

NL-35 User manual



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Preface

Dear user,

Welcome to the growing group of Thermopatch users. The product you have purchased has been carefully designed and manufactured to ensure that you, the user, will gain the maximum benefit.

All Thermopatch 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 Thermopatch establishment.

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EC - Statement Of Conformity

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I. Conditions of Guarantee

- The guarantee period starts the day of putting the equipment into service at the user's place, for a duration of one year and for a common use of 8 hours per day.
- The guarantee 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 ourselves, and there will no claim for any indemnity whatever the reason given.

Parts replaced under the guarantee :

- 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 guarantee does not cover :

- The retail consumables such as: fuses, bulbs, transformers, joint, flexible devices...
- The supplies, which are not our own manufacturing, undergo the guarantee of their manufacturer.

The guarantee 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 vice 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 guarantee.

For the pneumatic machines, any trace of detergent oil in the pneumatic circuit inhibits the conditions of guarantee previously mentioned.

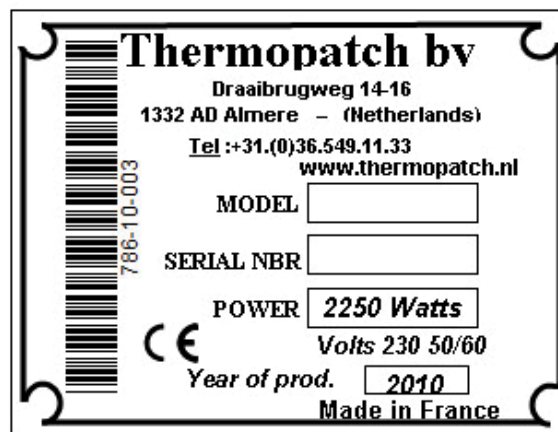
For any technical information or spare parts orders, please give the reference number of the machine as well as its serial number.

