

Thermoseal NL 3R

User's Guide



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Preface

Dear user,

Welcome to the large group of Worldpatch users! The product you bought has been taken good care of since the moment it was produced. We do all we can to ensure that you will have much profit from this Worldpatch product.

In the first place we help you along with this user's guide. Worldpatch products have been developed with extra attention for your convenience. However, we suggest that you go through this manual, to prevent accidents while using the machine.

In this manual you will find information concerning the NL-3-R of Worldpatch in Almere (the Netherlands). This user's guide is meant for all users of the machine, but also for the people who will install and maintain the NL-3-R. You can read about the installation, the maintenance and the various components of the NL-3-R, but of course also about operating the machine.

In case there were any damages on receipt of your product, please contact your Worldpatch distributor.

Contents

1. Introduction Thermoseal NL 3R	1
1.1 What did you receive?	1
1.2 Your supplier	2
1.3 Illustration of the NL 3R	3
1.4 Specifications of the Thermoseal NL 3R	4
1.5 Safety	5
1.6 Conditions for guarantee and product liability	6
2. Installation	7
2.1 Transport instructions	7
2.2 Installing the machine	7
2.3 Electrical Requirements	7
3. How to operate the NL 3R	8
3.1 Starting with the NL 3R	8
3.2 Working with heat seal materials	8
3.3 Stopping the machine	10
3.4 Trouble shooting	10
4. Maintenance and settings	12
4.1 Daily maintenance	12
4.2 Periodic maintenance	12
4.3 Cleaning	12
4.4 Settings	13
5. Accessories and components	14
5.1 Components that should be replaced regularly	14
5.2 List of components (see drawings from page 19 onwards)	15
5.3 Order form components Thermoseal NL 3R	17
6. Drawings and diagrams	18
6.1 Exploded view NL2/NL3	18
6.2 Wiring diagram NL2/NL3	18

1. Introduction Thermoseal NL 3R

1.1 What did you receive?

The Thermoseal NL 3R has been packed in a cardboard box. The following articles should have been delivered:

- ◆ Thermoseal NL 3R heat seal machine
- ◆ User's Guide

If one of these articles is missing, please contact your Worldpatch distributor.

