WICON

Wrap-around applicator



Service Manual



2 Service Manual

for the following products

Ту	ре
Wrap-around applicator	WICON

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4 1	Introduction
1.1	Instructions
4	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.
<u>.</u>	Danger! Draws attention to a danger with high risk which, if not avoided, may result in death or serious injury.
<u>.</u>	Warning! Draws attention to a danger with medium risk which, if not avoided, may result in death or serious injury.
<u>.</u>	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.
1	Note! Advices to make work routine easier or on important steps to be carried out.
ED .	Environment! Gives you tips on protecting the environment.
►	Handling instruction
\triangleright	Reference to section, position, illustration number or document.
*	Option (accessories, peripheral equipment, special fittings).
Time	Information in the display.
1.2	General Safety Instructions
	This service manual is intended for use by qualified service and maintenance personnel. For more operation and configuration information, refer to the user or configuration manual.
	Follow the general safety rules below:

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- Keep the area around the device clean at all times!
- Work with safety in mind.
- Parts of device that are removed during the maintenance work must be put in a safe place.
- Avoid risks of tripping over.



Danger!

Danger to life and limb from increased current flow through metal parts in contact with the device.

- Do not wear clothing with metal parts.
- Do not wear jewelry.
- Do not wear spectacles with metal frames.



Warning!

Items of clothing drawn into the device by moving parts can lead to injuries.

b Do not wear any items of clothing which could get caught by moving parts.

1 Introduction

1.3 Protective Devices



Warning!

There is a risk of injury if protective devices are missing or defective.

- Replace all protective devices (covers, safety notices, grounding cables etc) after maintenance work has been completed.
- ▶ Replace parts that have become defective or unusable.

Wear protective goggles for:

- Knocking pins or similar parts in or out with a hammer.
- Using spring hooks.
- Inserting or removing springs, retaining rings or grip rings.
- Using solvents, cleansers or other chemicals.

1.4 Handling Electricity

The following work may only be done by trained and qualified electricians:

- Work on electrical components.
- Work on an open device still connected to the mains supply.

General precautions before starting maintenance work:

- Find out where the emergency and power switches are so that they can be quickly thrown in an emergency.
- Disconnect the current supply before carrying out the following work:
 - Installing or removing power units.
 - Working in the immediate vicinity of open power supply components.
 - Mechanical check of power supply components.
 - Modifying circuits in the device.
- Test the zero potential of the device parts.
- Check the working area for possible sources of danger, such as wet floors, defective extension cables, defective
 protective conductor connections.

Additional precautions in the case of exposed voltages:

- Ask a second person to remain near the working site. This person must know where the emergency and power switches are, and how to switch the current off if danger arises.
- Only use one hand to work on electric circuits of devices that are switched on. Keep the other hand behind your back or in your pocket.
 This provents electricity from flowing through your own bady.
- This prevents electricity from flowing through your own body.

1.5 Procedure in Case of Accidents

- Act calmly and with great care.
- Avoid danger to yourself.
- Switch off power.
- Request medical assistance.
- Give first aid, if necessary.

1.6 Environment

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

- Send to suitable collection points, separately from residual waste.
- Send the parts for recycling.

6 2 Preparation

2.1 Tools

- Do not use any worn of damaged tools.
- Only use tools and testing devices that are suitable for the task at hand.

Standard tools:

- Screw driver TX 10
- Screw driver TX 20
- Screw driver TX 25
- Screw driver TX 30
- Socket wrench 9
- Allen key 2 mm
- Allen key 2.5 mm
- Open-end wrench 5
- Snap ring pliers ZGG 0
- Pointed pliers straight
- Belt tension measuring device

cab special tools:

• Calibration rod 10 mm (Part No. 5988543)

2.2 Removing the Applicator from the Printer



Fig. 1 Removing the applicator from the printer

- Switch off the printer.
- ► Loosen screw (2).
- Remove the applicator from the printer. The plug of the applicator will be disconnected from the connector (1).

2 Preparation

2.3 Removing the Covers

For a couple of maintenance operations it is necessary the remove the covers from the winding assembly.

