

# NL-27

## User manual



### ATTENTION!

All persons involved in installation, commissioning, operation, maintenance and repair of this product should be made available to these instructions.

# Copyrights

© 2014, Thermopatch bv, Almere, The Netherlands.  
No part of this publication may be reproduced by any means without the prior written permission of Thermopatch bv, The Netherlands.  
Thermopatch and the Thermopatch logo, Thermosteal and Thermocrest are registered trademarks of Thermopatch.

# 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.



## **ATTENTION!**

*In order to make safe and optimal use of the NL-27, it is important to take note of and understand the contents of this manual.*

# Contents

Copyrights	2
Introduction	3
Contents	4
DECLARATION OF CONFORMITY	5
1. General description	6
1.1 Delivery	6
1.2 Conditions of warranty	6
2. Intended use	7
3. Technical specifications	8
3.1 Specifications of the NL-27	8
4. Overview of safety measures and warnings	9
4.1 Safety	9
5. Transport and storage	10
5.1 Transport	10
6. Operating instruction	11
7. Installation	13
7.1 Installation of the NL-27	13
8. Maintenance instructions	14
8.1 Daily maintenance	14
9. Technical annexes	15
Image 01 NL-27	15
Drawing 02 Electrical wiring diagram	16
10. Faults	17
11. End of life	18

# DECLARATION OF CONFORMITY

We,  
**Thermopatch B.V.**  
**Draaibrugweg 14**  
**1332 Almere**  
**The Netherlands**

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

Thermopatch Thermoseal **NL-27**

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, 12-02-2014

A handwritten signature in black ink, appearing to be 'Jan Bausch', written over a horizontal line.

Jan Bausch,  
Director

# 1. General description

The NL-27 is a practical heat seal press for the application of textile labels, company emblems, repair patches, transfers. In short all Thermopatch materials for marking and repair can be easily and permanently pressed on all types of fabric.

## 1.1 Delivery

The NL-27 is mounted onto a pallet, covered with a wooden box.

The following articles can be found at:

- NL-27 heat seal machine
- Power cord
- Quick installation guide
- quality checklist
- Manual on CD-ROM
- CE Declaration of Conformity can be found in this manual

If one of these articles should be missing or faulty, please contact your Thermopatch supplier.

## 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.

## 2. Intended use

The pneumatic NL-27 is a heat seal machine that is especially intended for the application of heat sealable transfers. But all Thermopatch marking and mending materials can be applied with the NL-27.

**△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.*

## 3. Technical specifications

### 3.1 Specifications of the NL-27



#### NL-27

Power	2500 Watts
Power supply	230 Volt
Operating temperature	<250 °C
Temperature range	0 - 250 °C
Press Time range	0-9 min 59sec.
Discharge pressure range	0 - 0.3 kg/cm <sup>2</sup>
Machine height (open)	460 mm
Machine width	453 mm
Machine depth	753 mm
Gross weight, including packaging	70 kg
Net weight	40 kg
Size sealing pads, round	160 mm
Fuses	2x T10AL-230V



## 4. Overview of safety measures and warnings

### 4.1 Safety

No specific safety measures were provided for this machine.

### Warning symbols

The following warning symbols have been mounted onto the machine for added safety:

 **WARNING!**



*Hot surface*

 **WARNING!**



*Electric tension*

 **ATTENTION!**

*Make sure you are informed about the contents of this manual before starting to work with the NL-27. 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 press cover and 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.*

 **ATTENTION!**

*Hold the handle while opening the machine after finishing the sealing cycle. The handle will come up forcefully when not guided manually.*

