

USER MANUAL

Rewinder 2000



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Safety Notes



WARNING!

Rotating shaft!

Danger of hair and clothing being pulled in by unintentional actuation of the rewinder.

- Switch off the printer and disconnect the power cable before fitting the unwinder.
- Don't wear loose long hair (if necessary, wear a hairnet).
- Keep loose jewellery, long sleeves, etc. away from the rewinder.
- Only operate the rewinder, if it is fitted firmly to the printer.

CAUTION!

Bending the dancer arm causes malfunction of the rewinder

- Don't use the dancer arm at the ready fit rewinder as a carrying handle for the printer.

Product description

PROPER USAGE

The option „Rewinder 2000“ (called rewinder afterwards) is a peripheral device for label printers of the types 64-xx, AP 5.4 and XLP 50x. The device is designed for winding up label material after it has been printed using one of the named printer types.

The rewinder is permanently attached to the printer. The printer provides power for the rewinder motor via a socket on the front, which is also used for receiving signals relating to the lateral deflection of the dancer arm.

FUNCTIONING

Rotational speed

While the material is being wound up, the rotational speed is controlled via the lateral deflection of the dancer arm. The greater the lateral deflection, the lower the rotational speed. If the label material sags – the dancer arm is in this case only slightly deflected – the rewinder increases the rotational speed in order to make up the "delay". This ensures that the label material is rolled up evenly tautly. Without lateral deflection - e.g. when the material is finished – the rewinding process stops after about four seconds.

Direction of rotation

The label material can be alternately rolled up with the labels facing outwards or inwards by reversing the direction of rotation.

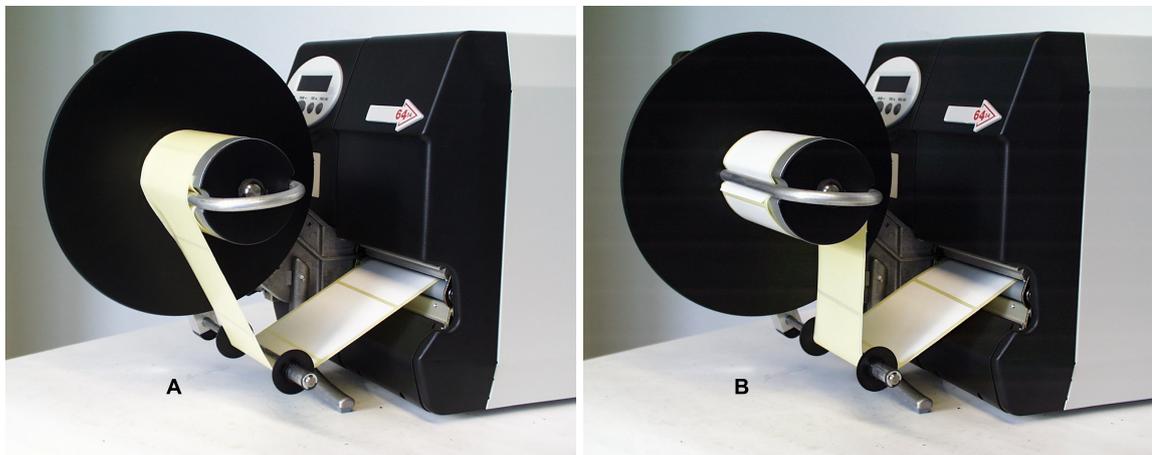


Fig. 1: Rotation direction „Printing inside“ (A) and „Printing outside“ (B).

Dancer arm deflection

In the mode "Printing inside", material does not wrap itself around the bouncer arm as much as is the case with "Printing outside". Particularly with larger roll diameters, the dancer arm would often shoot from one extreme position to the other. The material would then be wound up in a jolting manner.

For this reason, the software is adjusted when "Printing inside" is selected – it then only uses approximately 50% of the maximum dancer arm deflection for controlling the motor.

Rotation speed

The rewinder rotation speed depends on the print speed. A low print speed leads to a slower rewinder rotation as a high print speed. An exception to this rule is the rotation speed directly after starting the wind-up process.

