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## Introduction

Dear User,

Welcome to the growing group of Thermopatch users.

Your purchase has been manufactured with the utmost care to ensure that you benefit as long as possible from your Thermopatch product.

The products by Thermopatch are designed with special attention to your convenience.

Should you discover any fault or damage upon receipt of this product, please contact your local Thermopatch vendor.

The manual has been prepared in accordance with NEN 5509 and in conformity with the Machinery Directive 2006/42/EC.

This user manual is intended not only for all users of the machine, but also for those who install and maintain the NL-40 v.3. The goal is to familiarize you with the operation, to provide for safe working instructions and guidelines for periodical maintenance.



In order to make safe and optimal use of the NL-40 v.3 it is important to take notice of and understand the contents of this manual.



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# 1. General description

The NL-40 v.3 has been specifically designed for heat sealing transfers onto balls and caps. the machine has been fitted with two different exchangeable lower platen assemblies which enable both functions.

### 1.1 Delivery

The NL-40 v.3 is supplied in a cardboard box.

The following articles are included:

- NL-40 v.3 heat seal machine
- Power cord
- · Heating plate

In a separate box the lower platen unit is supplied, either the ball platen unit or the cap platen unit. When both were ordered, two separate boxes will be supplied additional to the machine packaging. If one of these articles should be missing or is faulty, please contact your Thermopatch supplier immediately.

### 1.2 Conditions of warranty

Thermopatch points to its warranty and product liability conditions as laid down in our conditions of sales. These can be obtained at your Thermopatch supplier.

## **▲** WARNING!

Any use other than described above can be dangerous and cause damage and thus qualifies as 'misuse' which excludes Thermopatch BV from any liability.











## 2. Intended use

The NL-40 v.3 is a heat seal machine that is intended for the application of heat seal transfers and emblems on caps, balls, shoes and gloves.

# 3. Installation

### 3.1 Assembly and installation

### Unpacking

- Remove the NL-40 v.3 from its packaging.
- Place the machine on its operating location.
- Before carrying the press, ensure that the press is cold.
- Remove the screw labelled « Transport security » after mounting the heating unit (see pg. 18 19) before opening the press.
- Plug the machine into the electric mains (230 Volt + Ground / 50 or 60 Hertz) after the heating unit has been mounted.



Before (re)placing the heating unit, electrically disconnect the machine!









### 3.2 Mounting the lower platen for heat sealing onto balls

To exchange the lower platen:

Loosen the two knobs on either side of the lower unit and place it accordingly to the size of ball you need to heat seal on.

## For smaller type balls numbers 1 and 2



mounting knobs



## For larger type balls numbers 3, 4 and 5



mounting knobs





# 4. Operating instruction

### 4.1 Operating the NL-40 v.3

- Switch on the press by pressing the power switch located at the rear.
- Adjust set point temperature (See 4.2.b).
- Adjust sealing time (See 4.2.a).
- If desired, set the preheating time (See 4.5.2).
- Adjust the pressure (according to the type of transfer).
- Place the article on the lower plate.
- Place the transfer or emblem.
- Once the heating platen has reached the desired temperature, close the machine with the handle.
- When the machine is closed, the timer starts running.
- At the end of the sealing time, the press will open automatically.



Cap sealer



Ball sealer 1



Ball sealer 2



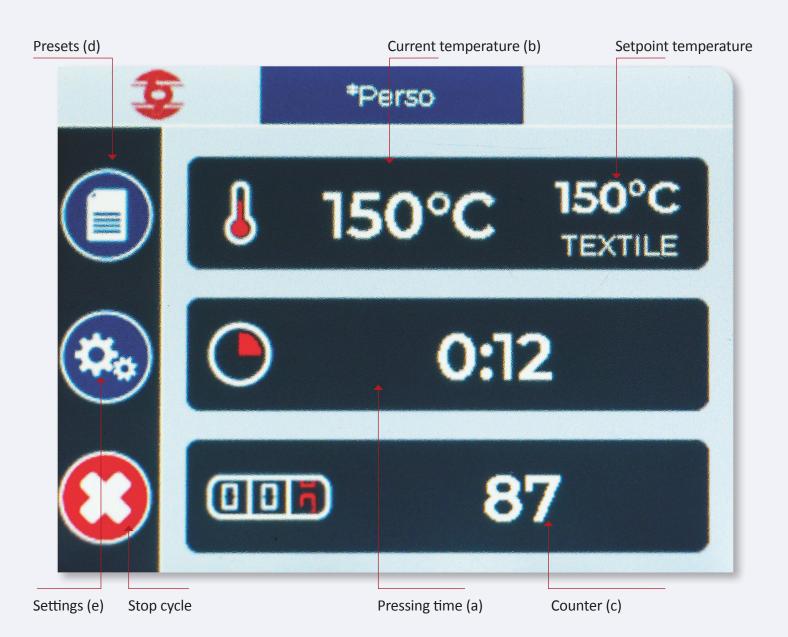
Shoe/glove sealer



### 4.2 Using the control panel

NL-40 v.3 control panel

The temperature and time are shown on the display.





