

# **Winder C9100**

## Operating instructions

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**The information in this handbook reflects  
the state of the publication date.  
We reserve the right to make design modifications.**

# 1 Safety advices

## 1.1 Important warnings



Before installing and operating the Collamat® 9100 read the following safety instructions.

- The Collamat® 9100 labeller is exclusively intended for labelling goods. It must exclusively be controlled and driven by a C9100 monitor.
- Install the Collamat® 9100 only by a trained specialist considering the national specific regulations of
  - prevention of accidents
  - mechanical stability
  - construction of electrical and mechanical systems
  - noise suppression
- Take notice of the technical data of the Collamat® 9100. Especially the environment conditions must be observed.
- Operate the Collamat® 9100 only by trained personnel.
- In case of non-authorized modifications the guarantee will become void.
- Before connecting non-standard products, ask your competent technical supporter.

## 1.2 Danger advices

- The safety symbols and danger advices on the Collamat® 9100 and in this manual must strictly be observed.
- Switch the monitor C9100 off before connecting or disconnecting the labeller to or from the monitor C9100.
- Only authorized personnel may open the monitor and the connector box.
- Disconnect the monitor from the mains before opening the connector box.
- Danger of pinching hair, jewelry, ties, clothes etc. into the traction unit !
- Danger of injury by cutting fingers in the paper zone !
- Danger of injury in the dancer roller zone of the Collamat® 9100 rewinder and unwinder !
- Danger of injury in the case of non-expert use of the Collamat® 9100 paper stock control !
- When operating the labeller, the operating personnel must keep to a safe location to prevent injury by the products being labeled.

### 1.3 Symbol description

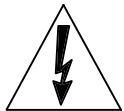


**ATTENTION**

Indicates danger of damaging the Collamat® 9100 or other system components, with a potential consequential danger of injuries.

**DANGER**

Indicates an immediate hazard for persons.



**DANGER**

Shock hazard due to high voltage at component.



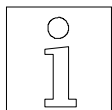
**DANGER**

Hazard due to high temperature component.



**ATTENTION**

ESD warning (Electro Static Discharge). The PC boards or component may only be touched in an electrostatically protected environment.



**NOTE**

Important or additional information to Collamat® 9100 or to the documentation.

## 2 Introduction

### 2.1 General information

This operation manual describes the operation of the Powered Winder C9100. It contains the settings and notes necessary to get optimum use of the Winder C9100.

Special features of the Winder C9100:

- resistant to wear
- rugged
- quick change-over to other labelling tasks
- high performance
- SMD-technology

### 2.2 Security

The Winder C9100 must be installed by trained personnel considering the following national specific regulations:

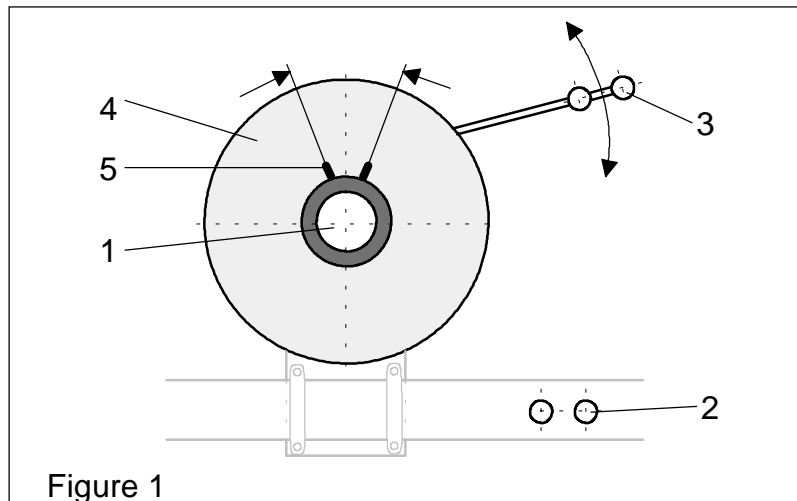
- Prevention of accidents
- Noise suppression
- Construction of electrical and mechanical systems

Please refer to the Winder C9100 technical handbook.

