

Assembly Instructions



Front-Side Applicator

3014 / 3016

2 Assembly Instructions for the following products

2

Family	Type
Front-Side Applicator	3014
	3016

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1.1 Instructions

Important information and instructions in this documentation are designated as follows:



Danger!

Draws attention to an exceptionally great, imminent danger to your health or life due to hazardous voltages.



Danger!

Draws attention to a danger with high risk which, if not avoided, may result in death or serious injury.



Warning!

Draws attention to a danger with medium risk which, if not avoided, may result in death or serious injury.



Caution!

Draws attention to a danger with low risk which, if not avoided, may result in minor or moderate injury.



Attention!

Draws attention to potential risks of property damage or loss of quality.



Note!

Advice to make work routine easier or on important steps to be carried out.



Environment!

Gives you tips on protecting the environment.



Handling instruction.



Reference to section, position, illustration number or document.



Option (accessories, peripheral equipment, special fittings).

Time

Information in the display.

1.2 Intended Use

- The device is manufactured in accordance with the current technological status and the recognized safety rules. However, danger to the life and limb of the user or third parties and/or damage to the device and other tangible assets can arise during use.
- The device may only be used for its intended purpose and if it is in perfect working order, and it must be used with regard to safety and dangers as stated in the manual.
- The device is designed to use on a cab printer of the HERMES Q and Hermes+ series. Any other use or use going beyond this shall be regarded as improper use. The manufacturer/supplier shall not be liable for damage resulting from unauthorized use; the user shall bear the risk alone.
- Usage for the intended purpose also includes complying with the manual.



Note!

The complete documentation can currently be found in the Internet.

1.3 Safety Instruction



Attention!

Initiation, adjustments and changing of parts is only for qualified service personal only.

▷ Initiation/ Service Manual Applicators.



Warning!

This is a class A product. In a domestic environment this product may cause radio interference in which case the user may be required to take adequate measures.

- Before mounting the delivered components disconnect the printer from the power supply and close the shutoff valve at the applicator.
- Only connect the device to other devices which have a protective low voltage.
- Switch off all affected devices (computer, printer, accessories) before connecting or disconnecting.
- In operation, moving parts are easily accessible.
This applies especially for the zone, where the pad is moved between the starting and the labelling position.
During operation do not reach into that zone and keep long hair, loose clothes, and jewelry distant. Before any manipulations in those areas, close the shutoff valve.
- The device may only be used in a dry environment, do not expose it to moisture (sprays of water, mists, etc.).
- Do not use the device in an explosive atmosphere.
- Do not use the device close to high-voltage power lines.
- Perform only those actions described in this manual.
Work going beyond this may only be performed by trained personnel or service technicians.
- Unauthorized interference with electronic modules or their software can cause malfunctions.
- Other unauthorized work on or modifications to the device can also endanger operational safety.
- Always have service work done in a qualified workshop, where the personnel have the technical knowledge and tools required to do the necessary work.
- There are various warning stickers on the device. They draw your attention to dangers. Warning stickers must therefore not be removed, as then you and other people cannot be aware of dangers and may be injured.

