Instructions

Cutter
CU200 / CU400 / CU600 / CU800

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Topicality

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Table of Contents

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 the printers of the SQUIX, XC Q and XD Q series for cutting suitable materials that have been approved by the manufacturer. 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 cutter.
- The cutter may only be operated when it is mounted on the printer.
- Risk of injury, particularly during maintenance, the cutter blades are sharp.
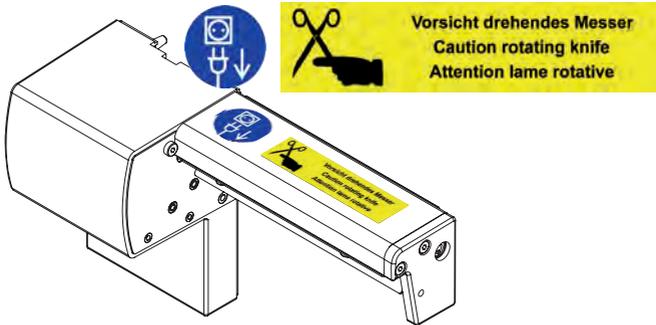
- Work going beyond this may only be performed by trained personnel or service technicians.
- Unauthorized interference with electronic modules or their software can cause malfunctions. Other unauthorized work on or modifications to the device can also endanger operational safety.
- Always have service work done in a qualified workshop, where the personnel have the technical knowledge and tools required to do the necessary work.
- Warning stickers must not be removed, as then you and other people cannot be aware of dangers and may be injured.

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.

1.5   Technical Data

Cutter		CU200	CU400		CU600	CU800
for printer type	**SQUIX**	**2**	**4 / 4.3**	**4M / 4.3M**	**6.3**	**8.3**
	XC Q	**-**	**4**	**-**	**6.3**	**-**
	XD Q	**-**	**-**	**4**	**-**	**-**
Material width max.	mm	67	120	114	180	232
Material weight cardboard	g/m²	60 - 300				
Material thickness	mm	0.05 - 1.1				0.05 - 0.5
Cutting length	mm	> 5				
Gap height	mm	2.5				
Cut frequency	1/min	100				
Power supply		peripheral connector of the printer				
Cutter Tray						
Cutting length max.	mm	-	100		-	-

> **!** **Attention!**
> **The minimum cut length is depending on the media, in particular its adhesive characteristics. Perform preliminary tests. Test the media too, if the media is very hard, very flexible or very thin.**
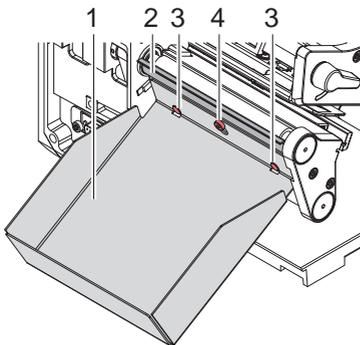
Removing Covers
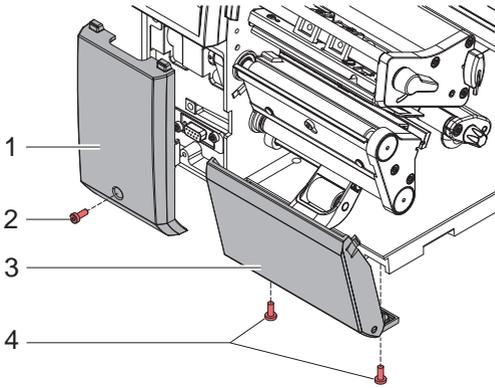
- ▶ Loosen screw (2) and remove cover (1).
- ▶ Loosen screws (4) and remove cover (3).

Mounting Cutter Tray

> **! Attention!**
> **For cutter operation there has to be mounted a tear-off plate or a dispense plate on the printer, to lead the material through the blades of the cutter.**
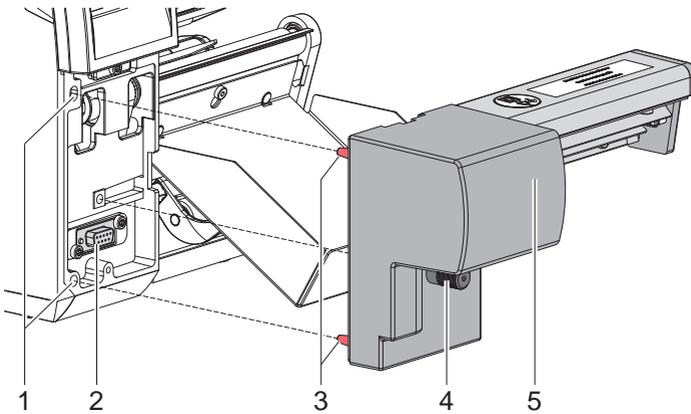

- ▶ Loosen screw (4) a few turns.
- ▶ Leave the tear-off or peel-off plate (2) mounted on the printer and mount the cutter tray on the screw (4) and the pins (3).
- ▶ Tighten screw (4).

