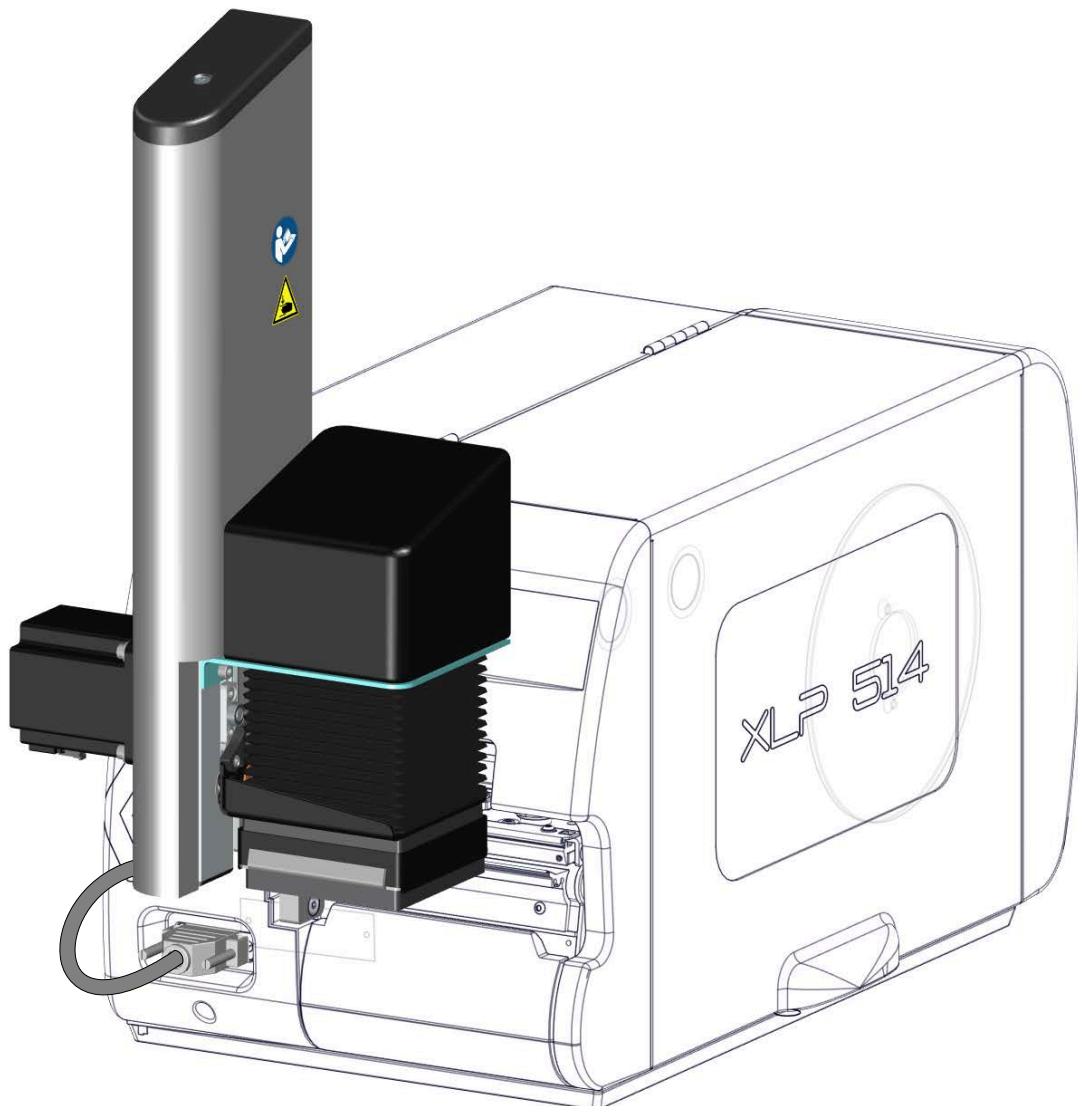


# USER MANUAL

## LTSA LTMA

Applicators for XLP 504/514/604



# Contents

## **Please note! - 3**

General Information - **3**

Validity of this manual and required compliance - **3**

How information is represented - **4**

Safety instructions - **5**

Warning symbols at the applicator - **6**

## **Product description - 7**

Intended use - **7**

Designation & Appearance - **8**

Functionality - **10**

Technical data - **11**

System requirements XLP 504 with LTSA - **15**

System requirements XLP 514 with LTMA - **17**

System requirements XLP 604 with LTMA - **19**

Parameters - **20**

Applicator parameters in the parameter menu - **20**

Parameter Reference (Applicators) - **20**

## **Commissioning - 22**

XLP 504: Installing conversion kit LTSA - **22**

XLP 514: Installing conversion kit LTMA - **25**

XLP 504/XLP 514: Installing LTSA/LTMA - **28**

XLP 604: Installing LTMA - **29**

Settings in the parameter menu - **30**

Setting the applicator home position - **34**

## **Operation / Malfunctions / Cleaning - 36**

Operation - **36**

Replacing the pressure plate - **37**

Remedying malfunctions - **38**

Cleaning - **39**

## **Index of parameter names and error messages - 40**

# Please note!

## GENERAL INFORMATION

### Validity of this manual and required compliance

#### Contents

The complete operating manual for the applicators LTSA and LTMA consists of the following parts:

Manual	Target group	Medium	Availability
User manual	Operating personnel	PDF file	NOVEXX Solutions website <a href="http://www.novexx.com">www.novexx.com</a>
Service manual	Service personnel		NOVEXX Solutions Partner Portal <a href="http://www.novexx.com">www.novexx.com</a>
Spare parts catalogue			

The present *user manual* refers exclusively to the applicators LTSA and LTMA. It is intended to help in proper installation, operation and adjustment of the applicator.

For technical questions not covered in this user manual:

- ▶ Follow the instructions of the service manual for the applicator and for the applied printer or
- ▶ Request a service technician from our sales partner.

NOVEXX Solutions customer service department is available especially for configuration settings and malfunctions.

#### Liability

NOVEXX Solutions reserves the right:

- To make changes in design and components, and to use equivalent other parts than those specified in line with technological progress.
- To change information in this manual.

Any obligation to extend these changes to machines previously delivered is excluded.

#### Copyright

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## How information is represented


### Explanation of symbols

To enhance readability and make information easier to find, different types of information are identified:

- ▶ Instruction with no order of tasks assigned
- 1. Numbered instructions introduced by preceding text
- 2. The specified order must be followed!


 Note.

- Enumeration of features
- Other feature

 The Experts symbol identifies activities that are reserved exclusively for qualified and specially trained personnel.

### Warning Notes

Warning notes are specially highlighted:

 **WARNING!**  
 Warning notes with the signal word **WARNING** refer to risks that can result in severe or fatal injuries! The note contains safety measures to protect affected persons.

- ▶ Instructions must be followed without exception.

**CAUTION!**  
 Warning notes with the signal word **CAUTION** refer to risks that can result in property damage or personal injury (minor injuries). The note contains instructions for preventing damage.

- ▶ Instructions must be followed without exception.

### Illustrations

Illustrations appear in the text where required. References to the illustrations are shown in brackets, if necessary (see table).

Reference to illustration	Application
none	<ul style="list-style-type: none"> <li>• Only one illustration</li> <li>• Reference to the illustration is obvious</li> <li>• No position number in the illustration</li> </ul>
(A)	<ul style="list-style-type: none"> <li>• Only one illustration</li> <li>• Reference to the illustration is obvious</li> <li>• Position number in the illustration</li> </ul>
(see fig. above)	<ul style="list-style-type: none"> <li>• Several illustrations</li> <li>• No position number in the illustration</li> </ul>
(see fig. above, pos. A)	<ul style="list-style-type: none"> <li>• Several illustrations</li> <li>• Position number(s) in the illustration</li> </ul>

Table 1: Different references to illustrations.

## Parameters

Parameters in the parameter menu are represented in the format Menu name > Parameter name in grey type.

# SAFETY INSTRUCTIONS



### WARNING!

Shearing movement between applicator and dispensing edge!

Risk of crushing of the fingers between applicator and dispensing edge and between the moving parts of the applicator!

- ▶ During operation: Keep your hands away from the applicator!
- ▶ Operate the applicator only when it is firmly installed on the machine.
- ▶ Before starting and work on the applicator, switch off the machine and remove the mains plug (e.g. installing or cleaning the applicator)

### CAUTION!

Risk of damage to the applicator!

- ▶ Do not use the applicator as a carrying handle for the machine.



The safety instructions above apply in particular to the applicators LTSA and LTMA. For safe operation of the respective machine with the applicator attached, it is essential to also observe the safety instructions in the machine's operating instructions

## WARNING SYMBOLS AT THE APPLICATOR

**CAUTION!**

Warning symbols on the machine provide important information for the operating personnel.

- ▶ Do not remove warning symbols.
- ▶ Replace missing or illegible warning symbols.

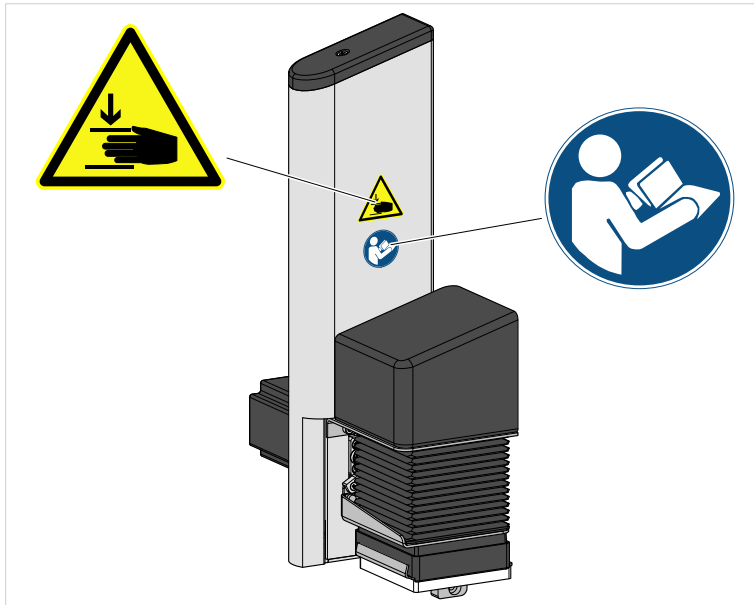


Fig. 1: Warning signs on LTSA/LTMA.



