MultiMark

THM MultiMark PLUS R
MultiMark R-Fix

Thermal transfer printer
Wrap-around applicator

Operating instructions

Weidmüller

Manufacturer
Weidmüller Interface GmbH & Co. KG
Klingenbergstraße 26
32758 Detmold, Germany
T +49 5231 14-0
F +49 5231 14-292083
www.weidmüller.com

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Contents

1 About this documentation

The warnings in this documentation are designed according to the severity of the danger.

DANGER

Imminent danger to life!

Notes with the signal word "DANGER" warn you of situations which will result in serious injury or death if you do not observe the specified instructions.

WARNING

Possible danger to life!

Notes with the signal word “Warning” warn you of situations that may result in serious injury or death if you do not follow the instructions given in this manual.

CAUTION

Danger of injury!

Notes with the signal word “Caution” warn you of situations that may result in injury if you do not follow the instructions given in this manual.

ATTENTION

Material damage!

Notes with the signal word “Attention” warn you of hazards which may result in material damage.

The situation-dependent warnings may contain the following warning symbols:

Icon	Meaning
	Warning of dangerous electrical voltage
	Warning of hot surfaces
	Warning of crushing due to moving parts
	Work may only be carried out by a qualified electrician
	Carry out work only with personal protective equipment
	Notes on the documentation/ Observe the instructions for use

Additional formatting is used in the text, with the following meaning:

Texts next to this arrow are notes which are not relevant to safety, but provide important information about proper and effective work procedures.

► You can recognise handling instructions from the black triangle in front of the text.
– Lists are marked with a tick.

2 Safety

2.1 General safety notes

Electricity

– The enclosure of the device must not be opened.
– Unauthorised work or modifications to the device may place the operational reliability at risk.
– The device is designed for electricity grids with AC voltage of between 100 V and 240 V.
– The device may only be connected to sockets with a protective earth contact.
– The device may only be connected to devices that conduct protective extra-low voltage. Before connecting or disconnecting with other devices, all devices must be switched off.

Moving parts

– If the printer is operated with an open cover, make sure that hair, loose clothing, jewellery or similar do not come into contact with exposed, rotating parts.
– The moving parts in the workspace of the applicator could cause crushing injuries. Therefore, do not reach into the workspace.

Installation site

– The device is not designed for areas where children could potentially be present.
– The device may only be operated in a dry environment and must not be exposed to moisture (spray water, mist, etc.).
– The device must not be operated in potentially explosive atmospheres.
– The device must not be operated near high-voltage lines.
– The printer and applicator are class A equipment. The devices can cause radio frequency interference in residential areas. In this case, the operator may be asked to implement adequate protective measures.

Personnel, activities

– Only carry out the actions described in these instructions. Additional work may only be carried out by trained personnel or service technicians.
– Improper intervention in electronic assemblies and their software can cause faults.
– Service activities must be carried out in a qualified workshop that has the necessary expertise and tools to perform the necessary work.
– The device or parts thereof can become hot during printing. Do not touch them while they are in operation, and allow them to cool down before changing materials or removing them.
– Risk of crushing when closing the cover. Only touch the cover from the outside while closing it, and do not reach into the swivel range of the cover.
– Disconnect the printer from the network before installing or removing the applicator.
– Only operate the applicator when it is mounted on the printer.
– Warning stickers may not be removed; otherwise, users will not be able to identify dangers.

2.2 Intended use

The printer is exclusively intended for printing labels. The printer may only be used to process materials approved for it, see the Weidmüller online catalogue. The R-Fix wrap-around applicator is only designed as an accessory for the printer for labelling individual wires and cables with a diameter between 2 - 16 mm.
Any other or further use of the devices is considered incorrect use.
Observance of the documentation, including the maintenance recommendations, is also part of the intended use.
The devices may only be operated if they are in proper technical condition.
The devices are manufactured based on the state of the art and standard safety rules. However, the use of the system may pose a danger to life and limb for the user or third parties and the device and other property may be impaired if the safety notes are not observed.

2.3 Personnel

Only trained personnel may operate the device and carry out maintenance work. They must also have read the operating instructions in their entirety.

Repairs may only be carried out after consultation with Weidmüller Service and only by a qualified electrician.

Please keep the operating instructions where they can be viewed by the operating personnel at all times.
All documents can also be downloaded from the Weidmüller website.

3 Device description

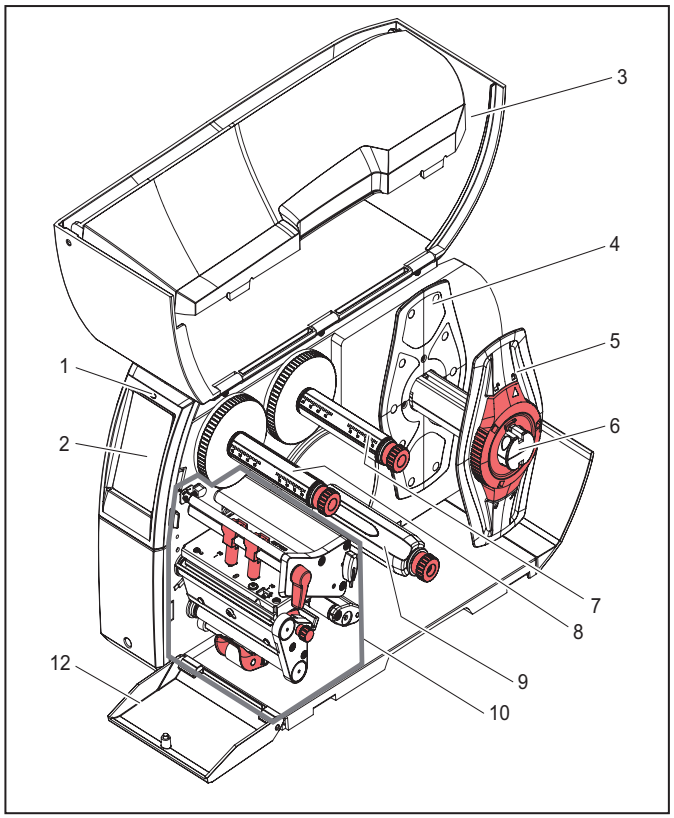


Figure 3.1 Overview of the printer

1 “Device switched on” LED
2 Display
3 Cover
4 Inside margin stop
5 Outside margin stop
6 Reel holder
7 Transfer foil unwinder
8 Transfer foil winder
9 Internal winder
10 Printing assembly
11 Cover

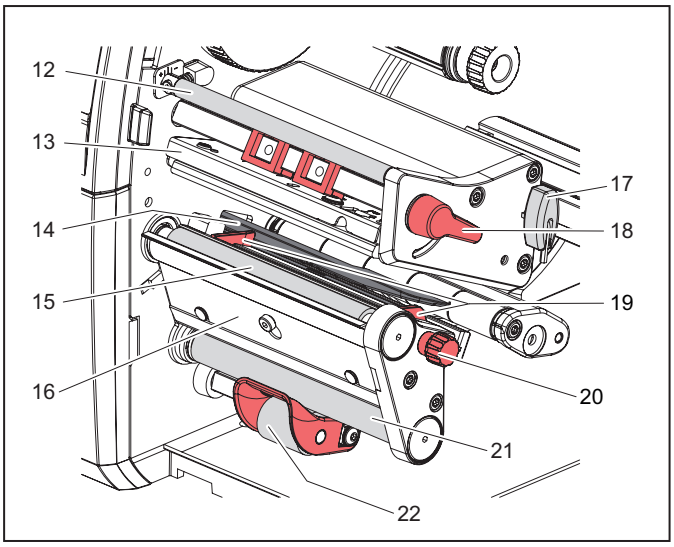


Figure 3.2 Printing assembly

12 Deflection for transfer foil
13 Head bracket with print head
14 Labelling light barrier
15 Print roller
16 Dispensing edge
17 Hexagon key
18 Lever to lock the print head
19 Guide
20 Adjusting knob for guides
21 Deflection roller
22 Locking system

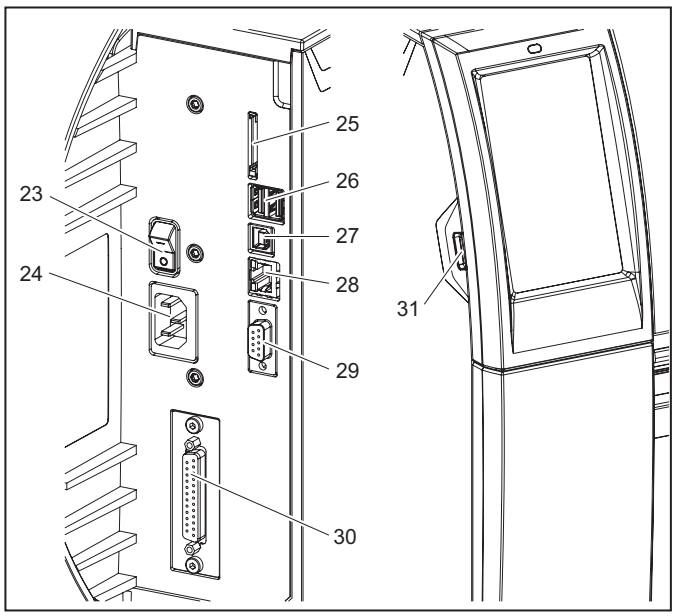


Figure 3.3 Connections

23 Mains switch
24 Mains connection
25 Slot for SD card
26 2 USB master interfaces for keyboard, scanner, USB stick, Bluetooth adapter or service key
27 USB Full Speed slave interface
28 Ethernet 10/100 Base-T
29 RS-232 interface
30 I/O interface*
31 USB master interface for keyboard, scanner, USB stick, Bluetooth adapter or service key

3.1 Technical data

Printers	
Ambient temperature	
Operation	+5°C to 40°C
Storage	0 °C to +60 °C
Transport	-25 °C to +60 °C
Humidity	
Operation	10 % to 85 %, non-condensing
Storage/transport	20 % to 85 %, non-condensing
Dimensions (WxHxD)	252 x 288 x 460 mm
Weight	10 kg
Supply voltage	100 to 240 V AC; 50/60 Hz, PFC
Interfaces	RS232-C: 1.200 ... 230,400 baud/8 bit 1 x USB 2.0 Hi-Speed Device for PC connection Ethernet 10/100 Mbit/s 1 x USB host on the control panel 2 x USB host at the rear
Control panel	Touch screen, LCDcolour display
Print technology	Thermal transfer
Printing resolution	300 dpi
Print speed	300 mm/s
Print width	4 to 110 mm
Material guidance	centred
Assembly	centred
Roll diameter	Max. 205 mm
Core diameter	76 mm

Wrap-around applicator	
Single wires / conductors	
Diameter	2.0 to 16.0 mm
Length	132 mm
Distance centring plate left-right	124 mm
Distance label edge - centring plate mm	12.7 mm
Stop label edge - end of product	25 to 100 mm
Deflection over 124 length	max. 1 mm
Labels	
Width	12.7 to 50.8 mm
Height	19.1 to 70.0 mm
Material	PVC
Application	
Print/apply cycle time	1.8 to 6 s
Number of windings	19.1 to 70.0 mm
Start	after inserting the product manually

