



BradyPrinter i7100

INDUSTRIAL LABEL PRINTER

USER MANUAL

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Operator's Manual for the following products

| Model | Configurations |
|-------|--------------------------------|
| i7100 | i7100 Standard (300 & 600 dpi) |
| | i7100 Peel (300 & 600 dpi) |

BradyPrinter i7100

INDUSTRIAL LABEL PRINTER

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Editor

Regarding questions or comments please contact Brady Technical Support.

Topicality

Due to the constant further development of products discrepancies between documentation and product can occur. Please check BradyID.com for the latest update.

Terms and conditions

Deliveries and performances are effected under the General conditions of sale of BradyPrinter i7100.

Brady Warranty

Our products are sold with the understanding that the buyer will test them in actual use and determine for him or herself their adaptability to his/her intended uses. Brady warrants to the buyer that its products are free from defects in material and workmanship, but limits its obligation under this warranty to replacement of the product shown to Brady's satisfaction to have been defective at the time Brady sold it. This warranty does not extend to any persons obtaining the product from the buyer.

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1 Licenses

1.1 Reference to the EU Declaration of Conformity

The printers of the Brady printer i7100 series comply with the relevant fundamental regulations of the EU Rules for Safety and Health:

- Directive 2014/35/EU relating to electrical equipment designed for use within certain voltage limits
- Directive 2014/30/EU relating to electromagnetic compatibility
- Directive 2011/65/EU on the restriction of the use of certain hazardous substances in electrical and electronic equipment

EU Declaration of Conformity www.bradyeurope.com/conformity

1.2 FCC and Country-Specific Agency Approval Information

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. Changes or modifications not expressly approved by the party responsible for compliance could void the user's authority to operate the equipment. This device complies with Part 15 of the FCC Rules. Operation is subject to the following two conditions: (1) This device may not cause harmful interference and, (2) this device must accept any interference received, including interference that may cause undesired operation.

Prop 65 Warning Statement

Prop 65 information related to this product is available at www.BradyID.com/i7100compliance.

Canada

ICES-003 Class A Notice, Classe A

This Class A digital apparatus meets all requirements of the Canadian Interference-Causing Equipment Regulations. Cet appareil numérique de la classe A respecte toutes les exigences du Règlement sur le matériel brouilleur du Canada. CAN ICES-3 (A)/NMB-3(A)

Europe

RoHS Directive 2011/65/EU

This product is CE marked and complies with the European Union's Directive 2011/65/EU OF THE EUROPEAN PARLIAMENT AND OF THE COUNCIL of 8 June 2011 on the restriction of the use of certain hazardous substances in electrical and electronic equipment.

Waste Electrical and Electronic Equipment Directive

In accordance with the European WEEE Directive, this device needs to be recycled in accordance with local regulations.



Batteries Directive 2006/66/EC

This product contains a lithium coin battery. The crossed-out wheeled bin is used to indicate 'separate collection' for all batteries and accumulators in accordance with European Directive 2006/66/EC. Users of batteries must not dispose of batteries as unsorted municipal waste. This Directive determines the framework for the return and recycling of used batteries and accumulators that are to be collected separately and recycled at end of life. Please dispose of the battery according to your local regulations.



Notice to Recyclers - To remove the lithium coin battery:

1. Disassemble printer and locate the lithium cell battery located on the main circuit board.
2. To remove, slide the battery from the coin cell retainer, remove the battery from the board, and dispose of properly.

Approvals for additional countries are on file with Brady or may be pending approval at the time of printing this manual. Contact Brady for details for current agency approvals for a particular country.

Turkey

Turkish Ministry of Environment and Forestry (Directive on the Restriction of the use of certain hazardous substances in electrical and electronic equipment). Türkiye Cumhuriyeti: EEE Yönetmeliğine Uygundur

China

China RoHS Declaration information related to this product is available at www.BradyID.com/i7100compliance

2 Technical Support & Repair

Technical Support & Repair

In the event your i7100 Industrial Label Printer requires service or support, Brady offers comprehensive troubleshooting support, set up assistance, how-to guidance and repair services globally. Brady offers both free-of-charge and fee-based levels of this support. Warranty coverage period, warranty benefits and availability of certain services may vary by Brady location. Consult your location for complete details.



Technical Support: Troubleshooting and how-to guidance and special services via phone or web.



Repair Services: Depot-based or on-site repair service depending on Brady location, for both in-warranty and out-of-warranty repair needs.

Contacting Brady Technical Support

The following chart shows the locations and contact information for Brady's global Technical support locations.

| Americas | | |
|-----------------------------|------------------------|--|
| Canada | 1-800-643-8766 | bradycanada_technicalsupport@bradycorp.com |
| United States | 1-800-643-8766 | tech_support@bradycorp.com |
| Mexico | 1-800-212-8181 | soporte_tecnico@bradycorp.com |
| Central America & Caribbean | 1-866-748-4424 | soporte_tecnico@bradycorp.com |
| Brazil | +55 11 4166-1500 ext 5 | at@bradycorp.com |
| Rest of South America | 1-866-748-4424 | soporte_tecnico@bradycorp.com |

| Europe, Middle East, Africa | | |
|--|---|------------------------|
| Main Support Center | +44 333 333 1111 | tseurope@bradycorp.com |
| English and native language support for 22 countries depending on location | for local phone number list visit: http://www.bradycorp.com/technical-support/brady-solution-center | |

| Asia Pacific | | |
|----------------------------------|-----------------------|-----------------------------------|
| Australia / New Zealand | 1-800-644-834 | autech@bradycorp.com |
| China | 4006-151-869 | contactus_cn@bradycorp.com |
| Hong Kong / Taiwan | 852-22169289/22169283 | hksales@bradycorp.com |
| Korea | +82 2 861-8541 D14 | TS_Korea@bradycorp.com |
| Japan | +81-42-655-2534 | ap_japan_tech@bradycorp.com |
| Singapore / Malaysia / Indonesia | +65 64777237 | technicalsupport_sa@bradycorp.com |
| Thailand / Vietnam | +65 64777237 | technicalsupport_sa@bradycorp.com |
| Philippines | +65 64777237 | technicalsupport_sa@bradycorp.com |
| India | +91-80-66582950 | service_india@bradycorp.com |

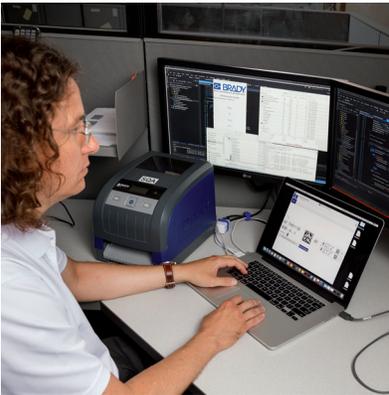
3 Application Engineering Services

Application Engineering Services

Brady offers fee-based application engineering services in some locations. If you need assistance with advanced integration of your i7100 Industrial Label Printer into a complex data flow scenario that is not supported under normal tech support capabilities, Brady's Application Engineering Team may be able to help. This team specializes in customized fee-based services that include:

- Custom software programming
- Custom front-end application software programming
- Software template creation
- Label file conversion
- Scan-to-print mapping assistance
- Advanced integration of printer & data flow

Note: Application Engineering Services is not available in all Brady locations - contact the applications engineering email below or contact your local Brady Tech Support location for availability of these services in your area.



Application Engineering Services

Advanced integration and custom programming services to solve complex dataflow scenarios integrating printers, software, data collection devices and databases.

Contacting Brady Application Engineering

Contact Brady Application Engineering via email at application_engineering@bradycorp.com to discuss your application, or to learn about the availability of services in your location.

4 Introduction

4.1 Instructions

Important information and instructions in this documentation are designated as follows:



Danger!

Draws attention to an exceptionally great, imminent danger to your health or life due to hazardous voltages.



Danger!

Draws attention to danger with high risk which, if not avoided, may result in death or serious injury.



Warning!

Draws attention to danger with medium risk which, if not avoided, may result in death or serious injury.



Caution!

Draws attention to 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.



Note!

Advice to make work routine easier or on important steps to be carried out.



Environment!

Gives you tips on protecting the environment.



Handling instruction



Reference to section, position, illustration number or document.



Option (accessories, peripheral equipment, special fittings).

Time

Information in the display.

4.2 Intended Use

- The device is manufactured in accordance with the current technological status and the recognized safety rules. However, danger to the life and limb of the user or third parties and/or damage to the device and other tangible assets can arise during use.
- The device may only be used for its intended purpose and if it is in perfect working order, and it must be used with regard to safety and dangers as stated in the operating manual.
- The device printer is intended exclusively for printing suitable materials that have been approved by the manufacturer. Any other use or use going beyond this shall be regarded as improper use. The manufacturer/supplier shall not be liable for damage resulting from unauthorized use; the user shall bear the risk alone.
- Usage for the intended purpose also includes complying with the operating manual, including the manufacturer's maintenance recommendations and specifications.

4 Introduction

4.3 Safety Instructions

- The device is configured for voltages of 100 to 240 V AC. It only has to be plugged into a grounded socket.
- Only connect the device to other devices which have a protective low voltage.
- Switch off all affected devices (computer, printer, accessories) before connecting or disconnecting.
- The device may only be used in a dry environment, do not expose it to moisture (sprays of water, mists, etc.).
- Do not use the device in an explosive atmosphere.
- Do not use the device close to high-voltage power lines.
- If the device is operated with the cover open, ensure that people's clothing, hair, jewelry etc. do not come into contact with the exposed rotating parts.
- The device or parts of it can become hot while printing. Do not touch during operation, and allow to cool down before changing material and before disassembly.
- Risk of crushing when closing the cover. Touch the cover at the outside only. Do not reach into the swivel range of the cover.
- Perform only those actions described in this operating manual.
Work going beyond this may only be performed by trained personnel or service technicians.
- Unauthorized interference with electronic modules or their software can cause malfunctions.
- Other unauthorized work on or modifications to the device can also endanger operational safety.
- Always have service work done in a qualified workshop, where the personnel have the technical knowledge and tools required to do the necessary work.
- There are various warning stickers on the device. They draw your attention to dangers.
Warning stickers must therefore not be removed, as then you and other people cannot be aware of dangers and may be injured.
- The maximum sound pressure level is less than 70 dB(A).