Warning symbol	Meaning	Order No.
	The warning symbol "Danger of crushing" warns of dangerous movements of the device that could lead to crushing.	A103530
	The "Read manual" symbol prompts the user to read the Operating manual.	A5331

Table 2: Meaning of the warning symbols.

# Product description

## INTENDED USE

The Applicator LTSA is an additional device for XLP 504 label printers from NOVEXX Solutions.

The Applicator LTMA is an additional device for XLP 514 or XLP 604 label printers of the same manufacturer.

The applicator takes over self-adhesive labels from the printer's dispensing unit and applies them to moving or stationary products.

The applicator is bolted to the printer by means of a rigid connecting plate. It requires no separate power supply; it is connected to the printer by means of a plug connector and is supplied with power via the printer.

The controller of the applicator is integrated into the firmware of the printer. The application process is triggered by one of the following 4 possibilities:

- Press a button on the printer operation panel
- Easy Plug immediate command (#!D) at the data interface
- Press an *optional* foot switch (connected to the printer)
- External start signal received via the *optional* signal interface (e.g. from a product sensor)

*Working position:* The LTSA/LTMA is an attachment for the above named tabletop printers. The application direction is therefore vertically from top to bottom.

Any other type of or more extensive application will be considered non-intended use. This includes in particular installation of the printers with applicator in any other than the working position described above.

NOVEXX Solutions assumes no liability for damage resulting from any form of non-intended use of the printer.

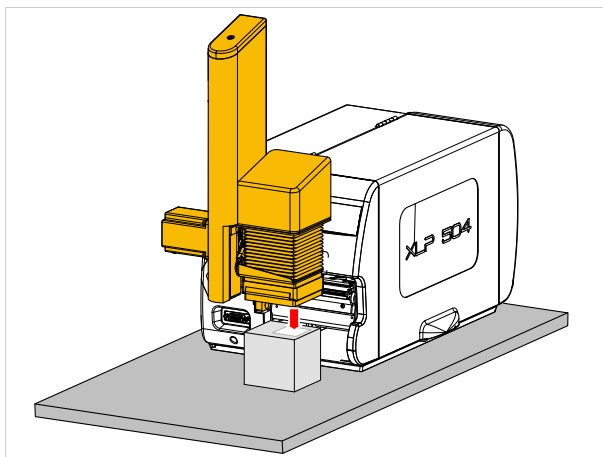


Fig. 2: Semi-automatic operation of the LTSA/LTMA on a tabletop. The products are positioned by hand, the application process is triggered via a switch (e.g. foot switch).

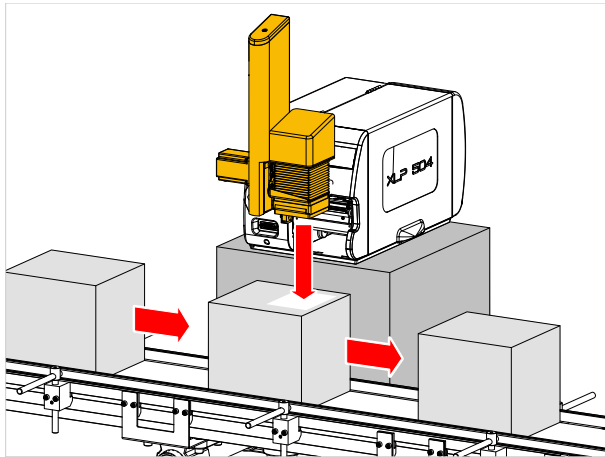


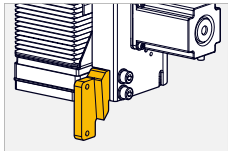
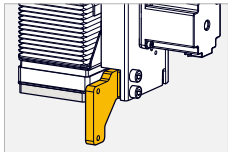
Fig. 3: Automatic operation of the LTSA/LTMA on a conveyor. The application process is triggered by a start sensor (e.g. light barrier).

## DESIGNATION & APPEARENCE

- *LTSA* stands for Light Touch Stepper Applicator (available for XLP 504)
- *LTMA* stands for Light Touch Motor Applicator (available for XLP 514 and XLP 604)
  - LTMA 80/200: LTMA with 190 mm stroke length and 80 mm pressure pad
  - LTMA 80/400: LTMA with 400 mm stroke length and 80 mm pressure pad
- *Light Touch* means that the label is only pressed on lightly because the applicator immediately starts its return stroke as soon as it contacts the product. This allows products with varying heights to be labelled.
- *Stepper* means that the applicator is driven by a stepper motor.

**CAUTION!**  
 Danger of malfunction or no function at all due to confusion of applicator versions  
 ► Do not mix up the applicator versions.

Distinguishing features of the 3 applicator versions:

Applicator version	Feature 1	Feature 2	
LTSA for XLP 504		Laterally offset adapter plate	
LTMA for XLP 514			
LTMA for XLP 604	Marking on the rating plate	Flat adapter plate	

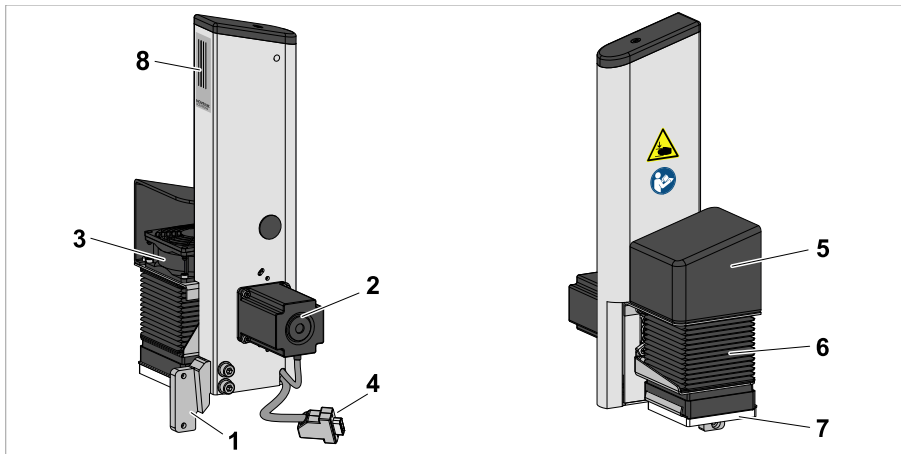


Fig. 4: Elements of the LTSA/LTMA.

Item	Description
1	Adapter plate
2	Stepper motor
3	Fan
4	Connector cable
5	Fan cover
6	Bellows
7	Pressure plate
8	Rating plate

## FUNCTIONALITY

The LTSA/LTMA waits in home position in front of the dispensing edge and draws the label onto the foam pad on its underside as soon as it has been dispensed. The vacuum necessary for this is generated by a fan.

- The pressure plate remains in front of the dispensing edge until a start signal is received.

After the start signal, the LTSA/LTMA moves its pressure plate downwards until it encounters resistance (a product), presses the label onto the product and immediately returns to the home position in front of the dispensing edge.

- Alternatively: The pressure plate immediately moves to the waiting position, which is as close as possible to the product.

After the start signal, the pressure plate only covers the remaining distance to the product. This means that less time is required for the application process. After application, the applicator plate moves back to the home position in front of the dispensing edge, picks up the next label and then moves to the waiting position.

The automatic reversing function (“Light Touch”) allows products with different heights to be labelled. Any minor unevenness in the product surface is compensated by the foam pad of the applicator. The reversing function works very quickly, so that products with sensitive surfaces can also be labeled.

[Video “Applicator LTMA”](#)

## TECHNICAL DATA

Type of material	Self-adhesive labels
Label size (W x L)	min: 30 x 30 mm max: 80 x 80 mm
Stroke	LTMA 80/200: max. 190 mm LTMA 80/400: max. 400 mm
Minimum required stroke (distance between home position and product contact)	30 mm
Application speed	max. 50 labels/minute
Product speed	max. 35 m/min
Application angle	90° ± 3°
Application direction	LTMA 80/200: Vertically (From top to bottom) or horizontally LTMA 80/400: Vertically (From top to bottom)
Application precision	± 1 mm (on non-moving products)
Application force	10 N (with 90° application angle)
Air current source	Fan
Weight	LTMA 80/200: 3.2 kg LTMA 80/400: ???
Dimensions (W x H x D)	LTMA 80/200: 218 x 391 x 120 mm LTMA 80/400: 218 x 611 x 120 mm
Noise level	< 70 dB(A)
Ambient conditions	Closed rooms Working temperature: 5-40°C Storage temperature: 0-70°C Relative humidity: 30-80%, no water condensation

! Application speed and precision depend on several conditions (e.g. label size, stroke length, print speed, waiting position) that need to be optimized to reach the described results.

A performance test is advised upfront, especially for demanding applications.

! Parameter settings are not limited to the individual positions and are related to the applicator home position.