3.2 Type plate

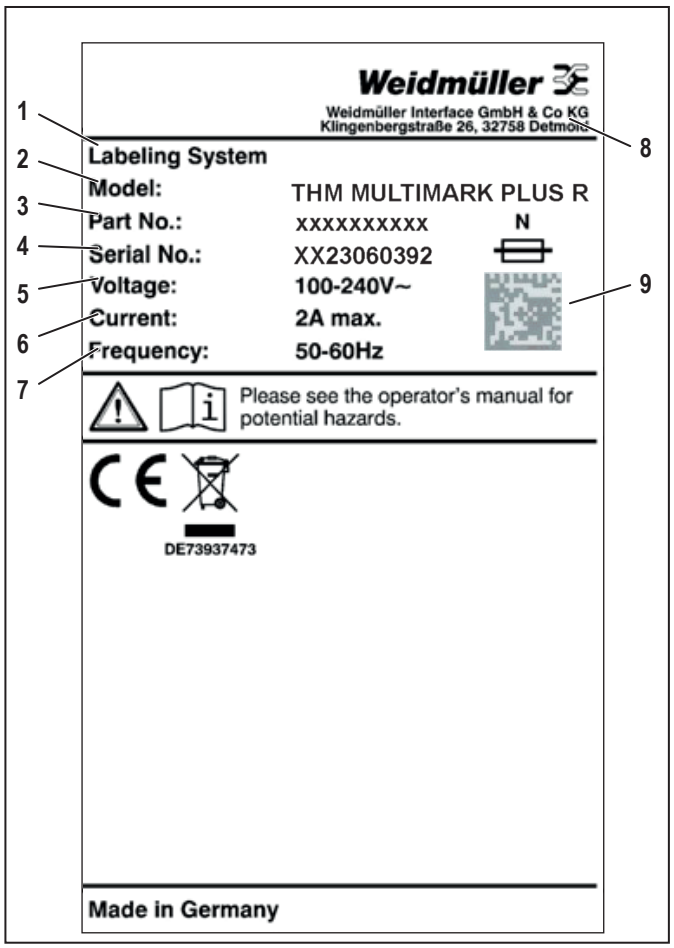


Figure 3.4 Printer type plate

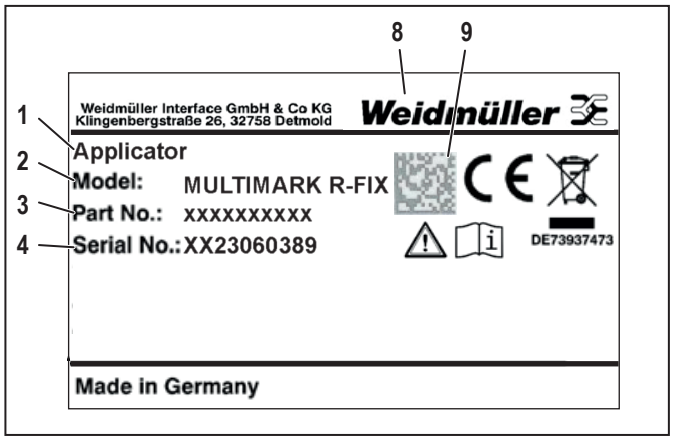


Figure 3.5 Wrap-around applicator type plate

1 Product type
2 Model
3 Material number
4 Serial number
5 Permissible voltage
6 Maximum current
7 Frequency range
8 Manufacturer
9 QR code production data

The following symbols are shown on the type plate.

Icon	Meaning
N	Neutral conductor fuse
CE	EU conformity
	Observe the disposal instructions

Explanation of the serial number

MRJJMM####
PRJJMM####

MR	Printer system designation
PR	Wrap-around applicator system designation
YY	Year
MM	Month
####	Serial number

4 Unpacking the device and putting it into operation

Select an installation site that meets the requirements, see chapter 2.1. Observe the following additional notes:
– Stable base with a level and even surface (weight and dimensions, see technical data).
– Electricity connection easily accessible nearby
– Adequate space for ergonomic operation, preferably in an office environment

Included in delivery

– Printers
– Mains cable
– USB cable
– Ink ribbon
– DVD with M-Print® PRO marking software
– 2 x cardboard roll (ink ribbon unwinding)
– Operating instructions
– WLAN stick, optional

► Check all components for transport damage.
► Check the delivery for completeness.

Store the original packaging for subsequent transport.

► Remove the printer from the packaging and set it up on a level surface.

4.1 Installing the WLAN stick

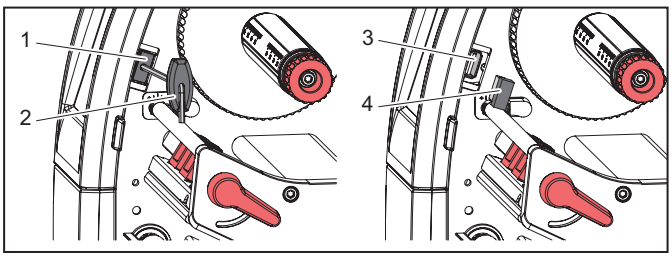


Figure 4.1 Installing the WLAN stick

► Remove the cover (1) with the hexagon key (2).
► Insert the WLAN stick (4) into a USB port (3) in the control panel.

4.2 Beginning operation of the device

► Insert the power cable in the mains socket (36, Figure 3.3).
► Insert the power cable plug in an earthed socket.
Switch on the printer, see chapter 4.4

4.3 Connecting the computer or computer network

ATTENTION

A lack of or insufficient earthing can cause faults during operation.

► Make sure that all computers connected to the printer as well as the connecting cables are earthed.

► Connect the printer to a computer or network using a suitable cable.

4.4 Switch on the printer

► Switch on the printer at the mains switch (23, Figure 3.3).
The printer runs through a system test and then shows the Ready system status on the display (2, Figure 3.1）.

5 Operating software

5.1 Touch display

The touch display lets you operate the printer's operating software and execute the following functions:
– Pause, continue or cancel print jobs
– Set print parameters, e.g. heat energy of the print head, print speed, configuration of the interfaces, language and time
– Control stand-alone operation with a memory device
– Perform a firmware update

Several functions and settings can also be controlled by the M-Print® PRO software, see the operating instructions for the software.
Settings changed on the touch display will be the base setting of the printer.

To adjust the print jobs, any adjustments should take place in the software.

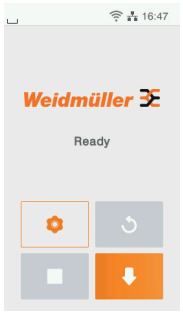
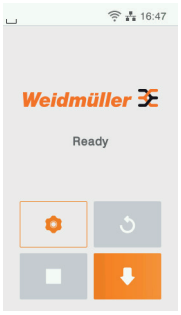
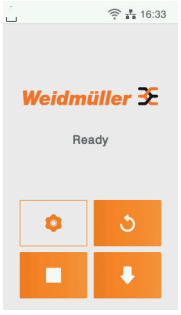
► To open a menu or select a menu item, tap on the relevant icon.
► To scroll, move one finger up or down on the touch display.

	Open the menu
	Pause or continue a print job
	Repeat last label
	Cancel and delete all print jobs
	Label feed

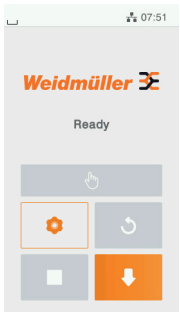
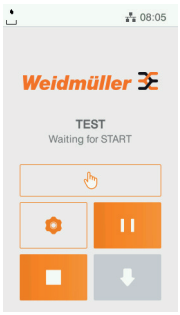
Figure 5.1 Buttons on the start screen

5.2 Start screen

The start screen shows the relevant operating status.

	
After switching on	During printing
	
In pause mode	After a print job

For certain software or hardware configurations, additional icons are displayed on the start screen:

	
Print on request without print job	Print on request in print job

	Start processing a single label in the print job (printing incl. dispensing, cutting etc.).
	Trigger a direct cut without material transport.

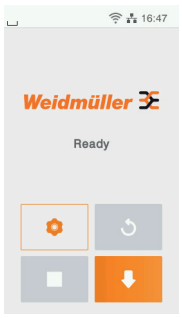
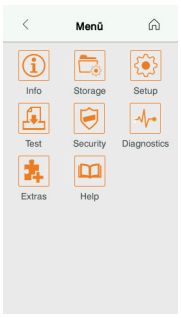
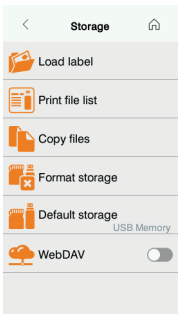
The header shows various information in the form of widgets depending on the configuration:

Figure 5.2 Widgets in the header

	The receipt of data from an interface is signalled by a falling drop.
	The **Save data stream** function is active. All data received are saved in an .lbl file.
	Prewarning Out of ribbon: the residual diameter of the ribbon reel has fallen below a set value.
	SD card installed
	USB stick installed
	Grey: Bluetooth adapter installed White: Bluetooth connection active
	WLAN connection active The number of white arches symbolises the WLAN field strength.
	Ethernet connection active
	USB connection active
abc	abc program active
08:24	Time

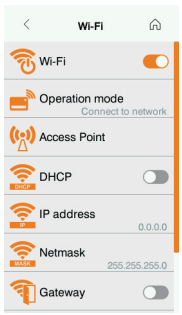
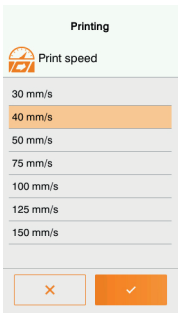
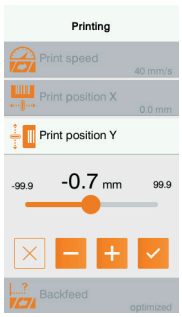
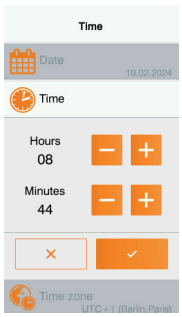
Figure 5.3 Widgets in the header on the start screen

5.3 Menu navigation

			 Tapping on the gear takes you to the selection level of the operating menu. Tapping on the arrow takes you back one level. Tapping on the house takes you home.
Home	Selection level	Parameter and function level	

► Tap on the selection until you reach the desired parameter or function level.

If you select a function, the printer starts this function directly or a preparatory dialogue is displayed.
If you select a parameter, the available setting options are displayed.

			
Logical parameters	Selection parameters	Numerical parameters	Date/time

Control element	Function
	Slider to adjust the value
	Gradual reduction of the value
	Gradual increase of the value
	Exit setting mode without saving
	Save and exit setting mode
	Parameter is switched off, pressing it switches the parameter on
	Parameter is switched on, pressing it switches the parameter off

6 Setting up the printer

CAUTION

Danger of injury!

When setting up the printer, work needs to be carried out with the cover open.

► Make sure that hair, loose clothing, jewellery and the like do not come into contact with exposed, rotating parts.

The only tool you need to set up the printer is the supplied hexagonal spanner (17, Figure 3.2).