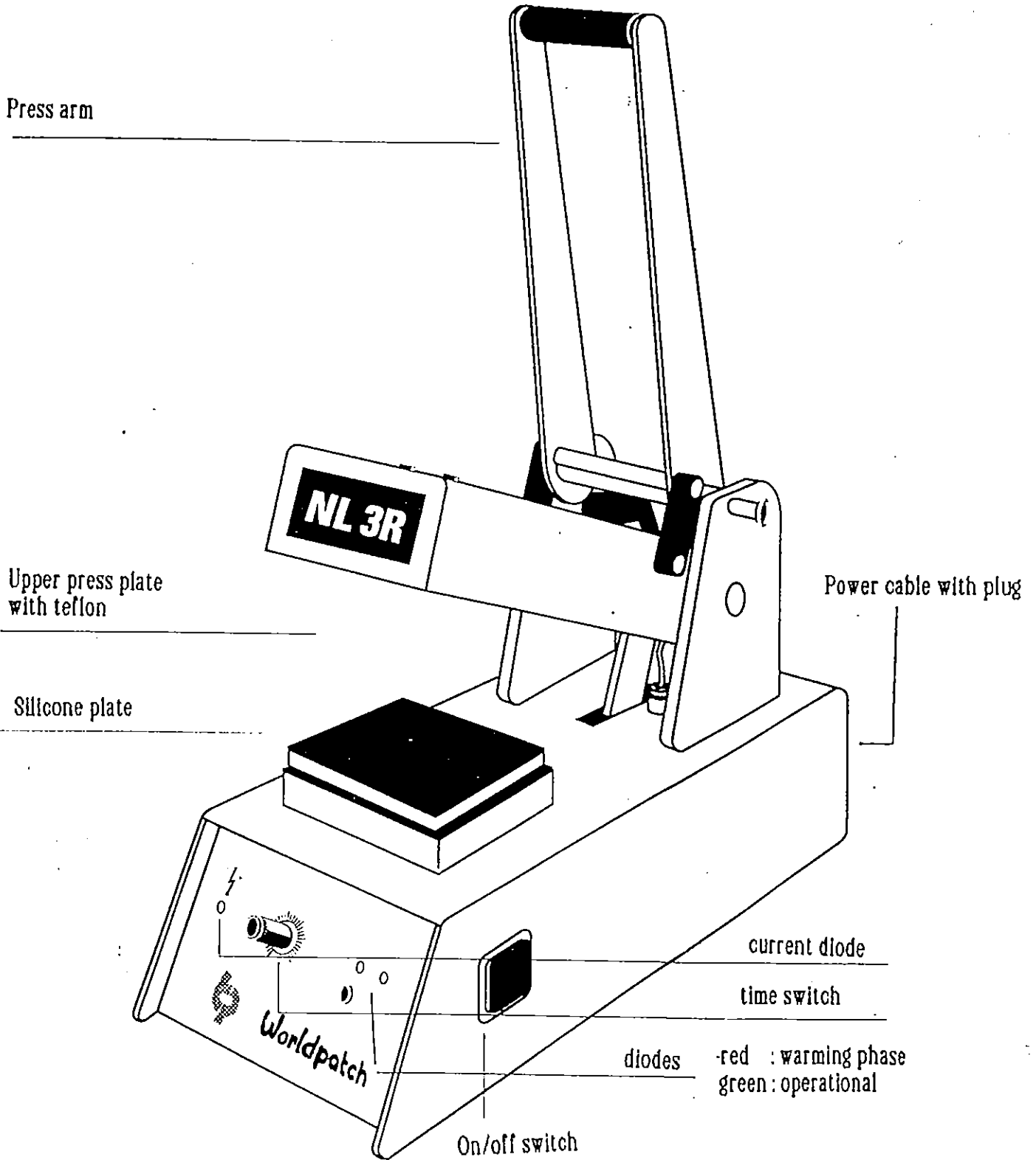
1.2 Your supplier

Worldpatch International
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You can easily order supplies or components for the NL 3R from your Worldpatch distributor by filling in the order form (page 17), preferably by fax. Please write down the order number from the list on page 15 and 16 of this user's guide and give the quantity of the items you want to order.

1.3 Illustration of the NL 3R



1.4 Specifications of the Thermoseal NL 3R

The NL 3R is a practical heat seal press suitable for all Worldpatch labels, patches and emblems. Four springs located below the lower plate provide an even pressure throughout the surface, even when working with thick fabrics.

The Thermoseal NL 3R meets the German GS standard under no. 93027 together with the European CE criteria 89/392/EWG and 91/368/EWG.

Specifications

Power consumption.....	400 watts
Power supply	220/240 volts
Temperature.....	204 °C
Machine height (open)	610 mm
Machine height (closed).....	370 mm
Machine width	200 mm
Machine depth (connections included)	520 mm
Net weight	22 kg
Press pad dimensions	130 x 100 mm
Fuses.....	4 amps (slow)
A-weighted noise level.....	< 70 dB (A)

1.5 Safety

The Thermoseal NL 3R has been equipped with various safety features to ensure safe operation.

a Safety thermostat

The safety thermostat near the heating element (component no. CE 2373) interrupts the current should the temperature of the element exceed 260 °C. Once the safety thermostat has been activated, it must be replaced.

b Acoustic signal

Once the press cycle is complete a buzzer will be audible, the press will open automatically.

Safety tips

The Thermoseal NL 3R meets the German GS standard under no. 93027 together with the European CE criteria 89/392/EWG and 91/368/EWG.

For safety reasons, however, we provide you with some instructions by means of which you can keep the risks to a minimum.

- ◆ Always switch off the current (pull the plug out of the socket) when undertaking maintenance work or when cleaning the machine.
- ◆ Ensure that there is sufficient space around the machine. Cables and connections must not get jammed. Although the heat radiation of the press is low, there should be enough space for cooling down.
- ◆ Avoid contact with the press element and the heating element.

1.6 Conditions for guarantee and product liability

Worldpatch guarantees a correct working of the machine and its components for twelve months.

2. Installation

2.1 Transport instructions

On receipt the machine is packed in a cardboard box. If you have to replace the machine at a later time, it is recommended to pack it in a similar way. Please let the press first cool down and push the press arm down.

2.2 Installing the machine

Take the Thermoseal NL 3R out of the box and put the machine on a work table near an earthed socket. Ensure that there is sufficient free space around the machine. Also ensure that there are no items near the machine which are sensitive to heat radiation.

2.3 Electrical Requirements

The Thermoseal NL 3R should be connected to the electricity grid (220 V / 240 V alternating current).

Use the machine's power cable to provide current. The NL 3R is an earthed machine and has been provided with a fuse of 4 amps (slow).

3. How to operate the NL 3R

3.1 Starting with the NL 3R

1 Turn on the NL 3R.

The on/off switch is situated to the right side of the machine. On the left of the control panel a green diode lights up confirming power to the unit.

2 Wait until the standard temperature has been reached.

This will take about ten minutes. As long as the element does not have the right temperature, a red diode will light up on the right of the control panel. The standard operating temperature has been set to 204 °C.

3 The press can be operated now.

3.2 Working with heat seal materials

With the NL 3R it is very easy to apply heat seal material - labels, emblems and patches - on textiles. Follow the procedure listed below:

1 Set the time.

Almost all Worldpatch heat seal materials need 12 seconds for correct adhesion. Turn the adjustment knob at the front of the press until the arrow points to the 12.

2 Put the fabric over the press pad.

The part of the fabric where the label should be situated, fully covers the press pad. Be sure that the fabric is tight.

3 Place the label.

Remember: Worldpatch materials cannot be removed easily. The material is meant for permanent adhesion. Therefore, make sure that the position is correct.

4 Press the press arm down.

In this way, you press the heating element against the plate. At the same time, the electronic timer is triggered.

At the end of the press time, a buzzer will be activated, advising that the operation is complete.

5 Open the press.

When the operation is complete, the press will open automatically.

6 Remove the fabric.

Once cool, the label is permanently attached.

Press times

With this heat seal press you can attach both repair and marking materials, you cannot use emblems or patches with a low temperature coating.

Repairs

Preferably repair damages without the loss of fibres, such as right-angled tears, from the back side of the fabric. In almost all cases it is sufficient to use a press time of 12 seconds. Exceptions are thick fabrics like materials for gauntlets and patches for protective clothing, which require 15 to 20 seconds.

Labels and emblems

Confirm that the fabric does not have a finish or contain impurities. If necessary, wash the fabric or put the part where the label will be positioned under the press for a few seconds.