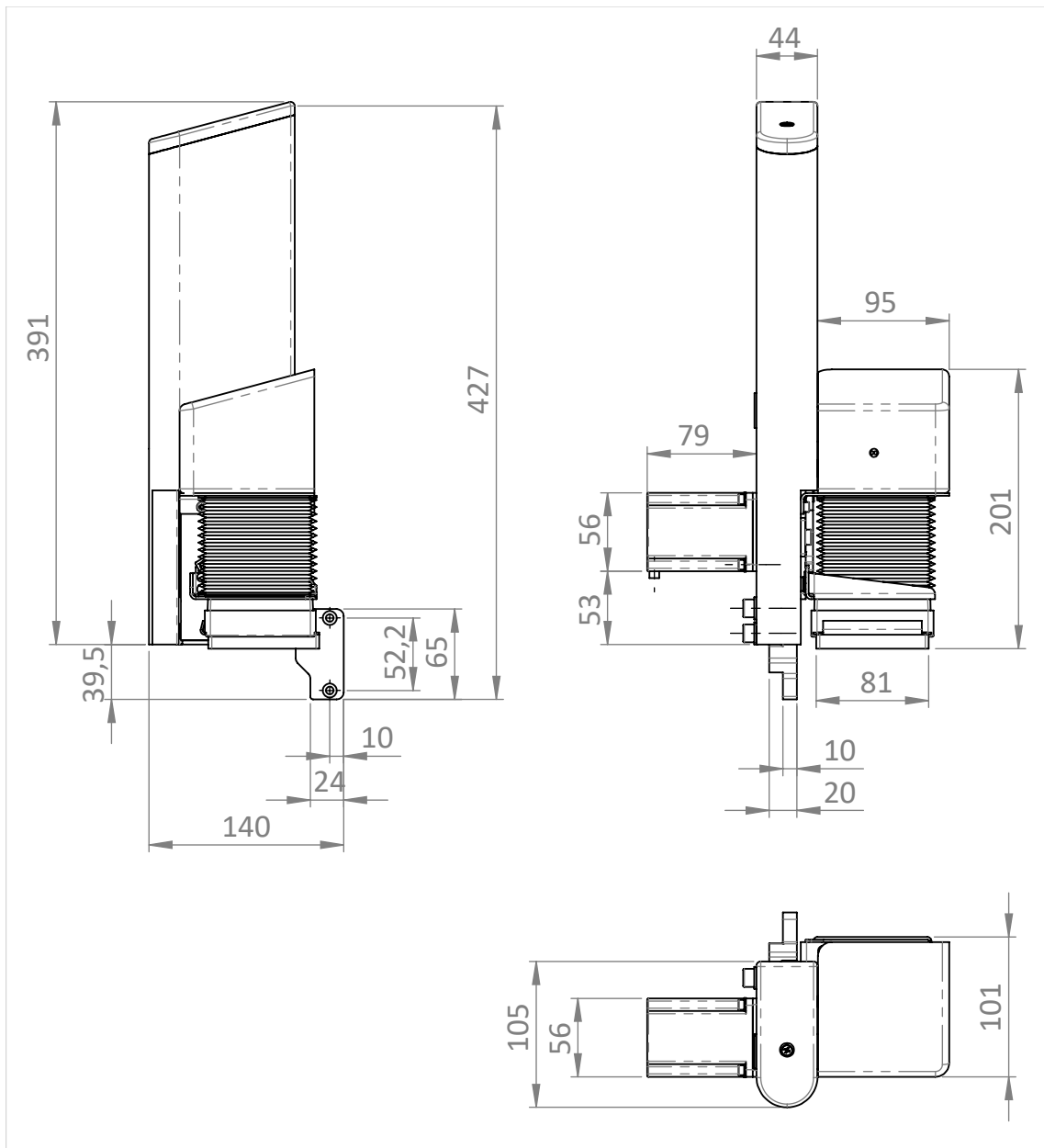


Fig. 5: Dimensions of the LTSA. (Difference LTMA: motor length = 68 mm instead of 79 mm).

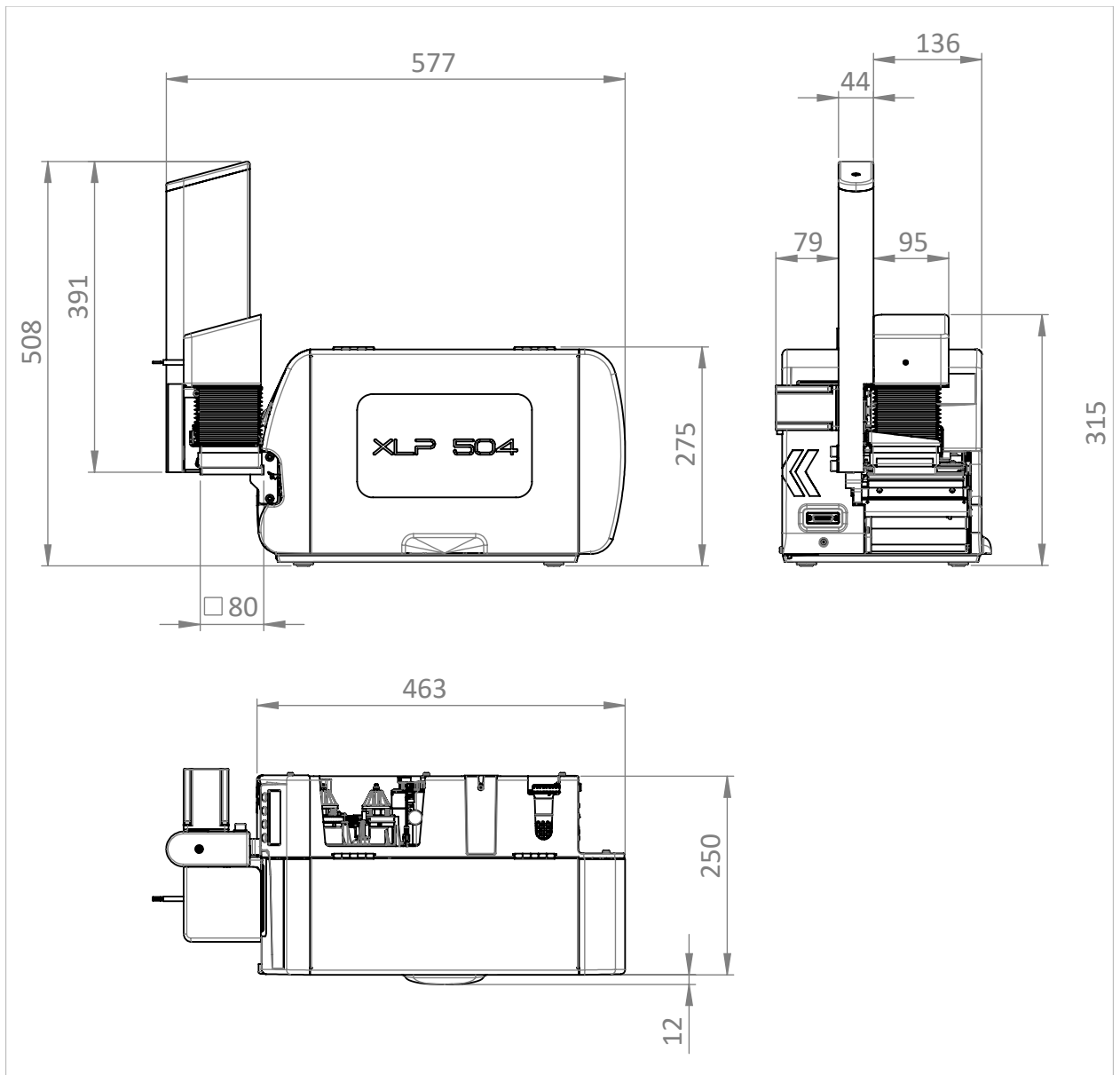


Fig. 6: Dimensions of the XLP 504 with LTSA.

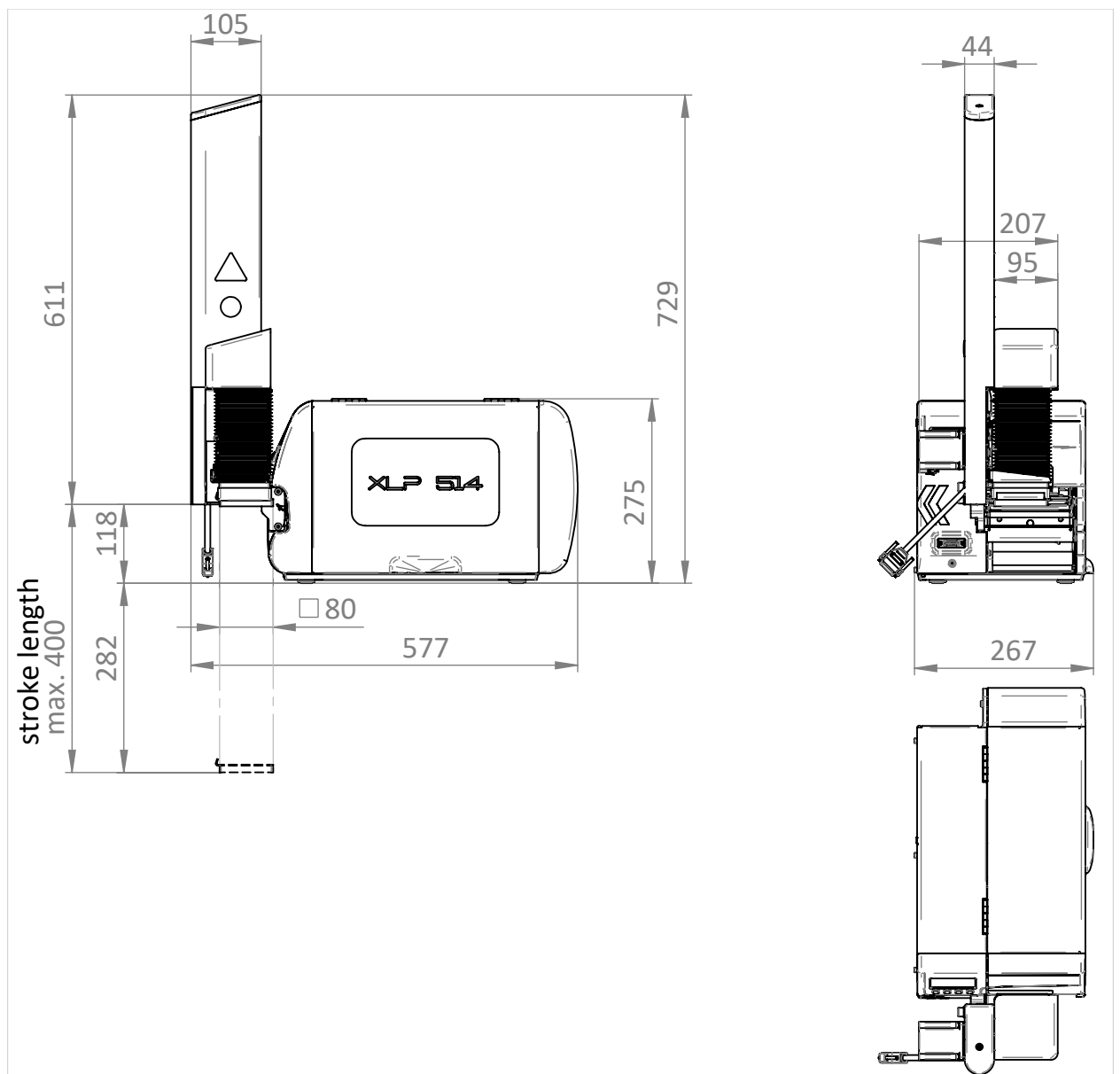


Fig. 7: Dimensions of the XLP 514 with LTMA 80/400.

## SYSTEM REQUIREMENTS XLP 504 WITH LTSA

The XLP 504 must be equipped not only with the necessary firmware version, but also with a few special parts in order to be able to be operated together with a LTSA. This “XLP 504 for LTSA” can be ordered ready for operation or retrofitted.