Danger!

Danger to life and limb from power supply.

- ▶ **Do not open the device casing.**



Warning!

This is a class A product. In a domestic environment this product may cause radio interference in which case the user may be required to take adequate measures.

4.4 Environment



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

- ▶ Send to suitable collection points, separately from residual waste.

The modular construction of the printer enables it to be easily disassembled into its component parts.

- ▶ Send the parts for recycling.



The electronic circuit board of the device is equipped with a lithium battery.

- ▶ Take old batteries to collection boxes in shops or public waste disposal centers.

5 Installation

5.1 Printer Overview

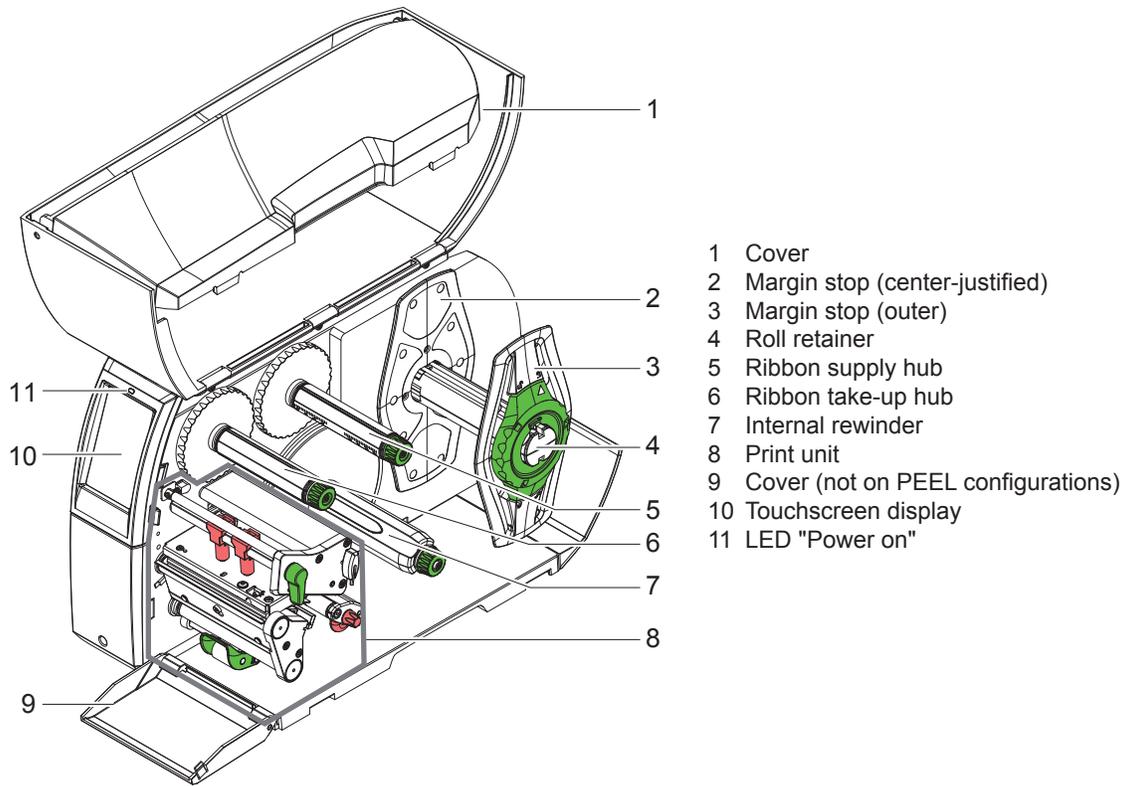


Figure 1 Overview

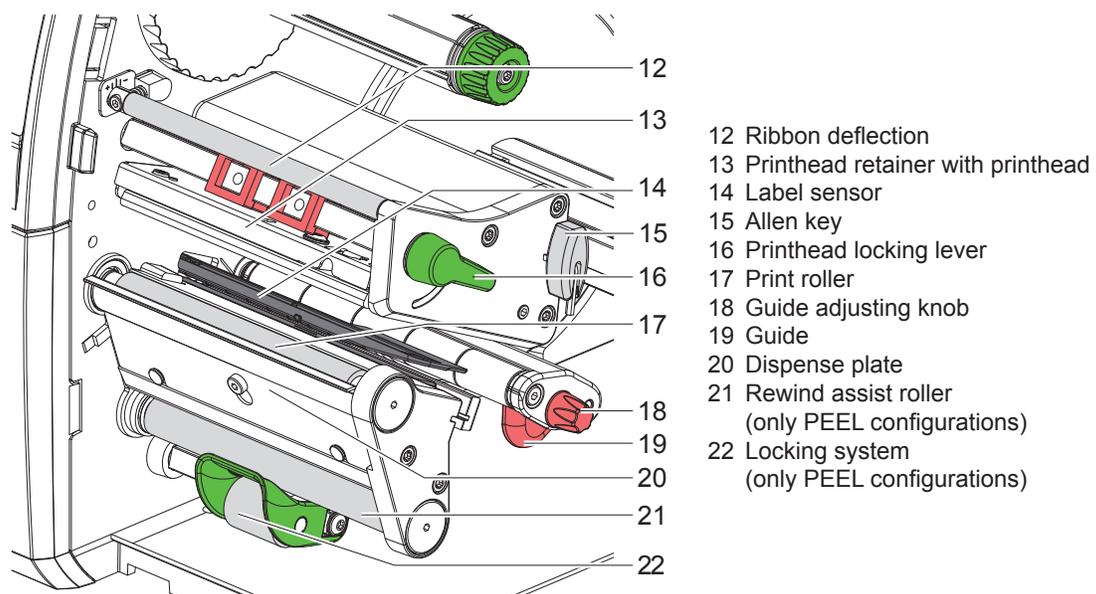


Figure 2 Print unit

5 Installation

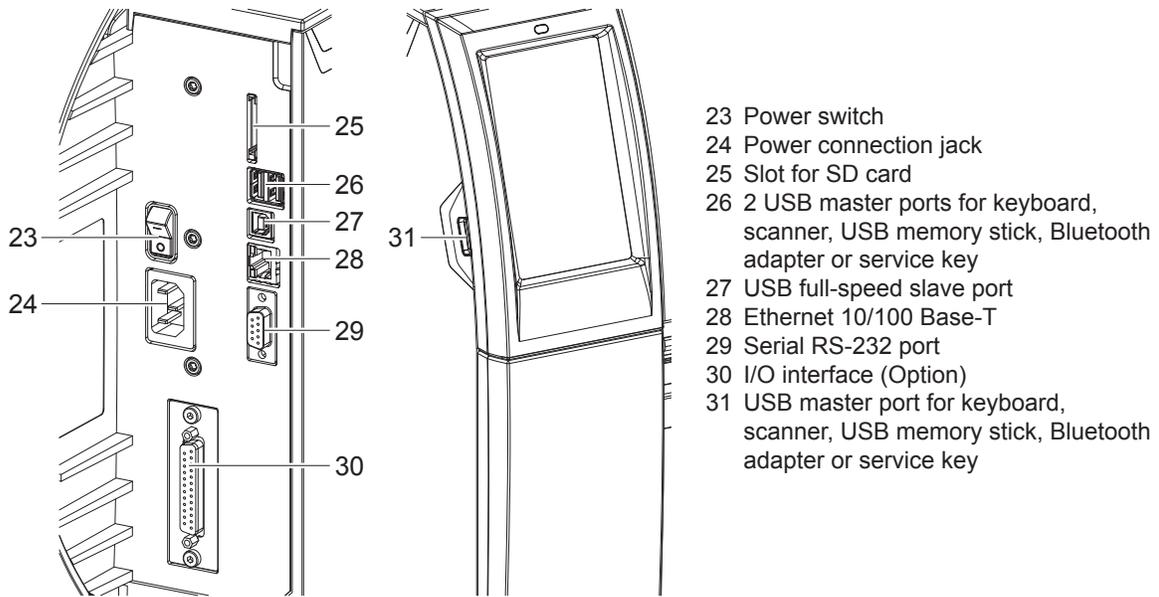


Figure 3 Connections

5 Installation

5.2 Unpacking and Setting-up the Printer

- ▶ Lift the label printer out of the box.
- ▶ Check label printer for damage which may have occurred during transport.
- ▶ Set up printer on a level surface.
- ▶ Remove foam transportation safeguards near the printhead.
- ▶ Check delivery for completeness.

Contents of delivery:

- Label printer
- Power cable
- USB cable
- Operator's Manual
- CD with Windows driver and documentation



Note!

Please keep the original packaging in case the printer must be returned.



Attention!

The device and printing materials will be damaged by moisture and wetness.

- ▶ Set up label printers only in dry locations protected from liquid.

5.3 Connecting the Device

The standard available interfaces and connectors are shown in Figure 3.

5.3.1 Connecting to the Power Supply

The printer is equipped with a wide area power unit. The device can be operated with a supply voltage of 230 V~/50 Hz or 115 V~/60 Hz without adjustment.

1. Check that the device is switched off.
2. Plug the power cable into the power connection socket (24).
3. Plug the power cable into a grounded socket.

5.3.2 Connecting to a Computer or Computer Network



Attention!

Inadequate or no grounding can cause malfunctions during operations.

Ensure that all computers and cables connected to the label printer are grounded.

- ▶ Connect the label printer to a computer or network by a suitable cable.
For details of the configuration of the individual interfaces ▶ Configuration Manual.

5.4 Switching on the Device

When all connections have been made:

- ▶ Switch the printer on at the power switch (23).
The printer performs a system test, and then shows the system status *Ready* in the display (10).

6 Touchscreen Display

The user can control the operation of the printer with the control panel, for example:

- Issuing, interrupting, continuing and canceling print jobs,
- Setting printing parameters, e.g. heat level of the printhead, print speed, interface configuration, language and time of day (▷ Configuration Manual),
- Control stand-alone operation with a memory module (▷ Configuration Manual),
- Update the firmware (▷ Configuration Manual).

