

NL-30 User Manual



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Preface

Congratulations and welcome to the ever growing number of Thermopatch users.

You have acquired a machine which has been manufactured by Thermopatch with the greatest possible care. We are confident that you will be enjoying the use of this machine for a long time.

Please take note of the contents of this manual to familiarize yourself with the workings and safety aspects of the machine. This manual was written for the benefit of all users and technicians who install and maintain the machine.

You will find information on operating, safety and maintenance as well as spare parts and supplies.

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EC - Statement of Conformity

We,

Thermopatch B.V.
Draaibrugweg 14
1332 Almere
The Netherlands

herewith declare, on our own responsibility, that the
apparatus: Thermopatch Thermoseal
NL-30, which this declaration refers to, is in accordance with
the conditions of the following Directive(s):

2006/95/EG (Low voltage directive)
2004/108/EG (EMC directive)

The Netherlands, Almere, 29-09-2009

Jan Bausch,
Director

I. Conditions of Warranty

- The warranty period starts the day of putting the equipment into service at the user's place, for a duration of one year, being 2000 hours.
- The warranty is strictly limited to our equipments, against the defects of matter and execution, with the buyer's responsibility to prove the known defects.
- Our responsibility is limited to the obligation to rectify or replace free of charge the parts acknowledged as faulty by Thermopatch, and there will no claim for any indemnity whatever the reason given.
- Parts replaced under the warranty:
 - Remain our property;
 - Are the subject of an invoicing of deposit;
- A credit of cancellation is activated as soon as the faulty parts are returned. The return will have to occur **ONE MONTH MAXIMUM** after the intervention.
- **THE WARRANTY DOES NOT COVER :**
 - The retail consumables such as: fuses, bulbs, transformers, joint, flexible devices etc.
 - The supplies, which are not our own manufacturing, undergo the warranty of their manufacturer.
- **THE WARRANTY DOES NOT APPLY :**
 - To replacements, nor repairs which would result from normal wear and tear of apparatus and machines, of deteriorations and accidents coming from negligence, defect of monitoring and maintenance, defective use or modifications without our written agreement.
 - In case of defaulting coming from the material supplied by the buyer, or a design imposed by the latter.
 - To repairs which would result from deteriorations or accidents occurred during transport.
 - To operations of maintenance and adjustments inherent in the use of the machine, and indicated in the maintenance manual, such as: adjustments of intermediaries, screwing of piping, etc.... do not enter the clauses of warranty.

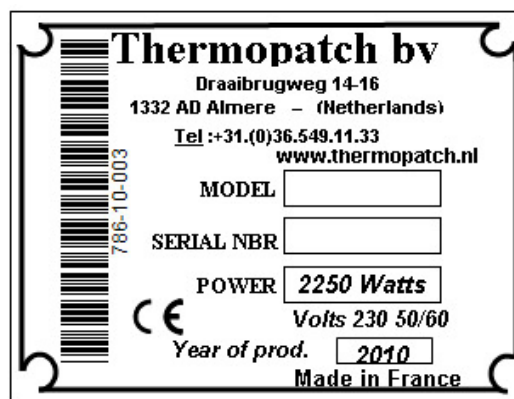
For any technical information or spare parts orders, please give the reference number of the machine as well as its serial number.