### Necessary firmware version

7.75

### Necessary parts

The following parts must be available for operation of a XLP 504 with LTSA:

Item	Name	Note
A	Applicator LTSA	
B	Enclosure part	
C	Dispensing edge	
D	Sub-D cable harness	Different part than in XLP 504 Peripheral
E	Internal rewinder	
F	BLDC output stage	
G	M5A output stage	Different part than in XLP 504 Peripheral; minimum required firmware version for output stage: 4.48

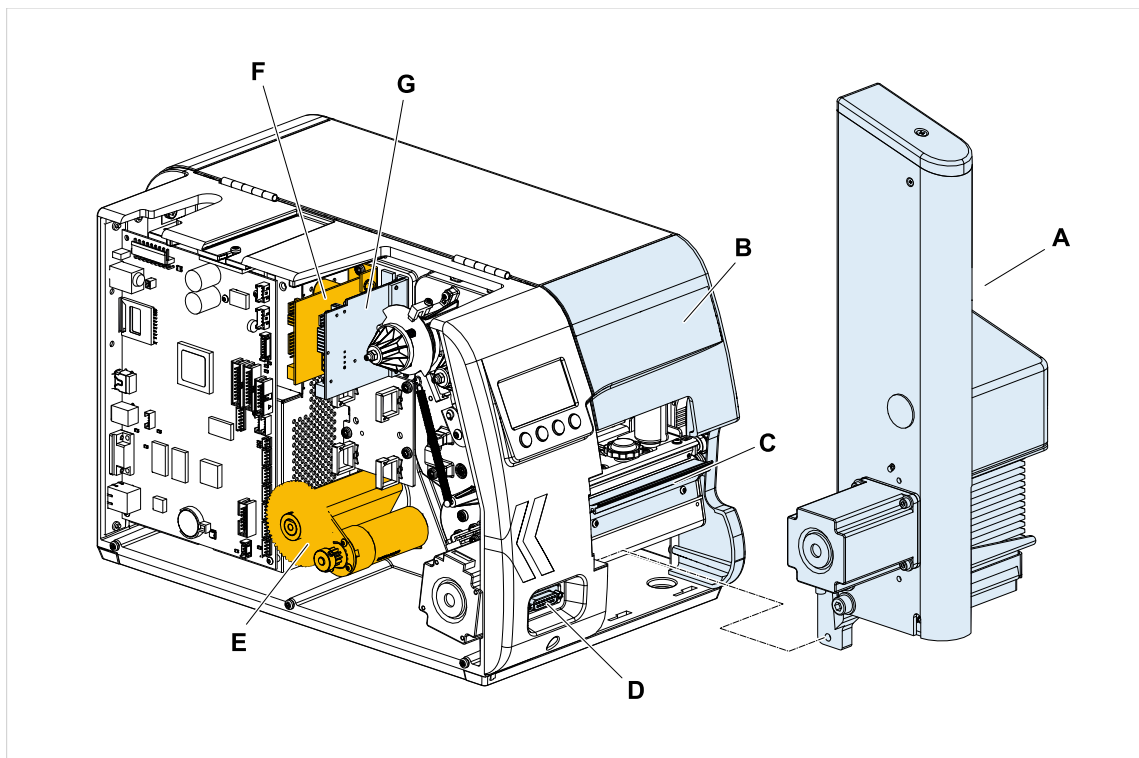


Fig. 8: The parts marked in colour are required for operation of a XLP 504 with LTSA (blue = included in retrofit kit LTSA).

### Retrofit/conversion kits for the XLP 504

(Output) printer	Rewinder retrofit kit	Conversion kit LTSA	Remaining parts
XLP 504 Basic	N100522 <sup>[1]</sup>	N101196	Enclosure part
XLP 504 Peripheral	N100524 <sup>[1]</sup>		M4A output stage, wiring harness, enclosure part
XLP 504 Basic with rewinder	--		Enclosure part
XLP 504 Peripheral with rewinder	--		M4A output stage, wiring harness, enclosure part
XLP 504 Basic with rewinder & dispenser	--		Dispensing edge, enclosure part
XLP 504 Peripheral with rewinder & dispenser	--		M4A output stage, wiring harness, dispensing edge, enclosure part

**i** The most economical solution is to retrofit a “XLP 504 basic” or “XLP 504 basic with rewinder”, as then less parts are left over after retrofitting.

<sup>1</sup> ATTENTION! - If both kits are retrofitted, install the cable harness from the “conversion kit LTSA” directly!

## SYSTEM REQUIREMENTS XLP 514 WITH LTMA

The XLP 514 must be equipped not only with the necessary firmware version, but also with a few special parts in order to be able to be operated together with a LTMA. This “XLP 514 for LTMA” can be ordered ready for operation or retrofitted.

### Required minimum firmware version

- LTMA 80/200: MAR-V3.0
- LTMA 80/400: MAR-V6.B23632

### Necessary parts

The following parts must be available for operation of a XLP 514 with LTMA:

Item	Name
A	Applicator LTMA
B	Enclosure part
C	Dispensing edge
D	Sub-D cable harness
E	Internal rewinder
F	BLDC output stage
G	Stepper motor output stage

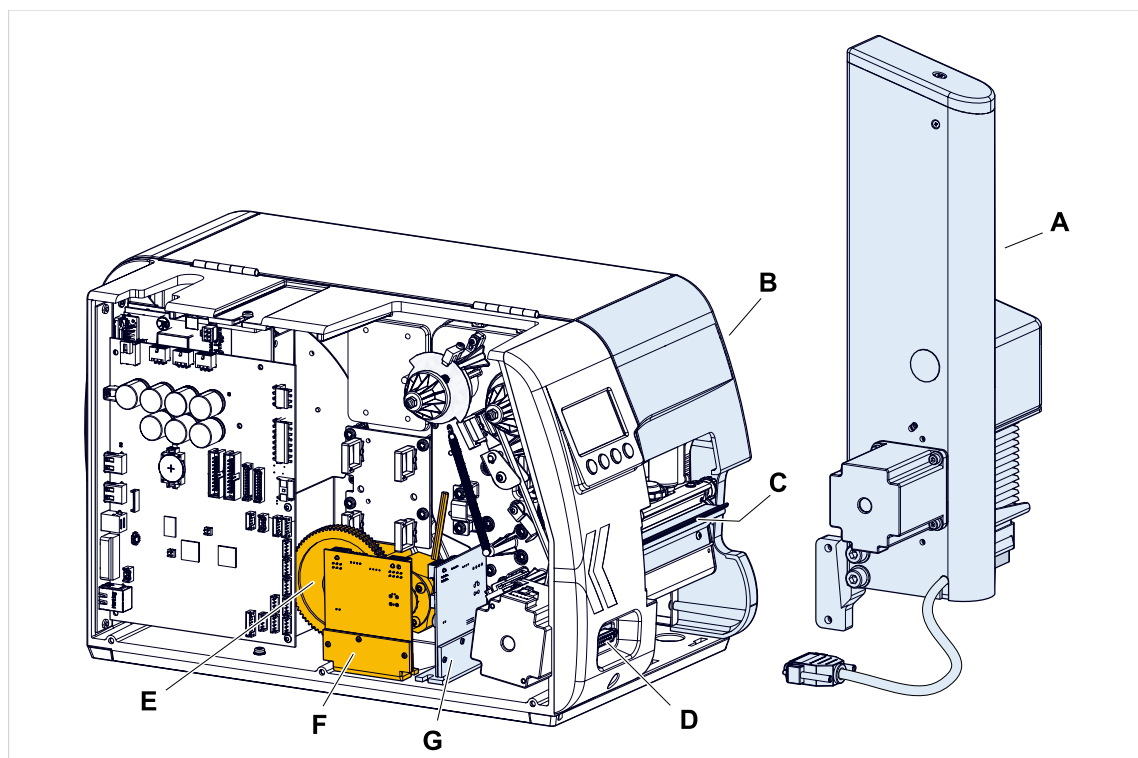


Fig. 9: The parts marked in colour are required for operation of a XLP 514 with LTMA (blue = included in retrofit kit LTMA).

### Retrofit/conversion kits for the XLP 514

(Output) printer	Rewinder retrofit kit	Conversion kit LTMA	Remaining parts
XLP 514 Basic	N102922	LTMA 80/200: N103133 LTMA 80/400: N104105	Enclosure part
XLP 514 Peripheral	N102924		Stepper motor output stage, wiring harness, enclosure part
XLP 514 Basic with rewinder	--		Enclosure part
XLP 514 Peripheral with rewinder	--		Stepper motor output stage, wiring harness, enclosure part
XLP 514 Basic with rewinder & dispenser	--		Dispensing edge, enclosure part
XLP 514 Peripheral with rewinder & dispenser	--		Stepper motor output stage, wiring harness, dispensing edge, enclosure part

**!** The most economical solution is to retrofit a XLP 514 Basic or XLP 514 Basic with rewinder, as then less parts are left over after retrofitting.

## SYSTEM REQUIREMENTS XLP 604 WITH LTMA

### Required minimum firmware version

- LTMA 80/200: BEL-V4.0
- LTMA 80/400: BEL-V7.0

### Necessary parts

The following parts must be available for operation of a XLP 604 with LTMA:

Item	Name
A	Applicator LTMA
B	Dispensing edge type A
C	Sub-D cable harness
D	Stepper motor output stage
E	BLDC output stage
F	Internal rewinder

These requirements are fulfilled by the printer version XLP 604 Peripheral with the option “Dispenser type A”.