### a) Pressing time

Press this menu to set the machine's pressing time.

Use the left and right arrow keys to increase and decrease this setting. You can also have two consecutive pressing times (cf. "Settings (e)"). You can also change this setting by pressing the time display and entering the required time from the touch pad.

Once you have entered the required time, press the confirm key in the bottom right corner of the screen.



### b) Temperature setting

Press the temperature menu. You can select the temperature you require in the same way as for the pressing time, using the arrow keys on the left and right of the temperature display. You can also click on the reading and manually select a temperature.

When entering a temperature below 100°C, place a 0 before the desired value (e.g. 090°C).

Select the material profile you wish to press from the 3 options provided (TEXTILE, RIGID and DTG) and press the confirm icon.



### c) Item counter

This menu shows how many items the machine has printed.

When you click on this icon, two counters are displayed.

The first counter shows the partial count. It can be reset to zero by pressing the arrow to its right.

The second counter shows the total number of items printed since the machine was installed. This count is permanent and cannot be reset.





### d) Presets

Pressing the Presets icon brings up the menu shown opposite. Use the left and right arrows to select one of the 5 pre-configured presets. To use a preset, press the floppy disk icon with the arrow pointing to the right. Once selected, press the home icon in the bottom right corner to return to the main menu.

To create or alter a preset, you must first set the time and temperature from the main screen and then select a memory slot (1 to 5) from the preset screen. To rename a preset, press the pencil icon. Give your preset a name and press the arrow in the bottom right corner to confirm. To finish, press the floppy disk icon with the arrow pointing to the left to save your choice/setting.



### e) Settings

Press this icon in the main menu to go to the machine settings. There are 6 available options.

The first option, represented by 2 gear wheels, lets you change the machine's technical aspects. Touching this option brings up another 6 icons.



(1)	Lets you choose whether the machine emits a sound each time the touch screen is used.
	Lets you enable or disable an alarm when the pressing time is complete.
	Lets you choose the unit of temperature: Celsius or Fahrenheit.
	Lets you enable another timer for the pressing time. With this option enabled, you can alter 2 times in the pressing time menu.
<b>(+   +</b>	The left arrow takes you back to the previous menu. The right arrow takes you to other settings.



## The other settings:

<u>^</u>	The setting in the top left corner shows that the machine is pressing within the set temperature range. This range can be set by pressing the icon and entering the 2 required temperatures. A non-locking warning will be displayed. It will be ignored during the 2nd pressing and allows the work continue even if the setpoint is not reached.
> <del>\</del>	The setting at the top right lets you adjust the screen brightness.  There are 3 brightness levels from low to high.

To return to the settings menu, press the left arrow twice.

	The green leaf icon is used to set energy-saving mode.
	The operator can choose: After how many hours and minutes energy-saving mode comes on. The temperature at which the press switches over (only if it is below the setpoint temperature). Energy-saving mode is switched off when the screen is pressed.
	The board will only switch to eco mode if it is on the home screen. If the user leaves the press on another screen, the screen is presumed to be in the process of being altered. The press should not switch to eco mode.
i	The "i" at the top right provides key information about the software version.  Press the arrow in the bottom right corner to return to the previous menu.
	The diagnostic button brings up the machine status so you can see if there are currently any malfunctions.
(in the second s	The padlock icon can only be accessed by an approved service technician.

The last icon is home, which takes you back to the machine's main menu.



### List of alarms/events:

Alarm 01: PT100	Inconsistent interpretation of the reading - Probe signal lost (sensor or cable). The heating control is instantly disabled.
Alarm 02: Platen overheating	Temperature reading above 240° C. The heating control is instantly disabled.
Alarm 06: Platen lift	The top travel limit is not read during the lift phase before the platen lift time-out ends.
Alarm 10: Pb COM.	Communication between the power board and the screen board interrupted. Contact your reseller.
Alarm 13: Temperature setpoint not reached	Rising or falling temperature triggers before + or – 30° C maximum around the setpoint.

Press in the red zone to clear the fault. The work page will be displayed.

### 4.2.1 Error messages

Message on the screen	Due to	Effect
Er1	Temperature probe default	Heating relay off
Err	Card probe default	Heating relay off
Col	Keyboard connection alarm	Relay off

Each warning signal is accompanied by a sound signal that can be silenced by pressing a button.