Use the following press times:

- | | | |
|---|--|-------------------|
| a | Label tapes
Poly/cotton and 100% polyester | 12 seconds |
| b | Emblems
Thermocrest, Topline | 12 seconds |
| c | Embroidered emblems | 20 seconds |
| d | Transfers | 5 seconds |

Attention ! Please be aware that some modern fabrics like terylene and various types of nylon cannot withstand the press temperature of 204 °C. If you cannot be sure of the result, use a sample of the same fabric to see the result. If the result is not satisfactorily please contact your Worldpatch Distributor. We can not take any liabilities for the results obtained by using the NL 3R.

Removing heat seal material

Because Worldpatch materials must be wash resistant to all industrial washing processes, it is not easy to remove heat seal material. You can act as follows:

- 1 Put the garments with the label to be removed under the press for about 7 seconds.
The glue layer will return to its liquid state.
- 2 Leave the garment on the plate and remove the label, if necessary by means of a pair of blunt scissors or tweezers.
- 3 Please take care, the press plate is hot !
- 4 Repeat this procedure if you cannot remove the label from the garment.

3.3 Stopping the machine

You can temporarily interrupt the operation at any moment by pushing the arm of the heat seal machine up during the press cycle.

You can shut down the machine if you stop working by turning the on/off switch on the right side. Both green indicators on the control panel are turned off.

3.4 Trouble shooting

Some problems and failures that can occur in practice are listed below. After mentioning each problem, the possible cause (or causes) is (are) given, as well as a solution(s).

If the described solution cannot solve the problem, please contact the service department of Worldpatch.

Inferior press results

◆ Insufficient adhesion of the glue layer

- 1) Press time too short. Increase the time in steps of 2 seconds and try again.
- 2) Temperature too low. Check with Thermolabels and increase the temperature, if necessary (see chapter 4).
- 3) Press pad of the lower plate is worn-out. Install a new pad.
- 4) The Teflon coating of the press element is impure or worn-out. Clean with a damp cloth and replace it, if necessary.

◆ Glue layer and/or transfer ink runs

- 1) Press time too long. Decrease the time in steps of 2 seconds and try again.
- 2) Temperature too high. Check with Thermolabels and decrease the temperature, if necessary (see chapter 4).

Failures

◆ Press does not warm up, indicator does not light up

- 1) The machine is not connected to the electricity grid. Put the plug of the power cable in an earthed socket and switch the machine on.
- 2) The machine is not connected. Set the switch on the right to the correct position.

◆ **Press does not warm up, red diode lights up**

- 1) The sensor is defective. Please contact your Worldpatch distributor.
- 2) The safety thermostat has been activated. Please contact your Worldpatch distributor.
- 3) The heating element is defective. Please contact your Worldpatch distributor.

◆ **The press time cannot be correctly set**

- 1) The adjustment knob is loose. Fasten the knob according to the instructions in chapter 4.
- 2) The electronics are defective. Please contact your Worldpatch distributor.

◆ **There is no signal at the end of the press time**

- 1) The timer is defective. Replace the timer with a new one.
- 2) The electronics are defective. Please contact your Worldpatch distributor.

4. Maintenance and settings

4.1 Daily maintenance

For good press results it is important to keep the press surfaces clean. Therefore, clean the teflon coating of the upper plate with a clean, dry cloth. Do not touch the heating element!

Also clean the rubber of the press shoe daily with a dry cloth. Do not use solvents or other chemical substances to remove impurities. Do not let buttons, zips, etcetera come between the plates. In this way, the silicone rubber will remain intact for a long time.

4.2 Periodic maintenance

The mechanism of the NL 3R needs no maintenance. The gas spring is also maintenance-free.

The rubber pad and the teflon of the upper plate must be cleaned once or several times daily. Clean them with a clean and dry cloth when they have cooled down. The teflon must be absolutely smooth and clean.

Both the teflon and the lower press pad should be replaced regularly.

In order to replace the adhesive teflon, the press machine must be cooled down. Remove the old teflon pad. Carefully remove all glue residue from the metal surface. The surface must be absolutely clean and smooth, so that the new teflon sticks well.

The teflon coating has component no. N9 9000. The press pad has component no. CE 9063.

4.3 Cleaning

Clean the outside of the machine regularly with a clean, moist cloth. First switch off the machine, let it cool down and pull the plug out of the socket. The inner part of the press must also be cleaned from dust now and then. First switch off the current before performing this operation and remove the bottom plate.

Attention !All pressure-loaded, movable components of the machine have been provided with self-lubricating bearings and do not need oil or grease.

4.4 Settings

◆ Setting the time switch

It may occur that the timer on the front of the machine does not show the correct time anymore. It is recommended to check if this is the case from time to time. The problem can be solved easily.

- 1 Remove the rubber stop of the adjustment knob.**
Use a small screwdriver or a pair of scissors for this action.
- 2 Loosen the lock nut and remove the knob.**
- 3 Turn the adjustable axle to the left.**
Keep turning until the axle is blocked. This is the zero position.
- 4 Put the knob back and set the arrow to 0 (zero) seconds.**
- 5 Fasten the nut again and put the rubber stop on it.**

◆ Set the temperature

The temperature of the upper plate has been set to 204 °C. Although an electronic thermostat regulates the temperature, the value can deviate slightly after intense use. By means of Thermolabels (paper thermometers, can be ordered at your Worldpatch distributor) you can determine such a deviation. If necessary, you can set the temperature as follows:

- 1 Remove the rubber knob of the potentiometer.**
You can find this knob below the green indicator on the control panel.
- 2 Turn the potentiometer a quarter of a turn.**
Use preferably a small screwdriver. Turning right (clockwise) increases the temperature, turning left decreases the temperature.
- 3 Wait for about five minutes.**
- 4 Check the modified temperature by means of Thermolabels.**
In most of the cases the correct value is set after a slight turn. Replace the rubber knob on completion.