TECHNICAL DATA

Motor	Stepper motor
Position sampling	Infrared light barrier
Rotation direction	Rewind direction with label facing outside or inside
Rewind speed	Max. 203 mm/s (8"/s)
Noise level	< 70dB(A)
Material roll	See table:

Max. outer Ø	230 mm
Core inner Ø	38/76/102 mm (1,5/3/4")
Min. material width	= Minimal print width
Max. material width	= Width of the rewinding mandrel (102/127/152 mm or 4/5/6")
Max. roll weight	5 kg

SYSTEM REQUIREMENTS

Rewinders in the appropriate width can be operated at the following printer types:

Printer	Width	Core Ø	Article number
AP 5.4 / XLP 504	4"	1,5"	A1454
		3"	A1457
		4"	A1460
64-04 / 64-05	5"	1,5"	A1455
		3"	A1458
		4"	A1461
64-06 / XLP 506	6"	1,5"	A1456
		3"	A1459
		4"	A1462

Preparation for peripheral devices:

For using the printers with a rewinder, they must be especially equipped. This so called peripherals preparation consists mainly of an additional output stage board for the motor of the peripheral device and of some additional connection cables. From the outside, the peripheral preparation can be identified by the D-Sub connector (A) on the front side of the printer:



Fig. 2: The D-Sub connector is an indicator for the peripheral preparation of the printer.

Setting up

FITTING THE REWINDER

The rewinder is attached to the front of the printer with two screws. A support leg absorbs some of the strain exerted by the material roll.

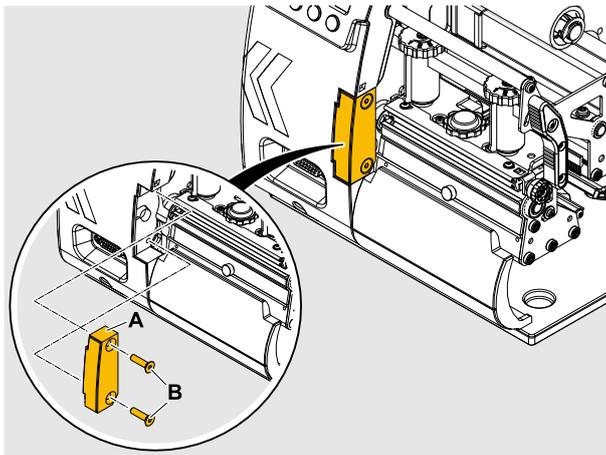
Tools:

- Hex screwdriver, 3 and 4 mm

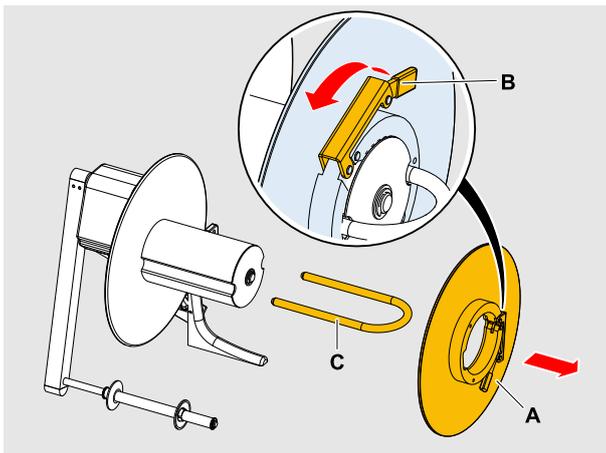
Prerequisites:

Place the printer on a level surface. Ensure that there is enough room in front of the printer for the support leg of the rewinder.

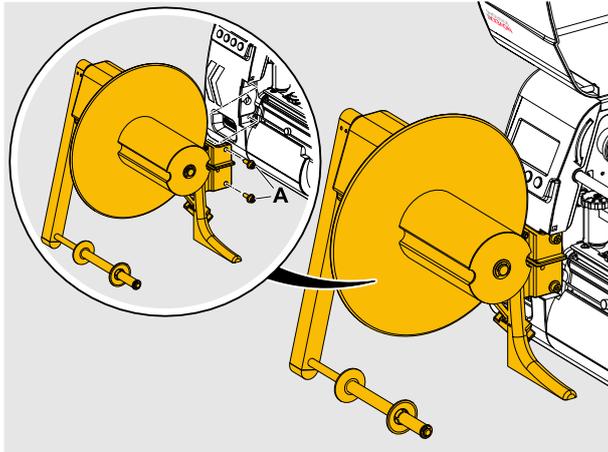
1. Remove the cover (A) of the mounting flange. To do this, turn out the two screws (B).