Many functions and settings can also be controlled by software applications or by direct programming with a computer using the printer's own commands. ▷ Programming Manual for details.

Settings made on the touchscreen display make up the basic settings of the label printer.



Note!

It is advantageous, whenever possible, to make adaptations to various print jobs in the software.

6.1 Start Screen

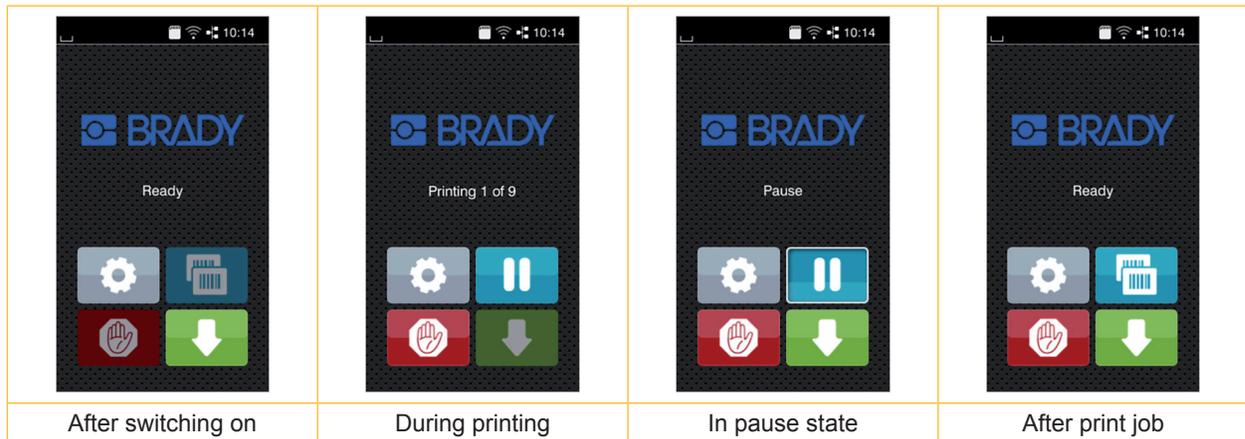


Figure 4 Start screen

The touchscreen display is operated directly by touch:

- To open a menu or select a menu item lightly touch the corresponding symbol.
- To scroll in lists slide finger up or down on the display.

| | | | |
|--|-------------------------|--|-------------------------------|
| | Open the menu | | Repeat the last printed label |
| | Interrupt the print job | | Cancel all print jobs |
| | Continue the print job | | Feed a blank label |

Table 1 Symbols on the start screen



Note!

Inactive symbols are shaded.

6 Touchscreen Display

With special software or hardware configurations additional symbols appear on the start screen:

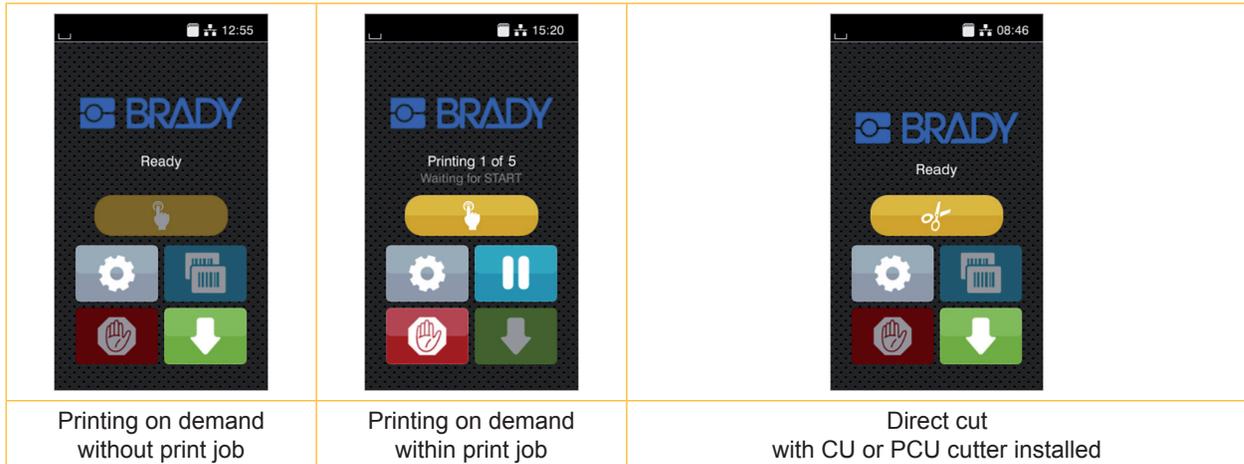


Figure 5 Optional symbols on the start screen



Figure 6 Optional symbols on the start screen

In the headline several information are displayed as widgets depending on the configuration:

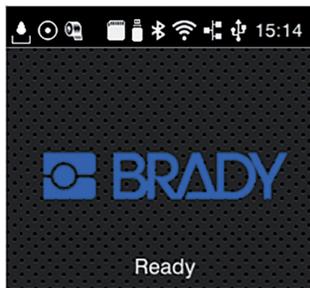


Figure 7 Widgets in the start screen

| | |
|---|--|
|  | Displays the current data transfer in the form of a falling drop. |
|  | The <i>Save data stream</i> function is active ▷ Configuration manual All received data are stored in a .lbl file. |
|  | Warning ribbon end ▷ Configuration manual. The remaining diameter of the ribbon supply roll undershoots the set value. |
|  | SD card installed |
|  | USB memory installed |
|  | gray: Bluetooth adapter installed, white: Bluetooth connection active |
|  | WiFi connection active. The WiFi strength is displayed by the number of white arcs. |
|  | Ethernet connection active |
|  | USB connection active |
|  | Clock time |

Table 2 Widgets in the start screen

6 Touchscreen Display

6.2 Navigation in the Menu

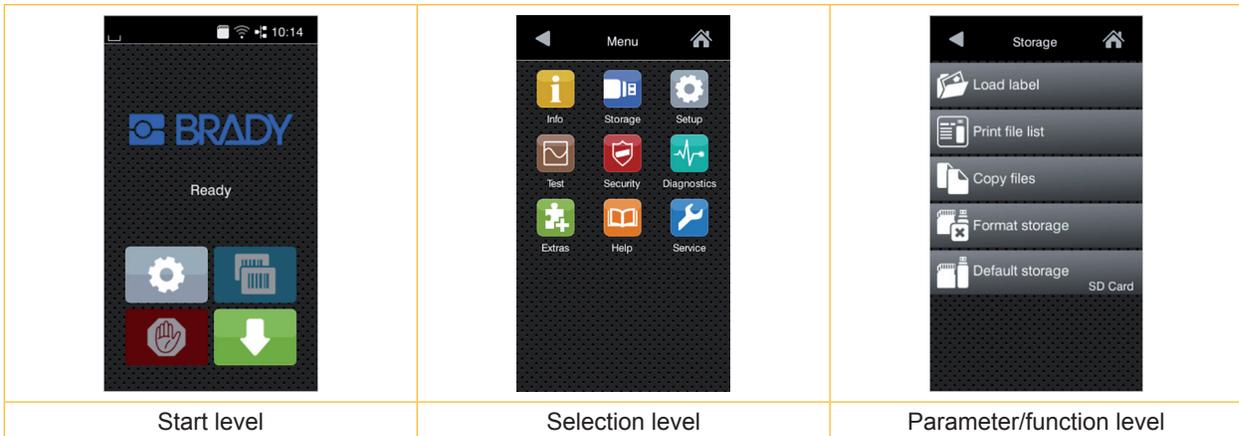


Figure 8 Menu levels

- ▶ To open the menu select  on the start screen.
- ▶ Select a theme in the selection level.
Several themes have substructures again with selection levels.
To return from the current level to the upper one select . To leave the menu select .
- ▶ Continue the selection until the parameter/function level is reached.
- ▶ Start a function. The will carry out the function possibly after a preparing dialogue.
- or - Select a parameter to set. The setup possibilities are depending from the parameter type.

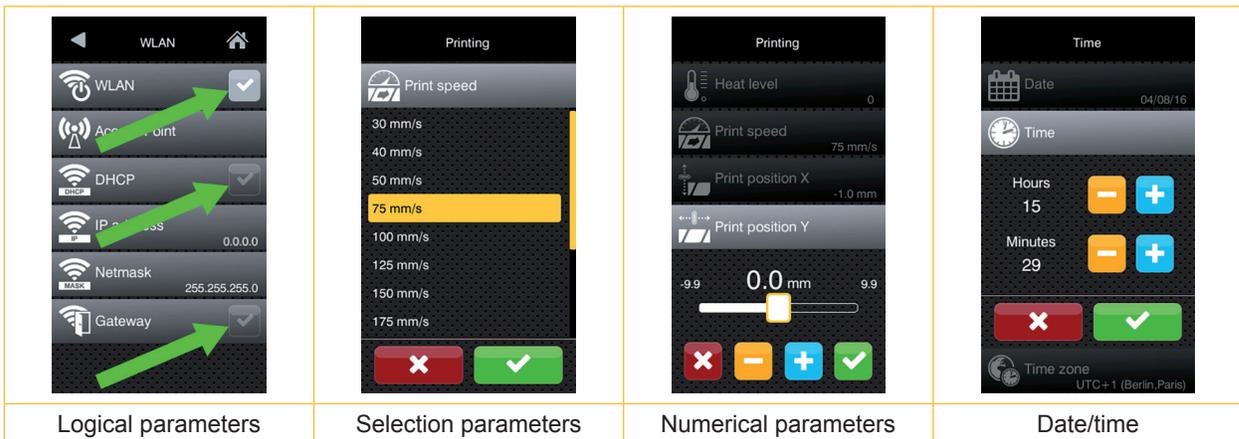


Figure 9 Samples for parameter setting

| | |
|---|---|
|  | Scroll bar for rough value setting |
|  | Decreasing the value step-by-step |
|  | Increasing the value step-by-step |
|  | Return without saving the setting |
|  | Return with saving the setting |
|  | Parameter is disabled, touching enables the parameter |
|  | Parameter is enabled, touching disables the parameter |

Figure 10 Buttons for parameter setting

7 Loading Material



Note!