1.4 Safety Marking

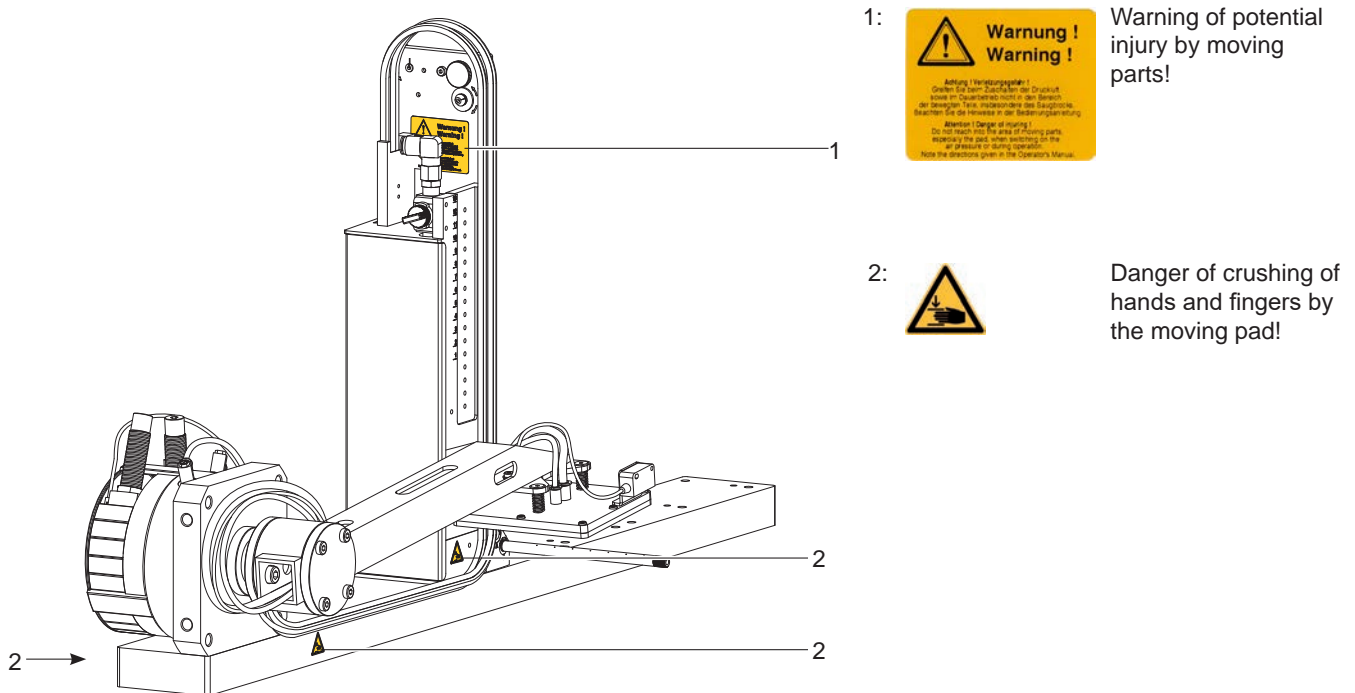


Fig. 1 Safety marking



Warning!

- Never remove or cover safety markings! Replace it in case of damage!

1.5 Environment



Obsolete devices contain valuable recyclable materials that should be sent for recycling.

- Send to suitable collection points, separately from residual waste.
The modular construction of the print module enables it to be easily disassembled into its component parts.
- Send the parts for recycling.

2.1 Important Features

- The supporting air and the vacuum as well as the speed of the cylinder are adjustable. That way the applicator can be adapted to different label materials and sizes.
- To avoid contamination within the vacuum channels they are cleaned by air pressure pulses at the end of each application.
- For operation in a system the I/O interface of the printer can be used.

2.2 Technical Data

			Tamp-on pad	Tamp-on pad, spring-mounted	Blow-on pad
Technical data			3014, 3016 L/R 1100	3014, 3016 L/R 3100	3014 L/R 2100
Label widths operating a	HERMES Q4/Q4.3	mm	25 - 114	80 - 114	25 - 114
	HERMES Q6.3	mm	25 - 174	80 - 174	-
Label heights operating a	HERMES Q4/Q4.3	mm	8 - 250	80 - 250	10 - 100
	HERMES Q6.3	mm	25 - 250	80 - 250	25 - 100
State of a package	at rest		■		
at the moment a label is applied	in motion		■		
Label applications	from the top		■		
	from the side		■		
	from the front		■		
	from the back		■		
Package heights	variable		■		
Pivot arm lengths ¹⁾	mm		200 / 300 / 400		
Pivot angles			0 - 90°		
Compressed air	bar		4.5		
Cycle rate ²⁾	labels/min approx.		15		

¹⁾ Pivot arm length defines the spot of a label (lower margin) to be reached at 90° below a HERMES Q footprint.