II. Specifications

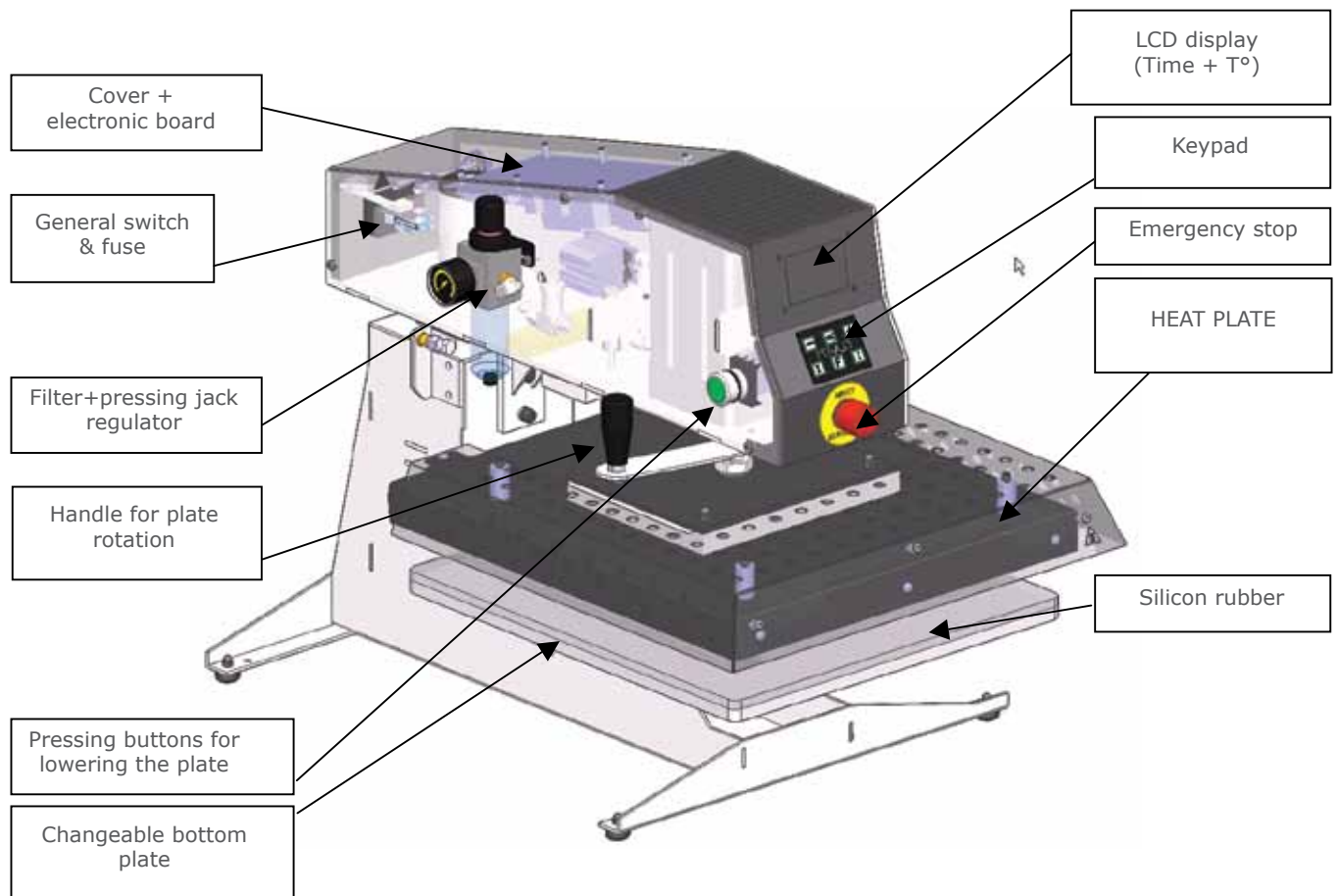
Weight in running order	63 kg
Height	557 mm
Depth	750 mm
Width	498 mm
Dimension of the heating plate	400 x 450 mm
Electric power supply	220 V single-phase + earth 50/60 Hz
Pneumatic power supply	10 bars maximum
Power	2250 W
Ampere	10 A
Thermoregulator	
Accurate to	+/- 1%
Range of control	0 to 250 °C
Working pressure (Min-Max)	2-8 bar
Pressing effort	765 DaN
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 is standard to article L 233-5 of the labour laws to ensure the security of the user. Its design allows it to ensure an intensive production permit d’assurer une production intensive while keeping a total reliability.

This press was designed for an operator working opposite the machine.

IV. Use of the machine NL-35

The NL-35 press was designed for the application of transfers of all qualities in small and medium mass production.

This equipment was tested in our workshops to obtain a one-year guarantee against any manufacturing vice.

The adjustments (pneumatic, electric and mechanical) executed by our technicians in the workshop as well as the securities introduced on the machine should not be modified in any case. Otherwise, Thermopatch BV will deny all responsibility on potential problems linked to the so-called machine.

Before starting any operation of pressing, it is recommended to read carefully the safety instructions as well as the 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 action, ensure that the operator do not risk anything in terms of burn, electrocution or other.
-  Carry out a daily inspection of the machine before starting the production.
-  In the zone close to the machine, make sure that nobody is around before you start.
-  If the machine does not work properly, immediately cut the energy supply and look for the cause making use of the book's chapter "Service".



Safety devices on the machine

The protections and the safety devices must not be modified. They must be re-installed in case of possible removal for the maintenance.

They must not be moved, and have to be maintained in good condition during normal operation.

The NL-35 is equipped with security systems protecting the operator from any pinching risk.

The main security elements

The emergency stop:

Situated on the front of the machine: if the operator pushes it, he switches the machine off.

The bimanual control:

To control the pressing, the operator must have both of his hands occupied pressing on the green push buttons. Only holding them constantly and simultaneously allows to lower the heating plate. If one of the push buttons is not held constantly until the plates are in contact, the heating plate goes back up automatically.