Retrofit kit “Dispenser A” for the XLP 604 Peripheral: N103521

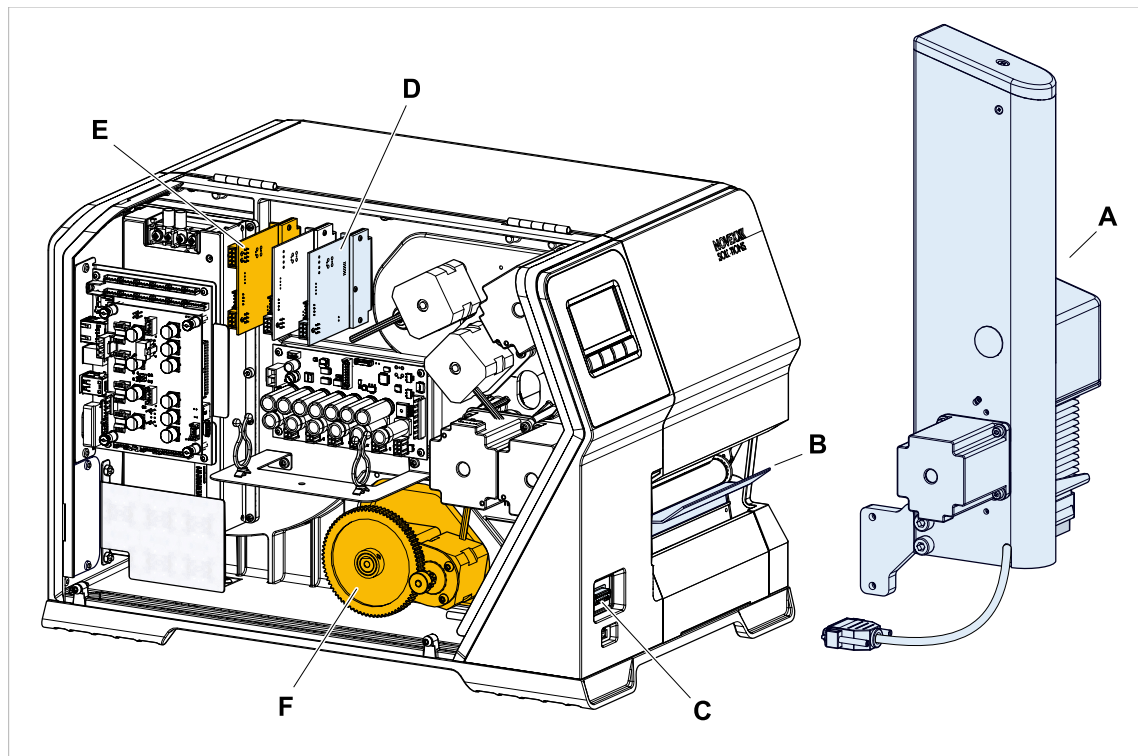


Fig. 10: The parts marked in colour are required for operation of a XLP 604 with LTMA..

# PARAMETERS

## Applicator parameters in the parameter menu

### Activating the applicator in the printer menu

- ▶ (XLP 51x/XLP 60x) Activating the LTMA: Options > Selection > Periph. device = "LTMA"
- ▶ (XLP 50x) Activating the LTSA: Options > Selection > Periph. device = "LTSA"

<b>Options</b>	
└	Selection
└	└ Periph. device

After activating the LTMA or the LTSA, the following parameters appear additionally in the menu:

<b>Options</b>	
	LTMA (or LTSA)
└	Apply mode
└	Stroke length
└	Appl. waitpos.
└	Applicator speed
└	Restart delay

## Parameter Reference (Applicators)

### Apply mode

Setting range	Default setting	Step size	Easy Plug
After start sig., After print, After custom start sig.	After start sig.	--	#PC3102

Defines, if the application process starts with applying ("After start sig.") or with printing ("After print"). Requirements: Printjob transferred, machine is ready for operation.

- *After start sig.*: The start signal triggers the application of an already printed and dispensed label. After applying the label, the next one is immediately printed and dispensed.
- *After print*: The start signal triggers the retraction under the print head, printing, dispensing and application of a label.
- *After custom start sig.*: Enables the application process to be controlled via XApps.


### Restart delay

Setting range	Default setting	Step size	Easy Plug
[0...99999] ms	0 ms	1 ms	#PC3108

Determines the length of time after application for which no start signals will be accepted.

### Stroke length

Settings	Default setting	Step size	Easy Plug
[30..400] mm	400 mm	1 mm	#PC3153

 Only with installed and activated LTMA.

#### CAUTION!

Risk of malfunction if the stroke length is set incorrectly.


▶ Set the stroke length on the LTMA 80/200 to a maximum of 190 mm.

If the applicator foot reaches the stroke length without touching a product, it returns automatically to home position and the printer shows an error message. For applications with short stroke length, the stroke length can be reduced accordingly.

### Appl. waitpos.

(Applicator waiting position)

Settings	Default setting	Step size	Easy Plug
[Off, 20..250] mm	Off	1 mm	#PC3154


 Only with installed and activated LTMA.

 Only works with the setting Options > LTMA > Apply mode = "After start sig."

- *Off* (Value < 20 mm): Waiting position *not* activated: The applicator foot waits in front of the dispensing edge (home position) for the start signal.
- Waiting position activated (value > 20 mm): After the label has been dispensed onto it, the applicator foot moves to a waiting position below the home position. Advantage: shorter application time due to the shorter (rest) stroke.

### Applicator speed

Settings	Default setting	Step size	Easy Plug
[80..580] mm/s	350 mm/s	1 mm/s	#PC3155

 Only with installed and activated LTMA.

Setting of the speed, with which the applicator foot approaches the product.

# Commissioning

## XLP 504: INSTALLING CONVERSION KIT LTSA

Describes how a XLP 504 Basic with rewinder is converted into a XLP 504 for LTSA by installing the "conversion kit LTSA".



### WARNING!

This machine operates at mains voltage. Contacting electrically live components can cause lethal electrical shocks and burns!

- ▶ Only authorised technicians who are familiar with the associated hazards are permitted to carry out conversion work on the printer!
- ▶ After assembly, check the machine according to the applicable regulations of the relevant country (for Germany: DIN VDE 701-702 "Recurrent test and test after repair and modification of electrical equipment").

### Before you begin

*Printer:* XLP 504 Basic with rewinder

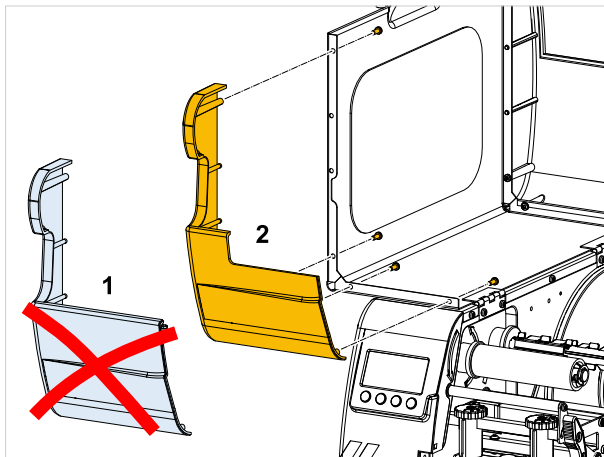
*Conversion kit* LTSA (N101196)

*Tools:*

- Torx screwdriver T10, T20
- Open-ended spanner, size 5

### Procedure

1. Replace enclosure part (1) with enclosure part (2).  
(4 screws Torx DG 40 x 10)

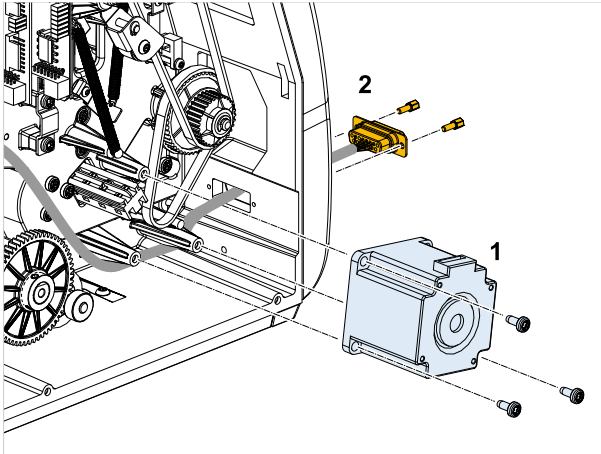


**2. Replace sub-D cable harness:**

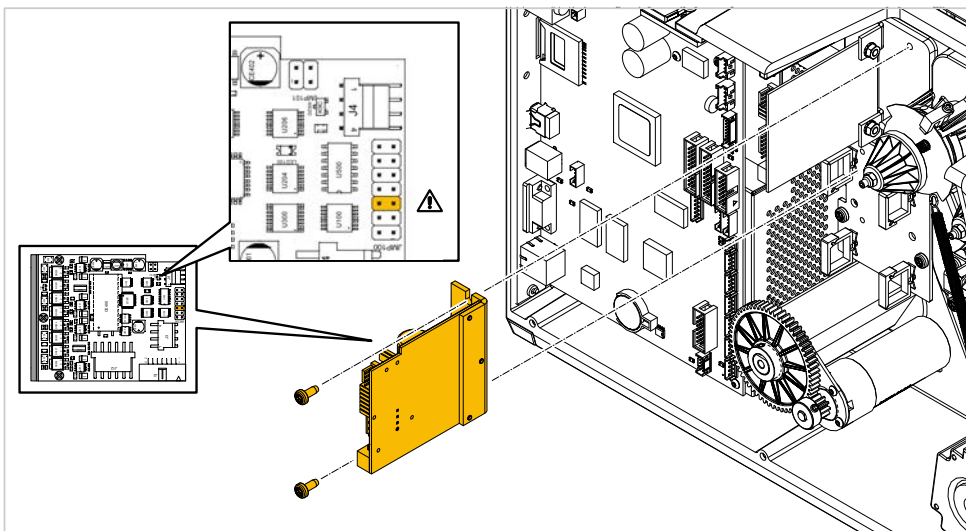
! This step is only necessary if the right cable harness (N101134) was not already installed during retrofitting of the rewinder.

- a) Remove the motor (1).
- b) Replace sub-D cable harness (2).
- c) Install the motor.

For further details, see Service manual XLP 50x, chapter "Service mechanics" > "Internal rewinder / dispenser" > "Retrofitting the internal rewinder" > "Installing the cable harness".

**3. Install output stage board M5A.  
(2 screws Torx DG 40 x 10)**

! Make sure that the jumper is in the correct position (see ill.).

