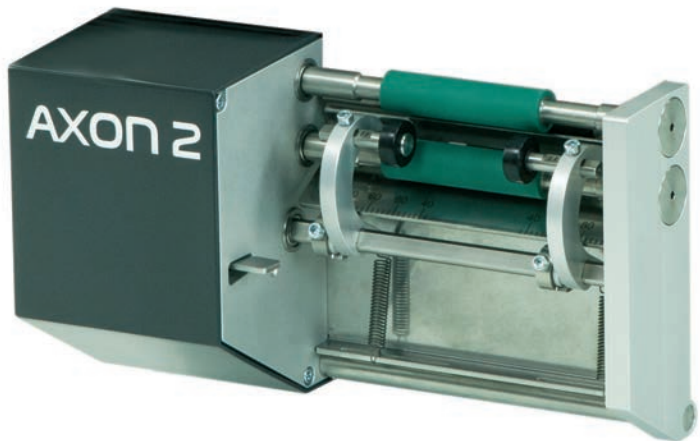


Assembly Instructions



Tube Applicator **AXON 2**

Edition: 04/2024 - **Part No.** 9003458

Copyright

This documentation as well as translation hereof are property of cab Produkttechnik GmbH & Co. KG.

The replication, conversion, duplication or divulgement of the whole manual or parts of it for other intentions than its original intended purpose demand the previous written authorization by cab.

Editor

Regarding questions or comments please contact cab Produkttechnik GmbH & Co. KG.

Topicality

Due to the constant further development of our products discrepancies between documentation and product can occur.

Please check www.cab.de for the latest update.

Terms and conditions

Deliveries and performances are effected under the General conditions of sale of cab.

Germany
**cab Produkttechnik
GmbH & Co KG**
Karlsruhe
Phone +49 721 6626 0
www.cab.de

USA
cab Technology, Inc.
Chelmsford, MA
Phone +1 978 250 8321
www.cab.de/us

Taiwan
cab Technology Co., Ltd.
Taipei
Phone +886 (02) 8227 3966
www.cab.de/tw

Singapore
cab Singapore Pte. Ltd.
Singapore
Phone +65 6931 9099
www.cab.de/en

France
cab Technologies S.à.r.l.
Niedermodern
Phone +33 388 722501
www.cab.de/fr

Mexico
cab Technology, Inc.
Juárez
Phone +52 656 682 4301
www.cab.de/es

China
cab (Shanghai) Trading Co., Ltd.
Shanghai
Phone +86 (021) 6236 3161
www.cab.de/cn

South Africa
cab Technology (Pty) Ltd.
Randburg
Phone +27 11 886 3580
www.cab.de/za

1	Introduction	4
1.1	Instructions	4
1.2	Intended Use	5
1.3	Safety Instructions	5
1.4	Environment.....	6
2	Mounting.....	7
2.1	Removing the Cover	7
2.2	Replacing the Print Roller	7
2.3	Replacing the Dispense Plate.....	8
2.4	Mounting the Applicator	8
2.5	Mounting the Tray	9
3	Settings.....	10
3.1	Adjusting the Swing Arms	11
3.2	Adjusting the Pressure Rollers	12
3.3	Adjusting the Transport Rollers.....	12
3.4	Printer Configuration	13
4	Operation	14
4.1	Preparation	14
4.2	Standard Operation	15
5	Fault Correction	16
6	Licenses	17
6.1	Declaration of Incorporation.....	17
6.2	EU Declaration of Conformity	18

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 possible dangers, material damage or loss of quality.

**Note!**

Gives you tips. They make a working sequence easier or draw attention to important working processes.

**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 intended exclusively as an option for SQUIX 4MP printers for applying labels onto tubes. 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 that manual.
- 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 that manual.

**Note!**

All documentations can also currently be found in the Internet.

**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.

1.3 Safety Instructions

- Disconnect the printer from the electrical outlet before mounting or removing the applicator.
- The applicator may only be operated when it is mounted on the printer.
- 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.

1.4 Environment



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

- ▶ Send to suitable collection points, separately from residual waste.

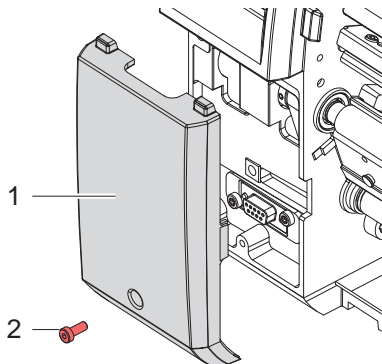
The modular construction of the device enables it to be easily disassembled into its component parts.