Checking operation of safety device

- Try the emergency stop periodically
- Control the bimanual frequently

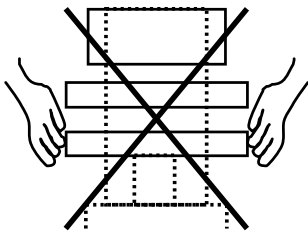
After an emergency stop

In order to restart the operation, check that no other problem remains on the machine.

Unlock the emergency stop turning the red part: the machine will initialize again automatically.

Manuals

Technical documentation on the components used is provided to you on delivery of the machine. Please read it before any handling of the machine.



2. INSTALLATION

USE BY QUALIFIED STAFF ONLY



Do not handle the machine by the plates!

Unpack the machine from the box.

Place it on a stable table handling it by its frame.

After having properly positioned the equipment on its working place:

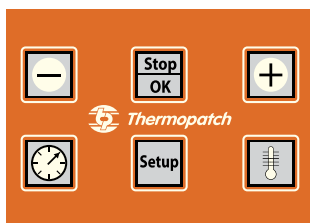
- Electrically plug the press in (220 Volt + Neutral + Earth / 50 or 60 Hertz),
- Pneumatically connect your press to your compressed air network (3 bar mini, 10 bar maxi).

3. INSTRUCTIONS FOR THE RUNNING CYCLE

1. The operator will have to power the machine up moving down the general switch which is on the right hand side of the machine.
2. Check if the screen lights on. After a welcome message, it will show the values preset in the workshop.
3. Set the temperature with the keyboard (to define according to the type of transfer), See Chapter V. PRESS SETTING § 1.
4. Set the application time with the keyboard (to define according to the type of transfer), See Chapter V. PRESS SETTING § 1.
5. Set the pressure thanks to the regulator (to define according to the type of transfer) and check with the manometer, See Chapter V. PRESS SETTING § 2.
6. Place the article on the lower plate.
7. Adjust the transfer sheet.
8. Swivel the head of the press using the handle on the arm.
9. When the arm is in full lock, the operator can lower the heating pressing simultaneously on the two push buttons. The operator will have to maintain the pressure on the buttons until the heating plate is in contact with the lower plate.
10. At the end of the timer countdown, the heating plate will go up.
11. Move the heating plate away and remove the item.
12. Start the operation again from n° 6 (if the settings do not change otherwise n°3).

V. Press Setting

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1. Temperature settings / Pressing time

These parameters have to be programmed in the control electronic 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. Pressure adjustment

The jack pressure can be modified according to the user's need.

Use the pressure regulator situated on the filter, on left side. The pressure will appear on the front manometer's dial. Pull the regulator's head upwards, then turn :

- clockwise to increase the pressure,
- anticlockwise to decrease the pressure.

3. 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" > Bimanual > program (T°+s) > resetable counter > permanent counter > pre-heating > standby > code

PROGRAMS :

- (▼ + ⏴) ^{OK}▶ press + to scroll programs (P1 to P5)
 - press ▼, + or - to modify preheating time, OK
 - press + or - to modify time pressure, OK
 - press ⏴ to modify temperature, OK

NOTE : the selected program at start will be the edited one in parameters. You need to enter in parameters to change and keep the new program.


RESETABLE COUNTER :

▶  press - > reset counter > press OK (or Fonct to cancel)

PERMANENT COUNTER :




▶  : not modifiable

PRE-HEATING :