2. Remove the guide disk (A). To do so, open the clamping lever (B). Remove the clamping bar (C).

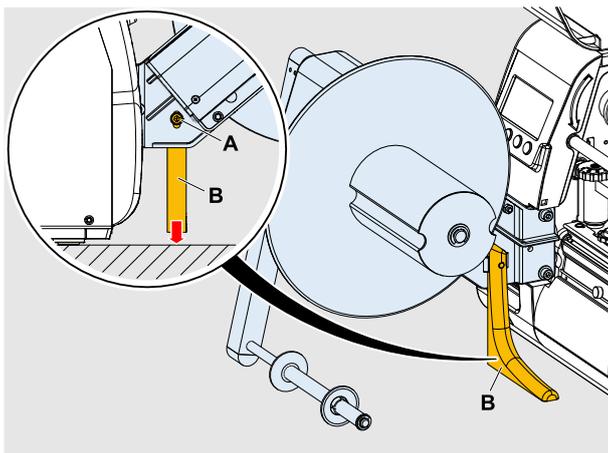


3. Attach the rewinder to the printer flange using the two screws (A) supplied (M5x16).



4. Loosen the supporting leg fastening screw (A). Push down the support leg (B) until it stands on the surface. Push up the rewinder a little and at the same time tighten the fastening screw.

|| The weight of the material roll should rest on the support leg. ||

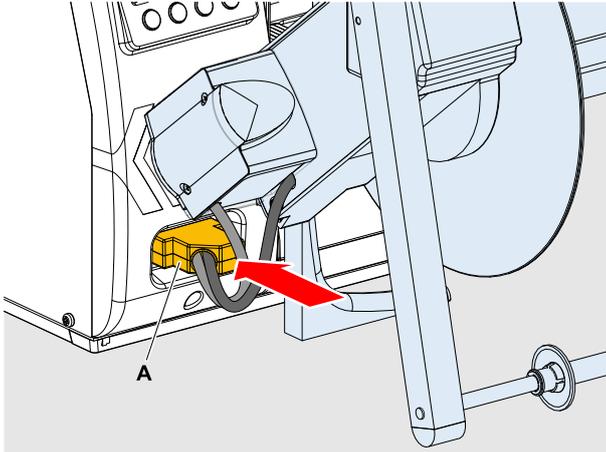


5. Plug in the connector plug (A).

CAUTION!

Damage to the device electronics

→ Under no circumstances should the plug be attached or removed when the device is switched on.



ACTIVATING/DEACTIVATING THE REWINDER

After fitting it to the printer, the rewinder has to be activated. This is done by setting the appropriate parameter in the parameter menu of the printer. The relevant parameter is placed differently in 64-xx/ AP 5.4 and XLP 50x printers.

Prerequisite: The rewinder is ready fit and connected. The printer is switched on.

64-xx / AP 5.4

Activating the rewinder:

→ Set parameter `SYSTEM PARAMETER > Periph. device` to `Rewinder`.

The printer will now be reset. In the parameter menu `PRINT PARAMETERS` shows up the parameter `Rewind direction` for setting the rotation direction.

Setting the rotation direction:

1. Call `PRINT PARAMETERS > Rewind direction`.

```
Rewind direction
```

2. Press the online key.

```
Rewind direction
Printing inside
```

3. („Printing outside“ only) Press the cut key.

```
Rewind direction
Printing outside
```

4. Press the online key.

```
Rewind direction
```

5. Press the prog key repeatedly, until the following shows up:

```
OFFLINE 0 JOBS
```

Deactivating the rewinder:

→ Set `SYSTEM PARAMETER > Periph. device` to `None`.