- ▶ Send the parts for recycling.
- ▶ Take the electronic circuit boards to public waste disposal centers or to the distributor.

**Attention!**

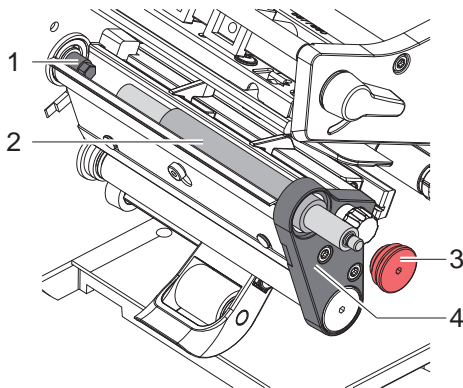
- Disconnect the printer from the electrical outlet before mounting or removing the applicator.

2.1 Removing the Cover



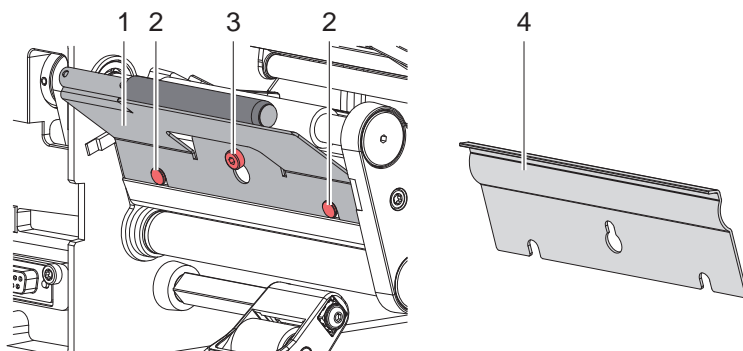
- Loosen screw (2) and remove cover (1).

2.2 Replacing the Print Roller



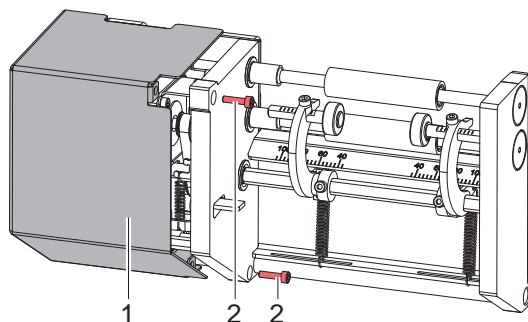
- Turn the roller bearing (3) with the 2.5 mm Allen key out of the side plate (4).
- Pull the original print roller (6) from the shaft (1) through the side plate (4).
- Insert the new roller (2) and slide it onto the shaft(1). Turn the roller slightly until the hexagonal shaft engages the hexagonal socket of the roller.
- Put the roller bearing (3) onto the axle of the roller and screw it into the side plate (4).

2.3 Replacing the Dispense Plate

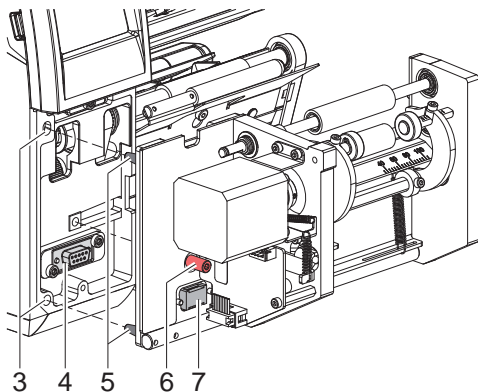


- ▶ Loosen the screw (3) several turns.
- ▶ Slide the original dispense plate (4) upwards and remove it.
- ▶ Place dispense plate of the applicator (1) onto the screw (3) and slide it downwards behind the pins (2).
- ▶ Tighten the screw (3).

2.4 Mounting the Applicator

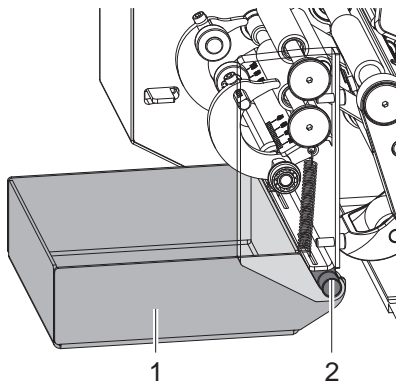


- ▶ Loosen two screws (2) and remove the cover (1).