Mounting Cutter

> **!** **Attention!**
> ▶ **Disconnect the printer from the electrical outlet before mounting or removing the cutter.**

▶ Insert the pins (3) of the cutter (5) into the holes (1) of the printer.

▶ Press the cutter against the printer. That way the plug of the cutter will be connected to the peripheral port (2) of the printer.

▶ Secure the cutter (5) with the screw (4).

3.1 Preparation

▶ Insert labels for tear-off mode ▷ Instructions of the printer.
Place the media strip between the printhead and the drive roller, so that
the front edge of the strip reaches through the cutter.

▶ Insert ribbon ▷ Instructions of the printer.

▶ Activate the cut mode in the software.
In direct programming use the "C" command.
▷ Programming Manual of the printer.

▶ Configure the cut parameters ▷ 4. Printer Configuration

i **Note!**
The cut parameters are only accessible with cutter installed.

3.2 Standard Operation

▶ Switch on the printer.
The cutter performs a synchronization action.

i **Note!**
To operate the cutter with continuous material in the printer menu
Setup **->** *Labels* **->** *Label sensor* **the setting** *Continuous media* **has to be**
selected. Otherwise no synchronization cut is carried out.

▶ Press ⬇ . For synchronization the media will be moved forward and
cut off.
That synchronization is not necessary when the printhead was not opened
between print jobs, even if the printer was powered off between print jobs.

▶ Send a print job.
All labels in the job will be printed without stopping and be cut as chosen in
the software : after each label, after a specific quantity of labels, or at the
end of a print job.

i **Note!**
Between the print jobs a direct cut can be released by pressing
✂ **on the control panel.**

i **Note!**
In case the material do adhere in follow of electrostatic charge it's
possible to mount an antistatic brush (Part No. 5977339) on the
printer.

3.3   Cutting on Demand

In the "Cut on Demand" mode the print job will be split into steps, which can be released separately.

▶ Choose *Printing > Print on demand = On.*
  ▷ 4. Printer Configuration.

▶ Send a print job.

▶ Press ⬛.
  The first label will be printed and cut.

▶ Press ⬛ again to print and cut the next label.

ℹ **Note!**

The ⬛ function can be released alternatively by an external START signal when the I/O interface is installed on the printer.
▷ **Configuration Manual of the printer.**

3.4 Operation Without Cover Plates

Due to the most varied materials it can come in rare cases to transportation problems of the material depend of the cover plates.
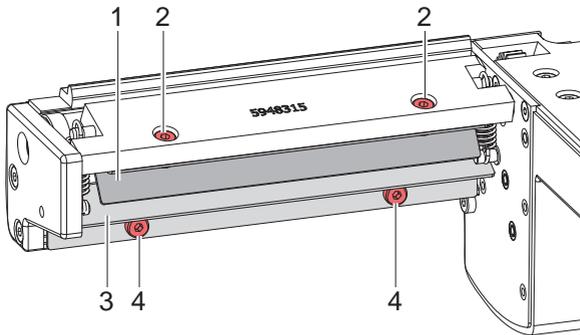It's possible to clear this problem with dismounting the cover plates.

⚠	**Warning!** **Risk of injury!** ▶ **If the cover plates for a better performance should be removed, appropriate compensating measures are to be arranged for the guarantee of security!**

⚠	**Warning!** **Risk of injury! The cutter blades are sharp!** ▶ **Disconnect printer from electrical outlet .**

▶ Switch off the printer and demount the cutter.

▶ Loosen screws (4) and detach cover plate (3).

▶ Loosen screws (2) and detach cover plate (1).

Mounting in reverse order.

ⓘ   Note!
The values of the setup are basic settings for the current printer/
cutter combination.
After changing the cutter or printer a re-adjustment may be
necessary.

Changes required for processing different print jobs should be
implemented by additional offsets available in the software.

The offset values from setup and software are added together for
execution.

For detailed instructions for configuration
▷ Configuration Manual of the printer.