²⁾ calculated using a pivot arm 200 mm long, labels 100 mm high, a print speed of 100 mm/s

Table 1 Technical Data

2.3 Overview

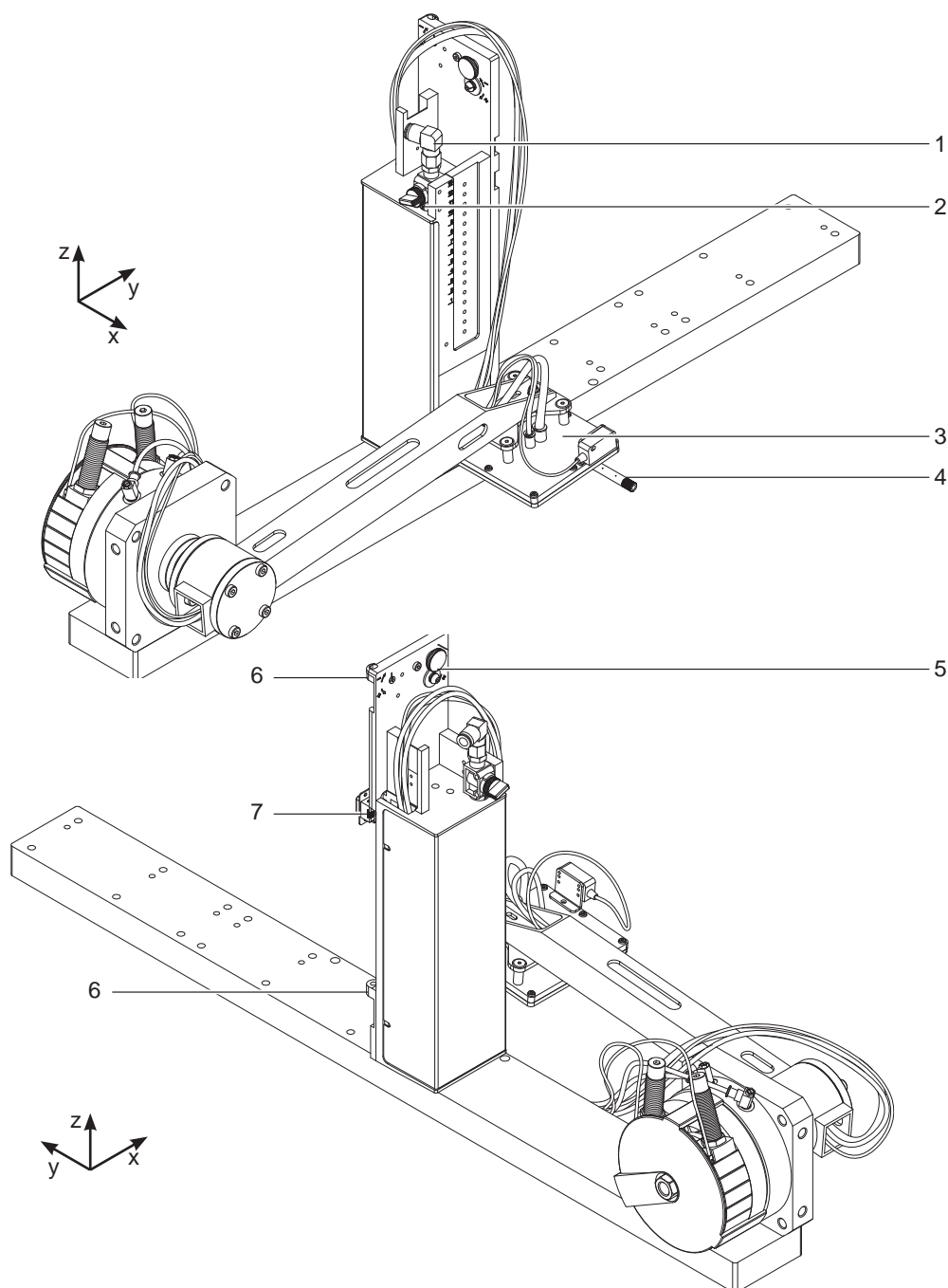


Fig. 2 Device overview

- | | |
|--------------------------------|---|
| 1 Compressed air connector | 5 Knurled screw for attaching the applicator to the printer |
| 2 Shutoff valve | 6 Hinges |
| 3 Pad (customized) | 7 SUB-D 15 Interface to the printer |
| 4 Blow tube for supporting air | |