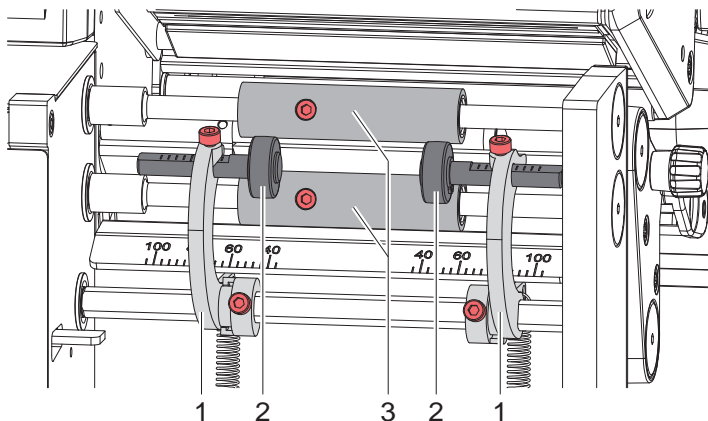


- ▶ Insert the pins (5) of the applicator into the holes (3) of the printer.
- ▶ Press the applicator against the printer. That way the plug (7) will be connected to the peripheral port (4) of the printer.
- ▶ Secure the applicator with the screw (6).
- ▶ Mount the cover of the applicator.

2.5 Mounting the Tray



- ▶ Push the tray (1) under the applicator and fit it at the axle (2).

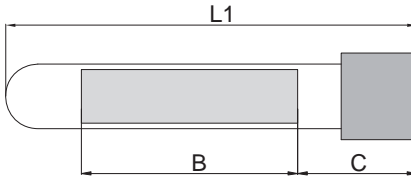


The applicator can be adjusted as follows:

- Adjusting the swing arms (1) to adapt the applicator to the length of the tube and the positioning of the label ▷ 3.1 on page 11
- Adjusting the pressure rollers (2) for guiding the cap or thread of the tube ▷ 3.2 on page 12
- Adjusting the transport rollers (3) for guiding the cap or thread of the tube ▷ 3.3 on page 12
- Teaching the applicator to the tube diameter ▷ 3.4 on page 13
- Setting further labelling parameters ▷ 3.4 on page 13

3.1 Adjusting the Swing Arms

The positioning of the swing arms is depending on the following dimensions:



- L1 - Length of the tube
- B - Width of the label
- C - Distance of the label to the upper edge of the tube

On the applicator there is a scale (1) to position the swing arms.

- If dimension C is not defined the edges P1 and P2 can be set to the value L1.
- If dimension C is defined both swing arm must be displaced by the value $V = 2 \cdot C + B - L1$

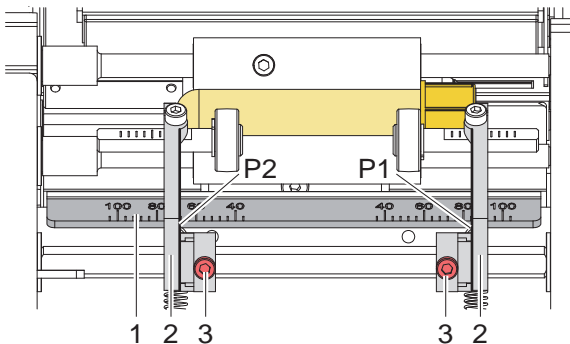
From this follow the settings:

Cap side: $P1 = L1 + V$

other side: $P2 = L1 - V$

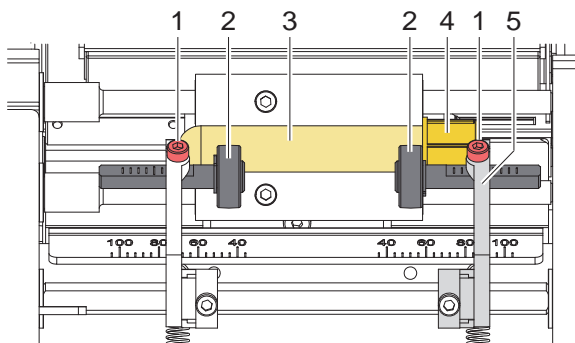
Example:

$L1 = 76, B = 40, C = 22 \rightarrow V = 8, P1 = 84, P2 = 68$



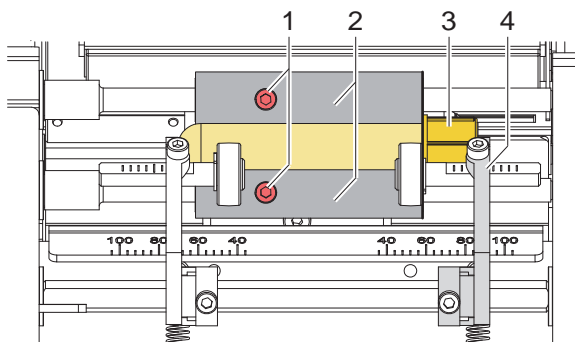
- Loosen the screws (3), shift the swing arms (2) to the positions P1 and P2 and tighten the screws.