6.1 Positioning the material reel on the reel holder

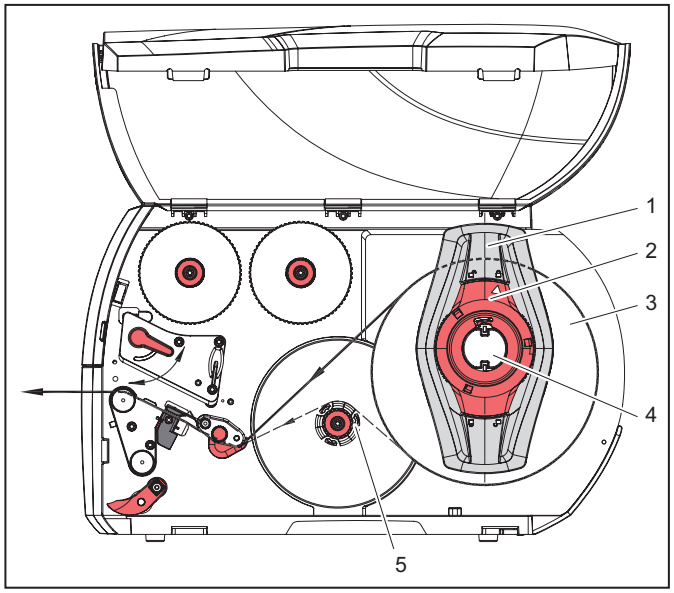


Figure 6.1 Position the reel material

► Open the cover.
► To unscrew the margin stop (1), turn the adjusting ring (2) anti-clockwise until the arrow points to the unlocked icon.
► Pull the margin stop (1) off the reel holder (4).
► Slide the material reel (3) onto the reel holder (4) so that the side of the material to be printed points upwards.
► Place the margin stop (1) on the reel holder (4) and slide it in until both margin stops (1) are in contact with the material reel (2) and clear resistance is noticeable when sliding.
► Turn the adjusting ring (2) clockwise until the arrow points to the locked icon.
► Unwind a label strip with the following dimensions:
– approx. 60 cm for dispensing mode

6.2 Placing labels in the print head

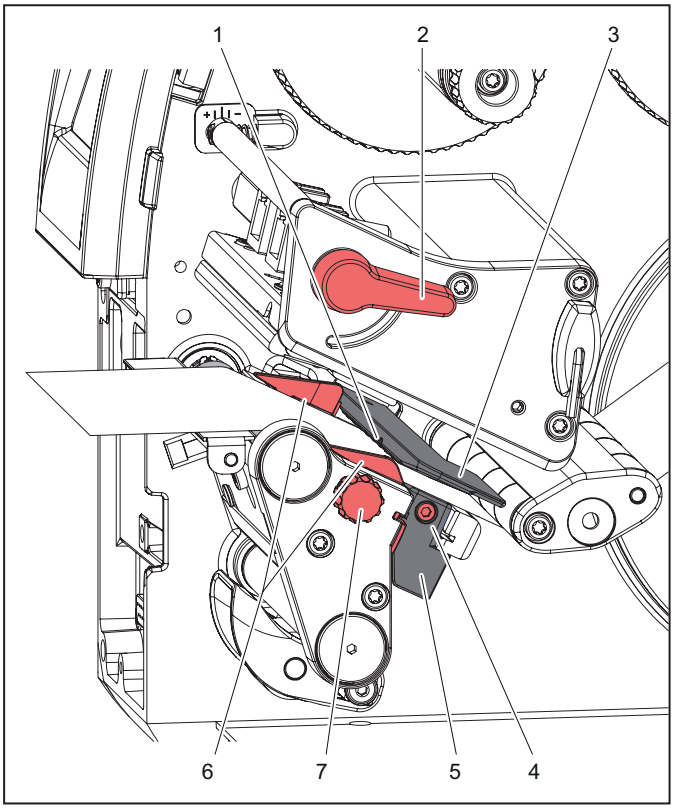


Figure 6.2 Placing labels in the print head

► Turn the lever (2) counter-clockwise to raise the print head.
► Use the knurled knob (7) to adjust the margin stop (6) so that the material fits between the two margin stops.
► Guide the label strip over the internal winder to the print unit.
► Guide the label strip through the label light barrier (3) so that it exits the print unit between the print head and print roller.
► Position the margin stop (6) so that the material is guided without jamming.

6.3 Adjusting the label light barrier

The label light barrier can be pushed lateral to the paper's running direction in order to adjust to the label material. The sensor (1) of the light barrier is visible when looking through the printing unit from the front, and is designated by a marker on the light barrier holder. When the printer is switched on, a yellow LED lights up at the sensor position (1).

► Unscrew the screw (4).
► Position the label light barrier with the handle (5) so that the sensor (1) can detect the label gap or a reflective mark or a punched hole.

Alternatively, if the labels deviate from a rectangular shape:

► Align the label light barrier with the handle (5) so that the front edge of the label is detected in the running direction.

► Re-tighten the screw (4).

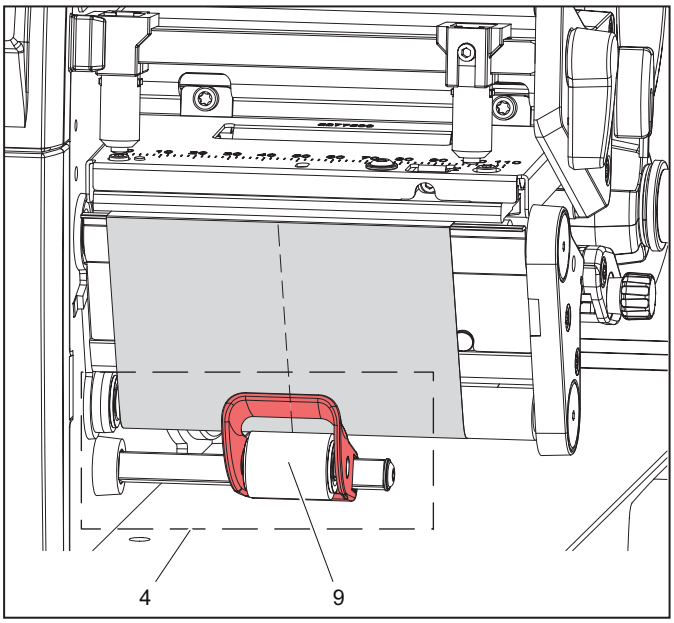


Figure 6.4 Alignment of the pressure rollers

6.4 Unwinding carrier material in dispensing mode

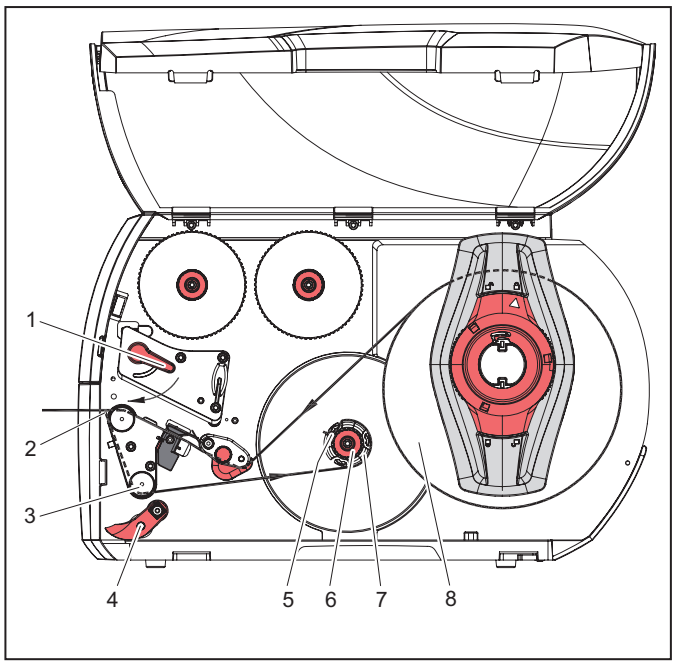


Figure 6.3 Material guide in dispensing mode

In dispensing mode, the labels are removed after printing and only the carrier material is wound internally.

► Swivel the pressure system (4) away from the deflection roller (3).
► Remove the labels from the carrier material for the first 100 mm of the label strip.
► Guide the label strips around the dispensing edge (2) and deflection roller (3) to the winder (7).
► Hold the winder (7) firmly and turn the knob (6) anti-clockwise to the stop.
► Push the carrier material under a clamp (5) of the winder (7) and align the outside edge of the label strip to the reel (8).
► Turn the knob (6) anti-clockwise to the stop.

The winder is spread, clamping the strip in place.

► Turn the winder (7) anti-clockwise to smooth the material.
► Position the pressure roller (9) in the centre of the width of the label.
► Swivel the pressure system (4) to the deflection roller (3).
► Turn the lever (1) clockwise to lock the print head.

The labels are inserted for operation in dispensing mode.

6.5 Inserting concertina labels

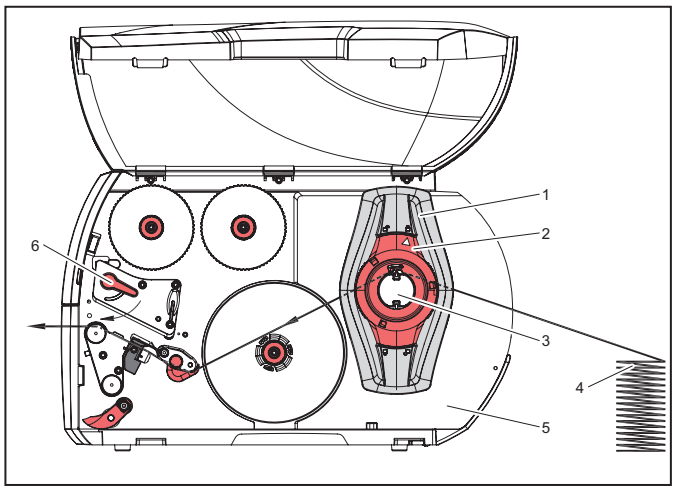


Figure 6.5 Paper run with concertina labels

- ► To unscrew the margin stop (1), turn the adjusting ring (2) anti-clockwise until the arrow points to the unlocked icon.
- ► Adjust the margin stop (1) so that the material fits between the two margin stops.
- ► Place the label stack (4) behind the printer. Ensure that the labels are on the strip visible from the top.
- ► Guide the label strip over the spool holder (3) to the print unit.
- ► Push the margin stops (1) wide enough so that the label strips are in contact with both margin stops without being clamped or bent.
- ► Turn the adjusting ring (2) clockwise until the arrow points to the locked icon.
- ► Insert the label strips in the print head, see 6.2 on page 16.
- ► Adjust the label light barrier, see 6.3 on page 17.
- ► Adjust the head locking system, see 6.6 on page 18.
- ► Turn the lever (6) clockwise to lock the print head.

6.6 Adjusting the head locking system

The print head is pressed down by two plungers (1) that are positioned in the middle of the head bracket in the home position. This setting can be retained for most applications.
The plungers can be adjusted if bright patches occur in the side margin areas of a print image when using very wide materials.

Hexagon key

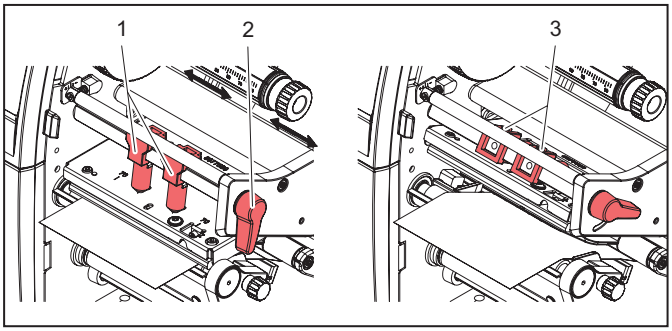


Figure 6.6 Adjust the head locking system

- ► Unscrew the two threaded pins (3) with the hexagon key.
- ► Turn the lever (2) clockwise to lock the print head.
- ► Slide the plungers (1) symmetrically to a maximum of scale value 70.
- ► Tighten both threaded pins (2).

6.7 Removing and installing the deflection plate or dispensing edge

The deflection plate (2a) or a dispensing edge (2b) may need to be installed in order to convert the printer for another operating mode.