XLP 504/506

Activating the rewinder:

1. Set `Options > Selection > Periph. device` to `Rewinder`.

|| Don't confuse with the setting `Intern. rewinder` that activates the internal rewinder of the printer. ||

Afterwards, `Options > Rewinder > Rewind direction` is called automatically.

2. Select the desired rotating direction (`Printing inside` or `Printing outside`).

Default setting = `Printing outside`

The printer restarts. Afterwards, the following has changed:

- An additional submenu `Options > Rewinder` appeared, which contains the parameter `Rewind direction` that is required to set the rotation direction of the rewinder.

- The icon  is visible above key 3. By pressing this key, the rewinder can be stopped and started again (alternates with icon .

After the restart of the printer starts the rewinder to rotate. If no label material is inserted, an error warning will follow, because the printer control assumes torn-off material.

→ Acknowledge the error message.

After acknowledging the error message, the rewinder can be started/stopped by pressing key 3.

Deactivating the rewinder:

→ Set Options > Selection > Periph. device to None.

SETTING THE DANCER ARM SENSOR

The dancer arm controls the winding speed of the rewinder by means of a sensor. Before applying the rewinder for the first time, the dancer arm has to be brought in both end positions to adjust the sensor.

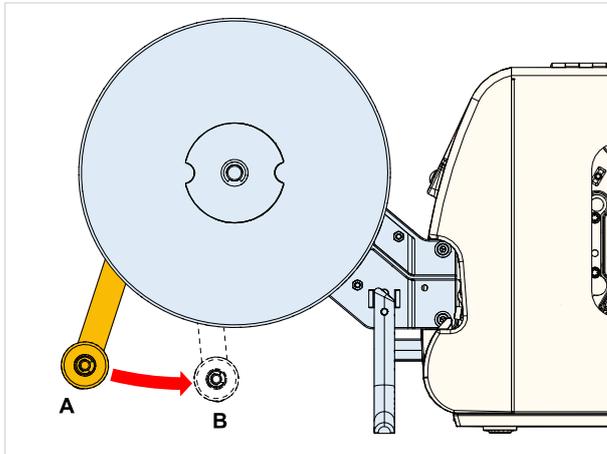


Fig. 3: „Loose“ position (A) and „Middle“ position (B) of the dancer arm using the example of the XLP 50x.

64-xx / AP 5.4

1. Call SERVICE FUNCTIONS > Rewinder adjust.

```
Rewinder adjust
```

2. Press the online key.

```
Rewinder adjust  
loose xxx
```

The dancer arm is in loose position (A)

|| xxx = actual value supplied by the sensor; moving the dancer arm alters the value. ||

3. Press the cut key. Display:

```
Rewinder adjust  
middle xxx
```

4. Move the dancer arm into the middle position (B) and hold it there. Press the online key.

|| In the middle position, the deflection roller of the dancer arm should be placed below the axle of the rewinder. ||

5. Restart the printer.

XLP 50x

1. Call Options > Rewinder > Rewinder adjust. Display ¹:



The dancer arm is in loose position (A).

2. Press key 4. Display ¹:



3. Move the dancer arm into the middle position (B) and hold it there. Press the key 4.

|| In the middle position, the deflection roller of the dancer arm should be placed below the axle of the rewinder. ||

4. Restart the printer.

¹ Picture shows example value.

Operation / Malfunction / Cleaning

INSERTING MATERIAL

The material – depending on the set direction of rotation – is wound around the core in a clockwise or anti-clockwise direction.