5. Accessories and components

5.1 Components that should be replaced regularly

- ◆ **Press pad, adhesive**
130 x 100 mm CE 9063
- ◆ **Teflon coating upper plate**
130 x 100 mm N9 9000

5.2 List of components (see drawings from page 19 onwards)

Drawing no	Component no	Description
3	CE 2003	press arm
6	CE 2006	axle
11*	CE 2011	heating element 400 W / 220 V
12*	CE 2012	temperature sensor PT 100
13	CE 2013	octagonal axle
17	CE 2017	eccentric shaft
18	CE 2018	stop
21	CE 2021	gas spring
26	CE 2026	protective cap
28	CE 2028	disk with seconds scale
29	CE 2029	time switch
30	CE 2030	rubber stopper
31	CE 2031	print attachment
34	CE 2034	slide bearing
35	CE 2035	slide bearing
36	CE 2036	slide bearing
37	CE 2037	axle locking ring 12 mm
39	CE 2039	screw M6 x 20
40	CE 2040	screw M6 x 45
42	CE 2042	lock nut M8
43	CE 2043	locking ring M8
44	CE 2044	self-tapping screw
46	CE 2046	countersunk-head screw 3.5 x 9.5
47	CE 2047	nut M8
51	CE 2051	screw M8 x 25
52	CE 2052	screw M8 x 20
53	CE 2053	screw M8 x 16
55	CE 2055	disc
57	CE 2057	clamping bush
58	CE 2058	rope swivel
59	CE 2059	attachment for
61	CE 2061	print connector 6 poles
62	CE 2062	print connector 4 poles
63	CE 9063	rubber press pad
64	CE 2064	screw M6 x 8
65	CE 2065	rubber stopper
81	CE 2081	screw M4
85	N9 9000	teflon (adhesive)
92	CE 2092	power cable with plug
94	<i>CE 2094</i>	<i>electromagnet</i>
95	<i>CE 2095</i>	<i>ring transformer</i>
96	<i>CE 2096</i>	<i>rectifier</i>
97	CE 2097	fuse holder
99	<i>CE 2099</i>	<i>magnet drawing disc</i>
102	CE 2102	compression spring
116	<i>CE 2116</i>	<i>plastic bush</i>
133	CE 2133	disc M3
153	CE 2153	disc M3
157	CE 2157	lock nut M10
300	CE 2300	intermediate plate
304	CE 2304	right side plate
305	CE 2305	left side plate

Drawing no	Component no	Description
307	CE 2307	back bottom plate
310	CE 2310	upper press plate
311	CE 2311	bottom plate lower shoe
312	CE 2312	housing press arm
313	CE 2313	intermediate plate
314	CE 2314	lower heating plate
319	CE 2319	on/off switch
320	CE 2320	complete switch
332	CE 2332	silicone plate
333	CE 2333	silicone ring
342	CE 2342	set screw M8 x 60
360	CE 2360	front bottom plate
361	CE 2361	sealing for bottom plate
365	CE 2365	lead sheathing
366	CE 2366	PVC tube
367	CE 2367	brush left
368	CE 2368	brush right
369	CE 2369	protective cap for switch
371	CE 2371	nut M4
372	CE 2372	ring M4
373	CE 2373	safety thermostat
374	CE 2374	screw M3
378	CE 2378	disc M6
379	CE 2379	countersunk-head screw M6 x 16
380	CE 2380	screw M4 x 8
398	CE 2398	frame for magnet drawing disc
427	CE 2427	control print NL2
461	CE 2461	connector 6 poles
497	CE 2497	fuse NL 2 - 2.5 amps
502	CE 2502	clamping bush
503	CE 2503	screw M4
504	CE 2504	compression spring
505	CE 2505	distributing ring
506	CE 2506	fillister head screw M4 x 50
510	CE 2510	plastic screw
511	CE 2511	housing
512	CE 2512	set screw M8 x 70
513	CE 2513	screw M8 x 35
514	CE 2514	insulating bush
515	CE 2515	plastic screw
527	CE 2527	control print NL3
588	CE 2588	pattern plate NL 3R
589	CE 2589	serial number plate
590	CE 2590	front plate
591	CE 2591	pattern plate NL 3R
597	CE 2597	fuse 4 amps
600	CE 2600	ring
603	CE 2603	bar
614	CE 2614	insulating bearing
615	CE 2615	handle
801	CE 2801	temperature sensor PT 100 complete
802	CE 2802	heating element 240 V / 400 W, complete
803	CE 2803	buzzer with cable and plug

All bold italic items only apply to the Thermosteel NL 3R.

* not represented on the drawings

5.3 Order form components Thermoseal NL 3R

Should you wish to order components for the NL 3R, simply copy the form below, enter the part numbers and details of the items required and fax to your local Worldpatch distributor:

Drawing no.	Component no.	Description	Quant.