For adjustments and simple installation work, use the accompanying Allen key located in the top section of the print unit. No other tools are required for the work described here.

7.1 Loading Media from Roll

7.1.1 Positioning the Media Roll on the Roll Retainer

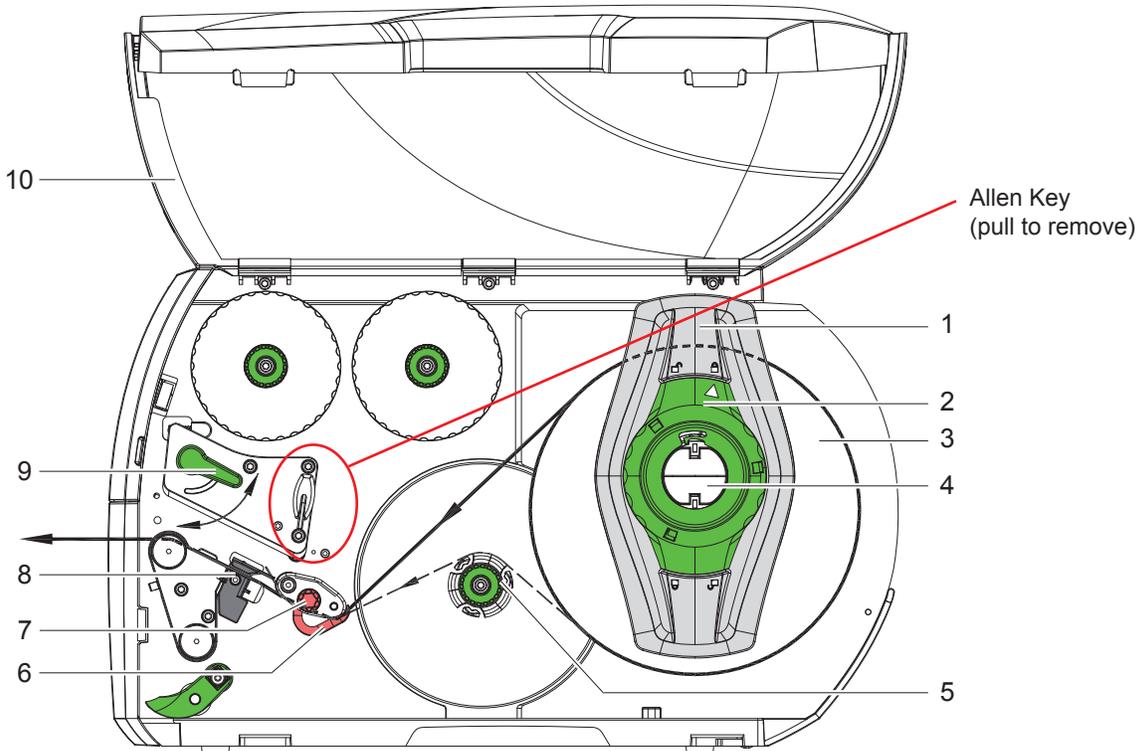


Figure 11 Loading media from roll

1. Open cover (10).
2. Turn ring (2) at the margin stop (1) counterclockwise, so that the arrow points to the symbol , and thus release the margin stop.
3. Remove the margin stop (1) from the roll retainer (4).
4. Load label roll (3) on the roll retainer in such a way that the labels can be inserted into the printhead in the right position. The printing side of the labels must be visible from above.
5. Turn ring (2) clockwise, so that the arrow (10) points to the symbol , and thus fix the margin stop (1) on the roll retainer (4).
6. Supply longer label strips:
 For Peel-Off or Rewind mode: approx. 60 cm
 For Tear-Off mode: approx. 40 cm

7 Loading Material

7.1.2 Inserting the Media Strip into the Printhead

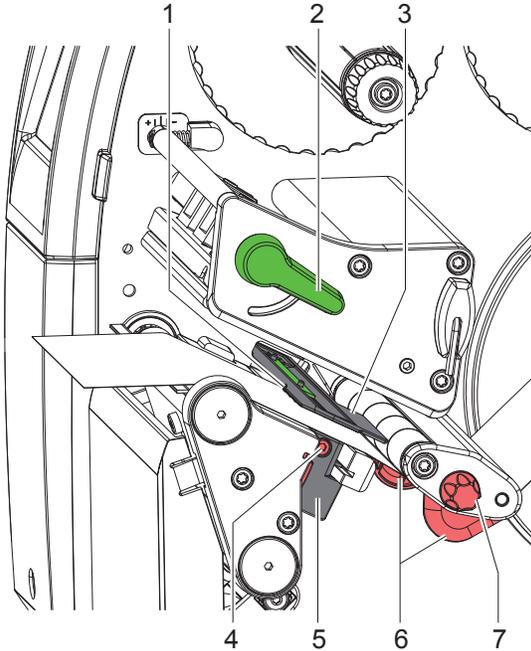


Figure 12 Inserting the media strip into the printhead

1. Turn lever (2) counterclockwise to lift the printhead.
2. Adjust the guide(s) (6) with the knob (7) in such a way that the media can pass between the two guides.
3. Guide label strip over the internal rewriter to the print unit.
4. Guide label strip through the label sensor (5) in such a way that it exits the print unit between the printhead and the print roller.
5. Move guide(s) (6) against the edge(s) of the material by turning the knob (7).

7.1.3 Setting the Label Sensor

The label sensor can be shifted perpendicular to the direction of paper flow for adaptation to the media. The sensor unit (1) of the label sensor is visible from the front through the print unit and is marked with an indentation in the label sensor retainer. When the printer is switched on, a yellow LED illuminates the sensor position.

- ▶ Loosen screw (4).
- ▶ Position label sensor with tab (5) in such a way that the sensor (1) can detect the label gap or a reflex or perforation mark.
- or, if the labels deviate from a rectangular shape, -
- ▶ Align label sensor using the tab (5) with the front edge of the label in the direction of paper flow.
- ▶ Tighten screw (4).

For use in tear-off mode only:

- ▶ Turn lever (2) clockwise to lock the printhead.

The label roll is loaded for use in tear-off mode.

7 Loading Material

7.1.4 Winding up the Media Strip in Rewind Mode

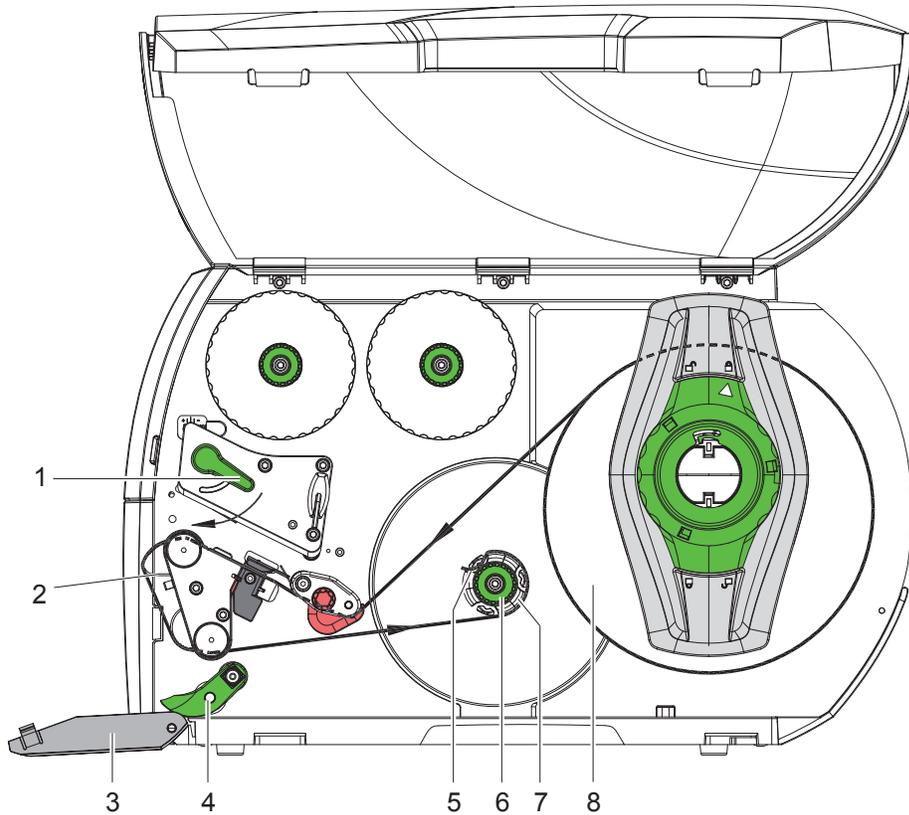


Figure 13 Guiding the media strip in rewind mode

In rewind mode, the labels are wound up internally after printing for later use.

NOTE: a PEEL configuration printer, or standard printer upgraded with PEEL is required.

1. Install rewind guiding plate (▷ 7.4 on page 22).
2. Lift the pinch roller (4) off the rewind assist roller.
3. Guide label strip around the rewind guiding plate (2) to the internal rewinder (7).
4. Hold rewinder (7) firmly and turn knob (6) clockwise until it stops.
5. Push label strip under a bracket (5) of the rewinder and turn knob (6) counterclockwise until it stops. The rewinder is fully spread, thus gripping the label strip firmly.
6. Turn rewinder (7) counterclockwise to tighten the label strip.
7. Turn lever (1) clockwise to lock the printhead.

The label roll is loaded for use in rewind mode.