## 5. Transport and storage

### 5.1 Transport

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

### 5.2 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.

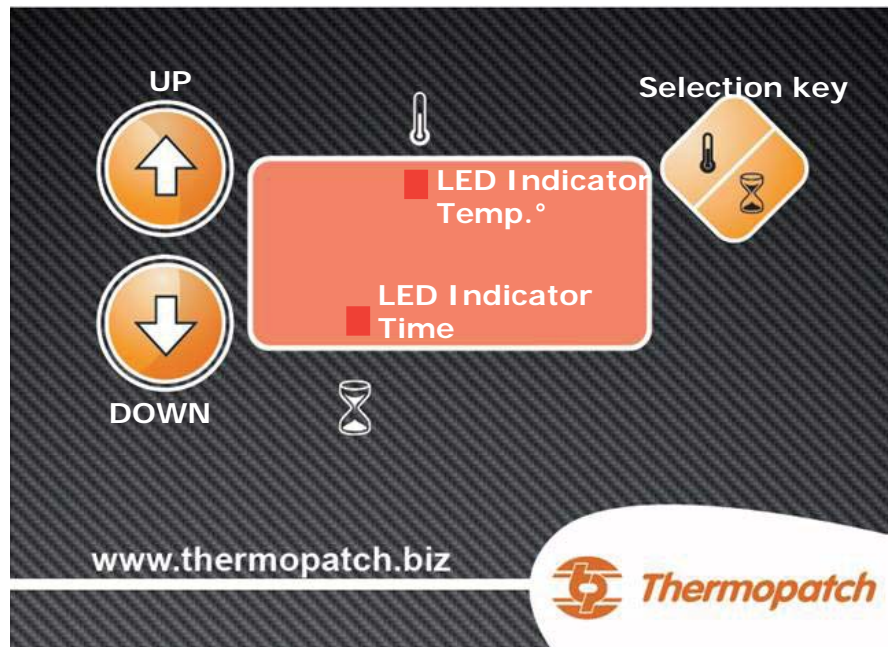
## 6. Operating instruction

### 6.1 USAGE

It is recommended to read carefully the "instruction manual" before you start any pressing operation. Before starting any heat sealing jobs, please take note of this manual. The heat seal press should be operated by a qualified person who has been informed of the risks of working with heat seal equipment.

Be careful not to put irregular shaped, thick or sharp objects under the press, such as zippers, buttons, paperclips or staples. These will damage the teflon sheet protecting the heating element and the press cushion on the lower platen.

### 6.2 CONTROL PANEL



### POWER ON

Switch the NL-27 on with the ON-OFF switch mounted on the back.

After switching the machine on, the display shows the set temperature.

### TEMPERATURE SETTINGS

Push the selection key twice (2x) for temperature setting (thermometer symbol) after which the LED indicator lights up.

Push the Up (Arrow upward) key to increase the temperature. Push the Down (arrow downward) key to decrease the temperature.

### TIME SETTINGS

Push the selection key once (1x) for setting the time (hourglass symbol) after which the LED indicator lights up.

Push the Up (Arrow upward) key to increase the time. Push the Down (arrow downward) key to decrease the time.

### **PRESSURE ADJUSTMENT**

The pressure is obtained by bringing the upper/hot plate to the lower/cold plate together.

- Then unlock the knurled nut underneath the adjustment wheel.
- Turn the wheel on top of the heating plate:
- clockwise to increase the pressure
- anticlockwise to decrease it
- Tighten the knurled nut to lock the pressure setting.

### **HEAT SEALING TRANSFERS**

- Turn on the machine by switching the power button.
- Adjust the desired temperature at 185°C (or depending on the type of transfer); See TEMPERATURE SETTINGS on page 11).
- Adjust the time at 12 Sec (or depending on the type of transfer); See TIME SETTINGS on page 11).
- Adjust the pressure (depending on the type of transfer); See PRESSURE ADJUSTMENT on page 12 (above).
- Place the item, for instance a T-shirt, on the lower/cold plate.
- Add your transfer on top of it, glue side downwards on the textile.
- Lower the heating plate using the handle (once the plate has reached the desired temperature).
- When the plate is in contact with the T-shirt, the timer starts.
- At the end of the countdown, the buzzer will ring.
- Pull the heating plate up (support the heating plate by the handle until fully risen).
- Take the item off the press and peel the carrier off of the transfer after cooling down for a while.
- Re-seal when necessary, with the peeled off carrier replaced loose on top of the transfer.