2.3.1 Removing the Side Covers



Fig. 2 Removing the side covers

- ▶ Loosen the screw (5) and remove the stopper (4).
- On both sides loosen each five screws (1) and remove the side covers (2,3).

Re-mounting will be carried-out in opposite order.

2.3.2 Removing the Service Door

Note!

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It is not absolutely necessary the remove the service door. But with the side covers removed the service door cannot be fixed anymore. Therefore the removing of the door can facilitate the service work.



Fig. 3 Removing the service door

- ▶ Loosen the screws (1) and remove bracket (2) and service door (3).
- ▶ For mounting push the bracket (2) over the pins (4) and fix it with the screws (1).

8 3 Replacing Assembly Units

3.1 Replacing the Transport Module



Fig. 4 Replacing the transport module

- Remove the covers
- ► Turn the winder plate (3) to the position shown in the figure.
- Loosen the screw (2) and remove the transport module (6). The screw (2) is secured and remains in the winding plate.
- Guide the pins (4) of the new transport module into the holes (1) and fix the transport module by tightening the screw (2).
- Mount the covers.

3.2 Replacing the PCB Sensor Labels



Fig. 5 Replacing the PCB Sensor Labels

- Remove covers an transport module.
- ▶ Pull out the motor cable (3) from the PCB.
- ▶ Loosen two screws (2) and remove the PCB (1) upward.
- Mount the new PCB in the opposite order.

3 Replacing Assembly Units

3.3 Replacing the Centering Panels

Centering panel gear side





Fig. 6 Replacing the centering panels

- Remove the covers.
- ▶ Loosen two screws (1) and washers (2) and remove the centering panel (3).
- ▶ Disconnect the cable (5) from the PCB (4).
- Mount the new centering panel (3) in the opposite order.
- Adjust the centering panels.
- Mount the covers.

10 3 Replacing Assembly Units

3.4 Replacing the Guard Plate



Fig. 7 Replacing the guard plate

- ▶ Remove the covers and the centering panel at the gear side.
- Loosen two screws (3).
- ▶ Loosen two shoulder screws (1a,1b) and remove the guard plate (4).
- Mount the new guard plate and if necessary new washers (2) as shown in the figure.
- ► Tighten the shoulder screws (1a,1b) slightly.
- Mount the centering panel.



Fig. 8 Tighten the shoulder screws

Note!

The applicator must be operated with the printer to adjust the shoulder screws.



Caution! Risk of hand injuries

- ► Do not grasp in the area of the turning winder plate!
- ▶ Insert a product (5) to close the centering panels. That way the shoulder screw (1a) is reachable.
- Press repeatedly the single-step button and tighten the shoulder screw (1a) until the movement of the touch guard will be hindered.
- Press again repeatedly the single-step button and loosen slightly the shoulder screw (1a) until the touch guard can move without hindering.
- Adjust the shoulder screw (1b) in the same way.
- Mount the covers.

3 Replacing Assembly Units

3.5 Replacing the Belt



Fig. 9 Replacing the belt

- Remove side cover, centering panel and guard plate at the gear side
- Pull the belt (1) from the gear wheels (2-6).
- Push the new belt onto the gear wheels.



Fig. 10 Tensioning the belt

Check the tension of the belt. Pluck the belt at the marked point (1) and measure the frequency of the oscillation withe a belt tension measuring device.
Set values f = 200, 250 Hz

Set value: f = 200...250 Hz

- If the result is out of the set value range, loosen for screws (7), tension the belt by pressing against the gear wheel (5) on the motor (8) and re-tighten the screws (7).
- Repeat the measurement.
- Mount guard plate, centering panel and cover.

12 3 Replacing Assembly Units

3.6 Replacing the Cam Plate and the Locking Lever



Fig. 11 Replacing the cam plate

- Remove covers and centering panels.
- Loosen two screws (8) and remove the plate (7).
- Loosen two screws (1) and pull the winder plate (4) with the cam plate (3) and the transport module (6) out of the housing.
- Pull the cam plate (3) from the pins (5).
- Set the new cam plate onto the pins (5).



Fig. 12 Replacing the locking lever

- Pull the locking lever (10) from the pin (9).
- Mount the new locking lever.
- Push the winder plate (4) with the cam plate (3) and the transport module (4) into the housing and mount the winder plate with two screws to the gear wheel (2).
- Mount the plate (7).
- Mount the centering panels and the covers.