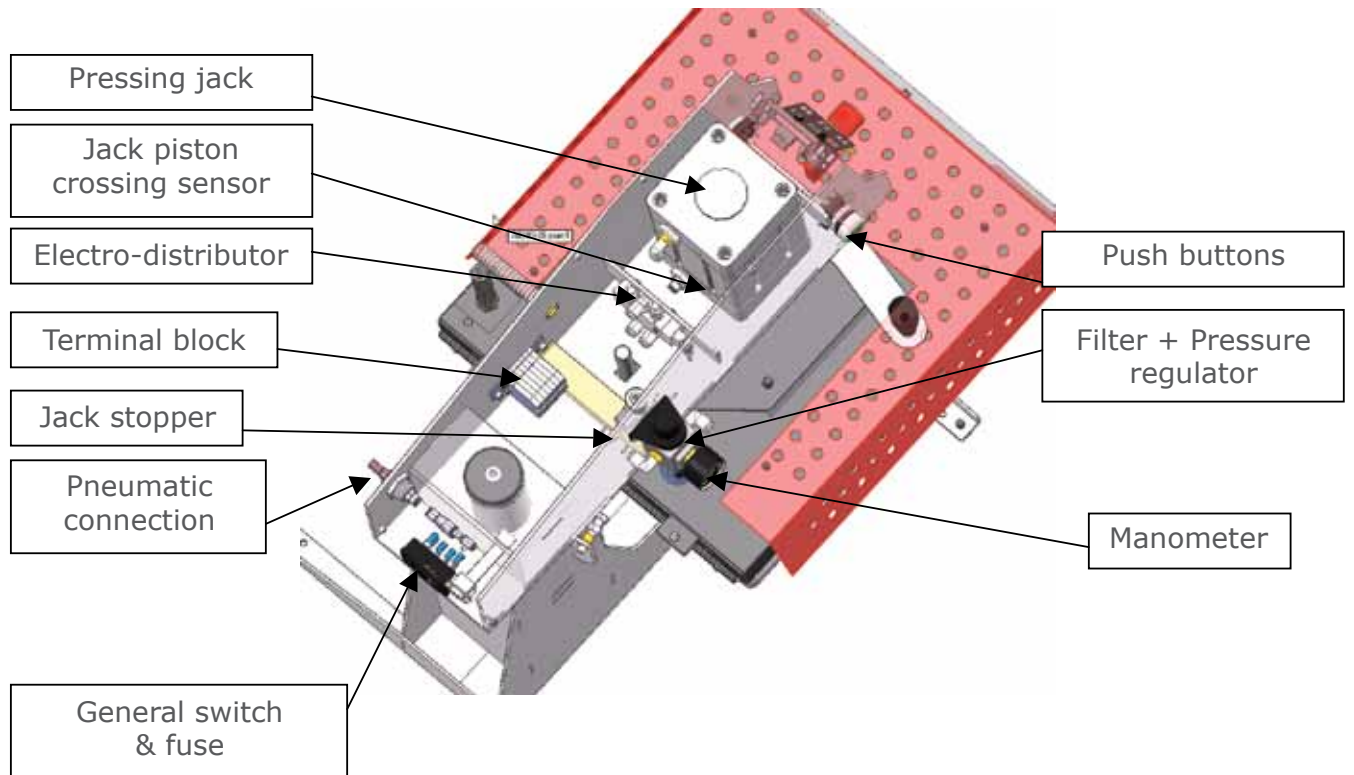
▼  press OK, then + to modify ON/OFF

Nota : pre-heating time will be able only if pre-heating parameter is ON.

STANDBY :