SENDER:

Company name: _____

Contact: _____

Address: _____

Postcode and town: _____

Telephone number: _____

Fax number: _____

Date: _____

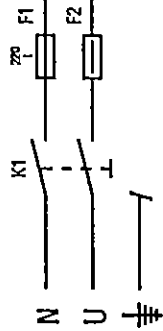
6. Drawings and diagrams

On the next pages you will see respectively:

6.1 Exploded view NL2/NL3

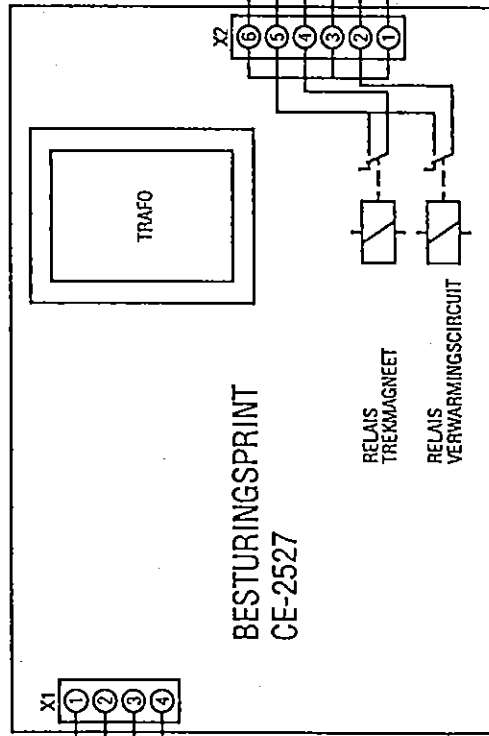
6.2 Wiring diagram NL2/NL3

AAN/UIT SCHAKELAAR
CE-2319



ZEKERINGEN
CE-2597

MICROSCHAKELAAR
CE-2320



TEMPERATUURSENSOR
PT100

TRAF0

BESTURINGSPRINT
CE-2527

RELAIS
TREKMAGNEET

RELAIS
VERWARMINGSCIRCUIT

X2

6

5

4

3

2

1

X1

1

2

3

4

TRANSFORMATOR
CE-2095