7 Loading Material

7.1.5 Removing the Wound Roll

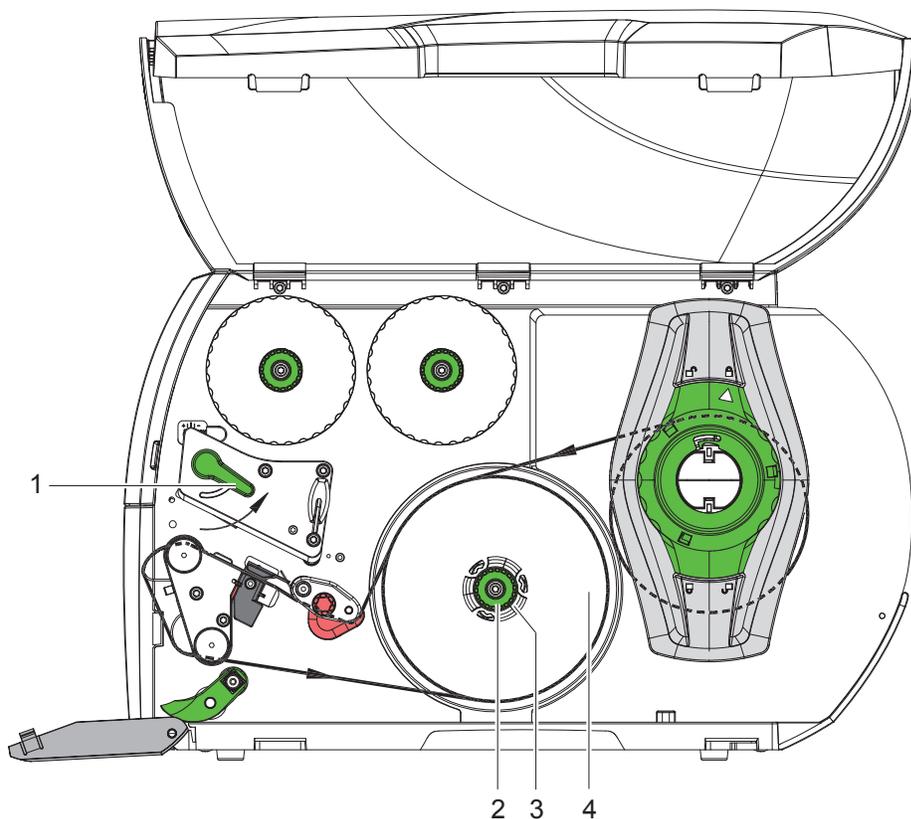


Figure 14 Removing the wound roll

1. Turn lever (1) counterclockwise to lift the printhead.
2. Cut label strip and wind it fully around the rewinder (3).
3. Hold rewinder (3) firmly and turn knob (2) clockwise.
The rewinder spindle relaxes and the wound roll (4) is released.
4. Remove wound roll (4) from rewinder (3).

7 Loading Material

7.1.6 Winding up the Liner in Peel-Off mode

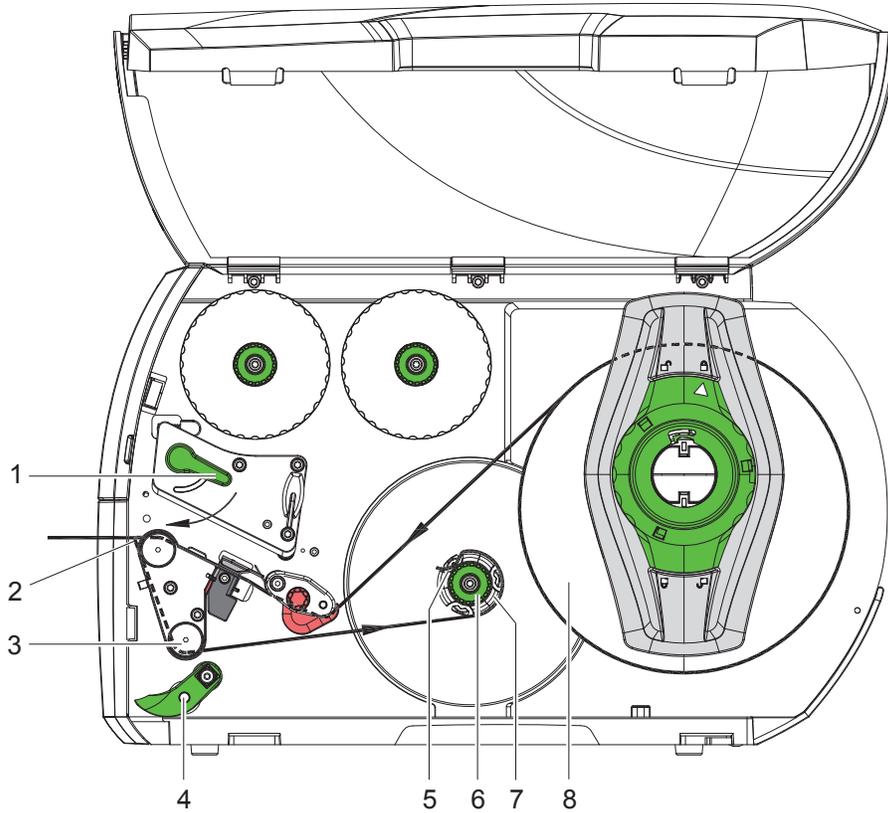


Figure 15 Guidance of the material in peel-off mode

In Peel-Off mode, the labels are removed after printing, and only the liner is wound up internally.

NOTE: a PEEL configuration printer, or standard printer upgraded with PEEL is required.

1. Lift the pinch roller (5) off the rewind assist roller (3).
2. Remove labels from the first 100 mm of the liner.
3. Guide liner to the re-winder (8) around the dispense plate (2) and the rewind assist roller (3).
4. Hold re-winder (8) firmly and turn knob (7) clockwise until it stops.
5. Push liner under a bracket (6) of the re-winder (8) and align the outer edge of the strip to the media roll.
6. Turn knob (7) counterclockwise until it stops.
The re-winder is fully spread, thus gripping the liner firmly.
7. Turn re-winder (8) counterclockwise to tighten the liner.
8. Position the pinch roller (5) centrally to the liner.
9. Swing the pinch roller (5) against the rewind assist roller (3).
10. Turn lever (1) clockwise to lock the printhead.

The label roll is loaded for use in peel-off mode.

7 Loading Material

7.2 Loading Fanfold Media

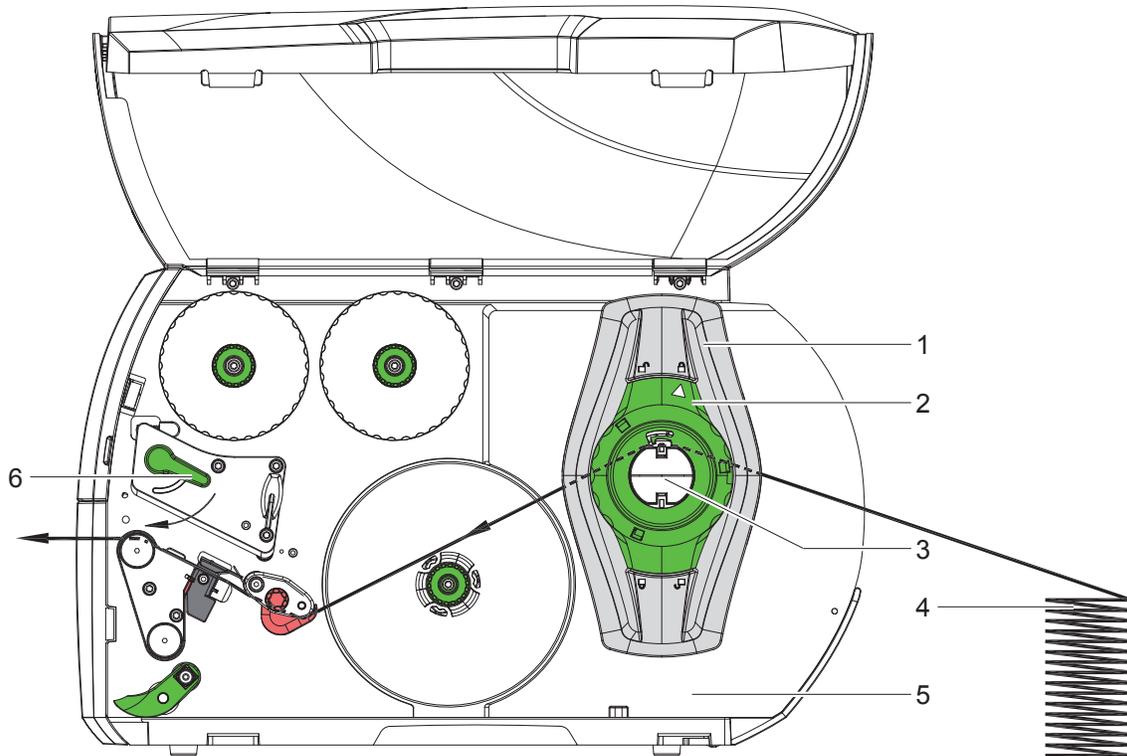


Figure 16 Feed path of fanfold media

1. Turn ring (2) counterclockwise, so that the arrow points to the symbol , and thus release the margin stop (1).
2. Move the margin stop(s) (1) in such a position that the media can pass between the two margin stops.
3. Position media stack (4) behind the printer. Ensure that labels on the strip are visible from above.
4. Guide the media strip over the roll retainer (3) to the print unit.
5. Move the margin stop (1) against the media strip until chassis (5) and margin stop (1) or both margin stops touch the media strip without clamping or bending it.
6. Turn ring (2) clockwise, so that the arrow points to the symbol , and thus fix the margin stop (1) on the roll retainer (3).
7. Insert media strip into printhead (▷ 7.1.2 on page 17).
8. Set the label sensor (▷ 7.1.3 on page 17).
9. Set the head locking system (▷ 7.3 on page 22).
10. Turn lever (6) clockwise to lock the printhead.

7 Loading Material

7.3 Setting the Head Locking System

The printhead is pushed on via two plungers (1). In the basic setting the plungers are set in the middle of the printhead retainer. This setting can be used for the most applications.