3 Replacing Assembly Units

3.7 Replacing the PCB Control



Fig. 13 Replacing PCB Control

- ► Loosen four screws (1).
- ▶ Pull-out all cables from the connectors of the PCB Control (2).
- ▶ Pull the PCB Control out of the housing.
- Mount the new PCB in the opposite order.



Fig. 14 PCB Control - connectors

Pos.	Connector	Lettering
3	Periphery	Periphery
4	LP Sensor Centering gear side	Centering L
5	LP Sensors Reference+Diameter	Ref+Dia
6	LP Spring Contact	Spring contact
7	LP Sensor Touchguard	Touchguard
8	Service Button	Service1
9	Sensor Applicator Locked	Swingoff
10	Ventilator	Fan
11	Motor Touchguard	Touch-Motor
12	LP Sensor Centering winder side	Centering R
13	Motor Winding	Drum-Motor

Table 1 PCB Control - connectors

14 4 Adjustments



4.1

Adjusting the Centering Panels

Note!

The applicator must be operated with the printer to adjust the centering panels.

Checking

- Switch on the system
- Insert the calibration rod 10 mm (1 / Part No. 5988543).
- Turn the winder plate by pressing the single-step key and observe the hunting of the rod. If the rod hunting seems to be excessive the centering panels (7) may be adjusted individually.



Fig. 15 Adjusting the centering panels

Adjusting

Remove the side covers.



Caution!

Risk of hand injuries

- Do not grasp in the area of the turning winder plate!
- Loosen two screws (2) and slightly pivot the centering panel (3).
- ▶ Tighten the screws and repeat the check.
- If necessary repeat the adjustment.
- Mont the side covers.

4 Adjustments

4.2 Calibrating the Diameter Recognition

- Switch on the system.
- Start menu.



- Insert the calibration rod 10 mm (Part No. 5988543).
- Select Continue.

The wrapping unit will be turned ten times with closing and opening the jaws and measuring the diameter of the test pipe.

▶ The display shows the success of the calibration, the determined offset and the tolerances of the offset value.



Select Continue.

The determined offset will automatically be stored and considered for future measurements.

Note! 6

The following table describes the reasons for error messages which occur repeatedly or permanently.

Message	Error/Reasons	Remedy
Touch guard error	Failure of the touch guard movement	
	 Shoulder screws at the guard plate tightened to hard 	 Adjust the shoulder screws
	Washers worn	 Replace the washers
	Guard plate worn	 Replace the guide plate
	Drive defective	 Replace the motor touchguard
	Sensor touchguard defective	 Replace the sensor touchguard
	Cable sensor defective	 Replace the cable sensor
	PCB Control defective	Replace the PCB Control
No label on belt detected	After a labeling cycle is started no label is detected on the transport belt	
	Label transfer from the printer failed	Check the peel-off behavior
		 Adjust the peel positions in the printer setup and the software
	Transport module defective	 Replace the transport module
	PCB Spring Contact soiled	 Clean the contacts
	PCB Spring Contact defective	 Replace the PCB Spring Contact
	Contacts at the PCB Sensor Labels worn	 Replace the PCB Sensor Labels
	Sensor labels defective	 Replace the PCB Sensor Labels
	PCB Control defective	 Replace the PCB Control
Product release	Failure of the wrapping unit movement	
failed/ Wrapping failed	Belt tension not correct	 Adjust the belt tension
wiapping taileu	Chuck jaws hard-steering	 Removing the winder plate and pulling-off the cam plate
		 Checking the movability of the chuck jaws in the winder plate
	Drive defective	 Replace the motor winder
	Sensor Reference+Diameter defective	 Replace the PCB Sensor Diameter
	PCB Spring Contact soiled	 Clean the contacts
	PCB Spring Contact defective	Replace the PCB Spring Contact
	Contacts at the PCB Sensor Labels worn	Replace the PCB Sensor Labels
	PCB Control defective	Replace the PCB Control

Table 2

Error treatment

16 5

6 Block Diagram



Fig. 16 Block diagram

18	7		In	d	e	2
	1			u	C/	٩

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