### 3 Operating manual

#### 3.1 Powered Unwinder

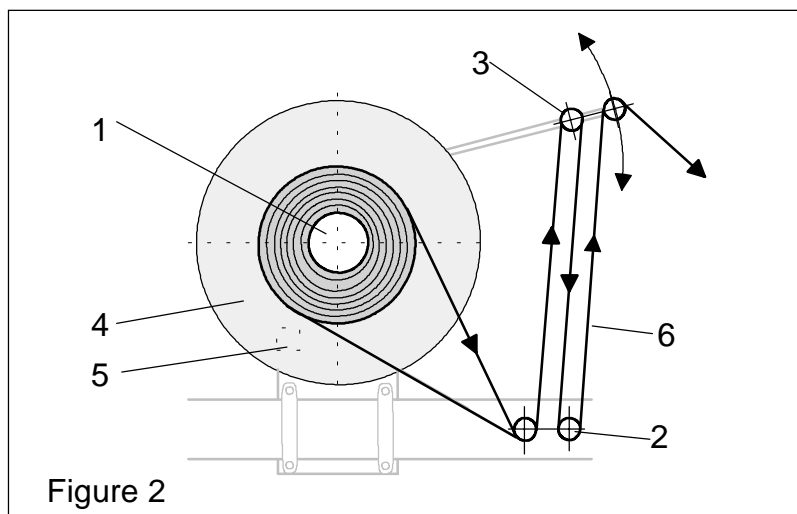
Pull of the holding disk 4 from unwinder core 1 by compressing the two handles 5.



- 1. Unwinder core
- 2. Deflection pulley
- 3. Dancer
- 4. Holding disk
- 5. Handles

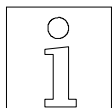
Figure 1

Insert the label roll on the unwinder core 1 and fix it with the handling disk 4. Thread up the label web as shown per picture. The direction of the unwinder can be changed with the direction switch 5, which is found behind the holding disk 4.



- 1. Unwinder core
- 2. Deflection pulley
- 3. Dancer
- 4. Holding disk
- 5. Direction switch
- 6. Label web

Figure 2

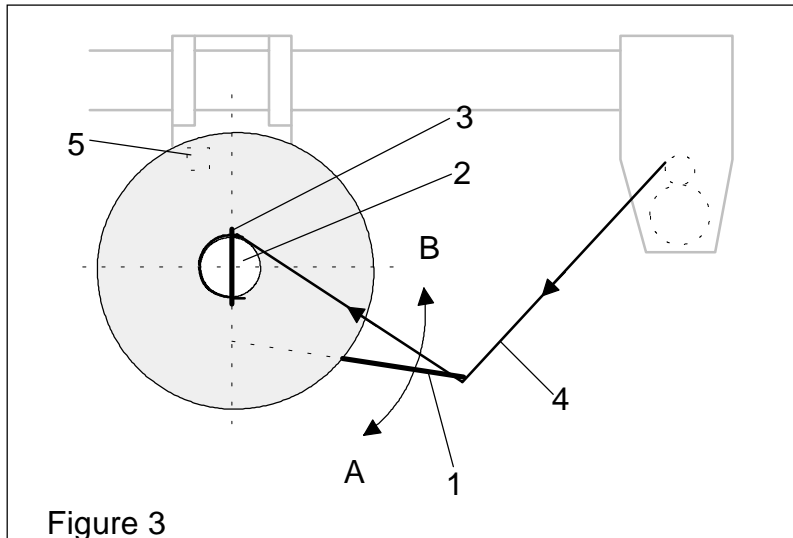


**Note:**  
Adjustment of the spring force see under "Adjustment of the dancer"

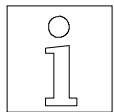
### 3.2 Powered rewinder

Pull out the clamp strap **3**. Pull the backing paper over the dancer **1** to the rewinder core **2**. Wind the backing paper around the rewinder core **2** and fix the clamp strap **3** again.