# 7. Installation

## 7.1 Installation of the NL-27

Unpack the machine from the box and install it safely on a suitable work table.

To move the press, make sure it is cold and handle it by grabbing both plates (upper and lower) at the same time (machine closed) for lifting the machine.

### **WARNING!**

*Do not lift or transport the machine by the operating handle. This will damage the machine and due to the force by the spring controlled handle, injuries may occur.*

Remove the bolt labelled « Transport security » before opening the press.

Take care that there is enough free space around the machine.

Also take care that there are no items near the machine that are sensitive to heat radiation.

## 7.2 Electrical requirements

Plug the machine electrically (230 Volt, earthed, 50 or 60 Hertz) into a suitable wall socket into the mains.

# 8. Maintenance instructions

## 8.1 Daily maintenance

Daily:

Clean the teflon cover of the heating plate with a dry cloth.

Depending on use:

- Change the silicon rubber as soon as it is damaged or if it has lost its properties.
- Grease the axels of the machine every 6 months

## 8.2 Parts for regular replacement for maintenance:

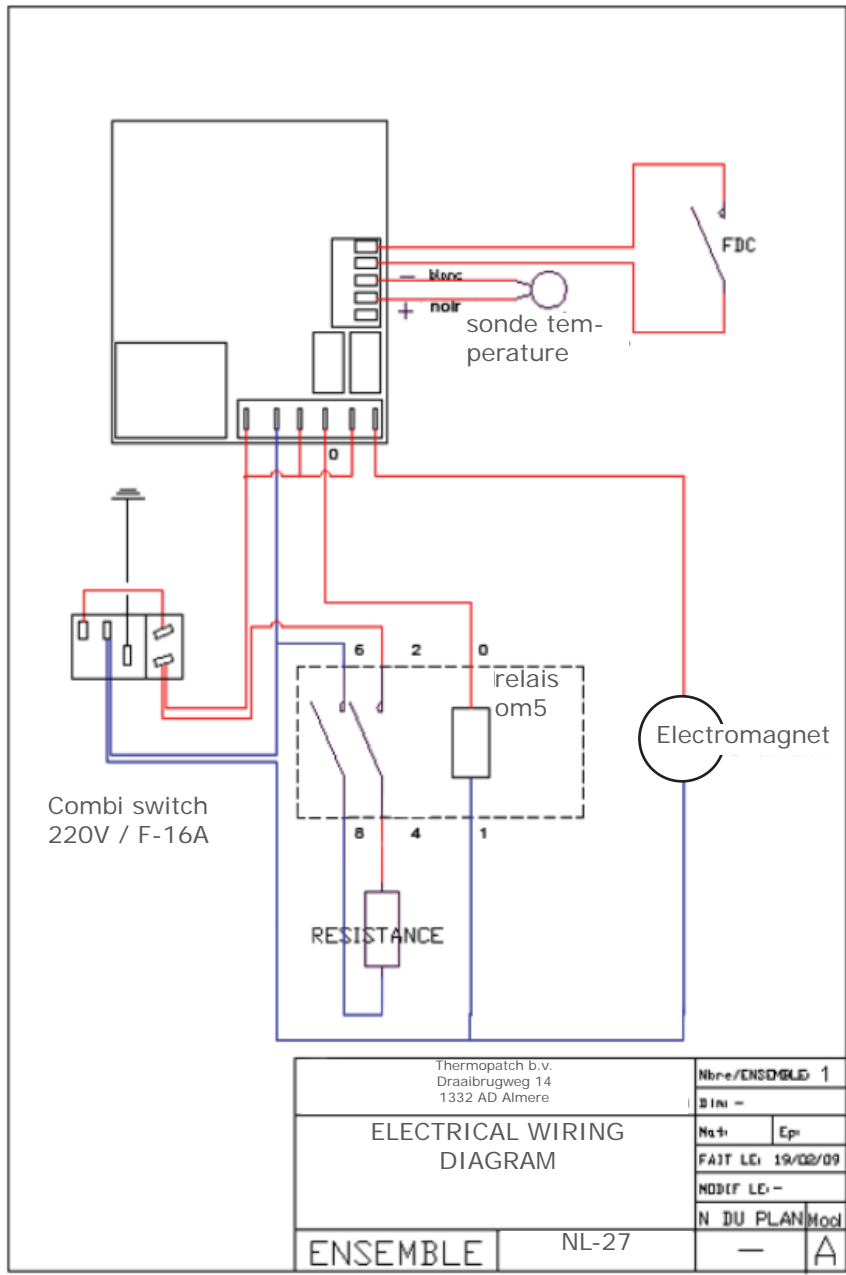
Article Number	Description	Qty
SPA27-001	Electronic Card	1
SPA27-002	Micro Switch with Tongue	1
SPA27-003	Bipolar Relay 25 Amp	1
SPA27-004	Main Switch + Power cord connector	1
SPA27-005	Heat Element Mica 2500 W, 400 x 500 mm	1
SPA27-006	Gas spring for NL27	1
SPA27-007	Teflon cover for heating element, 400 x 500 mm	1
SPA27-008	Silicone rubber 400 x 500 mm	1
SPA27-009	Fuse T10Amp 20 x 5 mm	1