Cut Parameters

▶ Start menu.

▶ Select ⚙ *Setup >* ✂ *Cutting.*

Parameter	Meaning	Default
Cut position	Offset of the cut position relative to the rear label edge.	*0.0 mm*
	The setting can also be adjusted by the software. The settings of configuration and software are added together.	

Label Sensor

▶ Start menu.

▶ Select ⚙ *Setup >* ▥ *Labels.*

Parameter	Meaning	Default
Label sensor	Method for detecting the starting end of the label.	*Gap sensor*
	Gap Sensor: Detection using changes in the transparency between the label and label gap.	
	Bottom-Reflect: Detection using reflex marks on the bottom of the medium.	
	Continuous media: Checking the existence of media only.	

Backfeed

▶ Start menu.

▶ Select 🔧 *Setup >* 🖨 *Printing.*

Parameter	Meaning	Default
Backfeed	Method for backfeeding the label medium.	*smart*
	Backfeeding is necessary in the cutting and peel-off modes since a label is pushed out passed the front edge of the next label above the print line when peeling off/cutting.	
	always: Backfeeding occurs independently of label contents.	
	smart: Backfeeding only occurs when the next label is not yet completely prepared when peeling off/ cutting the current label. Otherwise, the second label is pushed on and completed after removal of the first label without backfeeding.	

Print on demand

▶ Start menu.

▶ Select 🔧 *Setup >* 🖨 *Printing.*

Parameter	Meaning	Default
Print on demand	Behavior between the cuts	*Off*
	On: After cutting a label the next one will be printed and cut after touching 👆 .	
	Off: All labels will be printed and cut nonstop	

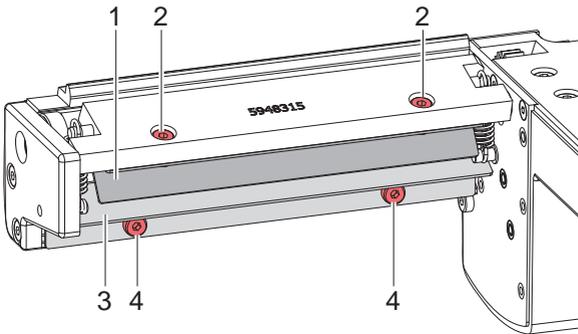## 5.1 Cleaning

<table>
<tr><td>⚠</td><td>**Warning!**
► **Disconnect the printer from the electrical outlet.**</td></tr>
</table>

<table>
<tr><td>❗</td><td>**Attention!**
Risk of injury. The cutter blades are sharp.</td></tr>
</table>

1. Remove the cutter from the printer.
2. Loosen the screws (2,4) and remove the cover sheets (1,3).
3. Remove dust and paper particles with a soft brush or a vacuum.
4. For cleaning the circular blade it is possible to turn the axle (5) with a screwdriver for slotted head screws (slot width 7 mm).
5. Remove all deposits at the cutter blades with isopropyl alcohol and a soft cloth.
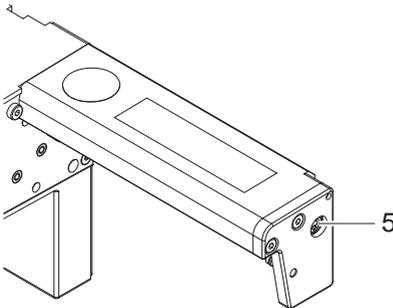
ⓘ **Note!**
When cutting through the label material instead of the label gap remains of adhesive may accumulate on the blades. If operating in backfeed mode, such remains of adhesive may be deposited on the drive roller as well.

▶ **Clean often the drive roller (▷ Printer Instructions) and the cutter blades.**
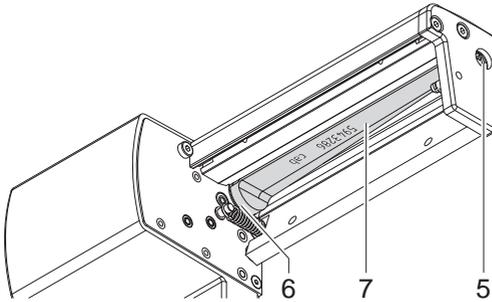

6. Grease the cylindrical area (6) of the circular blade (7) with an All round-High quality Grease. For that hold a greased brush on the cylindrical area and turn the axle (5) with a screwdriver for slotted head screws (slot width 7 mm).
During the turning the area is all-around greased.