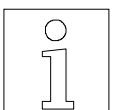
In order to remove the backing paper pull out the clamp strap **3** and take off the paper from the rewinder core **2**.



- 1. Dancer
- 2. Rewinder core
- 3. Clamp strap
- 4. Backing paper web
- 5. Direction switch (rear)



If the Collamat® 9100 is switched on without having fixed the backing paper, or if the backing paper is torn apart during the application, the dancer will shoot up to the stop A. The rewinder drives to the maximum speed and will stop after 8 rotations. It can only be restarted when the dancer 1 is reset to the stop B (reset of the stop command). The zero position takes place at the stop B of the rewinder, the rewinder core does not turn anymore.



**Note:**  
Adjustment of the spring force: see under "adjustment of the dancer".

### 3.3 Adjustments

In the following chapter the various adjustments are described considering the items:

**Dancer:**

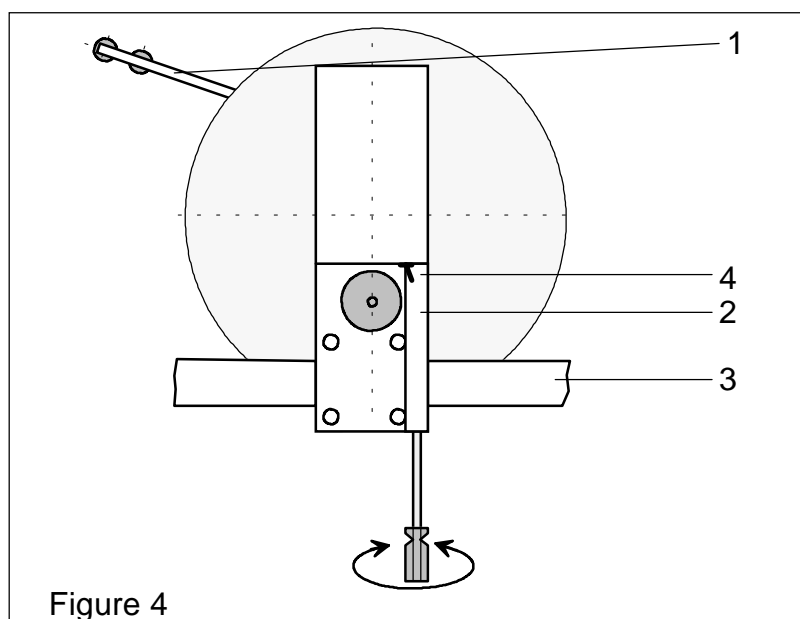
- Spring force

**Motor:**

- Direction of rotation

#### 3.3.1 Adjusting the spring force at the electric winder

Adjust the spring force of the dancer roller so that the retraction force of the dancer roller is not higher than required by the dancer roller to reset itself with threaded-in paper web.



- 1. Dancer
- 2. Dancer spring
- 3. Module rail
- 4. Direction switch

Winder rear view

For adjustment of the spring force, use a 5mm hex screw driver. The dancer spring **2** can be accessed from the bottom of the winder.

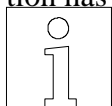
- To increase the dancer force tighten the dancer spring clockwise
- To decrease the dancer force loosen the dancer spring anti clockwise

#### 3.3.2 Direction of rotation

The rotation direction is selected by the direction switch **4**.

#### 3.3.3 Dancer roller position

When mounting the installation or erecting the Collamat® 9100 labeller, the dancer roller position has to be adjusted by a specialist (see Collamat® 9100 Technical Handbook ).



**A wrong adjustment leads to a lack of capacity and lack of accuracy.**



## 4 Maintenance

The winder does not need maintenance to a large extent. Remove dirt with a cleaning agent free of solvents. No cleaning agent or humidity must penetrate into the winder. Otherwise there is the danger of damages to electrical components or bearings.