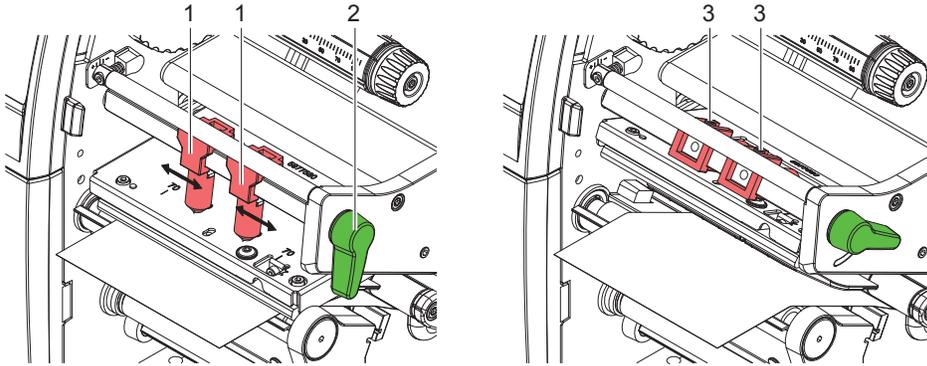


Figure 17 Setting the head locking system

If the print density decreases in the outer areas when using very large media, the plungers can be displaced :

- ▶ Loosen threaded pins (3) at the plungers (1) with Allen key.
- ▶ Turn lever (2) clockwise to lock the printhead.
- ▶ Displace plungers to the scale value 70.
- ▶ Tighten the threaded pins (3).

7.4 Removing and Installing the Rewind Guiding Plate, Dispense Plate or Tear-off Plate

To convert the printer for use in another operating mode, a rewind guiding plate (2a), a dispense plate (2b) or a tear-off plate (2c) may need to be installed.

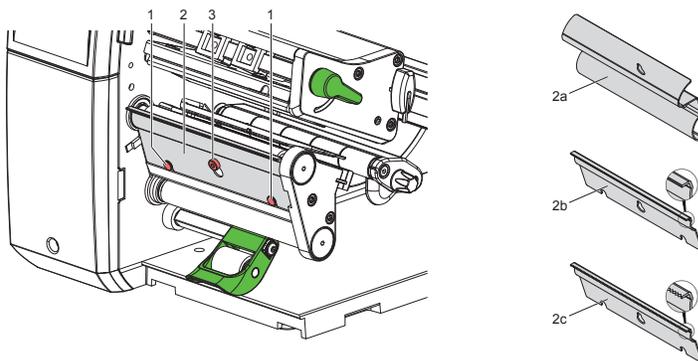


Figure 18 Removing and installing the rewind guiding plate, dispense plate or tear-off plate

Removing a plate

- ▶ Loosen screw (3) several turns.
- ▶ Slide plate (2) upwards and remove it.

Installing a plate

- ▶ Place plate (2) onto the screw (3) and slide it downwards behind the pins (1).
- ▶ Tighten screw (3).

7 Loading Material

7.5 Loading Transfer Ribbon



Note!

The instructions below apply only when doing Thermal Transfer printing. For Direct Thermal printing, do not load a transfer ribbon; if one has already been loaded, remove it.

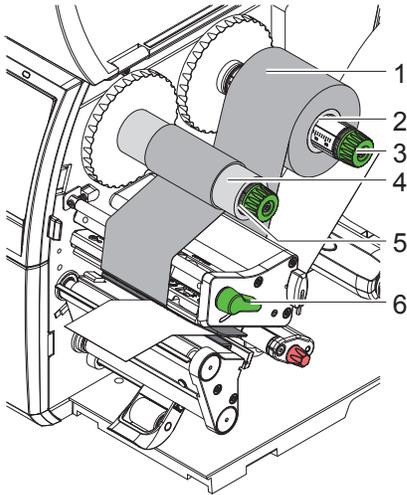


Figure 19 Loading transfer ribbon

1. Clean printhead before loading the transfer ribbon (> 9.4 on page 26).
2. Turn lever (6) counterclockwise to lift the printhead.
3. Slide transfer ribbon roll (1) onto the ribbon supply hub (2) so that the color coating of the ribbon faces downward when being unwound.
4. Position the roll in such a way that both ends of the roll show identical scale values.
5. Hold transfer ribbon roll (1) firmly and turn knob on ribbon supply hub (3) counterclockwise until the transfer ribbon roll is secured.
6. Slide suitable transfer ribbon core (4) onto the transfer ribbon take-up hub (5) and secure it in the same way.
7. Guide transfer ribbon through the print unit as shown in Figure 19.
8. Secure starting end of transfer ribbon to the transfer ribbon core (4) with adhesive tape. Ensure counterclockwise rotation direction of the transfer ribbon take-up hub here.
9. Turn transfer ribbon take-up hub (5) counterclockwise to smooth out the feed path of the transfer ribbon.
10. Turn lever (6) clockwise to lock the printhead.

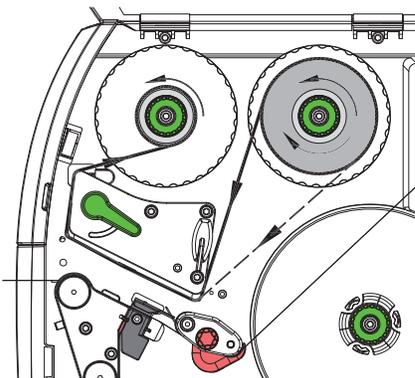


Figure 20 Transfer ribbon feed path

7 Loading Material

7.6 Setting the Feed Path of the Transfer Ribbon

Transfer ribbon wrinkling can lead to print image errors. The transfer ribbon deflection (3) can be adjusted so as to prevent wrinkles.



Note!

A maladjustment of the head locking system may also cause ribbon wrinkling (▷ 7.3 on page 22).

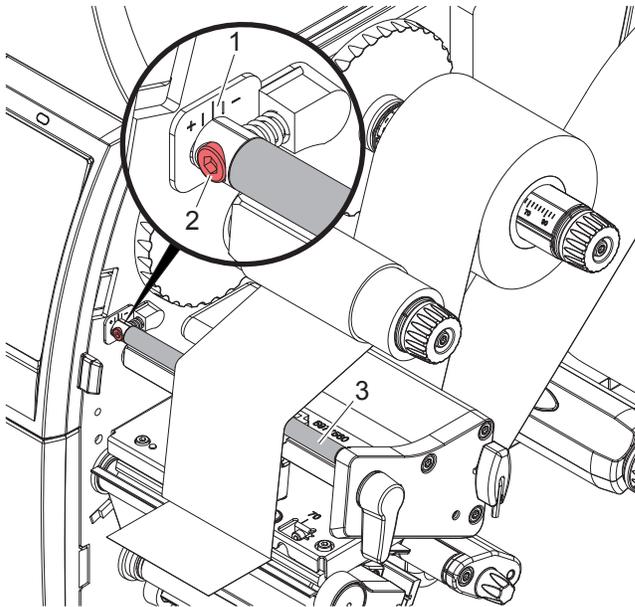


Figure 21 Setting the feed path of the transfer ribbon



Note!

The adjustment is best carried out during printing.

- ▶ Read current setting on the scale (1) and record if necessary.
- ▶ Turn screw (2) with Allen key and observe the behavior of the ribbon.
In the + direction, the inner edge of the ribbon is tightened, and the outer edge is tightened in the - direction.

8 Printing Operation



Attention!

Printhead damage caused by improper handling!

- ▶ Do not touch the underside of the printhead with the fingers or sharp objects.
- ▶ Ensure that the labels are clean.
- ▶ Ensure that the label surfaces are smooth. Rough labels act like emery paper and reduce the service life of the printhead.
- ▶ Print with the lowest possible printhead temperature.

The printer is ready for operation when all connections have been made and labels and, if applicable, the transfer ribbon have been loaded.

8.1 Synchronization of the Paper Feed

After the label stock has been inserted, for peel-off or cutting mode a synchronization of the paper feed is required. That way the first label, which is detected by the label sensor, will be transported to the print position and all labels in front will be fed out of the printer. So the synchronization avoids, that blank labels are peeled-off together with the first printed label or that the first cut label would be too long. Both effects can cause useless first labels.

- ▶ Select  to start the synchronization.
- ▶ Remove the blank labels peeled-off or cut during the synchronization.



Note!

Synchronization is not necessary if the printhead was not opened between different print jobs, even if the printer was switched off.

8.2 Tear-off Mode

In tear-off mode, labels or continuous media are printed. After printing, the label strip can be separated by hand. The label printer must be equipped with a tear-off plate for this ▷ 7.4 on page 22.

8.3 Peel-off Mode

In Peel-off mode, the labels are automatically peeled off the liner after printing and presented for removal. The liner is wound up by the internal rewinder. This mode is available only on the PEEL printer versions. The printer must be equipped with a dispense plate. ▷ 7.4 on page 22



Attention!

Peel-off mode must be activated in the software.

This is done with the "P command" in the direct programming, ▷ Programming Manual.

- In the most simple case the peel-off mode can be controlled without optional device by the touchscreen display:
 - ▶ Start a print job in peel-off mode.
 - ▶ Start every peel-off cycle by pressing  on the touchscreen display.
- When using the optional PS1000 present sensor, the label in the peel position will be detected by an optical sensor. After the label has been removed the next label will be printed and fed to the peel position ▷ separate documentation.

8.4 Internal Rewinding

The labels are wound up internally after printing with the carrier medium for later use. This mode is available only on the PEEL printer versions.

The label printer must be equipped with a rewind guiding plate for this ▷ 7.4 on page 22

9 Cleaning

9.1 Cleaning Information



Danger!

Risk of death via electric shock!

- ▶ **Disconnect the printer from the power supply before performing any maintenance work.**

The label printer requires very little maintenance.

It is important to clean the thermal printhead regularly. This guarantees a consistently good printed image and plays a major part in preventing premature wear of the printhead.

Otherwise, the maintenance is limited to monthly cleaning of the device.



Attention!

The printer can be damaged by aggressive cleansers.

Do not use abrasive cleaners or solvents for cleaning the external surfaces or modules.

- ▶ Remove dust and paper fluff from the print area with a soft brush or vacuum cleaner.
- ▶ The cover of the printer can be cleaned with a standard cleanser.

9.2 Approved Cleaning Swabs

Use **Brady part number PCK-6** cleaning swabs pre-soaked in print head cleaning solution. Package of 50 swabs. To be used to clean print head, sensor, rollers.

9.3 Cleaning the Print Roller

Accumulations of dirt on the print roller may impair the media transport and the print quality.

- ▶ Lift the printhead.
- ▶ Remove labels and transfer ribbon from the printer.
- ▶ Remove deposits with roller cleaner and a soft cloth.
- ▶ If the roller appears damaged, replace it ▷ Service Manual.

