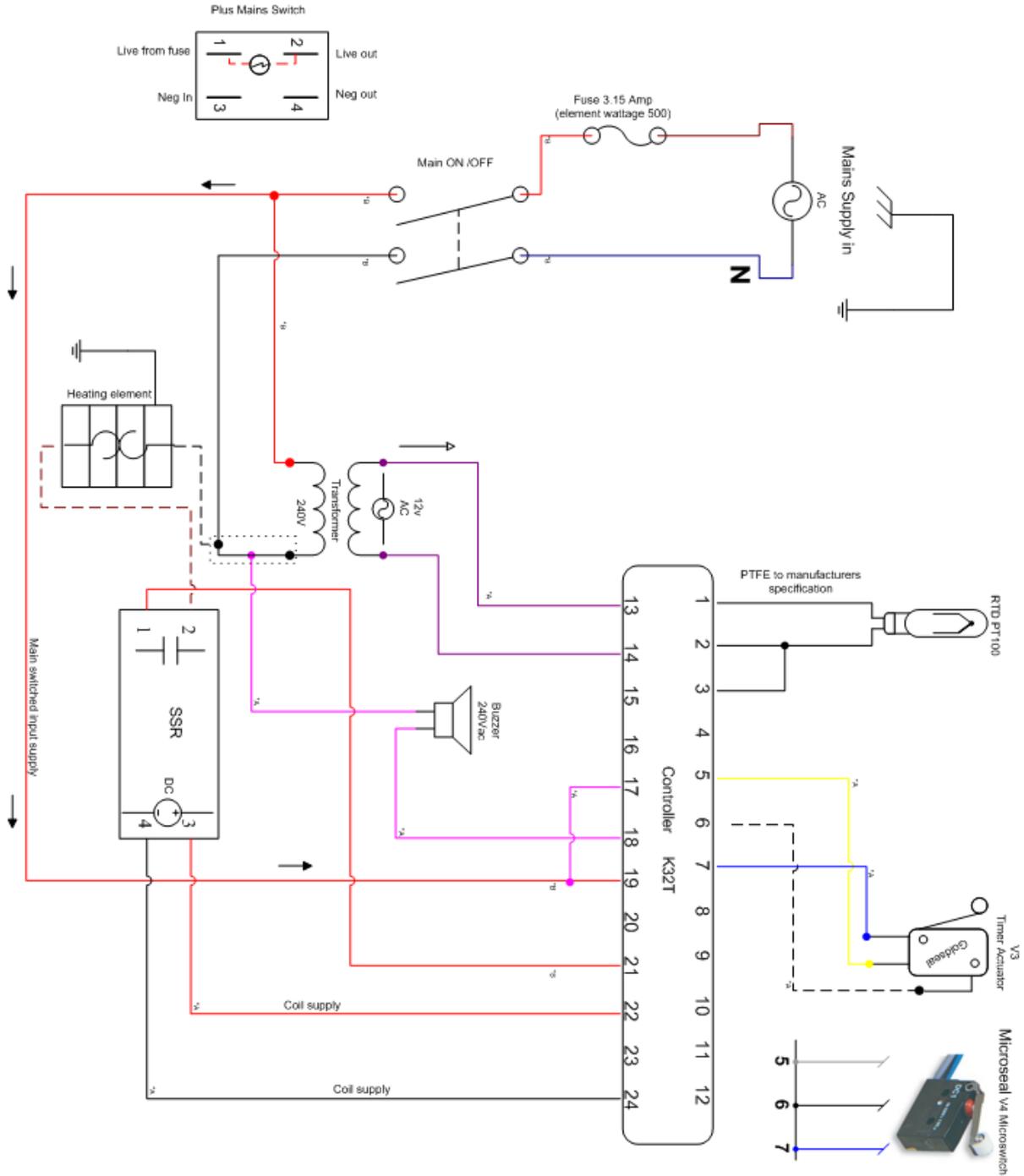
Toggle Clamp in Heat Sealing Position

Plunger Released
Timer Buzzer activated



MS 1	Body Fabrication
MS 2	Toggle Clamp Assembly
MS 2.3	Ball Knob
MS 2.4	Toggle Spring
MS 3	V4 Micro Switch
MS 5	Heat plate (upper & lower)
MS 5.1	Heat plate Fixings
MS 6	Platen Cover
MS 7	Base Cover Plate
MS 8	Cable Bush (HEAT PLATE WIRES)
MS 11	Packaging
MS 12	Pressure Springs
MS 14	Insulation (Heat Plate) A
MS 15	Channel Washer
MS 16	Toggle Stop Pin
MS 17	Heat Plate Pillar
GSW-14	Heating Element 500 watt
GSW-16-S	Silicone Pressure Pad
GSW-17	Pressure Pad plate
GSW-18	PTFE (pack Of 5)
GSW-22	RTD Probe
PL-01	Control Unit (ascertain software version)
PL-02	Transformer (controller)
PL-03	Buzzer 240VAC
PL-07	Control Relay (ssr)
PL-10	Mains Switch (illuminated red)
PL-11	IEC mains inlet inc. fuse
PL-12	IEC Mains Lead (10amp) inc plug
PL-15 M	M4 U Nut (Base Plate)
PL-16	2mm Element Insulation B





<p>[Operation dependent on software download] Internal Wires (unless otherwise stated)</p> <p>Plain copper stranded conductor with PVC sheath. CSA(mm²) 0.75 Strands / Dia 24/0.2 6amp. EDIT April 2020 GS M/Switch wire colour (Yellow)</p>	Plus Wiring Diagram			
	© WADER Labelling Systems Limited			
Engineering Department	SIZE N/A	Date 15/04/2020	DWG NO PLUSWIRE	REV 4
Roy Goodier	SCALE 1:1	In House	SHEET	1 OF 1

- Brown
 - Yellow
 - Pink
 - Red
 - Black
 - Blue
 - White
 - Grey
- Equipment Wire CSA
0.52 mm² -A
0.75 mm² -B