3.1 Mounting the applicator parts on the printer

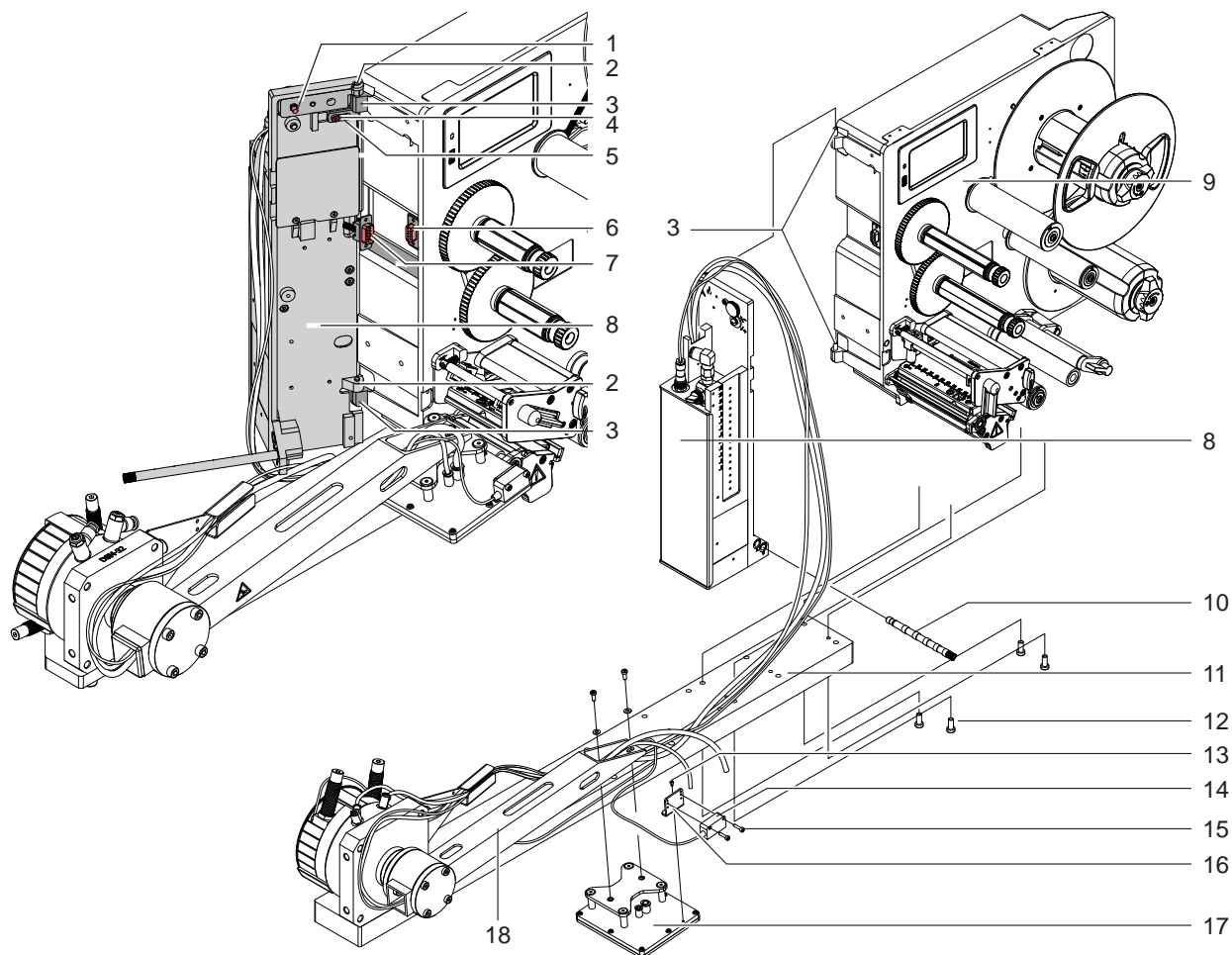


Fig. 3 Mounting Applicator - Printer



Note!