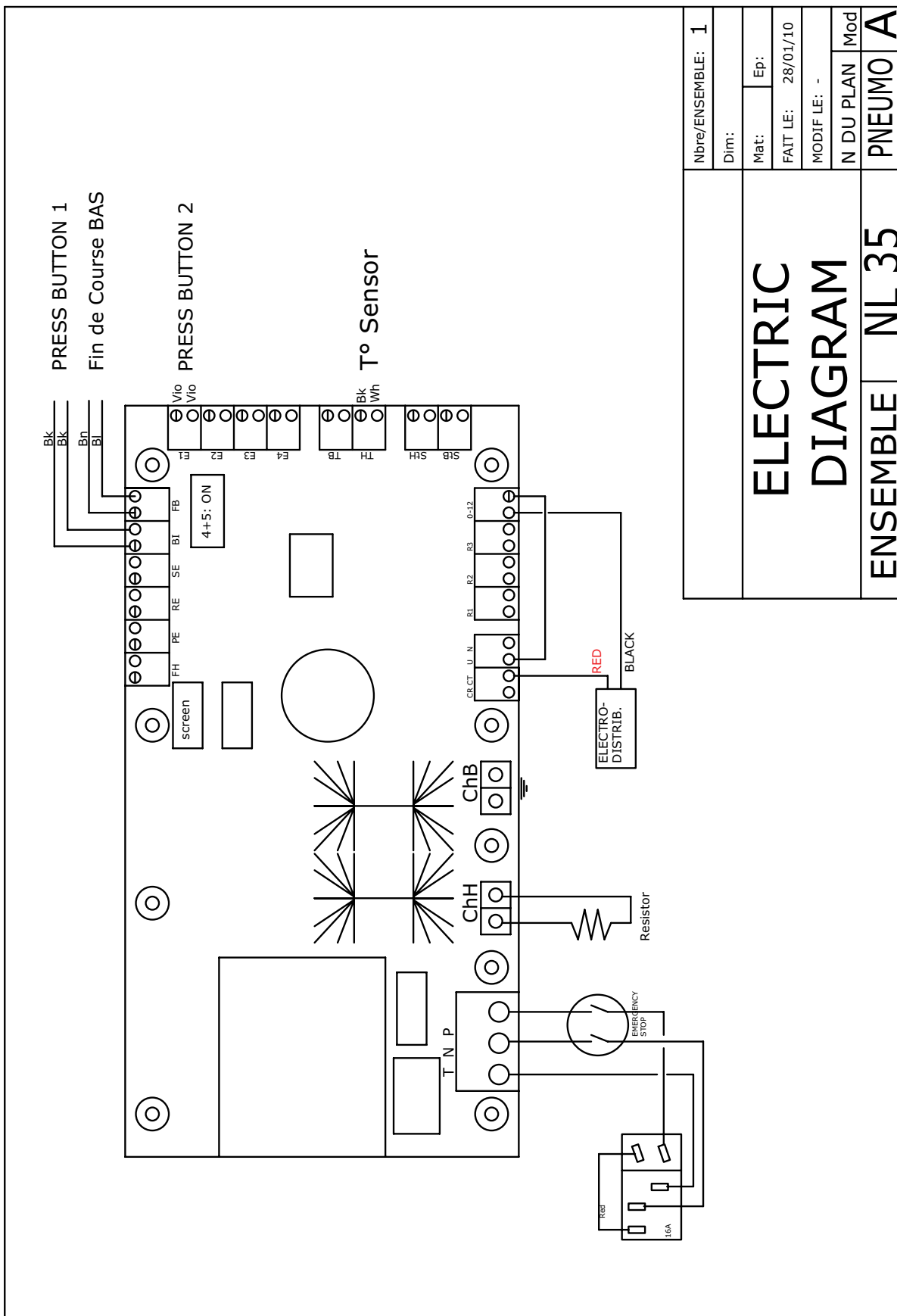
  : Press set up and "+ + + + +" OK
press  to modify > + activate (ON) > OK > + to
modify standby temperature, OK > + to modify start standby
time > OK > + to modify wake-up time