GELIJKRICHTER
CE-2096

ELEKTROMAGNEET
CE-2094

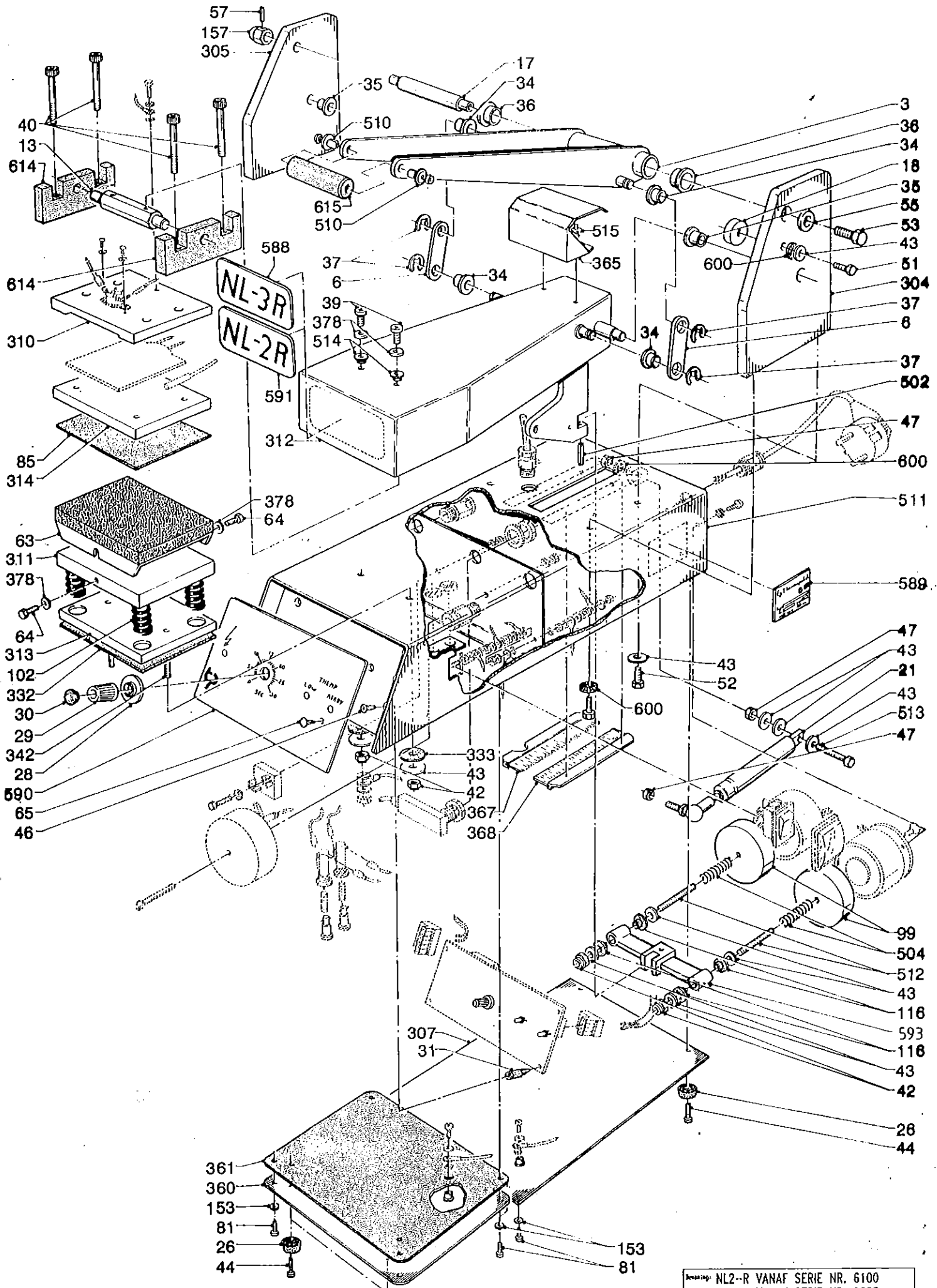
VEILIGHEIDSTHERMOSTAAT
CE-2373

VERWARMINGS-
ELEMENT
CE-2802

15-02-95 SERIE NR.
> 9102

NL3-R

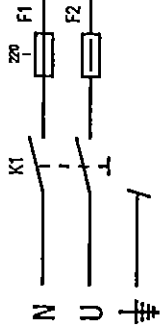
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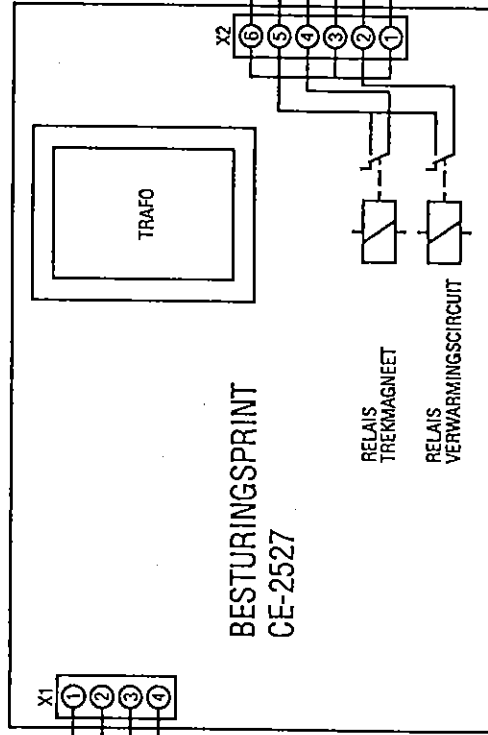
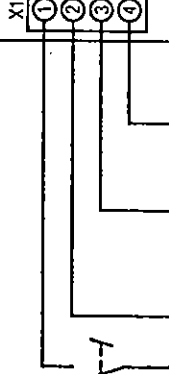
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AAN/UIT SCHAKELAAR
CE-2319

ZEKERINGEN
CE-2597



MICROSCHAKELAAR
CE-2320



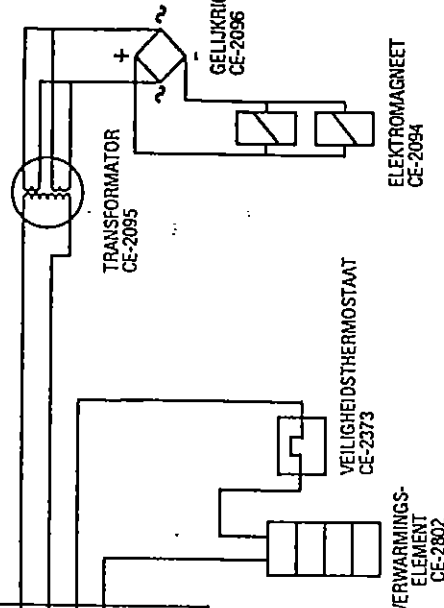
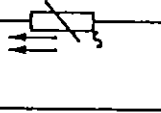
BESTURINGSPRINT
CE-2527