9.4 Cleaning the Printhead

Cleaning intervals: direct thermal printing - every media roll change
 thermal transfer printing - every ribbon roll change

Substances may accumulate on the printhead during printing and adversely affect printing, e.g. differences in contrast or vertical stripes.



Attention!

Printhead can be damaged!

Do not use sharp or hard objects to clean the printhead.

Do not touch protective glass layer of the printhead.



Attention!

Risk of injury from the hot printhead line.

Ensure that the printhead has cooled down before starting cleaning.

- ▶ Lift the printhead.
- ▶ Remove labels and transfer ribbon from the printer.
- ▶ Clean printhead surface with special cleaning pen or a cotton swab dipped in pure alcohol.
- ▶ Allow printhead to dry for 2–3 minutes before commissioning the printer.

9 Cleaning

9.5 Cleaning the Label Sensor



Attention!

Label sensor can be damaged!

Do not use sharp or hard objects or solvents to clean the label sensor.

The label sensor can become dirtied with paper dust. This can adversely affect label detection.

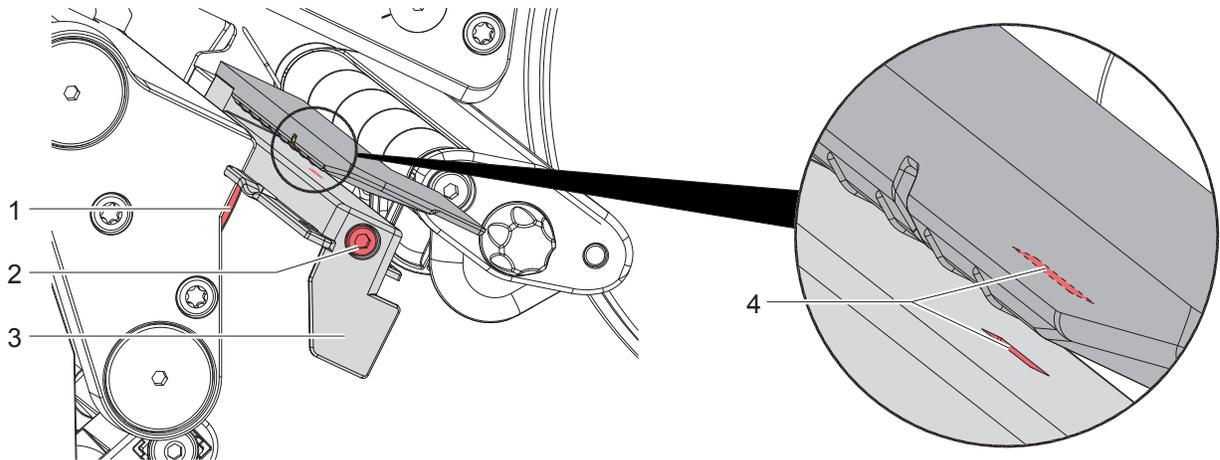


Figure 22 Cleaning the label sensor

1. Remove labels and transfer ribbon from the printer.
2. Loosen screw (2).
3. Hold pressed the button (1) and slowly pull label sensor outward via the tab (3). Ensure that the label sensor cable is not tensioned by this.
4. Clean label sensor the slots (4) with brush or cotton swab soaked in pure alcohol.
5. Push label sensor back via tab (3) and set it (▷ 7.1.3 on page 17).
6. Reload labels and transfer ribbon.

10 Fault Correction

10.1 Error Display

The appearance of an error will be shown on the display:



Figure 23 Error display

The error treatment is pending on the error type ▷ 10.2 on page 28.

The display offers the following possibilities to continue after an error occurred:

| | |
|-----------------|---|
| <i>Repeat</i> | The print job will be continued after clearing the error cause. |
| <i>Cancel</i> | The print job will be cancelled. |
| <i>Feed</i> | The paper feed will be synchronized. Following the print job can be continued. |
| <i>Ignore</i> | The error message will be ignored. The print job will be continued possibly with limited performance. |
| <i>Save log</i> | The error does not allow print operation. For detailed analysis several system files can be saved on an external memory. |

Table 3 Button in the error display

10.2 Error Messages and Fault Correction

| Error message | Cause | Remedy |
|-------------------------|---|--|
| <i>Barcode error</i> | Invalid barcode content, e.g. alphanumeric characters in a numerical barcode | Correct the barcode content. |
| <i>Barcode too big</i> | The barcode is too big for the allocated area of the label | Reduce the size of the barcode or move it. |
| <i>Buffer overflow</i> | The input buffer memory is full and the computer is still transmitting data. | Use data transmission via protocol (preferably RTS/CTS). |
| <i>Cutter blocked</i> | Cutter cannot return into its home position and stays in an undefined position | Switch off the printer. Remove material. Switch on the printer. Restart print job. Change material |
| | No cutter function | Switch the printer off and then on. If error recurs call service. |
| <i>Cutter jammed</i> | The cutter is unable to cut the labels but is able to return into its home position | Press <i>Cancel</i> Change material. |
| <i>Device not conn.</i> | Programming addresses a non-existent device | Either connect this device or correct the programming. |
| <i>File not found</i> | Requested file is not on the card | Check the contents of the card. |
| <i>Font not found</i> | Error with the selected download font | Cancel current print job, change font. |
| <i>Memory overflow</i> | Current print job contains too much information, e.g. selected font, large graphics | Cancel current print job. Reduce amount of data to be printed. |
| <i>Name exists</i> | Duplicate usage of field name in the direct programming | Correct programming |

10 Fault Correction

| Error message | Cause | Remedy |
|--------------------------|---|---|
| <i>No label found</i> | There are labels missing on the label material | Press <i>Repeat</i> repeatedly until printer recognizes the next label on the material. |
| | The label format as set in the software does not correspond with the real label format | Cancel current print job. Change the label format set in the software. Restart print job. |
| | Printer is loaded with continuous paper, but the software is set on labels | Cancel current print job. Change the label format set in the software. Restart the print job. |
| <i>No label size</i> | The size of the label is not defined in the programming. | Check programming. |
| <i>Out of paper</i> | Out of label roll | Load labels. |
| | Error in the paper feed | Check paper feed. |
| <i>Out of ribbon</i> | Out of transfer ribbon | Insert new transfer ribbon. |
| | Transfer ribbon melted during printing | Cancel current print job. Change the heat level via software. Clean the printhead ▷ 9.4 on page 26 Load transfer ribbon. Restart print job. |
| | The printer is loaded with thermal labels, but the software is set to transfer printing | Cancel current print job. Set software to direct thermal printing. Restart print job. |
| <i>Pinch roller open</i> | Pinch roller at the rewind guide roller is not locked in peel-off mode | Swing the pinch roller against the rewind assist roller. |
| <i>Printhead open</i> | Printhead not locked | Lock printhead. |
| <i>Printhead too hot</i> | Printhead is overheated | After pausing the print job will be continued automatically. If the fault recurs repeatedly, reduce the heat level or the print speed via software. |
| <i>Read error</i> | Read error when reading from the memory card | Check data of the card. Backup data, reformat card. |
| <i>Remove ribbon</i> | Transfer ribbon is loaded although the printer is set to direct thermal printing | for direct thermal printing remove ribbon for thermal transfer printing set the printer in the configuration or in the software to transfer printing |
| <i>Syntax error</i> | Printer has received an unknown or invalid command from the computer. | Press <i>Ignore</i> to skip the command or press <i>Cancel</i> to cancel the print job. |
| <i>Unknown card</i> | Card not formatted, Type of card not supported | Format card, use different type of card. |
| <i>Voltage error</i> | Hardware error | Switch the printer off and then on. If error recurs call service. It is shown which voltage has failed. Please note. |
| <i>Write error</i> | Hardware error | Repeat the write process, reformat card. |

Table 4 Error Messages and Fault Correction

10 Fault Correction

10.3 Problem Solution

| Problem | Cause | Remedy |
|---|---|---|
| Transfer ribbon creases | Transfer ribbon deflection not adjusted | Adjust the transfer ribbon deflection. ▷ 7.5 on page 24 |
| | Head locking system not adjusted | Adjust the head locking system. ▷ 7.3 on page 22 |
| | Transfer ribbon too wide | Use a transfer ribbon slightly wider than the width of label. |
| Print image has smears or voids | Printhead is dirty | Clean the printhead ▷ 9.4 on page 26 |
| | Temperature too high | Decrease temperature via software. |
| | Unsuitable combination of labels and transfer ribbon | Use different type of ribbon. |
| Printer does not stop after transfer ribbon runs out | Thermal printing is chosen in the software | Change to thermal transfer printing. |
| Printer prints a sequence of characters instead of the label format | Printer is in ASCII dump mode | Cancel the ASCII dump mode. |
| Printer transports label media, but transfer ribbon does not move | Transfer ribbon incorrectly inserted. | Check and, if necessary, correct the transfer ribbon web and the orientation of the label side. |
| | Unsuitable combination of labels and transfer ribbon | Use different type of ribbon. |
| Printer only prints each second label | Setting of the size in the software is too large. | Change the size in the software. |
| Vertical white lines in the print image | Printhead is dirty | Clean the printhead ▷ 9.4 on page 26 |
| | Printhead is defective (failure of heat elements) | Change the printhead. ▷ Service Manual. |
| Horizontal white lines in the print image | Printer is used with the <i>backfeed > smart</i> in the cut or peel-off mode | Set the <i>backfeed > always</i> in the setup. ▷ Configuration Manual. |
| Print image is irregular, one side is lighter | Printhead is dirty | Clean the printhead ▷ 9.4 on page 26 |
| | Head locking system not adjusted | Adjust the head locking system. ▷ 7.3 on page 22 |