The brake of the winder mandrel and the motor brushes are liable to wear depending of use. They must be exchanged or readjusted depending of use and wear.

### 4.1 Brake

The brake must brake the winder mandrel when the dancer is released to its rest position. It must not more be active when the motor is powered. The brake is controlled by the winder control. The adjustment of the brake is described in the Winder C9100 technical handbook.

### 4.2 Motor brushes

In normal operation the brush life is approx. 2500 hours. During occasional maintenance works, check for abrasion. They should be exchanged only when the motor does not more rotate.

The replacement of the motor brushes is described in the Winder C9100 technical handbook.

### 4.3 Fuses

Fuse	Rating	Part Number
Monitor	110/120V: 10 AT	7403.0833
	220/230/240V: 5 AT	7403.0822
Interface F1	4 AT	7403.0800
Interface F2	10 AT	7403.0333
Connector box F1	5 AT	7403.1224

## 5 Technical data

### 5.1 Rewinder and Unwinder

System	Rewinder	Unwinder
Diameter of the roll core	42 mm	
Max. diameter of roll	350 mm	
Drive	current controlled DC-motor, electromagnetic brake	
Electric power	24 V DC, 3A max.	24 V DC, 2A max.
Type of protection	IP54	
Ambient temperature	+5-40 °C	
Ambient humidity	15-90% non condensing	
Weight	5 kg	

## 6 Troubleshooting

### 6.1 Unwinder

1. Unwinder troubleshooting		
SYMPTOM	DIAGNOSIS	ACTION
Labels peel off at the dancer roll	Dancer roll diameter is too small	Change the standard roll against a roll with enlarged diameter
		Use only one roll of both
Flange of the fixed disk breaks	Material defect, wrong type of aluminum	Replace flange against new series flange
Unwinder blocks	Disk touches the module rail	Shift the disk on the unwinder-shaft away from the module rail
Dancer roll gets shaky	Shaft screw is loose	Fix the screw (use perhaps Loctite)
Paperweb falls off inside the labeling applicator	Missing side labeling kit	Mount the side labeling kit to the Collamat
Paperend is never detected	End of paper is fixed to the core with an adhesive tape	Use unfixed paper rolls, the paperend must be free
Unwinder does not stop turning	Dancer is blocked	Unblock and remove the obstacle
	Dancer does not return to home position	Increase the dancer force
		Reduce paperweight
Labeler blocks and stalls at the end of a paper roll	End of paper is fixed to the core with an adhesive tape	Use unfixed paper rolls, the paperend must be free

## 6.2 Rewinder

4. Rewinder troubleshooting		
SYMPTOM	DIAGNOSIS	ACTION
Flange of the fixed disk breaks	Material defect, wrong type of aluminum	Replace flange against new series flange
Rewinder blocks	Disk touches the module rail	Shift the disk on the unwinder-shaft away from the obstacle
Dancer gets shaky	Shaft screw is loose	Fix the screw
Paperweb breaks behind the traction unit	Dancer hits too hard to the paperweb	Reduce the force of the dancer Reduce the motor force (change the DIL-switch WINDER inside the rewinder)
	The full waste paper roll is too heavy	Remove the waste paper roll more frequent
	Paperweb is very thin or small	In sidelabeling applications remove the screws fixing the disk to its flange, so the disk can turn free on the shaft
	Dancer arm is bent	Fix the dancer arm to 90°
	The edge of the paperweb was hurt along the paperpath	Remove the obstacle, increase the space of the paperguides
	Rewinder does not stop turning after a break of the paperweb	Dancer is blocked
Dancer does not go to its home position		Increase the dancer force
Rewinder will not rewind again after a stop	Rewinder is not reset	Reset the rewinder by moving its dancer to full swing
Rewinder does not take all the paperweb from the traction unit	Motor power too weak	Increase the motor power inside the winder at the DIL-switch TORQUE and WINDER