In case of order a complete / configured system will be mounted some parts. Several steps of mounting dropped. Particularly pad and product sensor.

1. Hang on the control assembly (8) with the female part of hinges (2) at the printer mounted hinges (3).
2. Connect SUB-D 15 male connector (7) to the female connector (6) of the printer.
3. To secure the applicator against slipping out of hinges loosen screw (5) and move metal part (4) under the hinges and tighten screw (5).
4. Swing the applicator to the printer and tighten the thumbscrew (1).
5. Set the base plate with swing cylinder (11) on the bottom side of the printer (9). The holes on the base plate must be over the holes in the printer chassis. Tighten the screws (12) to mount the base plate (1) on the printer (9).
6. Mount the pad (17) with the screws (part of the pad assembly) on the swing lever (18) of the applicator.
7. Mount the sensor bracket (16) with screws (13) on pad (17).
8. Mount product sensor (14) with screws (15) M3x16 on the sensor bracket (16).
9. Mount blow tube (10). ▷ next chapter

3.2 Mounting the blow tube

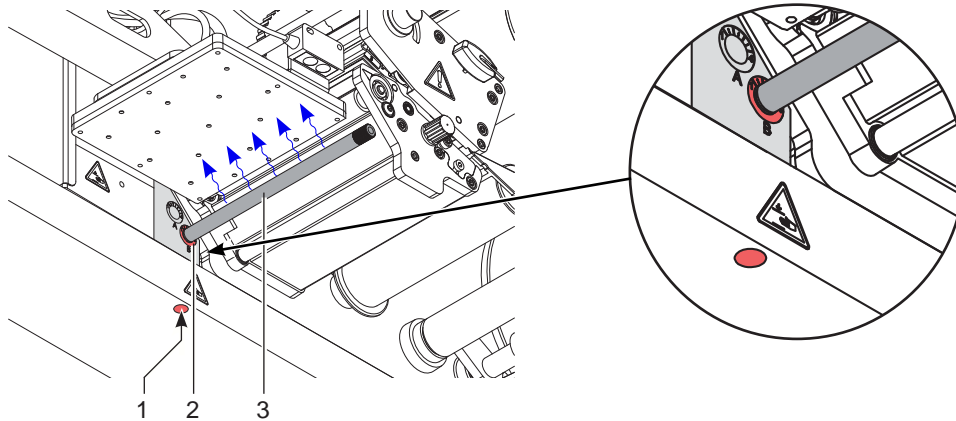


Fig. 4 Mounting the blow tube

It is possible to rotate the blow tube to optimize the support with the support air for the take over procedure of the label from printer to applicator.

1. Loosen screw (1).
2. Put in the blow tube (3) into the hole A (2).
3. Tighten screw (1) easily to secure it.

3.3 Connecting the Compressed Air

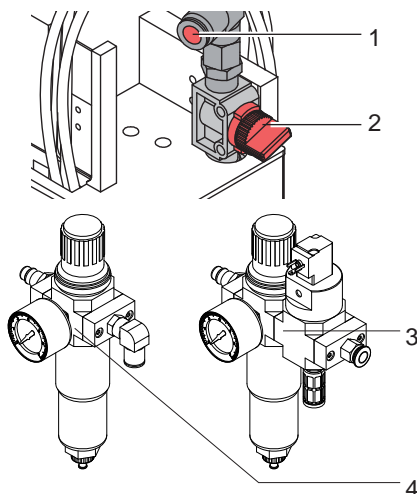
**Attention!**

Adjustments and function control was made with a compressed air value of 4.5 bar. The applicator operating range is between 4.0 and 6.0 bar.

**Warning!**

When the applicator is connected to the compressed air cylinder movements are possible.

► Do not reach into the zone of the moving pad and keep long hair, loose clothes, and jewelry distant.



- 1 Check that the stop valve (2) is closed shown in figure 11.
2. Attach compressed air at the fitting (1).
3. Open the stop valve (2) .
4. Switch on the printer by the power switch.