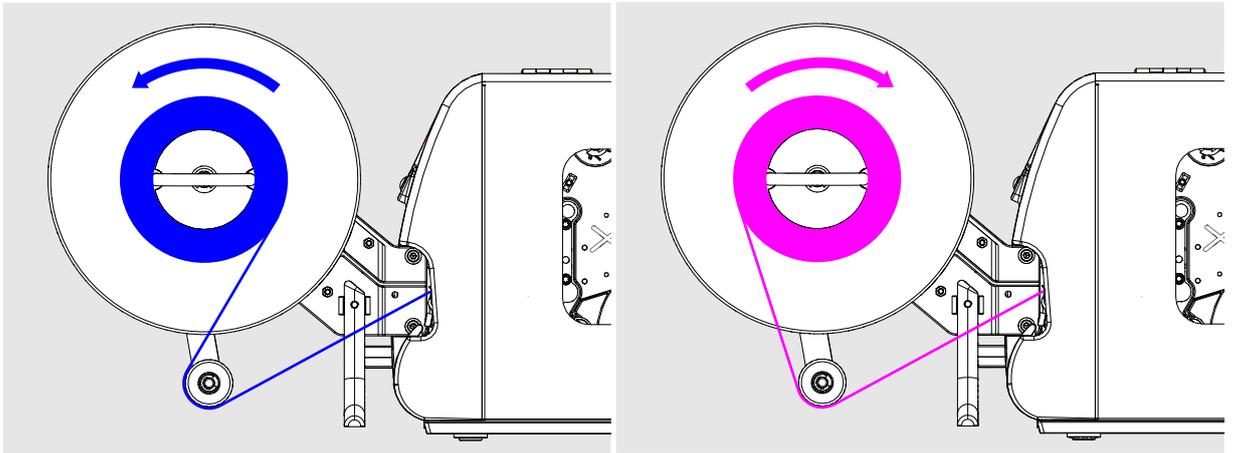
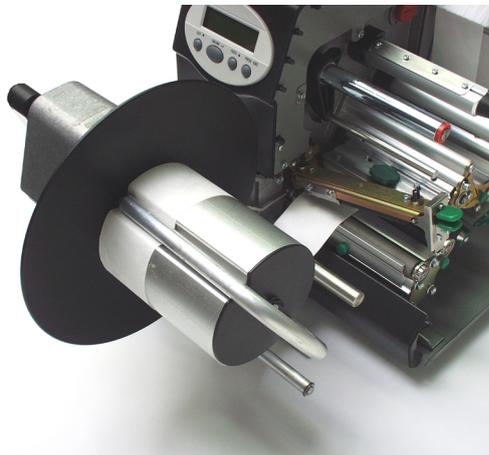


Fig. 4: Left: Rotation direction with labels outside; Right: Rotation direction with labels inside.

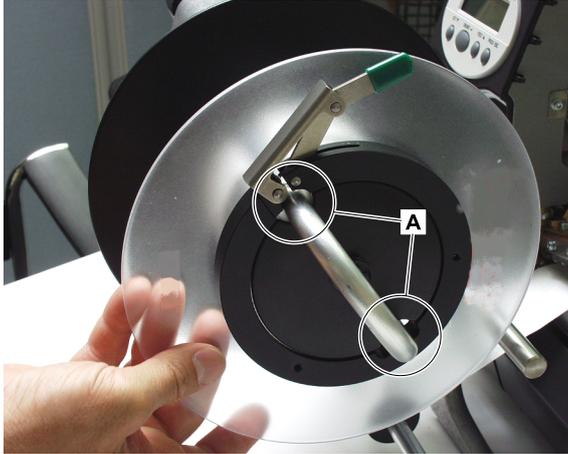
1. Feed the end of the material web around dancer arm and winding core and fix it with the clamping bar. To do so, push the clamping bar over the material (fig.).

|| If a cardboard core is used: Push the clamping bar *underneath* the cardboard core. ||



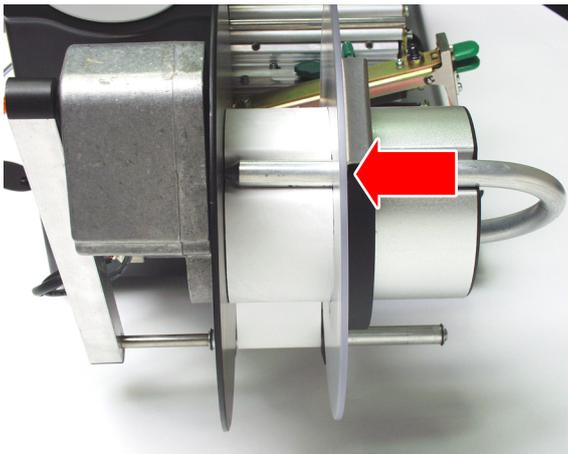
2. Remount the guide disk.