II. Specifications

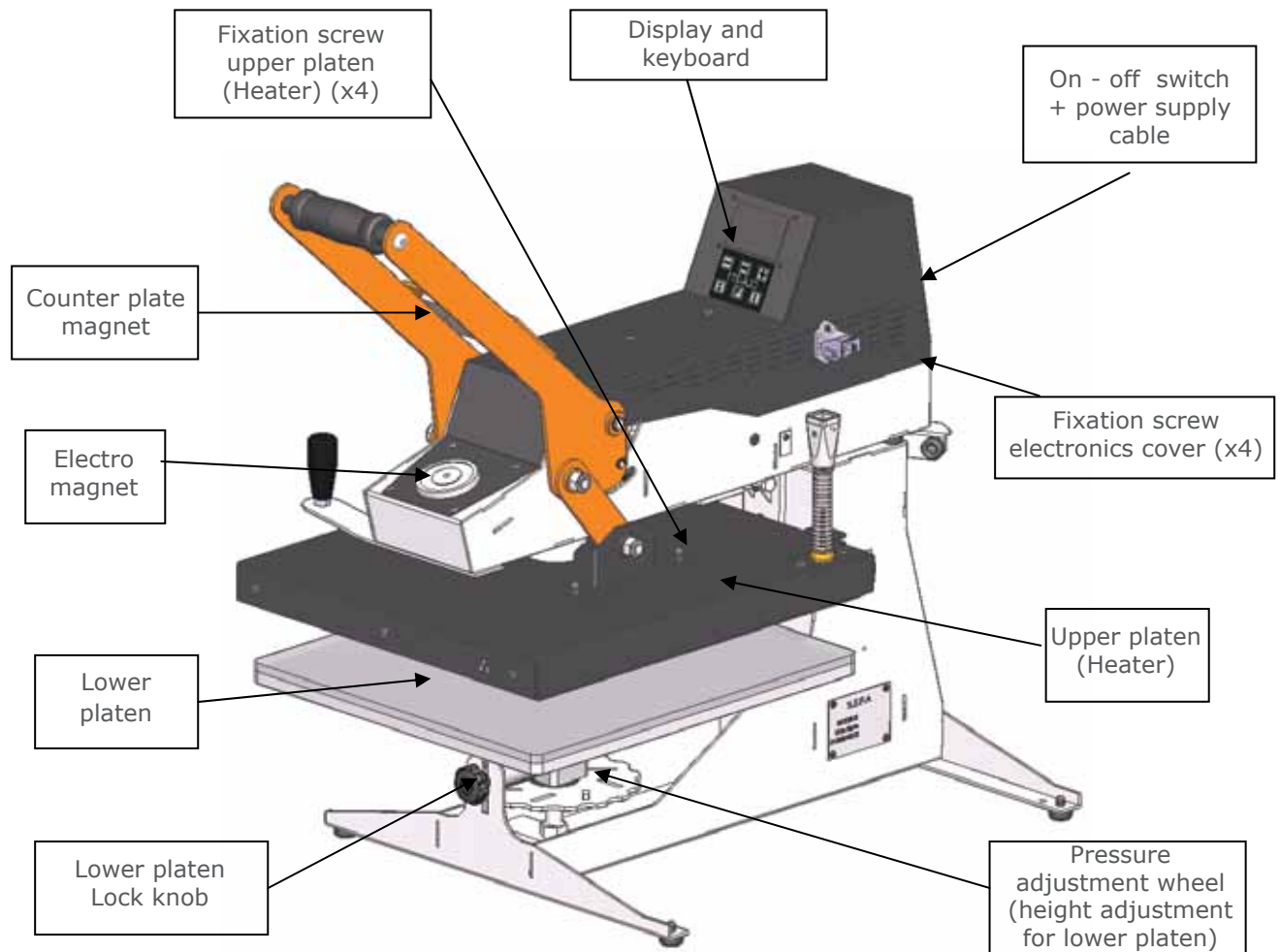
Weight in running order	60 kg
Height	555 mm
Depth	824 mm
Width	480 mm
Dimension of the heating plate	400 x 450 mm
Power supply	230 V single-phase + earth 50/60 Hz
Power	2250 W
Ampere	10 A
Thermoregulator	
Accurate to	+/- 1%
Range of control	0 to 250 °C
Timer	
Accurate to	+/- 1%
Range of control	0 sec. to 30 min.

Non contractual document : according to the technical progress, we reserve the right to modify the characteristics of our products.

Some of these specifications are mentioned on the company plaque that you will find on the machine.



III. General Points



This heat seal press has been designed to meet the European safety guidelines as stated in the statement of conformity. Its design allows for an intensive production while maintaining total reliability.

IV. Use of the machine NL-30

The NL-30 press was designed for the application of transfers of any quality in small and medium mass production.

This equipment was tested in our workshops to ensure a one year warranty against any manufacturing faults.

The adjustments (electrical and mechanical) executed by our technicians in the workshop as well as the security measures introduced on the machine should not be modified under any circumstance. Conditionally, Thermopatch B.V. will reject all responsibility for possible problems in relation to the mentioned machine.