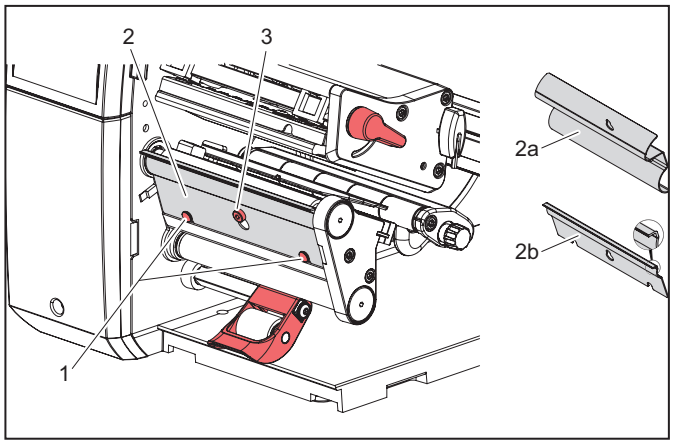


Figure 6.7 Removing and installing the deflection plate or dispensing edge

Removing the plate

► Unscrew the screw (3) multiple revolutions.
► Push the plate (2) upwards to remove it.

Installing the plate

► Place the plate (2) on the screw (3) and push it down behind the pins (1).
► Tighten the screw (3).

6.8 Inserting the transfer foil

► Clean the print head before inserting the transfer foil, see chapter 8.

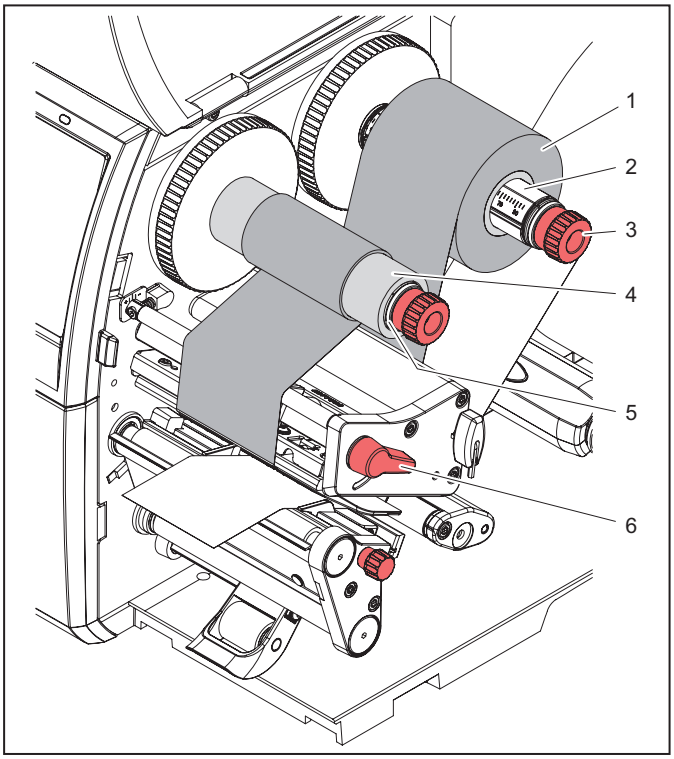


Figure 6.8 Insert the transfer foil

The transfer foil run applies to ribbons with the coating side wound on the inside.

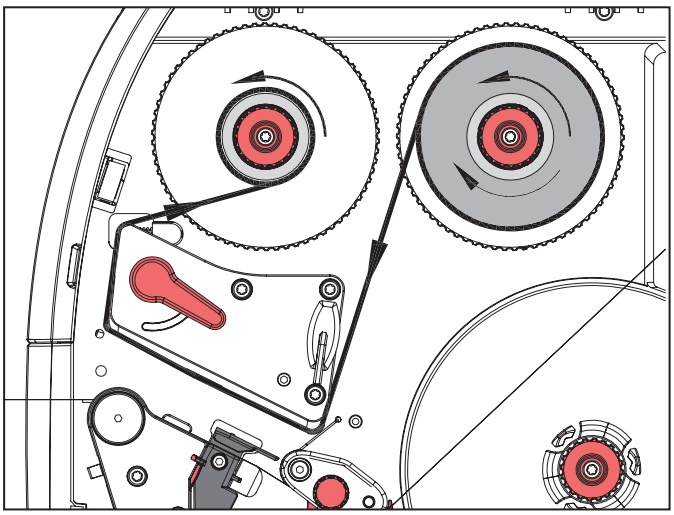


Figure 6.9 Transfer foil run

► Turn the lever (6) anti-clockwise to release and lift the print head.
► Slide the transfer foil reel (1) onto the unwinder (2) so that the colour coating on the ribbon points down during unwinding.
► Position the transfer foil reel (1) on the unwinder so that the scale values on both sides of the reel are identical.
► Hold the unwinder (2) tight and turn the rotary knob on the unwinder (3) anti-clockwise until the transfer foil reel is fastened in place.
► Slide a suitable transfer foil core (4) onto the transfer foil winder (5) and fasten it in the same manner.
► Guide the transfer foil through the print assembly, see Figure 6.9.
► Fasten the start of the transfer foil on the transfer foil core (4) with an adhesive strip. Make sure that the transfer foil winder rotates anti-clockwise.
► Turn the transfer foil winder (5) anti-clockwise to smooth the transfer foil run.
► Turn the lever (6) clockwise to lock the print head.

6.9 Adjusting the transfer foil run

Creases in the transfer foil run can lead to errors in the print image. To avoid creasing, the transfer foil deflection (3) can be adjusted.

It's best to perform this adjustment during print operation.

Hexagon key

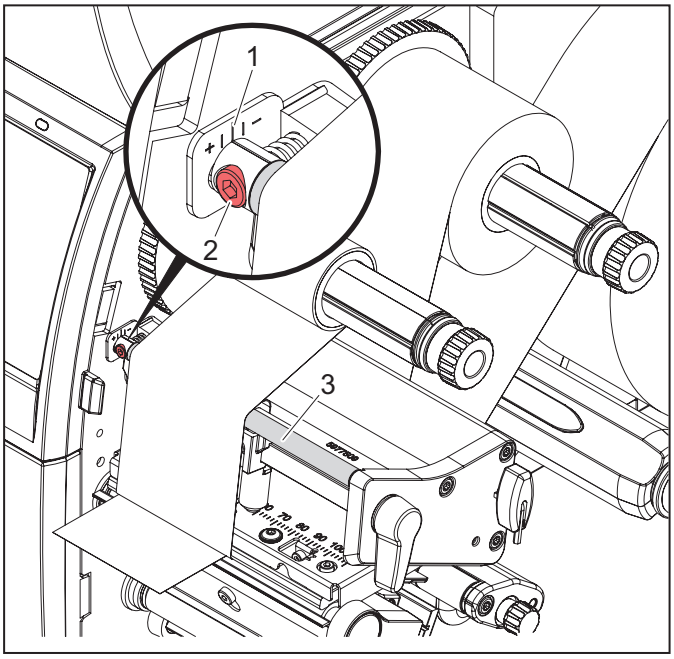


Figure 6.10 Adjusting the top transfer foil run

► Read the current setting on the scale (1) and note this down.
► Turn the screw (2) and observe the behaviour of the ribbon.

Turning in the **+** direction tensions the inner edge of the transfer foil.
Turning in the **–** direction tensions the outer edge of the transfer foil.

Incorrect adjustment of the head locking system can also cause creases in the ribbon run.

7 Printing

ATTENTION

Incorrect handling can damage the print head!

- ► Do not touch the underside of the print head with your fingers or sharp objects.
- ► Make sure that the labels are not contaminated.
- ► Ensure the smooth surface of the labels. Rough labels act like an abrasive and reduce the service life of the print head.
- ► Print with the lowest possible print head temperature.

The printer is ready for use when all connections are established and the labels as well as, where necessary, a transfer foil have been inserted.

7.1 Synchronising the paper run

A synchronisation run is not necessary if the print head was not opened between different print jobs, even if the printer was switched off.

After inserting the label material, it is necessary to synchronise the paper run in dispensing or cutting mode. To do so, the first label detected by the label sensor is brought into printing position, and all labels before it are transported out of the printer. This prevents empty labels being dispensed with the first printed label in dispensing mode, or the cut length of the first section from being incorrect in cutting mode. Both effects can make the first label unusable.

- ► Touch the **Label feed** icon on the touch display to start synchronisation.
- ► Remove the empty labels dispensed and cut during the feed process.

7.2 Dispensing mode

In dispensing mode, labels are removed from the carrier material automatically after printing and provided for removal. The carrier material is wound internally in the printer.

The simplest option is to control dispensing mode via the touch screen display without using an optional assembly:

- ► Start the print order with dispensing mode activated.
- ► To start a dispensing process, touch the **Start printing** icon on the touch display.

Contact Weidmüller Service for operation with dispensing light barriers or applicators.

7.3 Internal winding

Labels are wound up once again with the carrier material for later use after printing. An optional deflection plate must be installed instead of the dispensing edge, see 6.7 on page 19.

8 Accessory MultiMark R-Fix

The MultiMark R-Fix wrap-around applicator is designed as an accessory for the MultiMark Plus R printer, see the Weidmüller online catalogue. The device is designed for labelling individual wires and cables with a diameter of 2 - 16 mm.

► Only operate the applicator if the printer firmware is 5.41.1 or higher.

8.1 Labels and transfer film

► Only use winding labels and thermal transfer tapes recommended by Weidmüller, see the Weidmüller online catalogue.
► Different labelling systems cannot be combined in all cases. Labelling products from Weidmüller can only be combined with products from other manufacturers if Weidmüller has granted approval for the intended use. Contact Weidmüller Service for this purpose.
► Ensure that the labels are clean and free from lubricants.

8.2 Fitting the applicator

Removing the panel on the printer

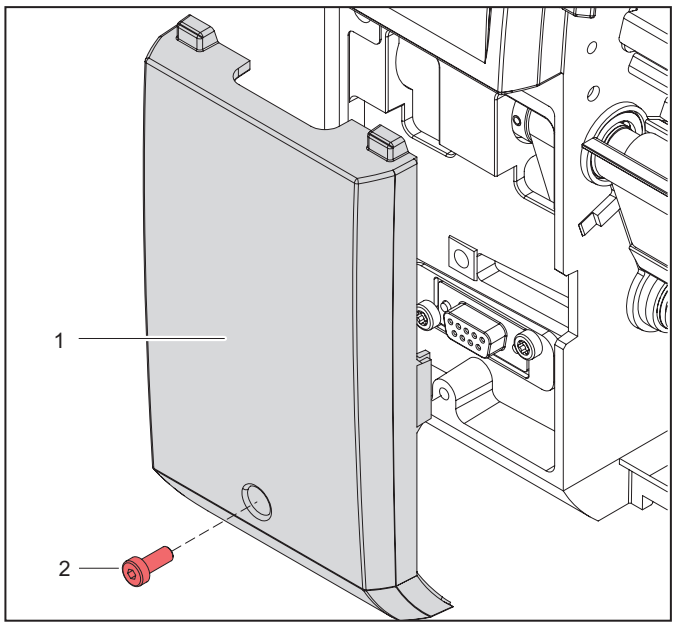


Figure 8.1 Removing the panel

► Unscrew the screw (2) and remove the panel (1).