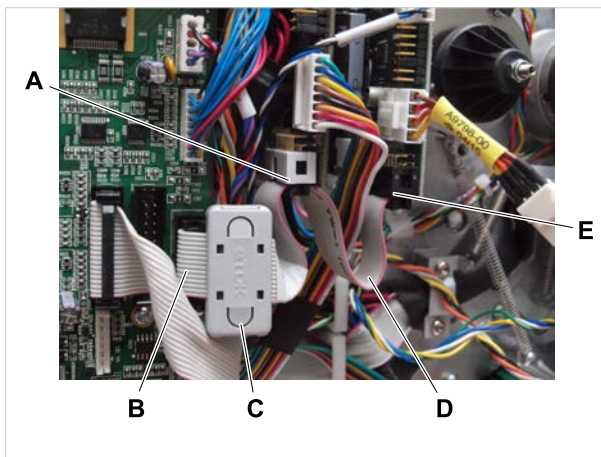


4. Connect sub-D cable harness to the output stage board M5A as shown in the table:

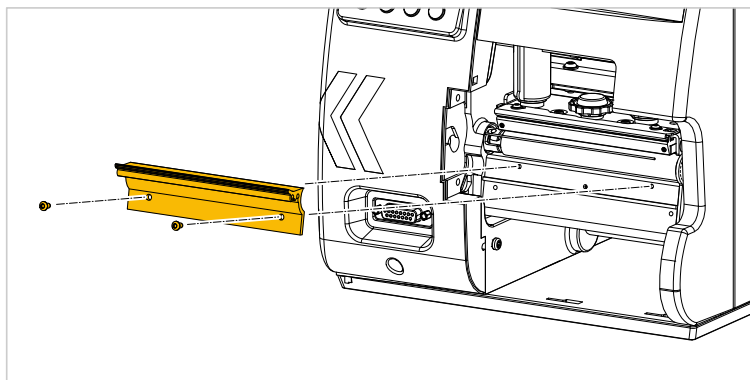
Connect cable with mark	to connector	on printed circuit board
motor	J3 motor	M5A output stage
sensor 1	J4 sensor 1	
aux	CN910 aux	CPU Board
power	CN1202	

For further details, see Service manual XLP 50x, chapter “Appendix” > “Wiring diagrams” > “XLP 504 peripheral”.

5. Connect ribbon cable (D) to CPU board (B, CN602) and the two output stages (A, E). Fit hinged ferrite core (C) to the cable as illustrated.



6. Installing the dispensing edge.  
(2 screws Torx M3 x 6)



7. Close the printer enclosure again.

## XLP 514: INSTALLING CONVERSION KIT LTMA

Describes how a XLP 504 Basic with rewinder is converted into a XLP 514 for LTMA by installing the "conversion kit LTMA".



### WARNING!

This machine operates at mains voltage. Contacting electrically live components can cause lethal electrical shocks and burns!

- ▶ Only authorised technicians who are familiar with the associated hazards are permitted to carry out conversion work on the printer!
- ▶ After assembly, check the machine according to the applicable regulations of the relevant country (for Germany: DIN VDE 701-702 "Recurrent test and test after repair and modification of electrical equipment").

### Before you begin

*Printer:* XLP 514 Basic with rewinder

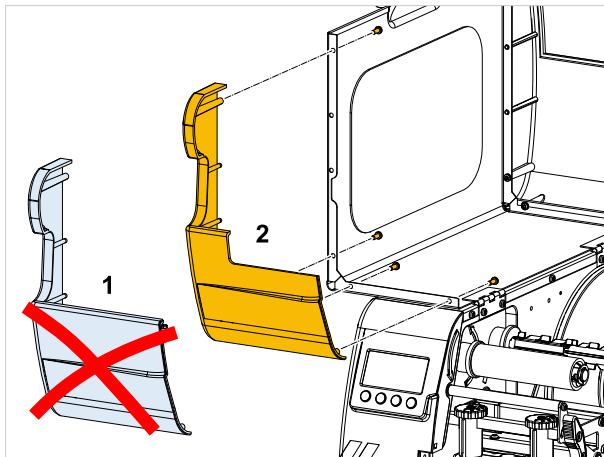
*Conversion kit* LTMA (LTMA 80/200: N103133, LTMA 80/400: N104105)

*Tools:*

- Torx screwdriver T10, T20
- Open-ended spanner, size 5

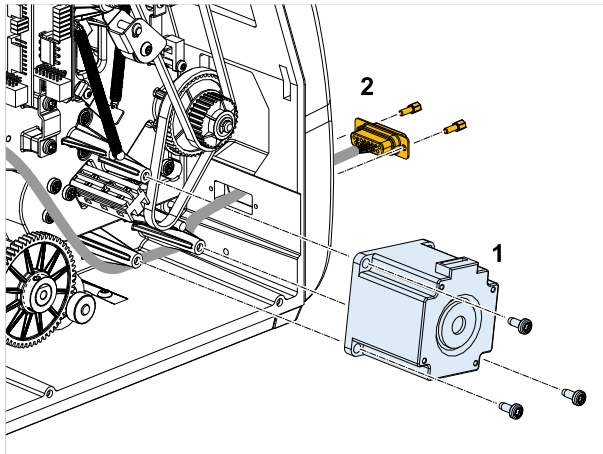
### Procedure

1. Replace enclosure part (1) with enclosure part (2).  
(4 screws Torx DG 40 x 10)

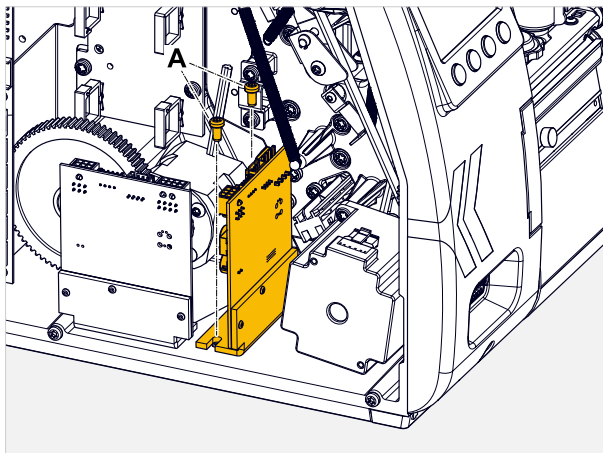


2. (Optional) Install sub-D cable harness (if not yet done):
  - a) Remove the motor (1).
  - b) Replace sub-D cable harness (2).
  - c) Install the motor.

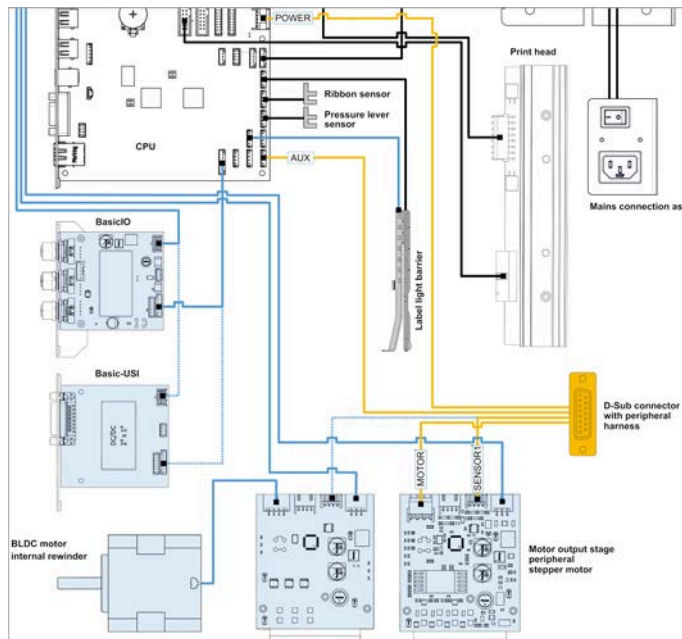
**!** For further details, see Service manual XLP 51x, chapter "Appendix" > "Internal rewinder / dispenser" > "Retrofitting from Basic to Peripheral".



3. Screw the stepper motor output stage board to the printer base with the supplied screws (A, 2x M4x8) as shown.

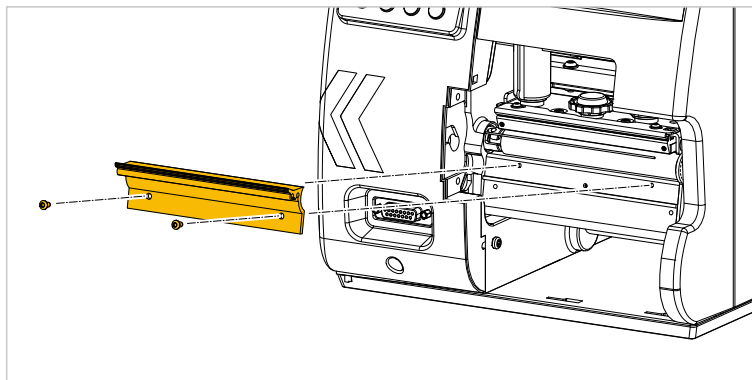


4. Connect sub-D cable harness according to the illustration:



! For a complete wiring diagram, see Service manual XLP 51x, chapter “Electronics Description” > “Wiring diagram”.

5. Install the dispensing edge.  
(2 screws Torx M3 x 6)



6. Close the printer enclosure again.

## XLP 504/XLP 514: INSTALLING LTSA/LTMA

Describes how the LTSA is installed on the “XLP 504 for LTSA” and the LTMA is installed on the “XLP 514 for LTMA”.

### Before you begin

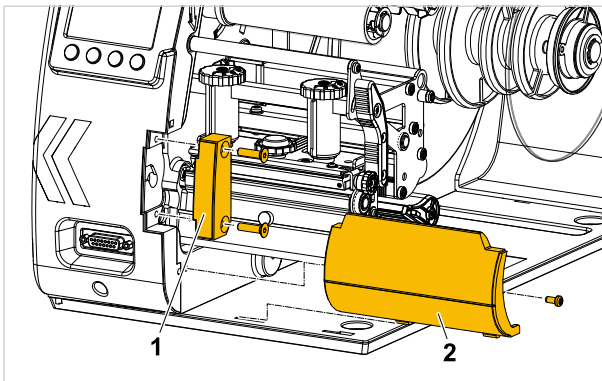
- XLP 504 for LTSA or XLP 514 for LTMA is available
- LTSA or LTMA is available

Tool:

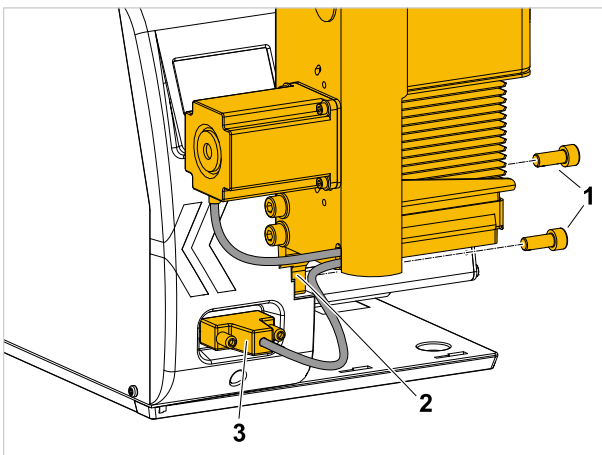
- Hex socket driver 3 mm
- Torx screwdriver Tx20

### Procedure

1. (Optional) If present, unscrew cover (1) of the mounting flange.
2. (Optional) If present, unscrew enclosure part (2) at front bottom.