VI. Introduction of the equipment



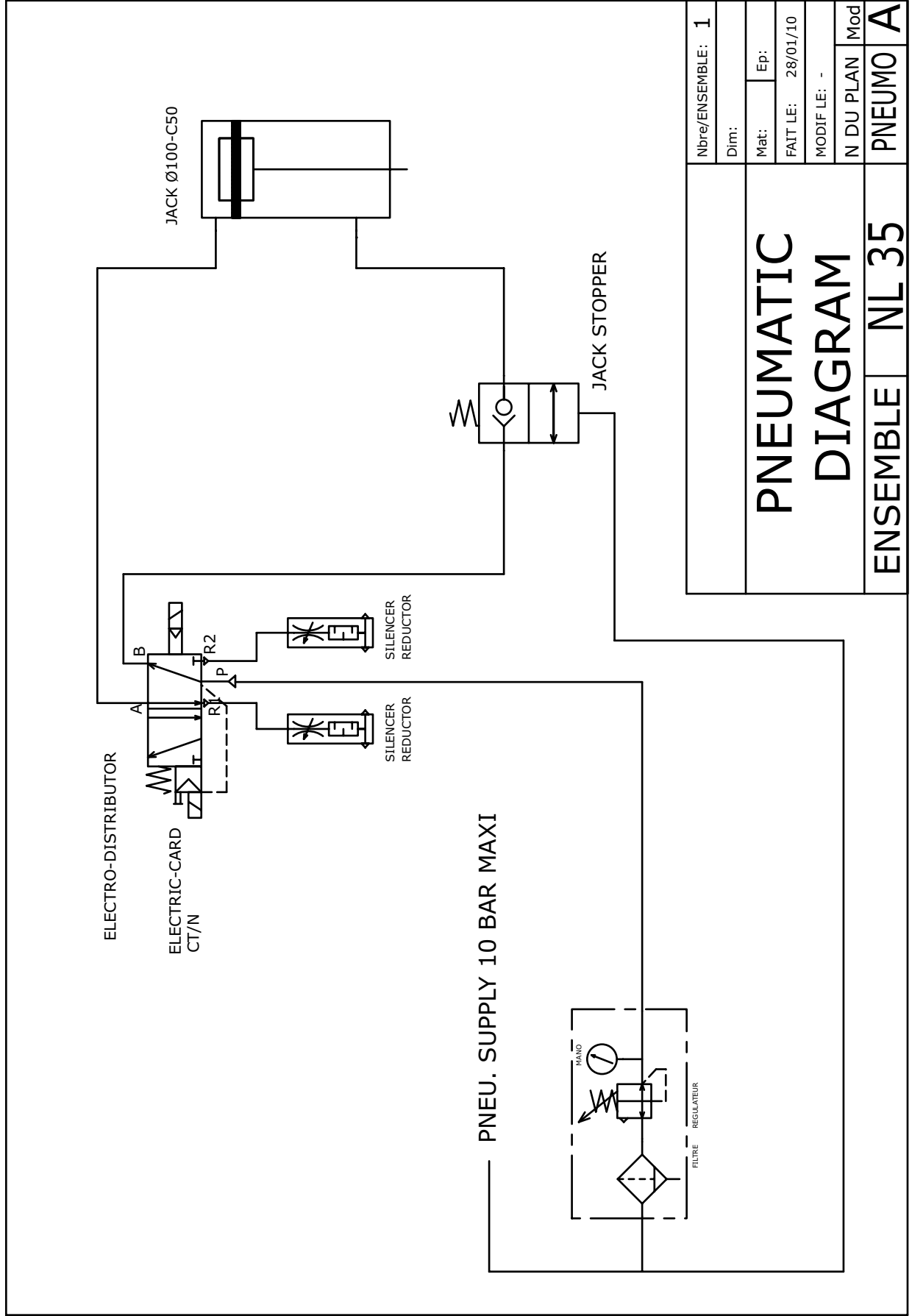
NOTE : electronic board is under cover removed on picture

VII. Electric and Pneumatic Diagram



Nbre/ENSEMBLE: 1	
Dim:	
Mat:	Ep:
FAIT LE: 28/01/10	MODIF LE: -
N DU PLAN	Mod
ENSEMBLE NL 35	PNEUMO A

**ELECTRIC
DIAGRAM**



Nbre/ENSEMBLE: 1	
Dim:	
Mat:	Ep:
FAIT LE: 28/01/10	
MODIF LE: -	
N DU PLAN	Mod
ENSEMBLE NL 35	PNEUMO A

PNEUMATIC DIAGRAM

VIII. Service

USE BY QUALIFIED STAFF ONLY

ANY SERVICING INTERVENTION MUST BE DONE WHEN THE MACHINE IS OFF AND LOCKED (ELECTRIC AND PNEUMATIC ENERGIES UNPLUGGED)