7. Adjust the initial state of the cutter ▷ 5.3 on page 19.

8. Re-mount the cover sheet (1) using the screws M4x6 (2) and cover sheet (3) using the screws M4x10 (4).

5.2 Changing the Blades

⚠️ **Warning!**
 ▶ **Disconnect the printer from the electrical outlet.**

1. Remove the cutter from the printer.
2. Remove the cover sheets ▷ 5.1 on page 15.
3. Turn the axle (3) of the circular blade (2) with a screwdriver for slotted head screws (slot width 7 mm) so that the inscription (1) of the blade points downward. In this position the set screw (4) on the gear wheel can be achieved from the rear of the cutter.
4. Loosen the set screw (4) a few turns.
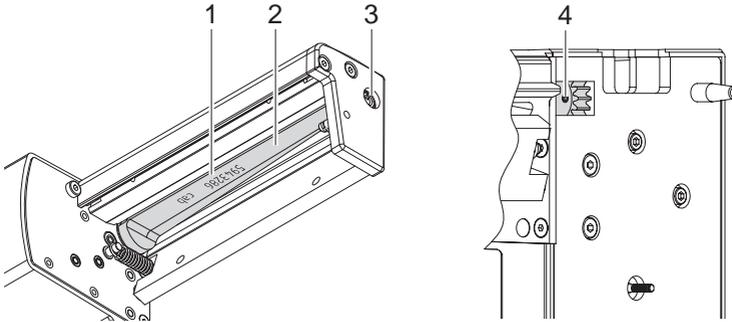
ℹ️ **Note!**
 ▶ **Save the washers (A, B, C) for the circular blade (2) and the lineal blade (12) when dismounting the cutter.**

❗ **Attention!**
 The springs (6, 15) are tense.
 ▶ **Always hold tight lineal blade (12) in its position and push its axle slightly to the mounting plate (9) of the cutter.**

5. Loosen the screws (8) and remove the bearing plate (15). The spring (13) becomes slack.
6. Remove spring (13) from the lineal blade.
7. Pull the circular blade (2) out of the bearing (5). The spring (6) at the lineal blade becomes slack.

If the lineal blade should not be changed skip to step 11.

8. Remove spring (6) and lineal blade (12).

9. Insert the axle of the (new) lineal blade withe the washer (B) in the bearing (10) of the mounting plate.

10. Hang in the slack spring (6) to the pins of the mounting plate (9) and the lineal blade (11).
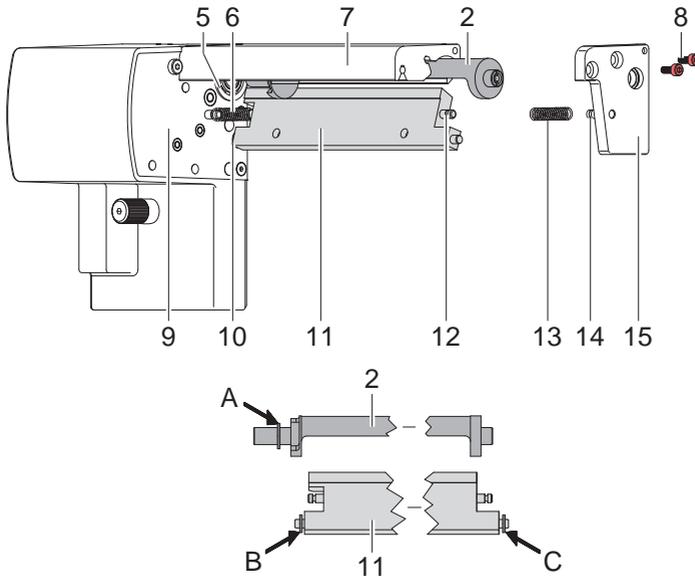
11. Turn the lineal blade (11) backwards. The spring (6) gets tense.

12. Insert the Axle of the (new) circular blade (2) with the washer (A) in the bearing (5) of the mounting plate.

13. Place the washer (C) on the axle of the lineal blade.

14. Hang in the slack spring (13) to the pins (12,14) of the lineal blade and the bearing plate.

15. Push the bearing plate (15) onto the blade axles (2, 11). The spring (13) gets tense.

16. Append the bearing plate (15) to the profile (7) using the screws (8).

17. Attend on an accurate position of the bearing plate (15) to the profile (7) of the cutter and tighten the screws (8).