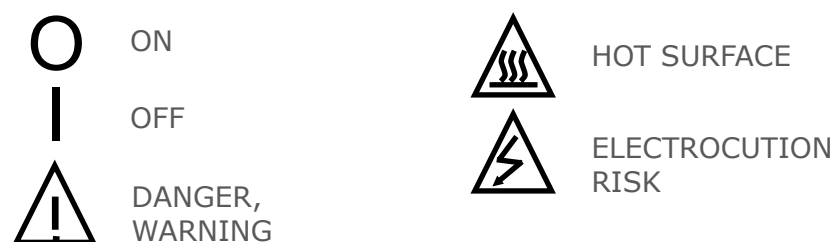
Before starting any heat sealing operations, we recommend careful reading of the safety instructions and directions for use.

1. SAFETY

THIS EQUIPMENT IS DESIGNED FOR SINGLE USE ONLY







USE BY QUALIFIED STAFF ONLY

Internationals Symbols:



You will find most of these symbols on the machines.

Some important points for the safety of the staff:

-  Avoid touching the hot parts of the equipment while in use.
-  Do not put your hands between the plates once the equipment is activated.
-  During handling of the machine it has to be ensured that the operator does not take any risks regarding burning, electrocution or otherwise.
-  Carry out a daily inspection of the machine before starting the production.
-  Make sure that nobody is around in the immediate vicinity of the machine before you start operating it.
-  When the machine malfunctions, cut the power supply immediately. Use this manual's chapter "Service" to establish the cause.

Safety devices on the machine



The safety devices are not to be modified. After removal and maintenance all safety devices should be re-installed.

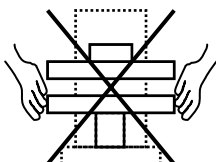
The safety devices should be maintained in place and kept in good condition during the normal operation.

2. INSTALLATION

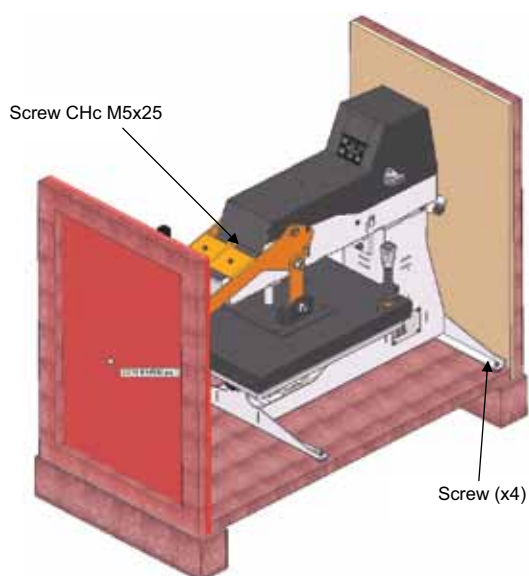
USE BY QUALIFIED STAFF ONLY



Do not handle the machine by the plates! Unpack the machine from the box.



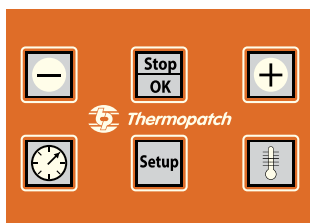
- Remove the packaging cardboard.
- With a nr. 10 (10 mm) wrench, remove the 4 screws that secure the machine on the packaging.
- Remove and position the press on a work top by handing it from the handles and /or the feet.
- Remove screw CHc M5x25 which keeps the press in working position during transport.
- The press is lifted to its standby position.
- Electrically plug the press in (230 Volt + Earth / 50 or 60 Hertz).



3. INSTRUCTIONS FOR THE RUNNING CYCLE

1. The operator will have to power the machine up, flipping the on-off switch which is mounted on the back of the machine (the screen lights up and indicates the values pre-set in the workshop after a welcome message).
2. Set the temperature defined by the type of transfer by using the keyboard.
See Chapter V. PRESS SETTING § 1.
3. Set the application time defined by the type of transfer by using the keyboard.
See Chapter V. PRESS SETTING § 1.
4. Unscrew the locking knob.
Set the pressure by turning the adjustment wheel which is placed beneath the lower platen.
After adjustment, fasten the locking knob again.
See Chapter V. PRESS SETTING § 1
5. Position the garment to be marked on the lower plate.
6. Place the transfer sheet on top of the garment.
7. Swivel the head of the NL-30 in place and push down the heating plate with the handle.
8. When the NL-30 has closed, the timer starts counting.
9. When the timer has run down, the buzzer announces the imminent lifting of the plate.
10. The heating plate goes up in the open position automatically.
11. When the settings do not change, start again from °5 onwards. With a change of settings, start the procedure from °2 onwards.