Exchanging the dispensing edge and pressure roller

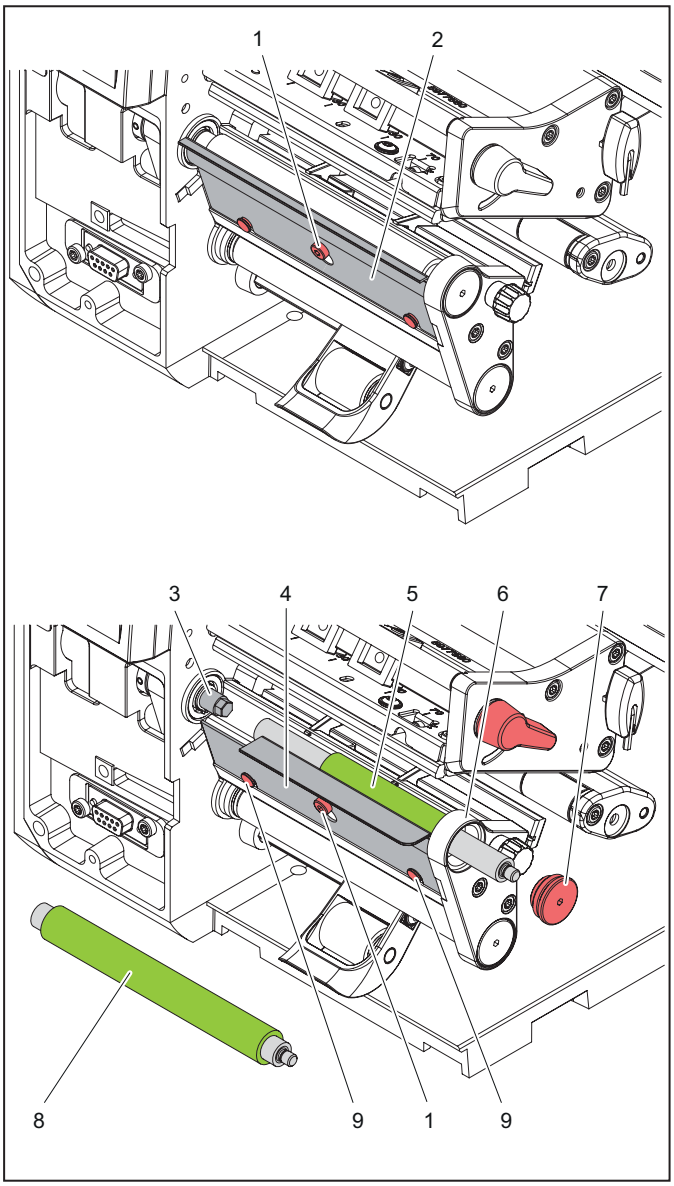


Figure 8.2 Exchanging the dispensing edge and pressure roller

► Unscrew the screw (1) by a few revolutions.
► Remove the standard dispensing edge (2).
► Open the print head lock.
► Unscrew the roller bearing (7) from the bearing plate (6) using the 2.5 mm hexagonal key.
► Pull the standard print roller (8) off of the shaft (3) through the bearing plate (6).
► Clean the shaft (3).

► Place the print roller with the narrow rubber coating (5) on the shaft (3). Turn the print roller slightly until the hexagon of the shaft engages with the hexagon of the print roller.
► Place the bearing (7) on the peg of the roller and screw the roller bearing it into the bearing plate (6).
► Suspend the dispensing edge of the applicator (4) on the screw (1) and the ins (9).
► Tighten the screw (1).

Fitting the applicator

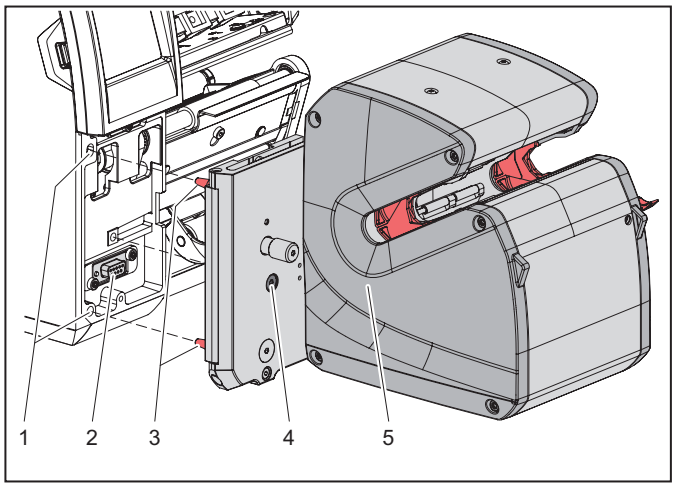


Figure 8.3 Fitting the applicator

► Ensure that the printer is disconnected from the network before fitting or removing the applicator.
► Insert the applicator (5) with the pins (3) into the catch holes (1).
► Push the applicator onto the printer to connect the plug-in connector of the applicator with the peripheral connection (2) of the printer.
► Secure the applicator with the screw (4).

8.3 Beginning operation of the applicator

Swivelling the applicator out

The winding assembly can be swivelled away from the printer in order to insert material into the printer and for servicing.

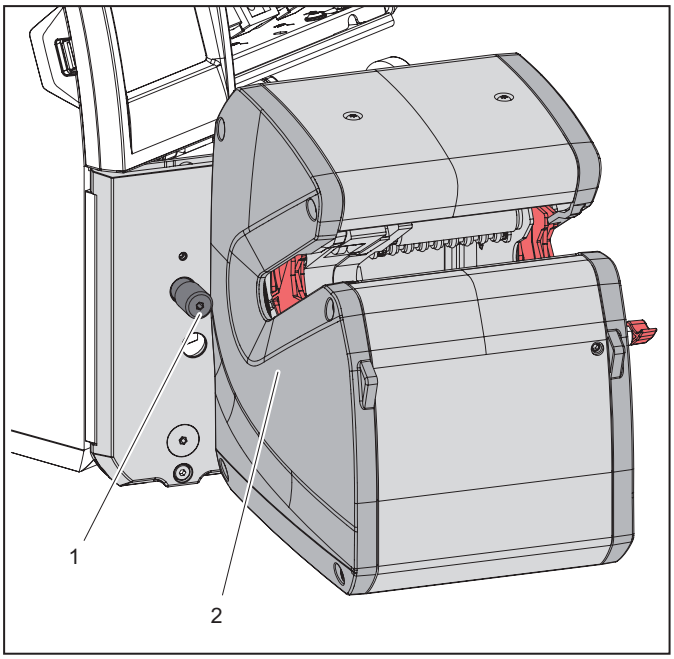


Figure 8.4 Swivelling the applicator out

► Loosen the knurled screw (1).
► Swivel the winding assembly (2) away from the printer.

Insert material

For details on inserting the material, see chapter 6 on page 16.

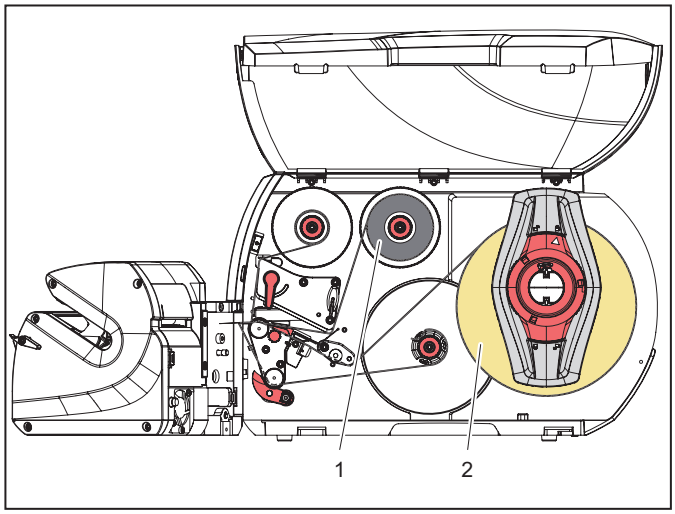


Figure 8.5 Insert material

Prerequisite: The applicator must be swivelled away from the printer.

- ► Insert the transfer film (1) and labels (2) and check the material run, see Figure 8.5.
- ► Switch on the printer.
- ► Touch the **Label feed** icon on the touch display to start synchronisation of the paper run.
- ► Remove the empty labels dispensed during the feed process.
- ► Swivel X applicator to the printer and fix in place.
- ► Swivel the winding assembly back to the printer and tighten the knurled screw.

Completing side alignment of the applicator

Side alignment of the applicator is required to precisely position the labels on the product using the stop, see Page 25.

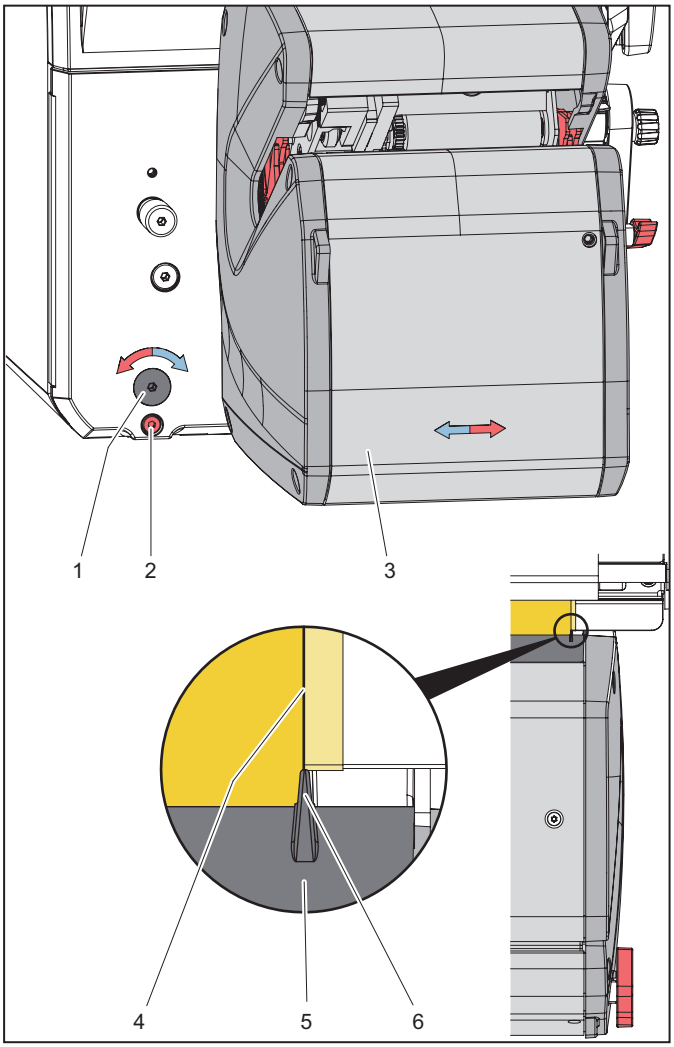


Figure 8.6 Completing side alignment of the applicator

- ► Unscrew the screw (2).
- ► Align the markings (6) on the service door (5) to the edge (4) of the carrier material. To do so, turn the adjusting knob (1) to push the winding assembly (3).
- ► Tighten the screw (2).

Adjusting the stop

Using the stop ensures good repeat accuracy in positioning the labels on the product.

The dimensions on the scale (3) only apply if the applicator is positioned correctly, see Page 24.

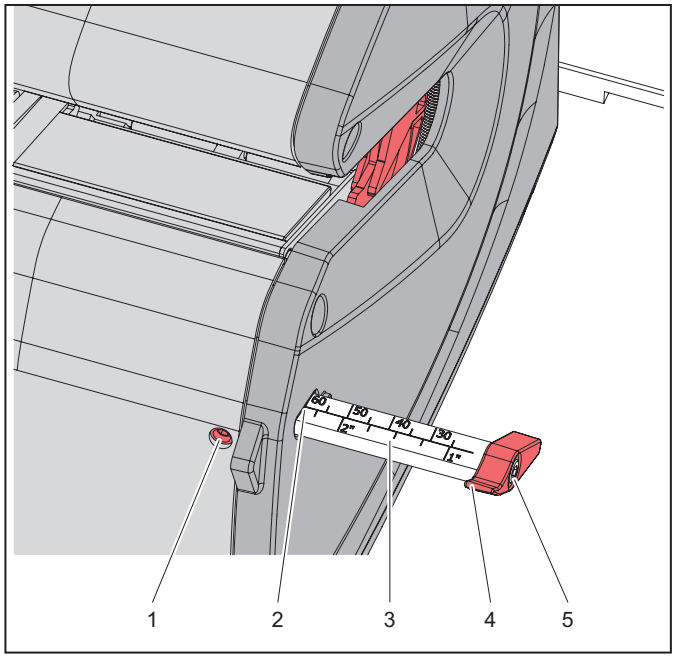


Figure 8.7 Adjusting the stop

- ► Unscrew the screw (1).
- ► Set the scale (3) with the stop (4) so that the desired distance between the edge of the label and end of the product is shown on the edge (2) of the cover.
- ► Tighten the screw (1).
- ► To optimise product contact, align the stop (4) after loosening the screw (5).