3. LTSA/LTMA bolt with adapter plate (2) to the flange of the printer.  
Use the enclosed 2 screws M5 x 16.



4. Connect sub-D connector (3) to the printer.

## XLP 604: INSTALLING LTMA

Describes how the LTMA is installed on the XLP 604 Dispenser.

### Before you begin

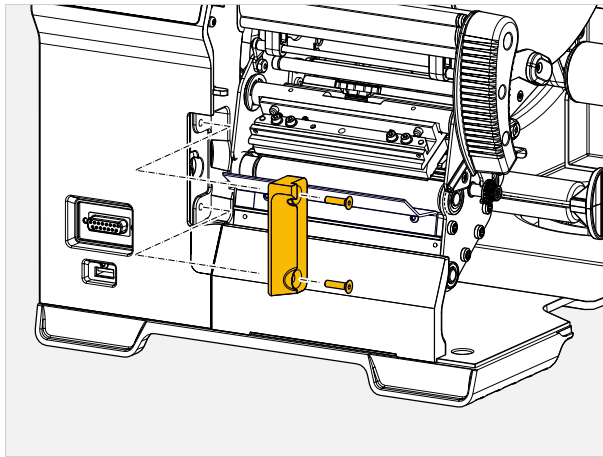
- XLP 604 Dispenser A is available
- LTMA is available

Tool:

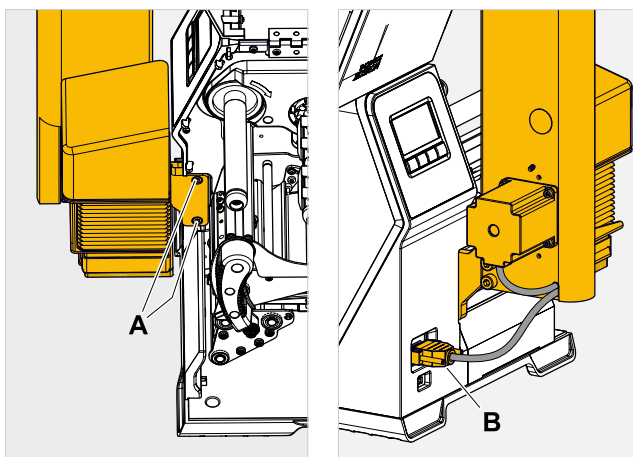
- Hex socket driver 3 mm

### Procedure

1. (Optional) If present, unscrew cover of the mounting flange:



2. LTSA/LTMA bolt with adapter plate to the flange of the printer.  
Use the enclosed 2 screws M5 x 16 (A).



3. Connect the Sub-D connector (picture above, B) to the printer.

## SETTINGS IN THE PARAMETER MENU

Describes the settings necessary in the parameter menu of the printer for operation of the applicator.

XLP 504	See chapter <a href="#">Overview of parameter settings XLP 504 with LTSA</a> on page 30
XLP 514	See chapter <a href="#">Overview of parameter settings XLP 514 with LTMA</a> on page 31
XLP 604	See chapter <a href="#">Overview of parameter settings XLP 604 with LTMA</a> on page 32
All	<a href="#">Setting the dispensing position (LTSA/LTMA)</a> on page 33

### Overview of parameter settings XLP 504 with LTSA

As soon as “LTSA” is selected as peripheral device, the submenus Options > Dispenser and Options > LTSA with parameters for setting the dispensing and applicator functions are also displayed.

The submenu Options > I/O Board appears only if the optional I/O board is installed.

Submenu	Parameter	Setting	Mandatory
Options	External signal	Singlestart	X
Options > Selection	Periph. device	LTSA	X
Options > I/O Board	Start print mode <sup>[2]</sup>	“Pulse rising” or “Pulse falling”	X
Options > Dispenser	Start source	Foot switch	X
	Dispenseposition	0 mm	
	Dispense Mode	Real 1:1 mode	X
Options > LTSA	Application mode	Immediate mode	
	Apply mode	After start sig.	
	Stroke length	190 mm	
	Appl. waitpos.	0 mm	
	Applicator speed	350 mm/s	
	Restart delay	0 ms	

Table 3: List of the most important parameters for applicator operation. The parameters marked “Mandatory” must be set as shown in order that the applicator functions. The settings for the other parameters are given as recommendations and can be changed, depending on the application.

**!** Further parameters for integration of the printer into an application with product conveyor and product sensor are available in submenu “Dispenser”. In addition, the optional signal interface (I/O board) is necessary for automatic applications for the processing of external start signals.

For further information on parameter settings, refer to the Operating manual XLP 50x, chapter “Parameter menu”.

<sup>2</sup> Only with installed I/O board (option). This parameter also influences a connected foot switch.


## Overview of parameter settings XLP 514 with LTMA

As soon as “LTMA” is selected as peripheral device, the submenus Options > Dispenser and Options > LTMA with parameters for setting the dispensing and applicator functions are also displayed.

The submenu Options > Basic I/O Board appears only if the optional BasicIO board is installed.

Submenu	Parameter	Setting	Mandatory
Options	External signal	Singlestart	X
Options > Selection	Periph. device	LTMA	X
Options > Basic I/O Board	Start print mode <sup>[3]</sup>	“Pulse rising” or “Pulse falling”	X
Options > Dispenser	Start source	Foot switch	X
	Dispenseposition	0 mm	
	Dispense Mode	Real 1:1 mode	X
	Application mode	Immediate mode	
Options > LTMA	Apply mode	After start sig.	
	Stroke length	LTMA 80/200: max. 190 mm LTMA 80/400: max. 400 mm	
	Appl. waitpos.	0 mm	
	Applicator speed	350 mm/s	
	Restart delay	0 ms	

Table 4: List of the most important parameters for applicator operation. The parameters marked “Mandatory” must be set as shown in order that the applicator functions. The settings for the other parameters are given as recommendations and can be changed, depending on the application.

 Further parameters for integration of the printer into an application with product conveyor and product sensor are available in submenu “Dispenser”. In addition, the optional signal interface (BasicIO board) is necessary for automatic applications for the processing of external start signals.

For further information on parameter settings, refer to the Operating manual XLP 51x, chapter “Parameter menu”.

<sup>3</sup> Only with installed BasicIO board (option). This parameter also influences a connected foot switch.

## Overview of parameter settings XLP 604 with LTMA

### Activating the applicator:

- ▶ Options > Selection > Periph. device = "LTMA".

As soon as "LTMA" is selected as peripheral device, the submenus Options > Dispenser and Options > LTMA with parameters for setting the dispensing and applicator functions are also displayed.

The submenu Options > BasicIO only appears with the BasicIO board installed (option), which is a prerequisite for operating the LTMA.

- ▶ Set the parameters according to the table:

Submenu	Parameter	Setting	Mandatory	Default
Options > BasicIO > Start Sensor	Start signal	Singlestart	X	X
Options > Selection	Periph. device	LTMA	X	
Options > Dispenser > Start signal	Start print mode	"Pulse rising" or "Pulse falling"	X	X
	Start source	Foot switch	X	
	Application mode	Immediate mode		X
Options > Dispenser	Dispense Mode	Real 1:1 mode	X	X
	Dispenseposition	0 mm		
	Dispensing edge	Short	X	X
	Apply mode	After start sig.		X
Options > LTMA	Stroke length	LTMA 80/200: max. 190 mm LTMA 80/400: max. 400 mm		X
	Appl. waitpos.	0 mm		X
	Applicator speed	350 mm/s		X
	Restart delay	0 ms		X

Table 5: List of the most important parameters for applicator operation. The parameters marked "Mandatory" must be set as shown in order that the applicator functions. The settings for the other parameters are given as recommendations and can be changed, depending on the application.

**!** Further parameters for integration of the printer into an application with product conveyor and product sensor are available in submenu "Dispenser". In addition, the optional signal interface (BasicIO board) is necessary for automatic applications for the processing of external start signals.

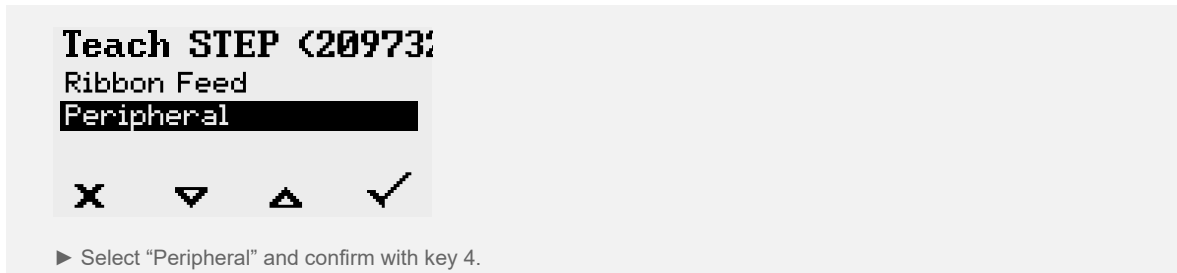
For further information on parameter settings, refer to the Operating manual XLP 60x, chapter "Parameter menu".

### Deactivating the applicator:

- ▶ Options > Selection > Periph. device = "None".

**!** XLP 60x without ribbon saving option from firmware version BEL-V6.0 onwards:

After deactivating a peripheral device (Options > Selection > Periph. device = "None"), the stepper motor output stage must be reassigned its function. The following dialog appears:



### Setting the dispensing position (LTSA/LTMA)

For operation of the LTSA/LTMA, the dispensing position should be set so that the label is just dispensed and no longer adheres to the backing material. Advancing of the backing material too far can result in threads of the adhesive pulling the label down.

Setting:

- ▶ Set parameter Options > Dispenser > Dispenseposition to the desired value.