It is possible to use a air pressure regulation unit

Air pressure regulation unit with included magnetic valve (3)

Controlling via printer

► Interface description of the printer

Air pressure regulation unit (4)

Fig. 5 Compressed air connection

**Note!**

If the pad is not in the start position when the printer is switched on an error message appears on the display.

Press button pause at the printer.

The applicator will move into the start position and is ready for work.

**Note!**

Mount and use the air pressure regulation unit only in the shown orientation. Otherwise the function of the air-water separator can not be guaranteed.

4.1 Standard Operation

- ▶ Check all external connections.
- ▶ Load the material. Ensure that the locking system is locked ▷ "Operator's Manual" of the printer.
- ▶ Open the shutoff valve.



Attention!

- ▶ Ensure that the pad is not covered by a label when switching on the printer-applicator system. Otherwise the vacuum sensor may be calibrated faultily.

- ▶ Switch on the printer.




Note!

In case the pad is outside the start position in the moment of switching on it will interrupted the procedure and give notice an error message on the display of the printer.


If you push the button pause on the printer is receipt the error and the applicator will move into the start position.

The Applicator is ready for work.

- ▶ Press the  respectively **feed** at the printer.
A synchronization feed is released. The processed labels have to be removed manually. After a few seconds the printer carries out a short backfeed to position the front edge of the next label at the printing line.



Note!

This synchronizing also has to be carried out when the print job has been interrupted with the  respectively cancel key.

Synchronizing is not necessary when the print head was not lifted between print jobs. This also applies if the printer was powered off between print jobs.

- ▶ Start a print job
- ▶ Start the labelling process via PLC interface.

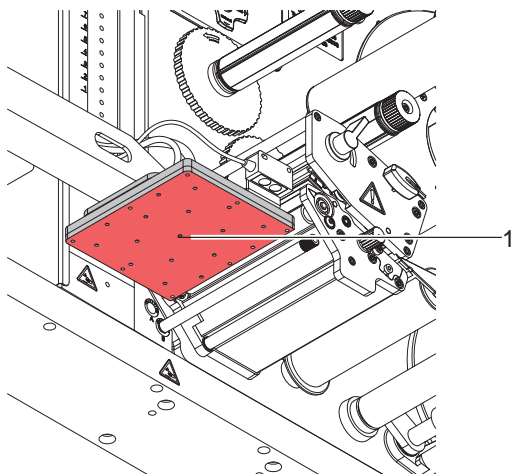
Error messages during labelling process are shown in the display of the printer ▷ Error Messages.

4.2 Cleaning



Attention!

Never use solvent and abrasive.



- ▶ Clean the outside surfaces with multi purpose cleaner.
- ▶ In regularly function it's possible that accrue dust particles and label splits. Remove that by a soft brush or/and a vacuum cleaner.
- ▶ Especially at slide foil (1) it's possible that fouling deposit. To receive an ideal takeover and handling of the label it's necessary to clean the surface of slide foil at regular intervals.

Fig. 6


Cleaning pad with slide foil

5.1 Error Messages of the Printer

For detailed information about printer errors (e.g. 'Paper out', 'Ribbon out', etc.) ▷ Check the operator's manual of the printer.

Error treatment:

- Clearing the error results.

- Press the  respectively **feed** to synchronize the label feed, remove the left over labels manually.

To quit the error state press *Repeat* (HERMES Q) respectively the **pause** key (Hermes +).

After error correction, the label causing the error will be reprinted.

5.2 Error messages of the applicator

The following table contains an overview of error messages and their possible causes. It also suggests methods to resolve the problem :

Error Message	Possible Cause
<i>Air pressure error</i>	Compressed air is switched off
<i>Air pressure ins. (Hermes+)</i>	Pressure to low < 4 bar
	Pressure to high > 6 bar
<i>Label not depos.</i>	Label has not been placed onto the product; after the pad has moved back the label still sticks on the pad
<i>Upper position not reached</i>	Pad is not in start position if the printer switched on
<i>Upper position (Hermes+)</i>	Pad has not reached the home position within 2s after the movement of the pad was started
	Pad has undefined leaving the start position
<i>External error</i>	Process of labeling was braked via the I/O interface of the printer with the XSTP signal
<i>Process Error (Hermes+)</i>	
<i>Upper position not left</i>	There has been no change of the switch state at the upper sensor at the cylinder between the start of the labelling process and the signal from the labelling position sensor
<i>Refl. sensor blk. (Hermes+)</i>	
<i>Vac. plate empty</i>	Label has not been picked up properly by the pad; or label fell off the pad before it could be placed onto the product
<i>Lower position not reached</i>	Pad has not reached the starting position within 2s after the pad has left the labelling position; or pad has left the starting position unauthorized
<i>Lower position (Hermes+)</i>	