### 4.2.2 Power safe function

The press has an energy saving program, allowing to maintain a set point temperature after a defined time without use.



### 4.2.3 Lower platen unit for balls





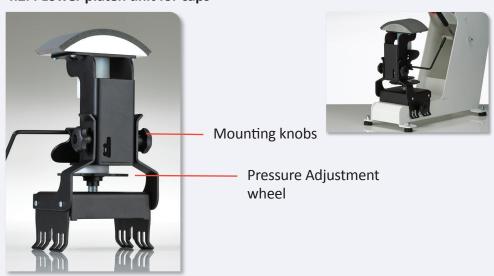


### **Pressure Adjustment**

## Pressure setting on the NL 40 Ball platen unit and Cap platen unit

- Unlock the height lock wheel
- Screw or unscrew the height adjustment wheel to set the required height
- Lock the height lock wheel to fixate the chosen height

## 4.2.4 Lower platen unit for caps



- Unlock the mounting knobs
- Screw or unscrew the pressure adjustment wheel to set the required height.
- Lock the mounting knobs
- Tighten the pressure adjustment wheel to fixate the chosen height

### 4.2.5 Lower platen unit for gloves

- Unlock the mounting knobs
- Screw or unscrew the pressure adjustment wheel to set the required height.
- Lock the mounting knobs
- Tighten the pressure adjustment wheel to fixate the chosen height



# 5. Overview of safety tips and warnings

### 5.1 Safety tips and warnings

## **ATTENTION!**

Make sure you are informed about the contents of this manual before starting to work with the NL-28.

This ensures an optimal and safe use of the machine.

# **ATTENTION!**

Always turn the power off (unplug it) when you need to carry out maintenance work or when cleaning the machine.

## **ATTENTION!**

Take care that there is enough space around the machine. Cables and connections must not get pinched.

Although the heat radiation of the press is low, there should be enough space for cooling down.

# **ATTENTION!**

Avoid contact with the heating element.

### **ATTENTION!**

Pull the fabrics tight around the press pad and ensure that your hands are away from the sealing pad before operating the machine.

### ▲ WARNING!



Hot surface



Electric tension



# 6. Technical specifications

### 6.1 Specifications of the NL-40 v.3

Power 600 Watts

Power supply 230 Volt 50/60 Hz

Temperature range 0-220 °C

0 - 59 min 59 sec Press Time range

+/- 1% Thermoregulator accurate up to

Machine height (closed) 570 mm Machine height (open) 643 mm

Machine width 243 mm Machine depth 543 mm

Gross weight, including packaging 25 kg

Size sealing pads, size 142,5 x 100 mm

5 A A-weighted noise level <70 dB (A)





# 7. Transport and storage

### 7.1 Transport

When the machine needs to be moved, Thermopatch advises to use the original packaging.

Do not carry the machine by its plates.

Ensure that the screw designated for «Transport security» is in place to secure the platens for carrying.

### 7.2 Storage

When the machine needs to be stored, Thermopatch advises to use the original packaging. The machine should be stored on a pallet, off the floor, in dry conditions.



# 8. Maintenance

### **Every day:**

Clean the heating plate with a dry cloth. (See number 4 page 22)

### Depending on use:

Change the silicon rubber (see drawing on page 22) as soon as it is damaged or if it has lost its properties.

## **ATTENTION!**

Switch off the machine and disconnect from the electrical power Make sure the NL-28 has cooled down enough before starting maintenance or repairs.



# 9. Technical Annexes

# 9.1 Spare parts 01

TP Art. Nr.	Description	Quantity
SPA3x-028	Basic Control Power box	1
SPANL4005	Travel Limit Magnet	1
SPANL4006	Induction Limit Sensor	1
SPANL4007	Electromagnetic Suction Cup	1
SPANL4012	Gas-operated spring	1



### 9.2 Troubleshooting

In this paragraph you will find the most common problems, causes and solutions.

Symptoms	Possible breakdowns	Repairs
The heating platen will not heat up.	One of the fuses is out of order The relay is damaged Sensor out of order and/or the display shows ER1	If there is no light when the press is on, check the fuse, change when necessary.  The main fuse is located in a seating next to the plug of the power supply cable (16 A). To access it, pull the electrical cable off and with the tip of a pen or a screwdriver, lift the cover of the fuse holder. There you will find a spare fuse in a square tube for replacement.  Check the relay and replace when necessary.  Check the sensor, and replace when necessary.
The heating platen overheats	The relay is stuck The electronic board is damaged	Replace the relay Replace the electronic board
The timer doesn't start	The microswitch is not activated	Ensure that the activator of the switch is touched by the press arm of the machine.
The buzzer sounds continuously while the press is opened	The microswitch is not set correctly	Check the postion of the activator of the microswitch and adjust when necessary.
The press will not stay closed	The microswitch is not set correctly The electromagnet is not properly activated or defect	Check the position of the activator of the microswitch or replace the microswitch. Check the wiring and the connections.