Adjusting parallelism between the labels and the product

CAUTION

Danger of injury!

Danger of crushing due to moving parts in the workspace of the applicator.

► Do not reach into the workspace.

If there is an offset between the locations of the wound labels during operation, the angle between the applicator and printer can be corrected.

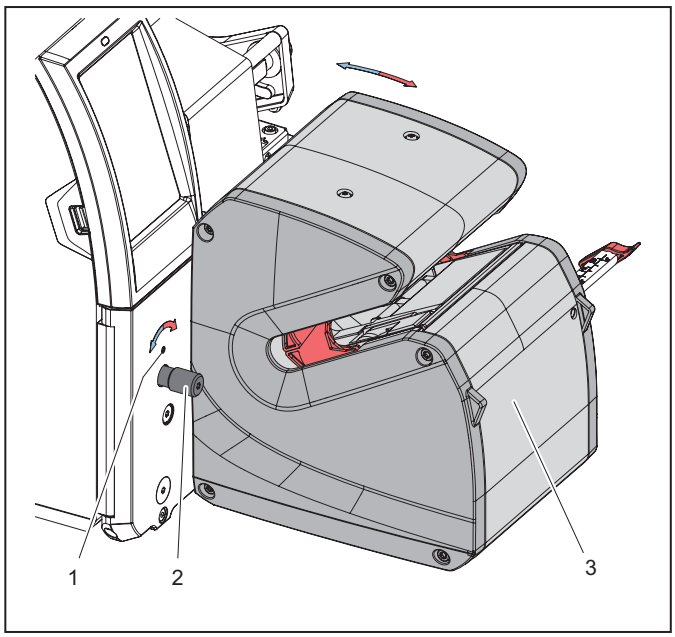


Figure 8.8 Adjusting parallelism

- ► Loosen the knurled screw (2).
- ► Swivel the winding assembly (3) in small steps by turning it on the threaded pin (1).
- ► Tighten the knurled screw (2).
- ► Start labelling and check the winding result.
- ► Correct the adjustment if necessary.

8.4 Configuring the system

This section describes the mandatory settings necessary for the applicator to function.

Adjusting the return transport

► To operate the applicator, after a label is transferred from the printer to the applicator, the front edge of the next label must be transported back to the print line.

► Start the menu.
► Tap the **Settings** icon on the touch display.
► Tap the **Print** icon.
► Tap the **Return** symbol and adjust the setting to **always**.

Adjusting the basic setting for dispensing offset without a print order

► Touch the **Label feed** icon on the touch display to determine the dispensing position of the labels.

The current label must be freely dispensed, the next label should stop approx. 1 mm before the dispensing edge.

► Correct the dispensing position if necessary. Tap the **Settings** icon on the touch display.
► Tap the **Label** icon.
► Tap the **Dispensing offset** icon and correct the dispensing position.

8.5 Labelling

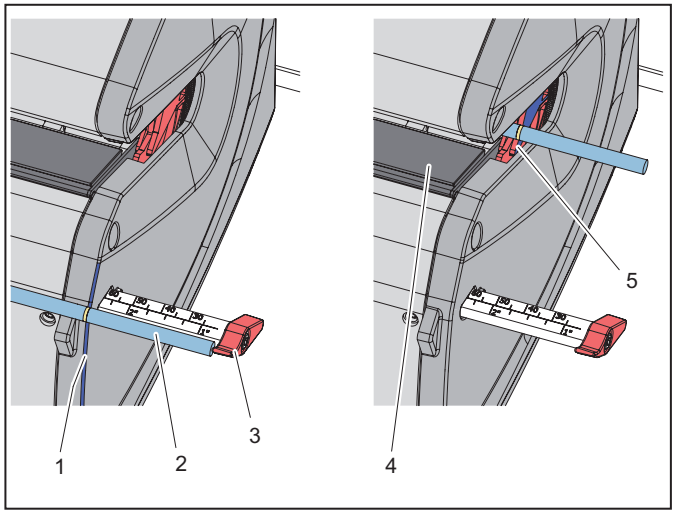


Figure 8.9 Insert the product

Increased pressure while inserting can cause the product (2) to be pushed beyond the rotational axis (6) of the applicator. Loops can form on the label.

► Insert the end of the product (2) to the stop (3).
► Grip the product with the thumb and/or pointer finger of the right hand on the outside surface (1) of the cover. At the same time, hold he product with the left thumb and pointer finger at a distance of 1 to 2 centimetres from the cover.
► Guide the product while gripping it in this way into the centring panels, so that the thumb and/or pointer finger of the right hand touch the centring panel (5).

When the product is pushed in, this will cause the centring panels to be closed.

► Hold flexible material so that it is taut while doing so.

Once both centring panels are closed, the applicator will be ready for labelling.

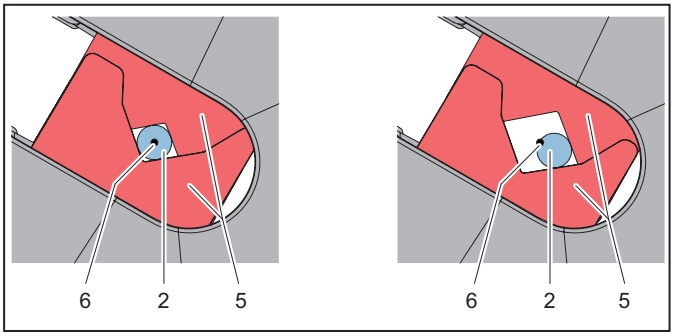


Figure 8.10Product in centring panel

The winding process will start once the cable is placed in the applicator. The touch guard (4) is closed during this process and the label is wound around the product.

► Hold the product with both hands during the winding process.

The touch guard will open at the end of the winding process.

► Remove the labelled product.

Settings in the printer menu

The settings in the printer configuration are basic settings for the specific printer-applicator combination. If the applicator or printer is changed, the settings must be reset.
Resetting to the specific print order is primarily completed via the software. There are also offset values available for this purpose. The offset values from the device settings and software are added together during operation.

► Tap the **Settings** icon on the touch display.
► Tap the **Label** icon.

Parameter	Meaning	Default
Device information	Information on the applicator: software version, product diameter, number of labelling processes, error messages, revolutions	
Calibrate device	Calibration of the diameter detection based on a product with a diameter of 10 mm The diameter for calibration can be selected when the service key is inserted.	
Service counter back.	Access only when the service key is inserted Reset the service counter in the applicator.	
Cycle sequence	Select the type of cyclical operation **Print/Apply** A start signal triggers the printing of a label followed by the application of the label to a product. There is no label in the transport module after the end of a cycle. **Apply/Print** A separate signal FSTLBL starts the printing of the first label and the transfer to the transport module. A start signal triggers the application of the label followed by the printing of the next label. There is a label in the transport module after the end of a cycle.	Print/ Apply
Automat. FSTLBL	**Only with cycle sequence = apply/print** Automatic trigger of the FSTLBL signal after the start of a print order.	Off
Dispensing offset	Move the dispensing position in relation to the rear edge of the label. The setting can also be modified using the software. The values from the configuration and software are added together.	0.0 mm
Winding start	Labelling is triggered automatically by inserting the product or by an external signal	Automatic
Check for product	Access only when the service key is inserted Check the movement of the centring plates	On

Calibrate device

► Switch on the device.
► Tap the **Settings** icon on the touch display.
► Tap the **Label** icon.
► Tap the **Calibrate device** icon.
► Insert the 10 mm calibration rod.
► Tap **Continue**.
The winding plate is turned ten times, closing and opening the clamping jaws. The diameter of the rod is measured each time during this process.
The success of the measurement is confirmed and the offset to be considered and the deviations determined during calibration are displayed.
► Tap **Continue**.
The calculated offset is adopted automatically and used for future measurements.

8.6 Removing labels from the applicator

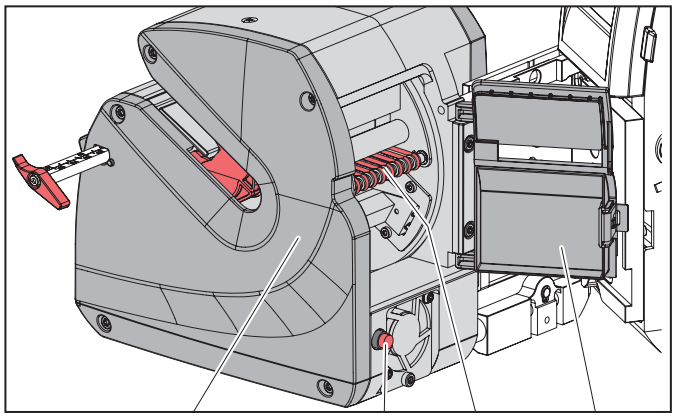


Figure 8.11 Removing labels from the applicator

► Swivel the applicator (1) away from the printer.
► Unlock and open the service door (4).
► Remove the labels from the inside of the applicator. For support, you can move the transport system (3) back by pressing the button (2).
► Close the service door and swivel he applicator to the printer.

9 Cleaning

To achieve a good, even print quality, the device should be cleaned monthly.

DANGER

Risk to life due to mains voltage.

► Before starting work, make sure that the printer is disconnected from the mains.

ATTENTION

The printer can be damaged!

Strong cleaning agents, abrasive cleaners or solvents can damage the printer.

► Only use the recommended cleaning agents for cleaning.

Recommended cleaning agents

Print rollers, deflection rollers, print line and light barrier	Isopropanol > 99.9%
Other surfaces on the device	Isopropanol 70-100%

► Remove dust and paper lint in the print area with a soft brush or a vacuum cleaner.
► Clean the exterior surfaces of the printer.

9.1 Cleaning the print roller

Contamination on the print roller can impair the print image and prevent material transport.

► Swivel the print head away.
► Remove labels and transfer foil from the printer.
► Remove deposits with roller cleaner and a soft cloth.
► Wait approx. 2 to 3 minutes before restarting operation of the printer.
► If the roller is damaged, replace it; see Service.

9.2 Clean the print head

During printing, contamination may collect on the print head and negatively affect the print image, e.g. due to contrast differences or vertical strips.

Recommended cleaning intervals

Direct thermal printing	with every change of the material reel
Thermal transfer printing	with every change of the transfer foil reel

CAUTION

Risk of injury due to hot print head.

Allow the print head to cool before commencing cleaning.

ATTENTION

The print head can be damaged!

Hard or sharp objects can scratch the print head. Do not touch the protective glass layer on the print head.

► Swivel the print head away.
► Remove labels and transfer foil from the printer.
► Clean the print heads with a cotton swab dipped in pure alcohol.
► Leave the print head to dry for 2 to 3 minutes.

9.3 Cleaning the label light barrier

The label sensors can be contaminated by paper dust. This can impair the detection of label start marks or print marks.

ATTENTION

The light barrier can be damaged!

Hard or sharp objects can scratch the light barrier.
► Only use pure alcohol for cleaning.