18. Tighten the set screw (4) at the gear wheel.

19. Lubricate the circular blade ▷ 5.1 on page 15 and adjust its initial state ▷ 5.3 on page 19.

20. Re-mount the cover sheets ▷ 5.1 on page 15.

## 5.3   Setting the Initial State of the Cutter

To operate the cutter correctly after cleaning or after changing the blades the circular blade (4) and the clock wheel (11) must be adjusted to each other.
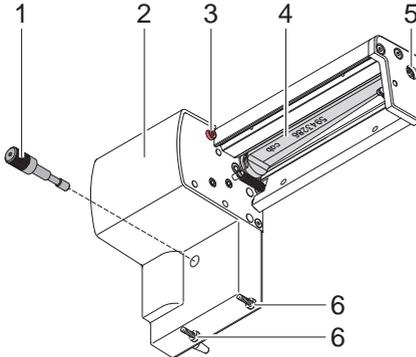
1. Unscrew the screws (1), (3) and (6, at the rear).
2. Remove the cover (2).
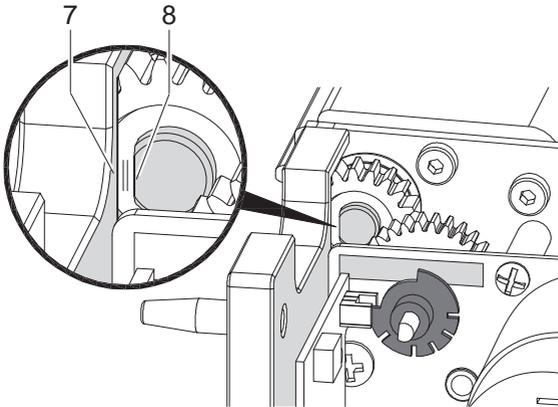
3. Turn the axle (5) of the circular blade with a screwdriver for slotted head screws (slot width 7 mm) so that the planar area (8) of the blade axle becomes parallel to the base plate (7).

| 1 - right | 2 - wrong | 3 - wrong |
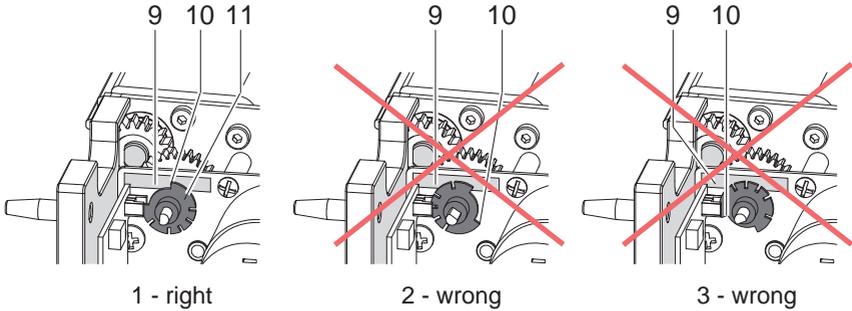
4. Check the position of the clock wheel (11).

- If the clock wheel is in the right position 1, the edge (10) of the clock wheel (11) is located in the area of the marking (9).

- If the clock wheel is in position 2 or 3 turn the circular blade to reach the position 1 :
    - Turn the circular blade by one or two full turns, until the planar area (8) of the blade axle becomes parallel to the base plate (7) again and the clock wheel reaches the position 1

5. Mount the cover.

6 Error Messages

Error message	Cause	Remedy
Cutter blocked	Cutter cannot return into its home position and stays in an undefined position	▶ Switch off the printer. ▶ Remove material. ▶ Switch on the printer. ▶ Restart print job. ▶ Change material
	No cutter function	▶ Switch the printer off and then on. ▶ If error recurs call service.
Media too thick	The cutter is unable to cut the labels but is able to return into its home position	▶ Press *Cancel* ▶ Change material.

7.1   Reference to the EU Declaration of Conformity

The cutters of the CU series comply with the relevant fundamental regulations of the EU Rules for Safety and Health:

• 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

EU Declaration of Conformity

▷ https://www.cab.de/media/pushfile.cfm?file=2788 📄

7.2   FCC

NOTE : This equipment has been tested and found to comply with the limits for a Class A digital device, pursuant to Part 15 of the FCC Rules. These limits are designed to provide reasonable protection against harmful interference when the equipment is operated in a commercial environment. The equipment generates, uses, and can radiate radio frequency and, if not installed and used in accordance with the instruction manual, may cause harmful interference to radio communications. Operation of this equipment in a residential area is likely to cause harmful interference in which case the user may be required to correct the interference at his own expense.