# 9. Technical annexes

Image 01 NL-27



**Drawing 02 Electrical wiring diagram**



Thermopatch b.v. Draaibrugweg 14 1332 AD Almere		Nbre/ENSEMBLE 1	
ELECTRICAL WIRING DIAGRAM		Stat	Ep
		FAIT LE 19/02/09	
		MODIF LE -	
		N DU PLAN	Mod
ENSEMBLE	NL-27	-	A



## 10. Faults

If a problem should occur, please consult the list below; if the problem you are facing cannot be solved by yourselves contact your supplier.

### **WARNING!**

All repair and maintenance operations should be done when the machine is turned off and unplugged from the main electric power supply.

The heating element can cause burns. The user must ensure the temperature is below 25°C on the display, before any intervention.

Fault	Possible cause	Solutions
Heating plate does not heat up.	1. One or both fuses are out of order  2. The relay is damaged  3. Sensor out of order and / or regulator displays ER1	1. When the display does not light up after switching on the NL-27, check the fuses and replace if necessary. The fuse is located in the power entry, on the back of the machine.  2. Check and replace when necessary. 3. Replace the sensor
Heating plate overheats	1. The relay is stuck 2. The card is damaged	1. Replace the relay 2. Replace the card
Timer does not start	1. The microswitch is not activated	1. Correct by ensuring that the lever of the microswitch touches the press arm.
The buzzer sounds continuously	1. The microswitch is stuck	1. Loosen the microswitch or replace it.

## 11. 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 components / electrical components
- These can be separated and returned for recycling.



### **ATTENTION!**

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

Thermopatch Corporate Headquarters  
Thermopatch European Headquarters  
Thermopatch Australia Pty Ltd  
Thermopatch Canada Inc

USA  
The Netherlands  
Australia  
Canada

T +1 315 446-8110  
T +31 36 549 11 11  
T +61 395325722  
T +1 519 748-5027

F +1 315 445-8046  
F +31 36 532 03 98  
F +386 2 80 55 232  
F +1 519 748-1543

sales@thermopatch.com  
sales@thermopatch.nl  
marktpatchaust@bigpond.com.au  
broussel@thermopatch.com

thermopatch.com

Concept  
Feb2014