3.2 Adjusting the Pressure Rollers



- ▶ Move the pressure roller at the cap side to such a position that the cap (4) will be guided by the swing arm (5) and the pressure roller (2).
- ▶ Adjust the pressure roller at the other side to the cylindrical zone of the tube (3).
- ▶ Loosen the screws (1), shift the holders of the pressure rollers (2) sideways and tighten the screws

3.3 Adjusting the Transport Rollers



- ▶ Move the transport rollers to such a position that the cap (3) will be guided by the swing arm (4) and the transport rollers (2).
- ▶ Loosen the screws (1), shift the transport rollers (2) sideways on the axles and tighten the screws

3.4 Printer Configuration
















Note!

In that chapter are described the specific applicator parameters of the menu *Labelling* only.

For more information about the configuration ► **Configuration Manual of the printer.**

- Start menu.
- Select *Setup > Labelling*.

Parameter	Meaning	Default
 <i>Device info</i>	Applicator information: Software revision, hardware revision, diameter of the last product, number of label applications, error notes, number of rotations	
 <i>Teach-in product</i>	Function to teach the applicator to the tube diameter. The result is transferred to the <i>Tube diameter</i> parameter.	
 <i>Calibrate device</i>	Calibration of the swing arm movement.	
 <i>Peel-off position</i>	Shift the position of the dispensed label relative to the dispensing edge. The setting can also be adjusted by the software. The settings of configuration and software are added together.	0,0 mm
 <i>Tube diameter</i>	Manual setting of the tube diameter	10,0 mm
 <i>Opening width</i>	Setting the distance between the transport rollers and pressure rollers for tube input	1,0 mm
 <i>Tube rotations</i>	Number of tube rotations within the labelling cycle	2,0
 <i>Check diameter</i>	Checking the tube diameter before labelling	On
 <i>Eject tube</i>	On: The tube will be ejected after labelling Off: The tube will be left in the labelling area after labelling	On

Parameter	Meaning	Default
 <i>Tube locking</i>	Mode of tube locking before labeling <i>START signal:</i> A START signal must be sent to lock the tube <i>Automatic:</i> Locking occurs automatically	<i>Automatic</i>
 <i>Tube unlocking</i>	Mode of tube unlocking after labelling <i>START signal:</i> A START signal must be sent to unlock the tube <i>Automatic:</i> Unlocking occurs automatically	<i>Automatic</i>
 <i>Check tube removal</i>	Checking the tube removal after labelling * only for <i>Tube unlocking = START signal</i>	<i>On</i>
 <i>Transport roller</i>	Adaptation to the diameter of the transport rollers	<i>14 mm</i>

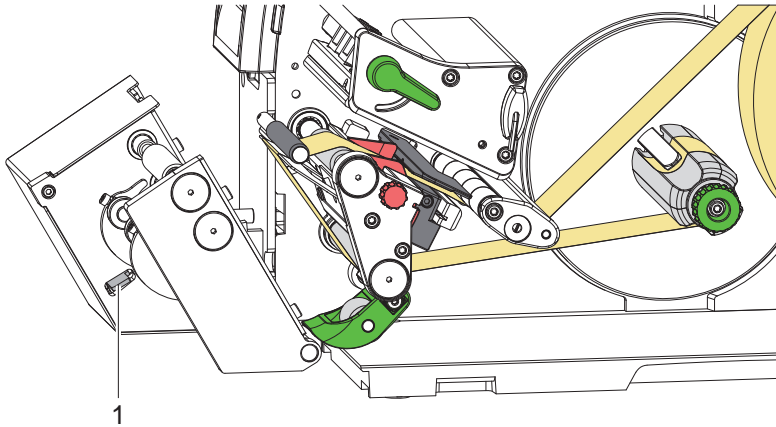
Teach-in product

- ▶ Select *Teach-in product*.
The display shows *Step 1/2 Remove tube*.
- ▶ Remove the tube from the applicator and select *Continue*.
After a short applicator movement the display shows *Step 2/2 Insert tube*.
- ▶ Insert a tube and select *Continue*.
After a next applicator movement the display shows *Product successfully taught-in*.
If the result is out of the specification an error message will appear.
- ▶ Select *Continue*.