V. Press Setting



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1. TEMPERATURE SETTINGS / PRESSING TIME

These parameters have to be programmed in electronic control card with the keyboard situated on the front (the parameters will scroll on the display unit next to it).






- a) TEMPERATURE SETTING
 - Press on "Temperature",
 - Press on "-" to decrease the indicated value, or on "+" to increase it,
 - Press on "OK" to validate your choice.
- b) TIME SETTING
 - Press on "Time",
 - Press on "-" to decrease the indicated value or on "+" to increase it,
 - Press "OK" to validate your choice.

2. BOARD PARAMETERS

Press on "Set up" key to enter parameters, "+" to scroll parameters, "OK" to enter in and validate, "Set up" to exit.



"Set up" > Electro > program (T°+s) > resetable counter > permanent counter > pre-heating > standby > code

PROGRAMS :



 ( + )  press + to scroll programs (P1 to P5)
 press  + or - to modify preheating time, OK
 press + or - to modify pressing time, press OK

NOTE : the selected program at start will be the edited one in parameters. You need to re-enter in parameters to change the program.



RESETABLE COUNTER :

  ➔ press “-” > reset counter to zero > press OK (or Set-up to cancel

PERMANENT COUNTER :




  : not modifiable

PRE-HEATING :

  ➔ press OK, then + to modify ON/OFF


Note : pre-heating time will be enabled only if pre-heating is ON.




STANDBY:



  Press  to change > press “+” to enable standby (ON) > press OK > press “+” to change the standby temperature, press “OK” > press “+” to change the standby time > press “OK” > press “+” to change the restarting time


CODE :

Press “OK” to enter a code, press “+” to change the digit, press “OK” to confirm and move on to the next

100: clock setting :  to enter, press “+” to modify, press “OK” to validate

300 :   > press “ok” to enter the offset temperature adjustment >  to change the offset > press “+”/“-” to change the value.

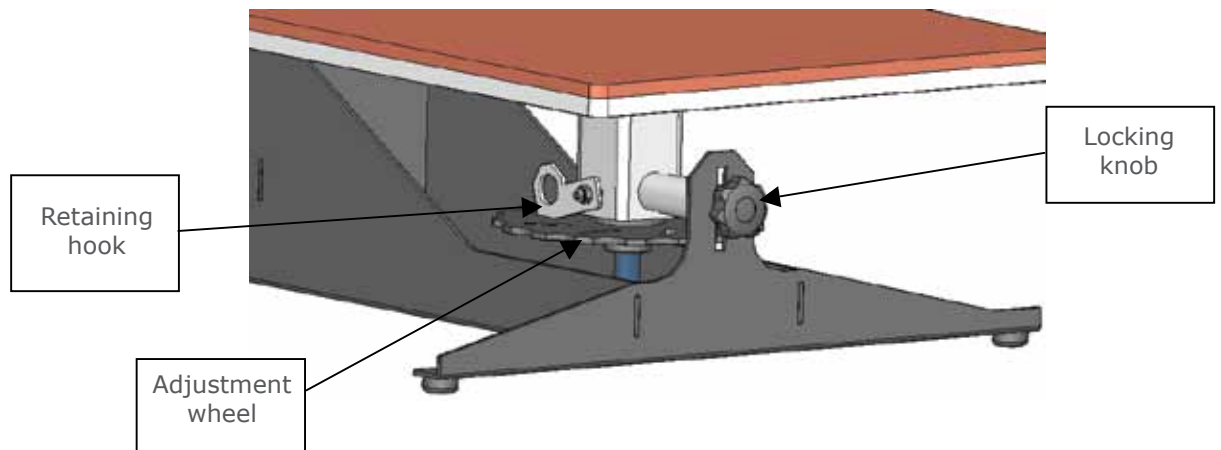
 > press “ok” to enter the alarm end of cycle parameters >  to change > press “+”/“-” to change the value.

 °C/°F > press “ok” to change the temperature unit > press “+” to change > press “ok” to confirm > press Set-up > press Set-up to exit.

Adr. MODBUS : > press ok to view the communication address (switch above electronics).