|| The recesses at the inner diameter of the guide disk must be positioned over the clamping bar legs (A). ||



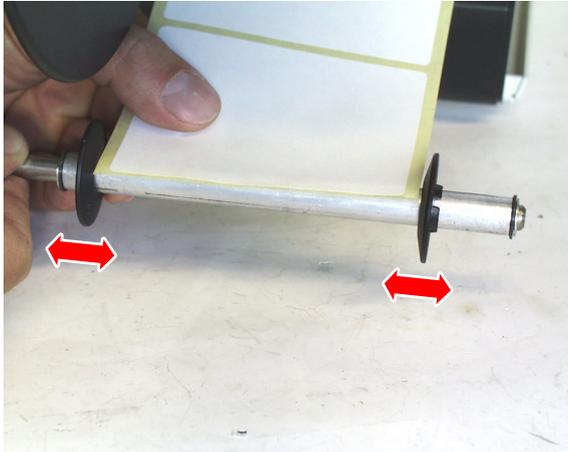
3. Push the guide disk up to the material edge (arrow). Close the clamping lever.

|| The guide disk may not wedge in the material. ||



4. Adjust the material guides (arrows) on the dancer arm by pushing them sideways until they correspond to the width of the material.

|| The material should run evenly, and there should be a small gap between it and the material guides. ||



STARTING/STOPPING

After securing the material end, proceed as follows to start printer and rewinder.

64-xx / AP 5.4

Prerequisite: Printer is switched on and is in offline mode

Starting:

1. Press the cut key.

The rewinder starts rewinding, until the bouncer arm reaches the final position. At that point, the rewinder stops.

|| It is essential to let the bouncer arm initially reach its final position after starting. Only then, the bouncer arm takes control over the rotation speed. ||

2. Press the online key to get into online mode.

If a printjob has already been loaded, both printing and rewinding start nearly simultaneously.

Stopping:

→ Start or stop the rewinder by pressing the cut key (works in online mode as well as in offline mode).

XLP 50x

Prerequisite: Printer is switched on and is showing the „Home“ screen

Starting:

1. Press key 3.

The rewinder starts rewinding, until the bouncer arm reaches the final position. At that point, the rewinder stops.

|| It is essential to let the bouncer arm initially reach its final position after starting. Only then, the bouncer arm takes control over the rotation speed. ||

2. Press key 1 to get to the „Ready“ screen.

If a printjob has already been loaded, both printing and rewinding start nearly simultaneously.

Stopping:

→ Start or stop the rewinder by pressing key 3 (works on both screens, „Ready“ and „Home“).

TROUBLESHOOTING

Printer stops rewinder

If the printer stops for some reason, the rewinder stops too.

→ Eliminate the cause of the stopp (if it was unintended).

Rewinder stops printer

If the dancer arm stays during rewinder operation in the loose position for some seconds (approx. 5), the following error message shows up:

```
Status num:    5004
Rew. mat. tear
```

The printer control assumes that the material is torn off between printer and rewinder.

Printer and rewinder are stopped.

→ Insert material newly and acknowledge the error message.

(XLP 504) Narrow label material is pulled to the inside edge

When narrow label material is used (< 30 mm), problems with the material guiding between printer and rewinder may occur. In this case, the label material is pulled to the inside edge underneath the print head and crumples there.

→ Install the run-in roller for narrow labels (has to be done by service technician).

|| For detailed information refer to the service manual, topic section „Attachment, Setup, Service“, chapter „Run-in roller for narrow labels“. ||

CLEANING



WARNING!

Rotating shaft!

Danger of hair and clothing being pulled in by unintentional actuation of the rewinder.

→ Switch off the printer and disconnect the power cable before cleaning the unwinder.

→ Remove *dust particles* with a soft brush or a vacuum cleaner.

→ Clean the *housing* with a cloth moistened with a standard commercial neutral cleaner.

→ Remove *glue residues* with a cloth moistened with ethyl alcohol.

NOVEXX 
SOLUTIONS

Novexx Solutions GmbH

Ohmstraße 3
85386 Eching
Germany

Telephone: +49-8165-925-0 | www.novexx.com