Table 2 Error messages of the applicator

Error treatment:

- Clear the error state.
- In order to clear the error state press **continue**, **repeat** or **cancel**.
 - Continue* with the next label in the printing queue.
 - Repeat* respectively the **pause** and enter ↵ key repeat the print of the label causing the error. Only applicable with error *Vac. plate empty*.
 - Cancel* the current print job.




Warning!

The pad and swing arm will immediately be moved in the starting position!

Danger of crushing to hand and fingers by the moving parts!

- Do not reach into the area of the moving pad and keep long hair, loose clothes, and jewelry away.

Reprinting a label, interrupted by an error, is not possible without a new printing job.

- In the mode "apply/print" before the standard cyclic operation can commence the signal "print first label" must be sent or push  respectively the enter ↵ key to send a printed label to the pad.

6.1 Declaration of Incorporation




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GmbH & Co KG
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Germany

Declaration of Incorporation

We declare herewith that the following „partly completed machinery“ as a result of design, construction and the version put in circulation complies with the essential requirements of the **Directive 2006/42/EC on machinery**:

Annex I, Article 1.1.2, 1.1.3, 1.1.5, 1.1.6, 1.2.1, 1.3.2, 1.5.2, 1.5.8, 1.6.3, 1.7

In the event of any alteration which has not been approved by us being made to any device as designated below, this statement shall thereby be made invalid.

Device:	Applicator
Type:	3014, 3016
Applied EU Regulations:	Applied Standards
Directive 2006/42/EC on machinery:	<ul style="list-style-type: none"> • EN ISO 12100:2010 • EN ISO 13849-1:2015 • EN 60950-1:2006 +A11:2009+A12:2011+A1:2010+A2:2013
Person authorised to compile the technical file:	Erwin Fascher Am Unterwege 18/20 99610 Sömmerda
Signed for, and on behalf of the Manufacturer:	Sömmerda, 08.07.2019
cab Produkttechnik Sömmerda Gesellschaft für Computer- und Automationsbausteine mbH 99610 Sömmerda	 Erwin Fascher Managing Director

The product must not be put into service until the final machinery into which it is to be incorporated has been declared in conformity with the provisions of the Directive on machinery.

The documents according annex VII part B from the incomplete machinery are created and will commit to state agencies on request in electronic kinds.


6.2 EU Declaration of Conformity



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EU Declaration of Conformity

We declare herewith that as a result of the manner in which the device designated below was designed, the type of construction and the devices which, as a result have been brought on to the general market comply with the relevant fundamental regulations of the EU Rules for Safety and Health. In the event of any alteration which has not been approved by us being made to any device as designated below, this statement shall thereby be made invalid.

Device:	Applicator
Type:	3014, 3016
Applied EU Regulations:	Applied Standards
Directive 2014/30/EU relating to electromagnetic compatibility:	<ul style="list-style-type: none"> • EN 55032:2012 • EN 55024:2010 • EN 61000-6-2:2005
Directive 2011/65/EU on the restriction of the use of certain hazardous substances in electrical and electronic equipment:	<ul style="list-style-type: none"> • EN 50581:2012
Commission delegated directive (EU) 2015/863 amending Annex II to Directive 2011/65/EU of the European Parliament and of the Council as regards the list of restricted substances	
Signed for, and on behalf of the Manufacturer:	Sömmerda, 08.07.2019
cab Produkttechnik Sömmerda Gesellschaft für Computer- und Automationsbausteine mbH 99610 Sömmerda	 Erwin Fascher Managing Director