3. ADJUSTING LOWER PLATEN HEIGHT (PRESSURE)

The pressure exercised by the upper platen (heater) can be changed to suit the user's needs. It is also possible to leave a gap between the two plates by completely lowering the lower platen (maximum gap in operating position: 50 mm)

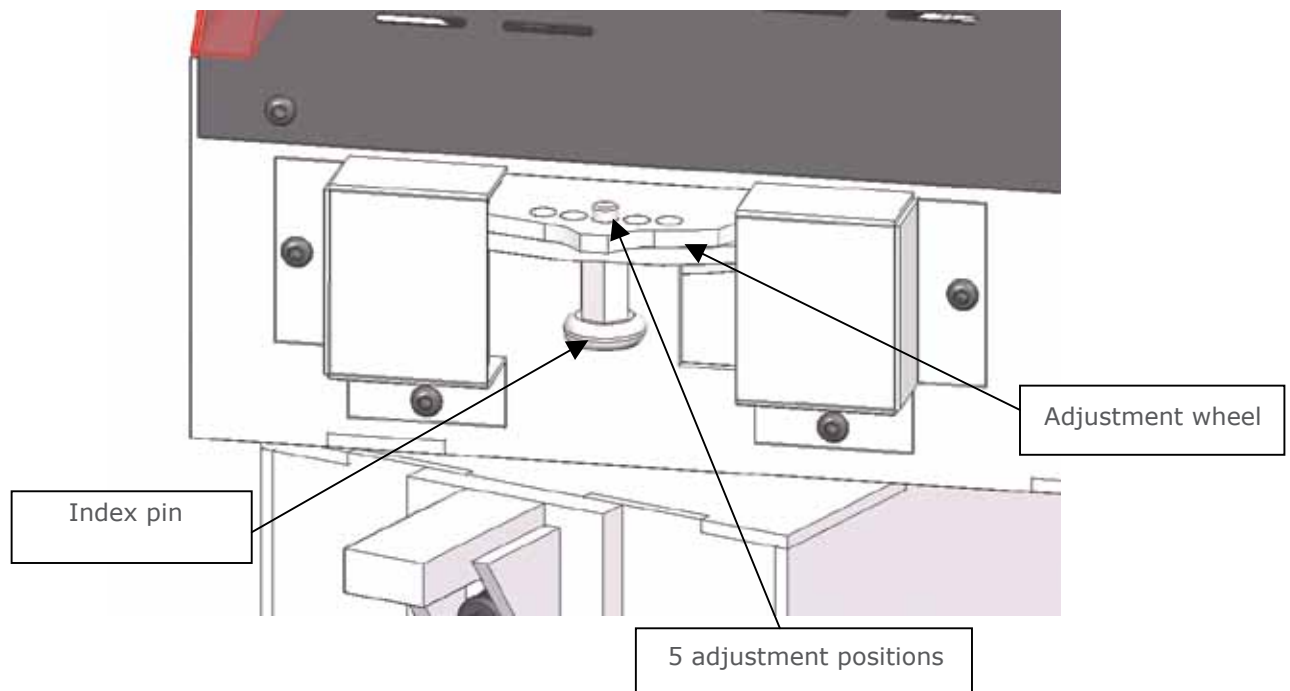


- Unfasten the locking knob (by turning it counter-clockwise) until the cold plate foot is free. This procedure also makes it possible to remove the foot + lower platen unit in order to assemble an accessory.
- To raise the lower platen (and increase the pressure), lift up the retaining hook and turn the adjustment wheel counter-clockwise.
- To reduce the pressure, turn clockwise.
- Fasten the locking knob to correctly position the lower platen and set the pressure adjustment.

4. ADJUSTMENT OF THE AUTOMATIC ROTATION OF THE SWING ARM

When the timer has run down, the upper platen (heater) comes up and the arm automatically swings open in order to release the space above the lower platen. It is possible to adjust the arm rotation speed and also to completely release the automatic rotation setting.