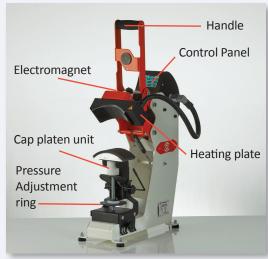
# **▲**WARNING!

All repair and maintenance operations should be done when the machine is turned off and unplugged from the main electric power supply. Ensure that the machine has cooled down before starting repairs or maintenance. The heating element can cause burns.

All repairs must be performed by qualified staff.



### 9.3 Drawing 01





Cap sealer







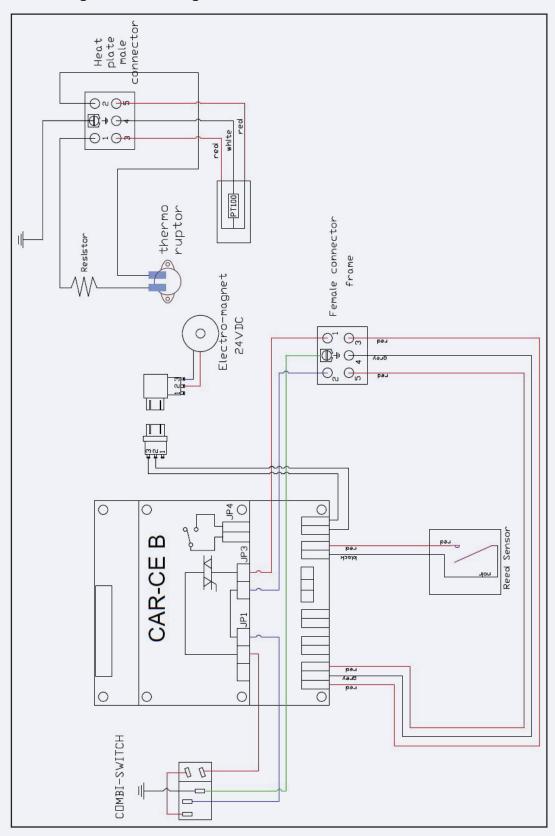


Shoe/glove sealer





## 9.4 Drawing 02 Electrical diagram





## 10. End of life

Choose to dispose of the machine responsibly when it has reached its end of life. Electrical machinery, accessories and packaging should be recycled as much as possible in an environmentally responsible manner.

- Dismantle the machine groups: steel parts / pneumatic components / electrical components
- These can be separated and returned for recycling.





Always dispose according to current and locally applied guidelines for health and safety and disposal requirements.

# 11. Declaration of Conformity CE and UKCA

We,

Thermopatch BV

Draaibrugweg 14

1332 Almere

Netherlands

herewith declare, on our own responsibility, that the machinery:

Thermopatch NL-40 v.3 heat sealing machine for caps and balls,

which this declaration refers to, is in accordance with the conditions of the following Directive(s):

2014/35/EG (emc directive)

2006/42/EG (machinery directive)

Netherlands, Almere, 01-05-2021

P.D. BOX 50052

1305 AB ALMERE

Jan Bausch, Director



We, Thermopatch BV Draaibrugweg 14 1332 Almere Netherlands



declare that the DoC is issued under our sole responsibility and belongs to the following product:

Thermopatch NL-40 v.3 heat sealing machine for caps and balls, which this declaration refers to, is in accordance with the conditions of the following guidelines:

- Electromagnetic Compatibility Regulations (EMC) 2016
- Electrical Equipment (Safety) Regulations (LVD) 2016
- Supply of Machinery (Safety) Regulations 2008

The Netherlands, Almere, 01-05-2022

PHERMOPATCH BV
PD. BOX 50052
1305 ABALMERE
THE NETHERLANDS

Jan Bausch, Director

## 12. Disclaimer

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Thermopatch BV, its subsidiaries, the directors, employees, and agents cannot be held liable for the use and reliance of the opinions and findings in this document.

For any warranty Thermopatch BV refers to its general terms and conditions.

We can confirm that the machines we supply conform to CE when in standard configuration.

Using sealing pads of any format other than the standard supplied with the machine may render the CE declaration invalid.

Thermopatch accepts no responsibility for any damage or injury that may result from possible non-conformity.

Choosing an alternative configuration other than the standard is at the customer's own responsibility.

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