TRAFO

RELAIS
TREKMAGNEET

RELAIS
VERWARMINGSCIRCUIT

TEMPERATUURSENSOR
PT100



TRANSFORMATOR
CE-2095

GELIJKRICHTER
CE-2096

ELEKTROMAGNEET
CE-2094

VEILIGHEIDSTHERMOSTAAT
CE-2373

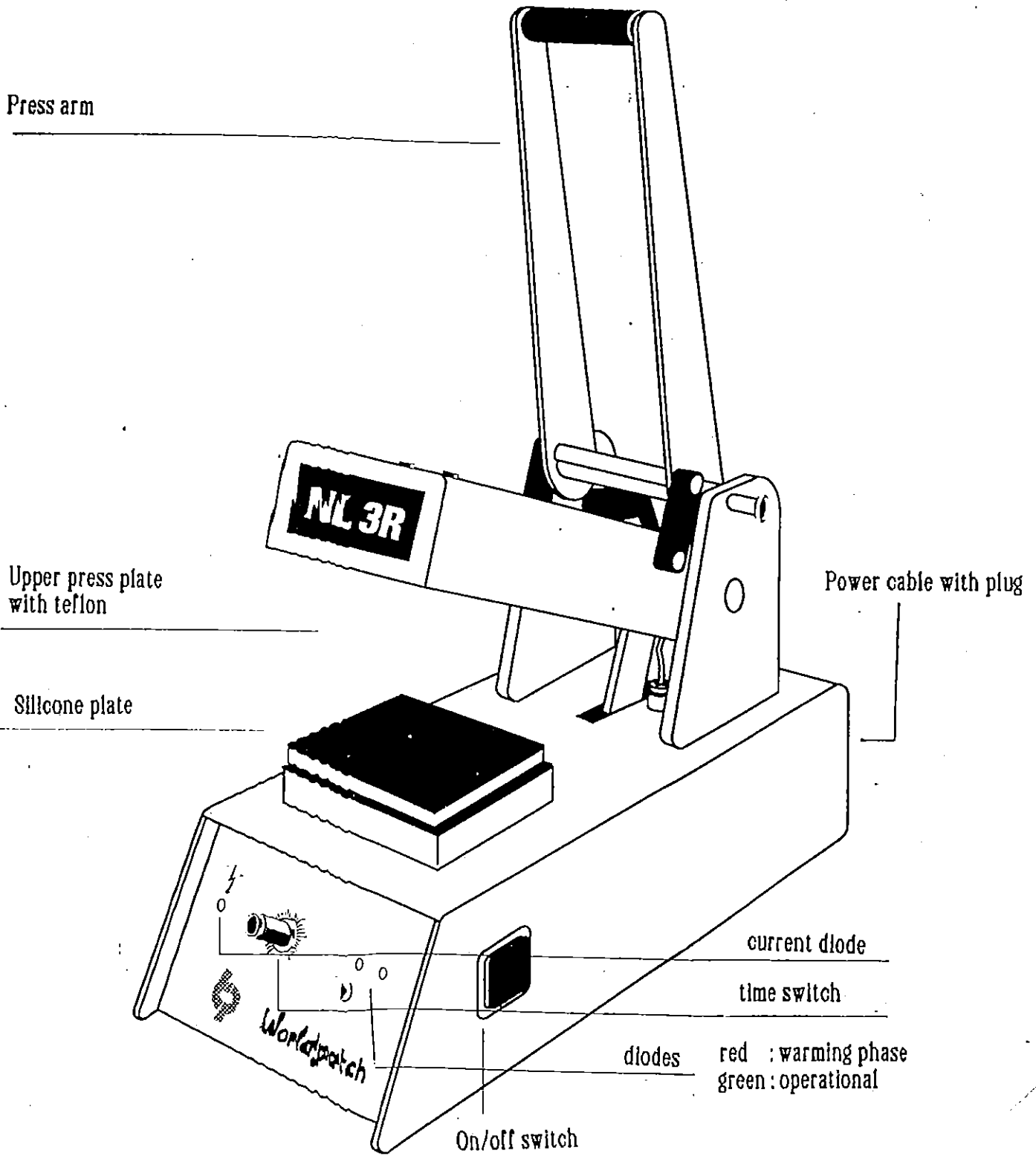
VERWARMINGSELEMENT
CE-2802

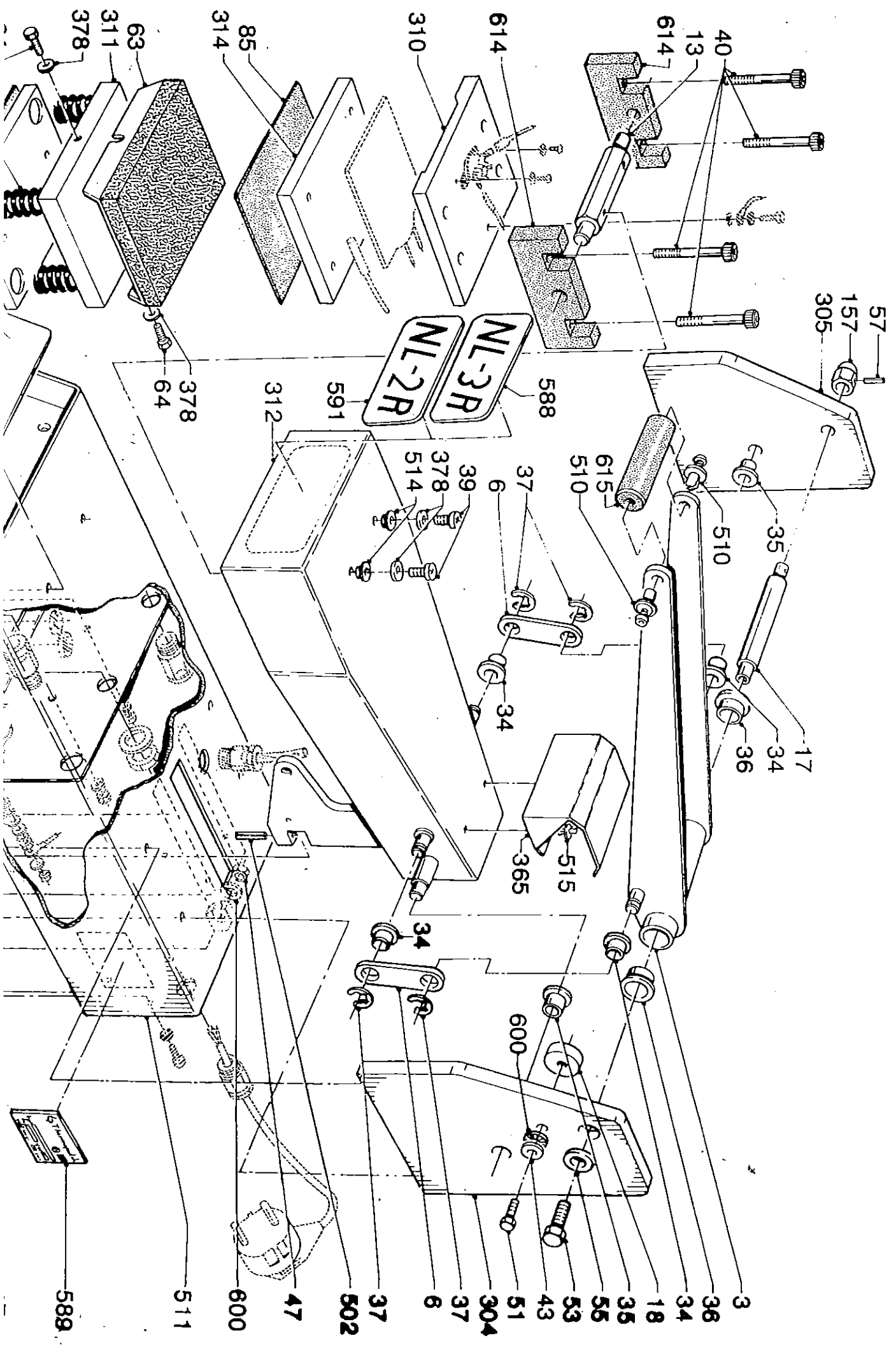
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> 9102