Table 5 Problem solution

11 Media

11.1 Media Dimensions

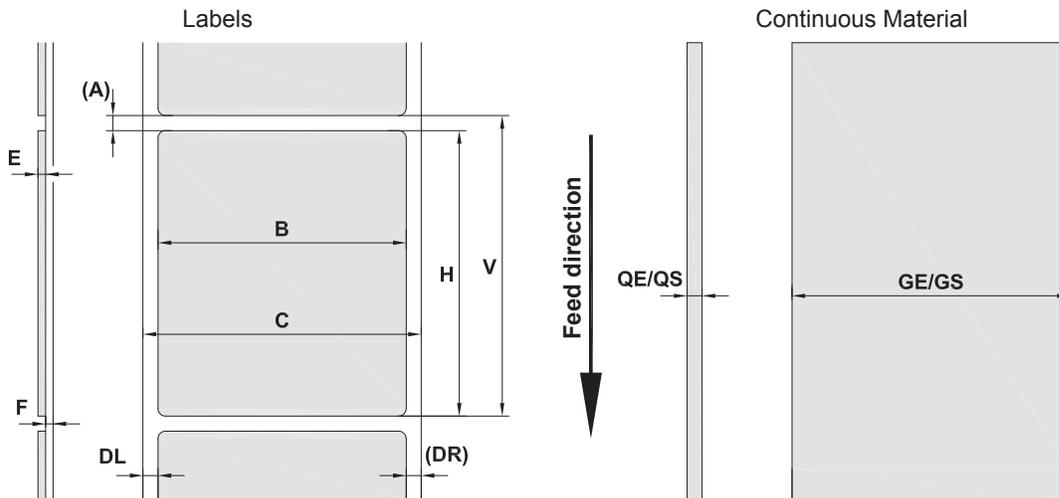


Figure 24 Media dimensions

| Dimension Code | Designation | Dimension (mm) |
|---|--|----------------------|
| B | Label width | 4 - 110 |
| H | Label height in peel-off mode | 4 - 2000 12 - 200 |
| - | Tear-off length | > 30 |
| - | Cut length with cutter with perforation cutter | > 5 > 5 |
| - | Perforation length | > 2 |
| A | Label distance | > 2 |
| C | Width of liner | 9 - 114 |
| GE | Width of endless material | 4 - 114 |
| GS | Width of shrink tubes | 4 - 85 |
| DL | Left margin | ≥ 0 |
| DR | Right margin | ≥ 0 |
| E | Label thickness | 0,03 - 0,60 |
| F | Liner thickness | 0,03 - 0,13 |
| QE | Thickness of endless material | 0,05 - 0,50 |
| QS | Thickness of shrink tubes | ≤ 1,1 |
| V | Label feed | > 6 |
| <ul style="list-style-type: none"> • Small label sizes, thin materials or strong glue can lead to limitations. Critical applications need to be tested and cleared. • Note the bending stiffness ! Material must be flexible to follow the radius of the print roller ! | | |

Table 6 Media dimensions

11 Media

11.2 Printer Dimensions

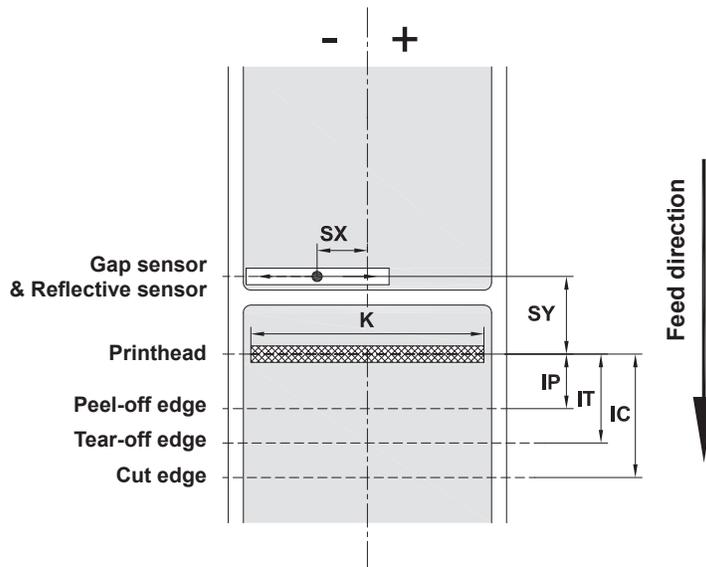


Figure 25 Device dimensions

| Dimension Code | Designation | Dimension (mm) |
|----------------|--|----------------|
| IP | Distance printhead - peel-off edge | 13,5 |
| IT | Distance printhead - tear-off edge | 13,5 |
| IC | Distance printhead - cut edge with cutter CU400 (Brady part #149069) with perforation cutter PCU400 (Brady part #149078) | 20,5 21,2 |
| J | Distance 1st heating point - material edge | 2,0 |
| K | Print width | 105,6 |
| SX | Distance gap/reflective sensor - middle of paper track i.e. permissible distance of reflex or cut-out marks from the middle of the material | -55 - 0 |
| SY | Distance gap/reflective sensor - printhead | 45,0 |

Table 7 Device dimensions

11 Media

11.3 Reflex Mark Dimensions

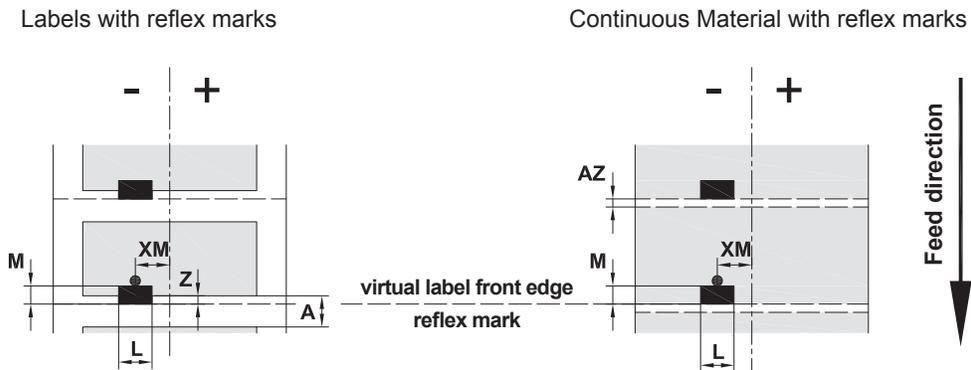


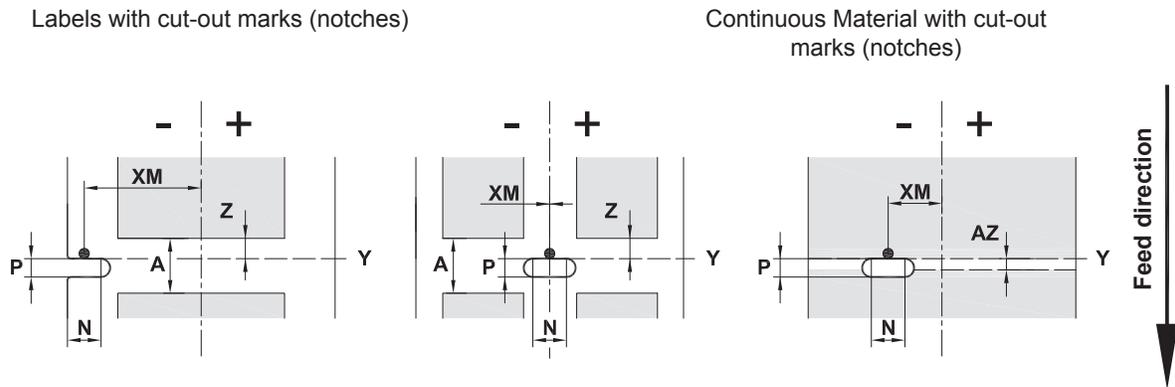
Figure 26 Reflex mark dimensions

| Dimension Code | Designation | Dimension (mm) |
|----------------|--|----------------------------|
| A | Label distance | > 2 |
| AZ | Distance between print zones | > 2 |
| L | Width of reflex mark | > 5 |
| M | Height of reflex mark | 3 - 10 |
| XL | Distance mark - material edge | 5 - 60 |
| XM | Distance mark - middle of paper track | -55 - ±0 |
| Z | Distance virtual label front edge - actual label front edge ▶ Adjust software settings | 0 up to A / recomm. : 0 |
| | <ul style="list-style-type: none"> Reflex marks must be on the back side of the material (liner). Label sensor for reflex marks on the top side on request. Specification is valid for black marks. Recognition of colored marks may fail. ▶ Preliminary tests are needed. | |

Table 8 Reflex mark dimensions

11 Media

11.4 Cut out Mark (notch) Dimensions



for marginal cut-out marks
minimum liner thickness 0,06 mm

Figure 27 Cut-out mark dimensions

| Dimension Code | Designation | Dimension (mm) |
|----------------|--|-------------------|
| A | Label distance | > 2 |
| AZ | Distance between print zones | > 2 |
| N | Width of cut-out mark for marginal cut-out | > 5 > 8 |
| P | Height of cut-out mark | 2 - 10 |
| XL | Distance mark - material edge | 5 - 60 |
| XM | Distance mark - middle of paper track | -53 - ±0 |
| Y | Sensor recognized virtual label front edge with gap sensor recognition | Rear edge cut-out |
| Z | Distance recognized front edge - actual label front edge ▶ Adjust software settings | 0 up to A-P |

Table 9 Cut-out mark dimensions

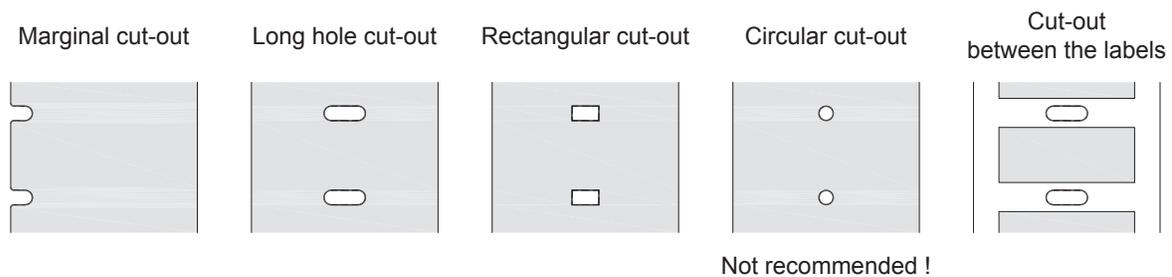


Figure 28 Samples for cut-out marks

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