To access the adjustment, the arm must be in the open position

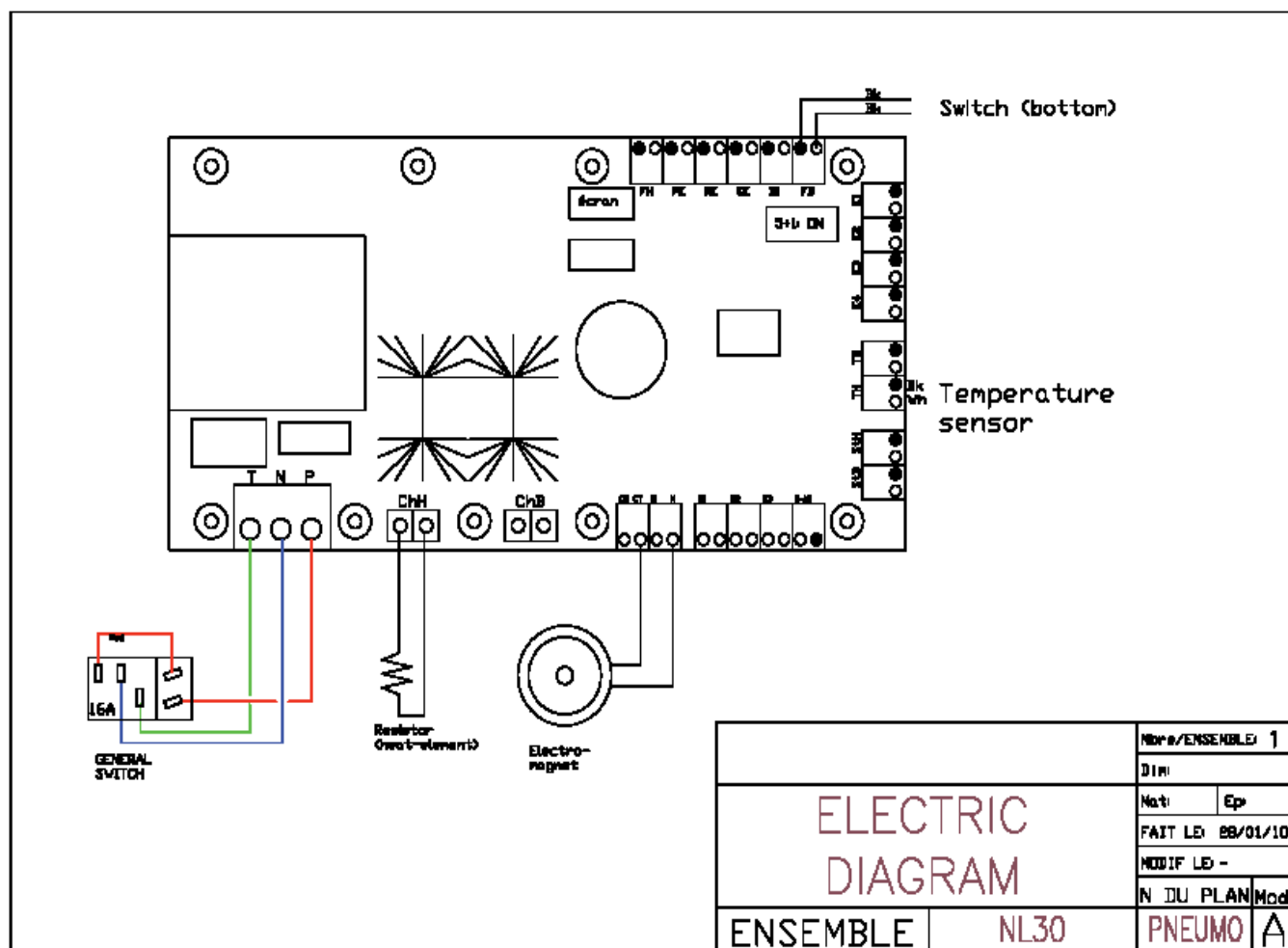


- Lower the index pin to release the adjustment wheel.
- Turn the adjustment wheel to one of the 5 available positions. To the right to increase the speed of rotation, to the left to reduce the speed.
- Raise the index pin and ensure that it is well secured in the selected position.

Release of the automatic rotation system

Completely lower the index pin and hold it in the down position, turning it a quarter of a turn. Proceed in reverse order to engage the system again.

VI. Electric Diagram



VII. Service

USE BY QUALIFIED STAFF ONLY

**ANY SERVICING MUST BE DONE WHEN
THE MACHINE IS OFF AND LOCKED
(UNPLUG ELECTRIC MAINS)**

It is recommended to have the following tools within reach:

- Flat tip screw driver
- Crosshead screwdriver
- A set of end wrenches and box spanners
- Small adjustable pliers
- Circlip plier
- Needle nose pliers with insulated handle
- A set of Allen keys



Before any handling, check that the heating plate temperature is lower than 25°C on the display unit