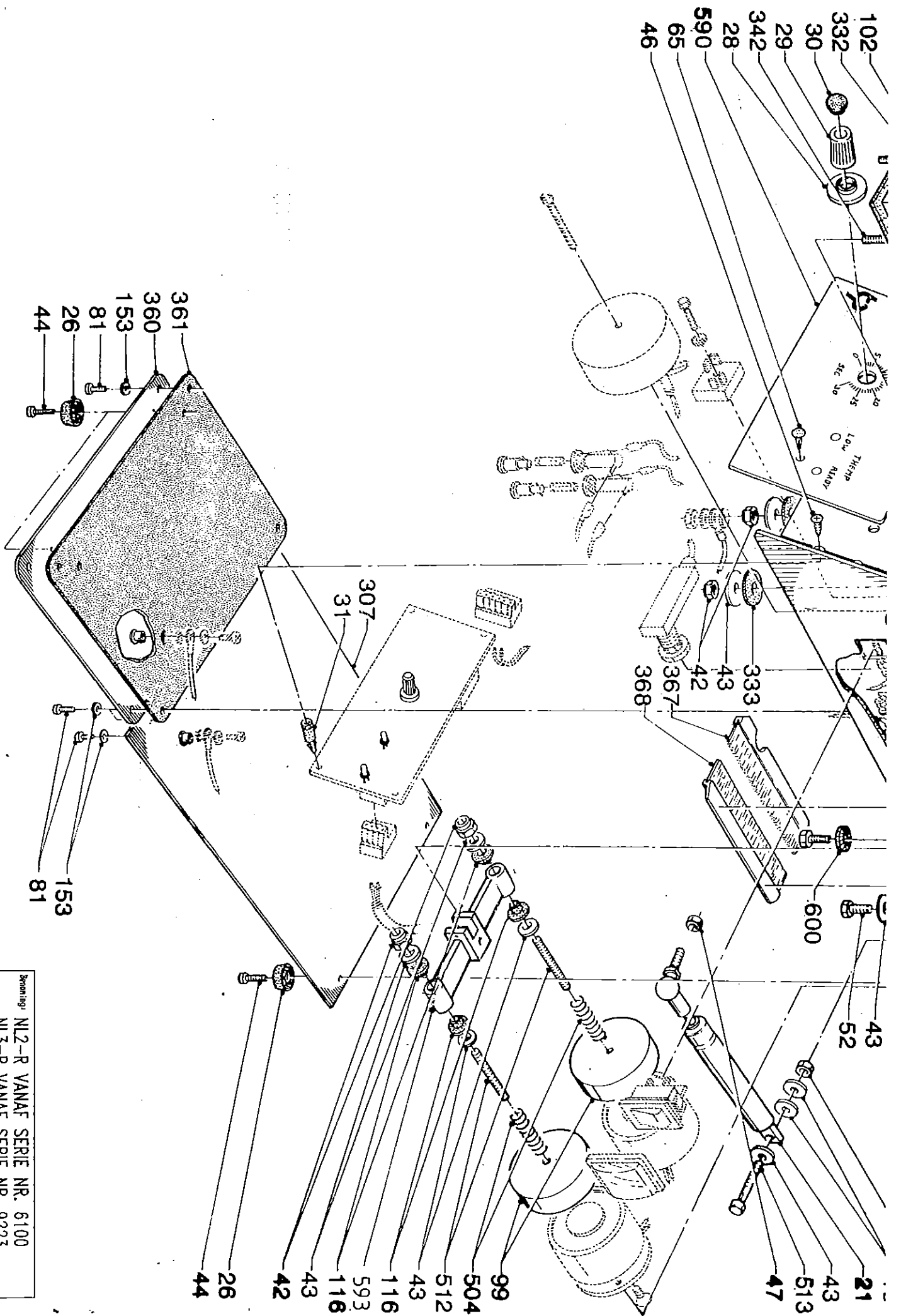
NL3-R

worldpatch

1.3 Illustration of the NL 3R







Bronning: NI2-R VANAF SERIE NR. 6100
 NI3-R VANAF SERIE NR. 9223

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