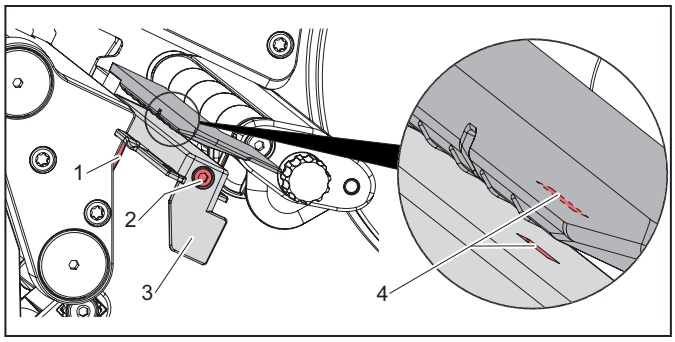


Figure 9.1 Cleaning the label light barrier

► Remove labels and transfer foil from the printer.
► Unscrew the screw (2).
► Hold down the button (1) and slowly pull out the label light barrier at the handle (3).

Make sure that the light barrier cable is not stretched.

► Clean the label light barrier and the sensor slots (4) with a brush or with a cotton swab dipped in pure alcohol.
► Slide the label light barrier back into the starting position using the handle (3).
► Re-insert the labels and the transfer foil.

10 Troubleshooting

10.1 Error display

Any errors that occur are shown in the touch display.

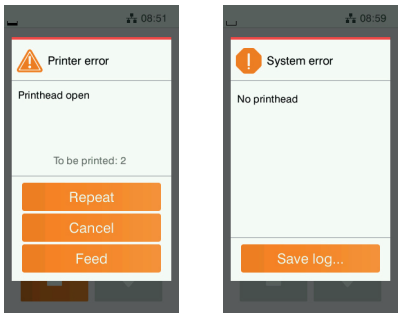


Figure 10.1 Error displays

The error handling depends on the type of error, see chapter 10.2.

The following options are available to continue operation:

Repeat	The print job is continued after eliminating the cause of the error.
Cancel	The current print job is cancelled.
Feed	The label transport is re-synchronised. The job can then be continued with *Repeat*.
Ignore	The error message is ignored. The print job is continued, potentially with restricted function.
Save log	The error does not permit print operation. Various system files can be saved on an external memory device for more detailed analysis.

10.2 Error messages and troubleshooting

Printer

Error message	Cause	Corrective measure
Locking system open	Locking system on the deflection roller not closed in dispensing mode	► Close locking system
Bar code too big	The bar code is too big for the assigned label area	► Reduce or move the bar code
Bar code error	Invalid bar code contents, e.g. alphanumeric characters in numeric bar code	► Correct bar code contents
File not found	A file was requested that is not present on the storage medium	► Check the contents of the storage medium
Print head folded down	Print head not locked	► Lock print head
Print head too hot	Excessive heating of the print head	► The print job restarts automatically after a pause. If this error recurs, reduce the heat level or print speed in the software
Remove foil	Transfer foil inserted even though the printer is set to direct thermal printing	► For direct thermal printing: remove transfer foil
		► For thermal transfer printing: transfer printing in printer configuration or switch on software
Foil winding	Detected unwinding direction of the foil does not match the configuration setting, foil inserted incorrectly	► Clean print head Insert ribbon correctly
	Configuration setting does not match ribbon used	► Adjust the configuration setting
End of foil	Transfer foil used up	► Insert new transfer foil
	Transfer foil melted during printing	► Cancel print job Change heat level in software Clean print head Insert transfer foil Restart print job
	Thermal labels to be processed, but transfer printing indicated in the software	► Cancel print job Switch to thermal printing in software Restart print job
No label	Multiple labels are missing on the label strip	► Press **Repeat** until the next label on the strip is detected
	The label format indicated in the software does not match the actual format	► Cancel print job ► Change the label format in the software Restart print job
	The printer contains continuous material, but the software expects labels	► Cancel print job Change the label format in the software Restart print job
No size information	Label size not defined in the programming	► Check programming

Error message	Cause	Corrective measure
Reading error	Reading error when accessing storage medium	► Check data on the storage medium Back-up data Reformat storage medium
Material too thick	Cutter cannot separate material, but can return to starting position	► Press **Cancel** Change material
End of paper	Material to be printed used up	► Insert material
	Error in paper run	► Check paper run
Buffer overflow	Data input buffer is full, the computer attempts to send further data	► Use data transmission with protocol (preferably RTS/CTS).
Write error	Hardware error	► Repeat write operation Reformat storage medium
Font unknown	Error in the selected download font	► Cancel print job Change font
Voltage error	Hardware error	► Turn printer off and back on If this recurs, notify Service The voltage that failed is shown, please note this down.
Memory full	Print job too big: e.g. due to loaded fonts, large graphics	► Cancel print job Reduce the quantity of data to be printed
Syntax error	Printer receives unknown or incorrect command from the computer.	► Press **Ignore** to skip the command or ► Press **Cancel** to cancel the print job
Unknown media type	Storage medium not formatted Type of storage medium not supported	► Format storage medium, use other storage medium

Applicator

Error message	Cause	Corrective measure
Label on belt	If a labelling cycle is started after an error occurs or after an order is cancelled, there will still be a label on the belt.	► Remove the label from the belt.
Touch guard error	The touch guard does not open or close correctly.	► Remove the product and labels from the applicator. ► If the issue occurs again, contact Weidmüller Service.
No label on belt	No label is detected on the belt after a labelling cycle is started.	► Remove the product and labels from the applicator. ► If the issue occurs again, contact Weidmüller Service.
No product detected	The product diameter detected by the applicator is below the minimum value.	► Insert a product with the correct diameter.
Winding failed	Movement of the winding assembly not correct	► Remove the product and labels from the applicator. ► If the issue occurs again, contact Weidmüller Service.

10.3 Troubleshooting

Problem	Cause	Corrective measure
Transfer foil creased	Transfer foil deflection not calibrated	► Adjusting the transfer foil run
	Head locking system not calibrated	► Adjust the head locking system
	Transfer foil too wide	► Use transfer foil that is just slightly wider than the label.
Print image contains smudges or blank spots	Print head dirty	► Clean the print head
	Temperature too high	► Lower the temperature via the software.
	Poor combination of labels and transfer foil	► Use a different type or brand of ribbon
Printer does not stop when transfer foil is used up	Thermal printing is selected in the software	► Switch to thermal transfer printing in the software
Printer prints character sequences instead of the label format	Printer is in monitor mode	► Exit monitor mode
Printer transports the label material but not the transfer foil	Transfer foil inserted incorrectly	► Check the transfer foil run and orientation of the coated side and correct
	Poor combination of labels and transfer foil	► Use a different type or brand of ribbon
Printer prints only every 2nd Label	Format setting in the software too large.	► Change the format setting in the software.
Vertical white lines in the print image	Print head dirty	► Clean the print head
	Print head faulty (failure of heating dots)	► Replace print head, see Service instructions
Horizontal white lines in the print image	Printer is operated in cutting or dispensing mode with the **Return transport > optimised** setting	► Change the set-up to **Return transport > always**.
Print image brighter on one side	Print head dirty	► Clean the print head
	Head locking system not calibrated	► Adjust the head locking system

11 Material

11.1 Material dimensions for labelling and endless material

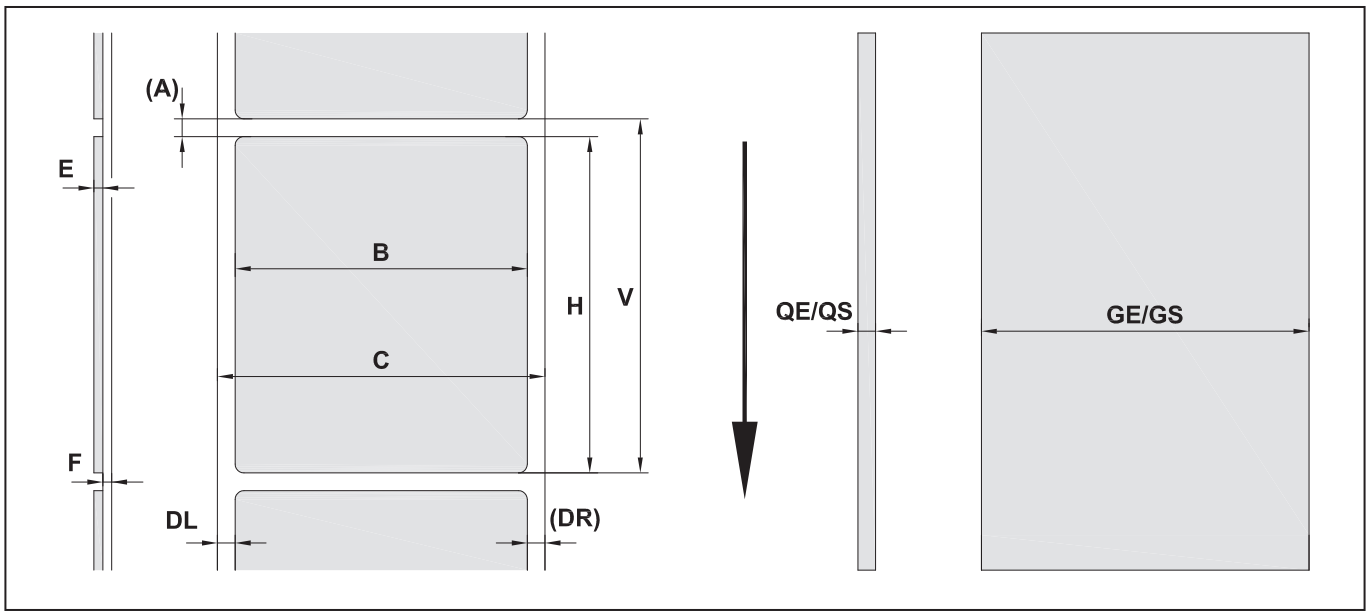


Figure 11.1 Material dimensions, * = running direction

Size	Name	Dimensions in mm
B	Label width	4 -110
H	Label height in dispensing mode	3 - 2000 6 - 200
-	Tear off length	> 30
-	Perforation length	> 2
A	Label spacing	> 2
C	Width of carrier material	9 - 114
GE	Width of endless material	4 - 114
GS	Width of shrink-fit sleeve	4 - 85
DL	Left edge	≥ 0
DR	Right edge	≥ 0
E	Label thickness	0.03 - 0.60
F	Carrier material thickness	0.03 - 0.13
QE	Endless material thickness	0.05 - 0.50
QS	Shrink-fit sleeve thickness	≤ 1.1
V	Feed	> 5
	There may be restrictions with small labels, thin materials or strong glue. Critical applications must be tested and approved. Note the bending strength! The material must be able to be in contact with the pressure roller.	