Calibrate device

- ▶ Select *Calibrate device*.
The display shows *Step 1/1 Remove tube*.
- ▶ Remove the tube from the applicator and select *Continue*.
After an applicator movement the display shows *Device successfully calibrated*.
If the result is out of the specification an error message will appear.
- ▶ Select *Continue*.

4.1 Preparation

**Caution!**
Crushing hazard!

► Remove the tray before folding down the applicator!

- Press down the locking lever (1) to unlock the applicator.
- Fold down the applicator.
- Load labels as shown the figure ▷ Instructions of the printer.
- Load transfer ribbon ▷ Instructions of the printer.
- Fold up the applicator and press it against the printer.
The applicator will be locked automatically.
- Activate the peel-off mode in the software.
In direct programming use the "P" command.
▷ Programming Manual of the printer.
- Configure the labelling parameters ▷ 3.4. Printer Configuration

4.2 Standard Operation

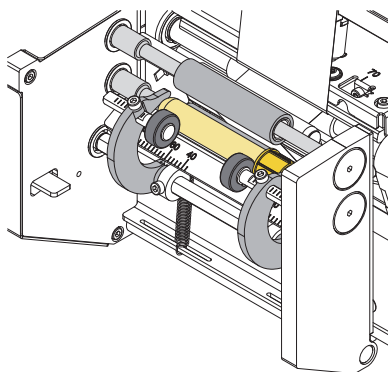


Warning!

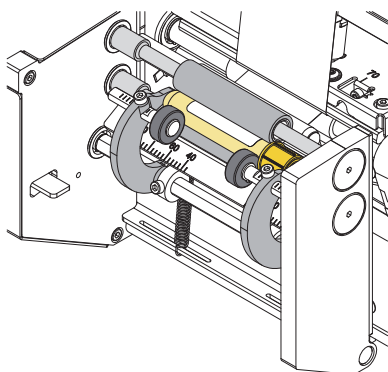
Risk of injury by rotating parts!

During operation, rotating parts are freely accessible.

Ensure that people's clothing, hair, jewelry etc. do not come into contact with the exposed rotating parts.




- ▶ Send a print job.
- ▶ Insert the first tube.



- ▶ Press .

The tube will be pressed against the transport rollers. The first label will be printed and applied onto the turning tube. After about two turns the locking clamps will be opened. Depending on the configuration the tube will be ejected or left in the labelling area.

- ▶ Remove the tube.
- ▶ Insert the next tube.
- ▶ Press  again to start next cycle.

Error message	Cause	Remedy
<i>Device not locked</i>	The tube applicator is not in operating position	Fold up the applicator.
<i>Initialization failed</i>	Hardware error tube applicator	Switch off and on the system. If error recurs call service.
<i>No tube detected</i>	No tube in the labelling area	Insert tube.
<i>Tube not ejected</i>	Tube was not ejected by the ejection movement.	Remove the tube by hand.
<i>Wrong tube diameter</i>	The tube applicator has detected a tube with wrong diameter.	Insert a suitable tube.

6.1 Declaration of Incorporation




cab Produkttechnik
GmbH & Co KG
Wilhelm-Schickard-Str. 14
D-76131 Karlsruhe
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:	Tube Applicator
Type:	AXON 2
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 349:1993+A1:2008 • EN 60950-1:2006 +A11:2009+A12:2011+A1:2 010+A2:2013
Other Relevant Directives:	
<ul style="list-style-type: none"> • Directive 2014/30/EU relating to electromagnetic compatibility • Directive 2011/65/EU on the restriction of the use of certain hazardous substances in electrical and electronic equipment 	
Person authorized to compile the technical file:	Erwin Fascher Am Unterwege 18/20 99610 Sömmerda
Signed for, and on behalf of the Manufacturer:	Sömmerda, 14.09.2019  Erwin Fascher Managing Director
cab Produkttechnik Sömmerda Gesellschaft für Computer- und Automationsbausteine mbH 99610 Sömmerda	

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



cab Produkttechnik
GmbH & Co KG
Wilhelm-Schickard-Str. 14
D-76131 Karlsruhe
Germany

EU Declaration of Conformity

We declare herewith that the following device as a result of design, construction and the version put in circulation complies 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:	Tube Applicator
Type:	AXON 2
Applied EU Regulations:	Applied Standards:
Directive 2014/30/EU relating to electromagnetic compatibility	<ul style="list-style-type: none"> • EN 55024:2010 • EN 55032:2012 • 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, 14.09.2019
cab Produkttechnik Sömmerda Gesellschaft für Computer- und Automationsbausteine mbH 99610 Sömmerda	 Erwin Fascher Managing Director