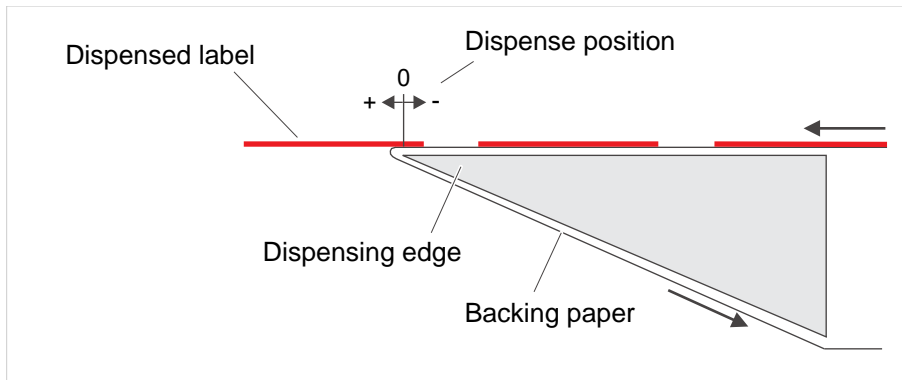


Fig. 11: Schematic view of the dispensing position.

! For further details, refer to....

- for XLP 50x: Operating manual XLP 50x or Service manual XLP 50x, chapter "Parameter menu"
- für XLP 51x: Service manual XLP 51x, chapter "Product description" > "Parameter menu".

## SETTING THE APPLICATOR HOME POSITION



### WARNING!

Risk of crushing between the applicator and dispensing edge and between the moving parts of the applicator!

- ▶ Carry out adjustments only with the printer switched off.
- ▶ Hold or fix the applicator foot in extended position, otherwise it will fly back at high speed into the home position - Risk of crushing!
- ▶ During trial operation: Keep your hands away from the applicator!

### Before you begin

- One of the 3 possible printer/applicator combinations is present:
  - XLP 504 with LTSA
  - XLP 514 with LTMA
  - XLP 604 with LTMA
- The settings have been carried out in the parameter menu of the printer (see chapter )

### About this task

In order for the labels to slide smoothly onto the applicator pressure plate after dispensing, the home position of the applicator pressure plate must be checked and adjusted, if necessary, after installation of the LTSA/LTMA. When viewed from the side, the pressure plate must be slightly above the dispensed label (distance B) and slightly ahead of the dispensing edge (distance A).

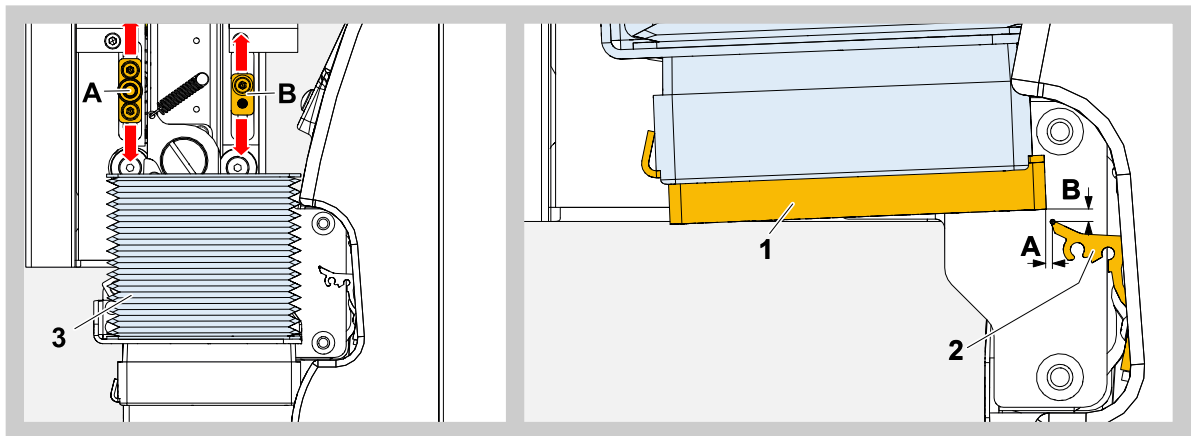



Fig. 12: Setting the home position of the pressure plate (1). A = Horizontal distance (setpoint: 1 mm), B = Vertical distance (setpoint: 0.5 mm).



Triggering the applicator without printing/dispensing: press the key below the  icon.

### Procedure

1. Switch on printer.  
After booting of the printer and initialisation of the applicator (brief up-and-down movement), the pressure plate is in home position.

2. Check the position of the pressure plate (1) relative to the dispensing edge (2). If adjustment is necessary, determine and note the necessary adjustment distance (horizontal and vertical).

*If necessary, carry out the adjustment as follows:*

3. Switch off the printer.
4. Carefully loosen the bellows (3) at the upper end (Velcro fastener).
5. Pull the applicator foot down so that the two motion links (A and B) are accessible.

**!** Hold or fix the applicator foot in extended position, otherwise it will fly back at high speed into the home position!

*Adjusting the horizontal position:*

6. Unscrew motion link (A), adjust according to the table and screw tight again.

Moving motion link A towards	--> moves the pressure plate towards
top	front (distance A becomes larger)
bottom	rear (distance A becomes smaller)

*Adjusting the vertical position:*

7. Unscrew motion link (B), adjust according to the table and screw tight again.

Moving motion link B towards	--> moves the pressure plate towards
top	top
bottom	bottom

8. Switch on printer.
9. After initialisation of the applicator, check the home position. If necessary, repeat steps 3 and 9 until the home position is correctly adjusted.

**!** In home position , the applicator must not reach the upper limit!

10. Secure the bellows again.
11. Switch on the printer and apply a test label.


# Operation / Malfunctions / Cleaning

## OPERATION


The LTSA/LTMA is ready for operation when it has been installed, connected and activated. The label dispensing process can be started from one of the following sources as soon as a print job has been transmitted and interpreted:

- Press a button on the printer operation panel
- Easy Plug immediate command (#ID) at the data interface
- Press an *optional* foot switch (connected to the printer)
- External start signal received via the *optional* signal interface (e.g. from a product sensor)

### Manual starting signal by pressing a button

1. Switch to the “Home” display.
2. Press the button under the symbol .

A label from the print job is printed, dispensed and applied.

 The last label of a print job can only be triggered by a start signal, not by pressing the apply button at the operating panel.

### Automatic start signal at the signal interface

When a start signal from an external signal source<sup>[4]</sup> is received at the signal input of the optional I/O board, a label from the print job is printed, dispensed and applied.



For further details of the connection configuration, refer to ...

- XLP 50x
  - Service manual, chapter “Service Electronics” > “I/O board” > “Signal interface” > “Wiring of signal inputs”
  - User manual, chapter “Special Applications” > “Printing with start signal”
- XLP 51x/XLP 60x
  - Service manual, chapter “Electronics Description” > “Boards” > “BasicIO”

<sup>4</sup> e. g. from the optional foot switch

## REPLACING THE PRESSURE PLATE

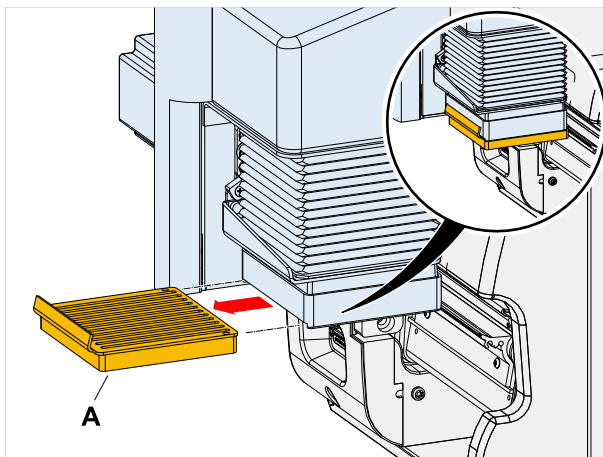
### About this task

When the foam pad on the pressure plate has become so worn that the function of the applicator is impaired, the pressure plate has to be replaced.

! Application of labels to moving products places a greater burden on the pressure plate than application to stationary products.

### Procedure

1. Switch off the printer.
2. Push pressure plate (1) forwards out of the applicator foot.



3. Insert a new pressure plate.  
Item no.: A4487

## REMEDYING MALFUNCTIONS

### Status messages

Malfunctions in the applicator generally have one of the following causes:

- The applicator is prevented from moving
- The sensors that limit the movement of the applicator are defective, soiled or not correctly connected
- The printer is not correctly adjusted

Status message	Cause	Measure
5200 Home position	The applicator has not reached its home position within the assigned time period.	<p><i>For all status messages:</i></p> <ul style="list-style-type: none"> <li>▶ Check whether the applicator can move unhindered. If necessary, remove any obstacles.</li> </ul> <p> ▶ Check whether the cable(s) is/are correctly connected.</p> <p> ▶ Check whether the sensor(s) is/are soiled.</p> <p> ▶ Check whether the sensor(s) is/are defective.</p> <p><i>For 5203 Touch down sens.:</i></p> <ul style="list-style-type: none"> <li>▶ Check, if a product was available.</li> <li>▶ Check, if the applicator has hit the product.</li> </ul>
5201 Touch down	The applicator has not reached the product (touch down position) within the set stroke length <sup>[5]</sup> .	
5203 Touch down sens.	The touchdown sensor(s) was/were already actuated before the application process.	

Table 6: Overview: Status messages possibly caused by an applicator malfunction.

<sup>5</sup> Setable by Options > LTSA > LTMA > Stroke length

# CLEANING

## Safety

**WARNING!**

Shearing movement between applicator and dispensing edge!

Risk of crushing of the fingers between applicator and dispensing edge and between the moving parts of the applicator!

- ▶ Before cleaning the applicator, switch off the printer and remove the mains plug

## Cleaning interval

- ▶ Clean the machine regularly.

The frequency depends on the following factors:

- Operating conditions
- Daily operating duration

## Cleaning

**CAUTION!**

Using sharp cleaning materials may cause damage.

- ▶ Do not use any cleaning agents or materials that could damage or destroy the paint finish, labelling, type plates, electrical component, etc.
- ▶ Do not use any scouring cleaning agents or any cleaning agents that could dissolve plastic.
- ▶ Do not use acid or alkaline solutions.

Cleaning agent:

- Compressed air, vacuum cleaner (if available)
- Methylated spirits (ethanol) or isopropyl alcohol

To perform:

- ▶ Blow off dust and abrasion with compressed air or remove using a vacuum cleaner (if compressed air or vacuum cleaner is available)
- ▶ Dampen a cloth with methylated spirits or isopropyl alcohol and wipe down the machine.

## Index of parameter names and error messages

### **A**

Appl. waitpos. [21](#)  
Applicator speed [21](#)  
Applizier-Modus [20](#)

### **R**

Restart delay [20](#)

### **S**

Stroke length [21](#)



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