1. PARTS SUBJECTED TO WEAR AND TEAR

On any order: specify the reference, the description and the quantity

Reference	Description	Quantity
ELECTRONICS		
SPA3X-002	PCB Main Board	1
SPA3X-001	Back-Lighted Screen	1
SPA3X-014	Keypad 6 keys	1
SPA3X-020	Mica resistor 430 x380 2250W	1
SPA3X-004	Electro Magnet 230V 10W	1
SPA30-002	Switch 16 A 250V	1
	Fusible 5x20mmT 16 A 250V	2
	Fuse card 1 A 250V	1
OTHER PARTS		
SPA30-003	Gas spring	2
FRAME DRESSING		
	Silicon Rubber 9 mm	400 X 450 mm

2. REPLACEMENT OF WORN PARTS

- Silicone rubber mat
 - a) check that the plate is cold.
 - b) make sure that the surface of the plate is clean enough. Possibly use a soft solvent like White Spirit with using personal protection (nb: as this product is flammable, use with care and keep it away from any heat source).
 - c) use a tube of glue RTV-1 to stick the rubber to the aluminium plate (nb: read the instructions on the tube packaging).
 - d) the cover and the plate must be clean and dry before you start glueing.
 - e) spread a fine even coat of glue onto the plate and immediately apply the cover making sure that there is no air lock (nb: an indented spatula similar to the one used to lay tiles would suit perfectly).
 - f) leave untouched overnight at room temperature with slight pressure and without heat.
- Other parts
Get in touch with your retailer to evaluate their change or their repair.

3. MAINTENANCE

The heat press NL-30 requires hardly any maintenance. To ensure a good functioning, follow the preventive notice indicated below:

- Do not heat up objects which could deteriorate or even cut the silicone rubber or damage the teflon surface of the heating plate.
- Every so often and when the plate is cold, clean the machine with a clean cloth and white spirit
- When the heating plate is hot and unused, keep it in open position.

EVERY DAY : When cold, clean the heating plate with a dry cloth or impregnated with spot remover.

EVERY MONTH : Check the axis hinge and grease it.

ACCORDING TO THE USE : Change the rubber every six months.

4. ERROR CODE LISTING:

SSH/B	: HEAT SENSOR DEFECT High/Low
RRH/S	: RESISTOR out of service High/Low
DDD	: Overshoot 30°C of setpoint
CCC	: all out of 30°C of setpoint
FDC	: The limit switch is still active at the end of the cycle
TRIAC	: TRIAC defect
TIME OUT	: Heating defect

5. POSSIBLE BREAKDOWNS

ANY SERVICING INTERVENTION MUST BE DONE WHEN THE MACHINE IS OFF AND LOCKED (UNPLUG THE ELECTRIC POWER)

Symptoms	Possible breakdowns	Repairs
The machine will not switch on	<ul style="list-style-type: none"> The plug is not in. The switch is not connected. The general fuse is out of order. The card fuse is out of order. The display unit is faulty. 	<ul style="list-style-type: none"> Check your network and if the machine is linked to it. Put the general switch On/Off on 1. It is situated in a casing next to the power cable plug. To access it, pull the power cable out, with the tip of a screwdriver lift the fuse casing. You will find in the square tube a replacement fuse. It is situated at the bottom left of the card (1 A). Check if the flat cable is properly connected otherwise the display unit is out of order.
The plate will not heat	<ul style="list-style-type: none"> The resistors are defective. Card problem. Temperature value too low. 	<ul style="list-style-type: none"> Check the connections and the state of the electric wires. To remove the heating plate, get in touch with your retailer. See messages displayed on the screen and refer to the card manual. To modify this value, see chapter V.
The plate overheats	<ul style="list-style-type: none"> Sensor or card problem. 	<ul style="list-style-type: none"> See messages displayed on the LCD screen and refer to the card manual (p.19). Get in touch with your retailer.
The timer will not count down	<ul style="list-style-type: none"> The closing sensor of the handle was not activated or is broken. Card problem. 	<ul style="list-style-type: none"> Check if the handle (counter plate) makes contact when it is completely down (a small "click" should be heard). Check the connections. See messages displayed on the LCD screen and refer to the card manual (p.19). Get in touch with your retailer.
The plate will not go down	<ul style="list-style-type: none"> The axles are too tight or jammed. 	<ul style="list-style-type: none"> Grease or loosen lightly.
The plate stays in lower position after pressing	<ul style="list-style-type: none"> The timer will not count down. 	<ul style="list-style-type: none"> See above.

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