11.2 Device dimensions

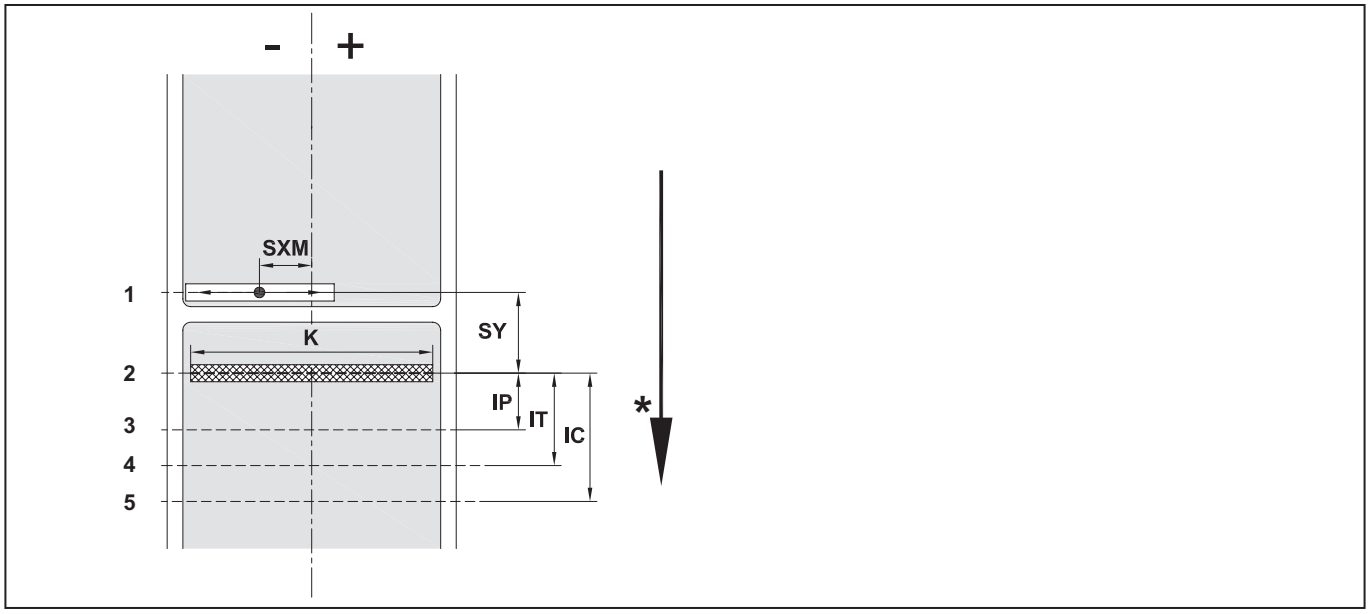


Figure 11.2 Device dimensions, * = running direction

1 Transmitted light sensor and reflective sensor
2 Print head
3 Dispensing edge

Size	Name	Dimensions in mm
IP	Distance print line - dispensing edge	13.5
K	Print width 203 dpi 300 dpi 600 dpi	 104.0 108.4 -
SXM	Distance transmitted light and reflective sensor - centre of paper run e.g. Permitted distance of reflective marks and cut-outs to the centre of the material	-55 - 0
SY	Distance transmitted light and reflective sensor - print line	45.0

11.3 Dimensions for reflective markings

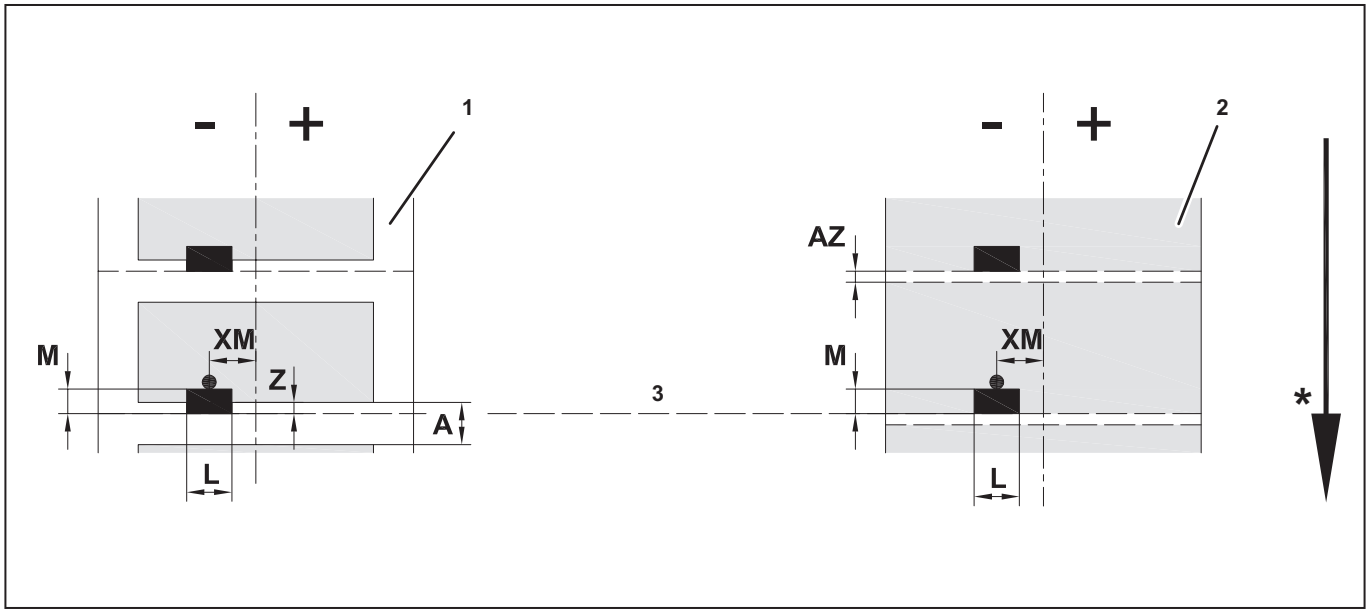


Figure 11.3 Dimensions for reflective markings, * = running direction

1 Labels with reflective markings
2 Endless material with reflective markings
3 Virtual start of label reflective markings

Size	Name	Dimensions in mm
A	Label spacing	> 2
AZ	Print zone distance	> 2
L	Width of the reflective marking	> 5
M	Height of the reflective marking	3 - 10
XM	Distance marking - centre of paper run	55 - ±0
Z	Distance virtual start of label - actual start of label ► Adjust software setting	0 to A / recommended: 0
	– Reflective markings must be on the back of the material. – Label light barrier for reflective markings on the front upon request. – Information applies for black markings. – Coloured markings may not be detected. Complete a test in advance.	

For translucent materials, reflective markings can be detected by the label sensor not only in reflective operation but also in a transmitted light operation.

11.4 Dimensions for cut-outs

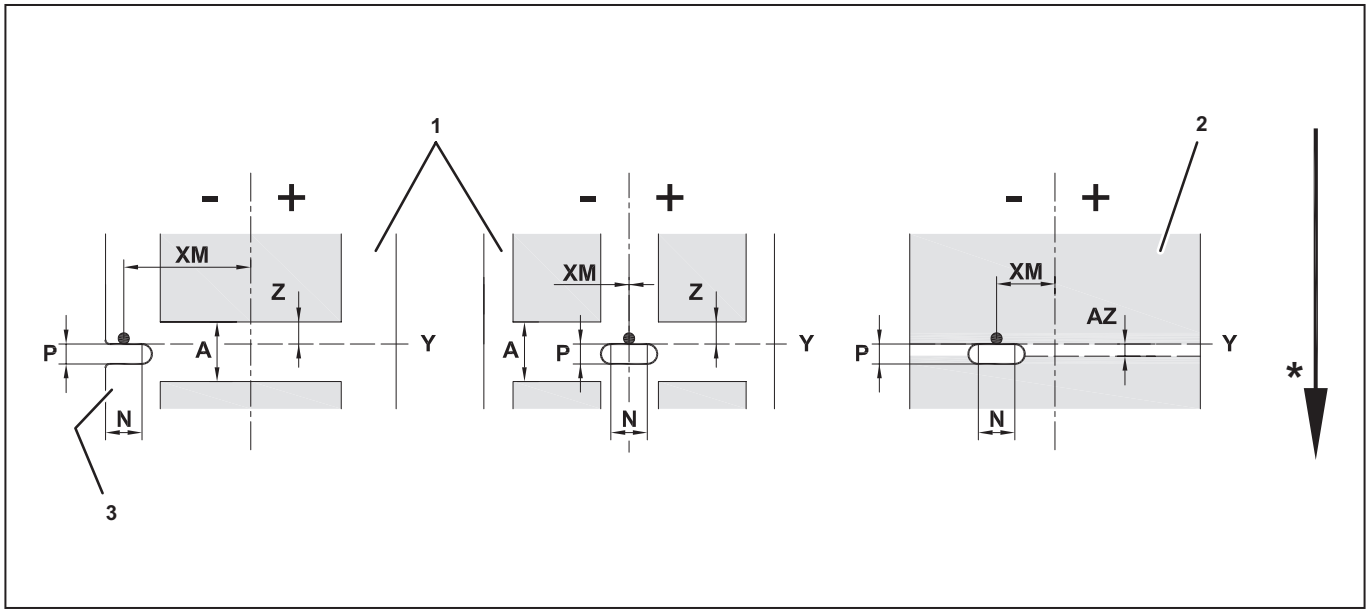


Figure 11.4 Dimensions for cut-outs, * = running direction

1 Labels with cut-outs
2 Endless material with cut-outs
3 Edge cut-out: minimum thickness of carrier material 0.06 mm

Size	Name	Dimensions in mm
A	Label spacing	> 2
AZ	Print zone distance	> 2
N	Width of the cut-out for edge cut-outs	> 5 > 8
P	Height of the cut-out	2 - 10
XM	Distance cut-out - centre of paper run	-55 - ±0
Y	Start of label detected by the sensor with transmitted light detection	Rear edge of cut-out
Z	Distance from detected start of label - actual start of label ► Adjust software setting	0 to A-P

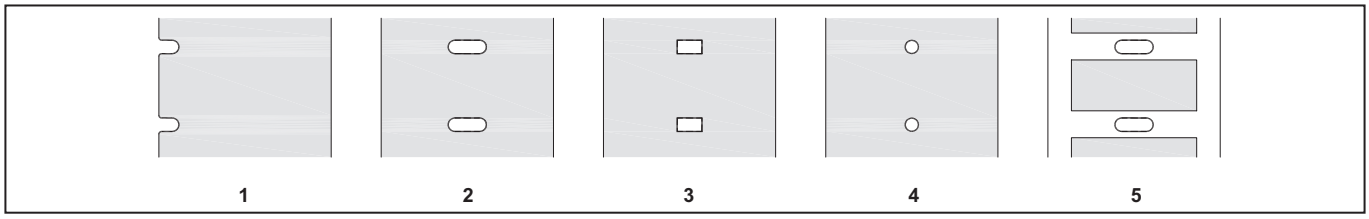


Figure 11.5 Examples of cut-outs

1 Edge cut-out
2 Slot cut-out
3 Rectangular cut-out
4 Circular cut-out (not recommended)
5 Cut-out between labels (not recommended)

12 Decommissioning and disposing of the device

12.1 Decommissioning the device

► Switch off the printer.
► Disconnect the mains plug.
► Remove label material and transfer foil from the printer.
► Pack the device in its original packaging.
The system is now ready for transport and, if necessary, disposal.

12.2 Disposing of the device

► Decommission the device as described in 12.1 on page 39.
► Ensure that the device is disposed of in accordance with national and local regulations.

The product contains substances that may be harmful to the environment and human health. In addition, it also contains substances that can be reused through targeted recycling.
Observe the instructions for proper disposal of the product. You can find the instructions here:
www.weidmueller.com/disposal.

You can send the product to Weidmüller for disposal. Please contact your responsible country representatives.

13 Approvals and compliance

13.1 Declaration of Conformity

The printer complies with the relevant essential health and safety requirements of the EU directives:
– Directive 2014/35/EU concerning electrical equipment designed for use within certain voltage limits
– Directive 2014/30/EU on electromagnetic compatibility
– Directive 2011/65/EU on the restriction of the use of certain hazardous substances in electrical and electronic equipment

The applicator complies with the relevant essential health and safety requirements of the EU directives:
– Directive 2014/30/EU on electromagnetic compatibility
– Directive 2011/65/EU on the restriction of the use of certain hazardous substances in electrical and electronic equipment
– Delegated directive (EU) 2015/863 on the list of substances subject to restrictions

EU Declaration of Conformity, see online catalogue

13.2 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.