It is recommended to have the following tools within reach:

- Cruciform and bit screwdrivers
- A set of end wrenches and box spanners
- Small adjustable pliers
- Circlip pliers
- Long and fine pliers with insulating handle
- A set of Allen keys
- A multimeter



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 : precise the reference , the description and the quantity

Reference	Description	Quantity
ELECTRIC PARTS		
SPA3X-002	Regulation board	1
SPA3X-001	Back-Lighted Screen	1
SPA3X-014	Keypad	1
SPA3X-020	Mica resistor 430x380 P.2250W	1
SPA3X-003	Fuse 5x20mmT 16 A 250V	2
PNEUMATIC PARTS		
SPA3X-010	Jack Ø100 C50 (pressing)	1
SPA3X-021	Filter & regulator	1
SPA3X-009	Electrodistributor 5/2 G1/8 12v	1
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 quite clean. Possibly use a soft solvent such as White Spirit with individual protections.
 - 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 gluing.
 - e) spread a fine homogeneous coat of glue on 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 to settle 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-35 require 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 (NB: as this product is flammable, use with care and keep it away from any heat source) with individual protections.
- 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.

Check the air filter at the back of the press; drain it if there is too much condensation

EVERY MONTH : Check the column and grease it.

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

USE BY QUALIFIED STAFF ONLY

ERROR CODE LISTING:

SSH/B	: HEAT SENSOR DEFECT High/Bottom
RRH/S	: RESISTOR out of service High/Bottom
DDD	: Overshoot 30°C of order
CCC	: Fall out of 30°C of order
FDC	: Sensor still activate at end cycle
TRIAC	: TRIAC defect
TIME OUT	: Time out to get temperature order, heating defect

4. POSSIBLE BREAKDOWNS

ANY SERVICING INTERVENTION MUST BE DONE WHEN THE MACHINE IS OFF AND LOCKED (ELECTRIC AND PNEUMATIC ENERGIES UNPLUGGED)

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 to put instead of the one in the clip. It is situated at the bottom left of the card (80mAT) 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. Get in touch with your retailer.
The timer will not count down	<ul style="list-style-type: none"> The detector placed on a jack is not activated or defective. Card problem. 	<ul style="list-style-type: none"> Check its connections. See messages displayed on the screen and refer to the card manual.
The plate will not go down	<ul style="list-style-type: none"> The push buttons will not work. Leak on the jack. The electro distributor is faulty. The compressed air pressure is not enough. 	<ul style="list-style-type: none"> Check their connections. Check the joints and all the unions. Get in touch with your retailer. Check its unions. Get in touch with your retailer to possibly change it. Check if the pressure of your network is > 3 bar.
The plate will not go up	<ul style="list-style-type: none"> The electro distributor is faulty. Leak on the jack. 	<ul style="list-style-type: none"> Check its unions. Get in touch with your retailer to possibly change it. Check the joints and all the unions. Get in touch with your retailer.
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.

5. MAINTENANCE LOG

The control and maintenance operations indicated in this table must be done regularly so as to check the functioning state and the reliability of the press.

Date	Number of hours	Pressure control	Air filter control	Jacks control	Rubber state	Resistors control	Changed parts	Observations

In order to make the filling out of the table easy, it can be useful to use the following codes :

C : Control Cl : Cleaning R : Replacement

Thermopatch Corporate Headquarters	USA	T +1 315 446-8110	F +1 315 445-8046	sales@thermopatch.com
Thermopatch European Headquarters	The Netherlands	T +31 36 549 11 11	F +31 36 532 03 98	sales@thermopatch.nl
Thermopatch Australia Pty Ltd	Australia	T +61 395325722	F +386 2 80 55 232	marktpatchaust@bigpond.com.au
Thermopatch Canada Inc	Canada	T +1 519 748-5027	F +1 519 748-1543	broussel@thermopatch.com
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