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logiJET TC8

Operator's Manual

Edition 1.2

microplex
printware ag

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1. Introduction

1.1. General Description

The logiJET TC8 is a 2-color thermal printer perfectly suited for industrial applications. This printer is equipped with two robust print modules which can be loaded with ribbons of different colors. Therefore the printer can be used, for example, for the individual printing of hazard warning labels in production, chemical, pharmaceutical, food industry and so on.

This printer is PCL-5 compatible and can thus be operated like a laser printer. In this way it is not necessary to put up with adaptations and power drains at SAP-applications or in the progress of changing from a laser printer to this thermal printer.
The logiJET TC8 printer can be used for printing on roll-fed media as well as for printing on fanfold media. The maximum processable **width of media is 9" (228 mm). Up to 8.64" (219 mm) of that are** printable. The printer is equipped with sensors for Black Mark and Gap (reflex and transparent).
The wide-opening printheads allow easy access to the media and the ribbons. Therefore the loading of consumables is quick and easy.

The print speed is up to up to 6 Inch per second (150 mm per second). The resolution is 300 dots per inch corresponding to about 12 dots per millimeter.

The logiJET TC8 is provided with a controller that is also used in SOLID laserprinters. So the advantages of the thermal print **technology are combined with the flexibility of the „laserprinter intelligence".**

The Microplex printer controller has its integrated website, this allows a printer configuration via Ethernet. See Networking Features of MICROPLEX Printers for more information.

Data can be sent without programming expenditure from almost any software platform, because printer drivers are already available for this.

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The capabilities featured include the Microplex page description
language IDOL. Using this language, complex tasks such as the
creation of forms can be carried out by simple software
commands (see separate IDOL manual).

1.2. Fundamentals of Thermal Printing

The thermal print technology enables a quiet and fast print process
with a high resolution output. The printhead produces the image by
heating single elements (dots). So you need a special ribbon
(thermal transfer printing). Ribbons with different colors are
available.
While thermal transfer printing the dots touch the thermal ribbon
so that the heating of particular dots leads to a partial melting of
the ribbon. Due to the contact with a media (future carrier of the
information, for example paper) this leads to a transfer of the
image onto the media.

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1.3. Conventions

To find the requested information more quickly and to understand instructions more easily, the following conventions are used:

This symbol refers to a possible source of danger. If you do not pay attention to this information, injuries may result, the function of the printer could be reduced or objects could be damaged.

This symbol refers to important hints and suggestions on using the printer. Disregarding these hints might cause problems with the printer or within the environments.
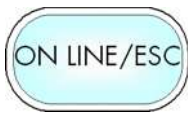
This symbol shows a key of the control panel (Touch panel). Such symbols will be used in this manual whenever keys have to be pressed in order to activate certain functions.

blue colored text

Link to another chapter or a different document. By clicking the blue colored text you'll enter the concerning chapter or document.

[Menu Level 1]

This symbol represents messages shown in the display (panel).

1.4. CE – Conformity

EC DECLARATION OF CONFORMITY

Manufacturer: **MICROPLEX Printware AG**
                       Panzerstrasse 5
                       D-26316 Varel
                       Germany

Product: Thermal Printer

Type: LOGIJET TC8

Conforms with the following   EN 60950-1   (Low voltage directive)
EC directives: EN 55022/Class A   (Information technology equipment –
                                                  Radio disturbance characteristics – Limits
                                                  and methods of measurement)

                              EN 61000-6-2   (Immunity for industrial environments)
                              EN 61000-3-3   (Limitation of voltage changes, voltage
                                                  fluctuations and flicker in public low-
                                                  voltage supply systems)

Varel, 17.4.2012

                                                  General Manager
                                                  Jürgen Schmitt

On the basis of this declaration, this product will
bear the following mark: **CE**

1.5. General Safety Regulations

This equipment generates, uses, and can radiate radio frequency energy and, if not installed and used in accordance with the instruction manual, may cause harmful interference to radio communications. Incorrect operation of this equipment in a residential area is likely to cause harmful interference in which case the user will be required to correct the interference at his own expense.

This Microplex product and its consumables are designed and tested according to strict safety standards.

Heeding the following instructions ensures secure operation:

- Please make sure your electricity source is appropriately grounded.

- Install the device on solid and level ground.

- Only trained staff are authorized to transport the equipment.

- Only use consumables which are specially developed for this device.

- Using unsuitable consumables may cause a reduction of output quality or damages to the device.

- Ensure no liquids get on or into the device.

- Do not remove any cover or safety device fastened by screws.

- Do not remove or bridge over any safety device.

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- Do not push anything into the ventilation apertures.

- Never carry out installations, cleanings or maintenance operations which are not described in this manual. This should only be done by Microplex authorized service personnel.

- Be careful when operating equipment with opened cover hoods (setting-up work or service). Rotating parts **can cause injury** , and it is also possible for hair, clothing, jewellery, etc. to be caught in the machinery. Ribbon and material should only be inserted and changed by specially instructed personnel.

- Optional device components may only be installed by authorized personnel, and in accordance with the appropriate assembly and usage regulations.

- Only plug in or remove interface connectors when the device is switched off.

In order to disconnect the printer quickly from the main power in case of emergency please note the following:

- For connected printers with plugs, the power-outlet should be installed near the printer and easily within reach.

- For permanently connected printers, an easily accessible emergency power-off switch should be installed close to the printer.

- Please do not conceal any disconnect devices with the printer or other objects.

- After switching off the device, wait at least 15 seconds before the device is switched on again.

- Please follow all the information and hints directly attached to the device and/or described in this manual.

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2. Installation

2.1. Printer Unpacking

1. Open the box and and remove the packing materials lying on top to lay open the upper foam damper.

   Hint: The packing materials of your printer may differ in shape and appearance from the parts shown in the following figure.

2. Remove the printer accessories, if need be.
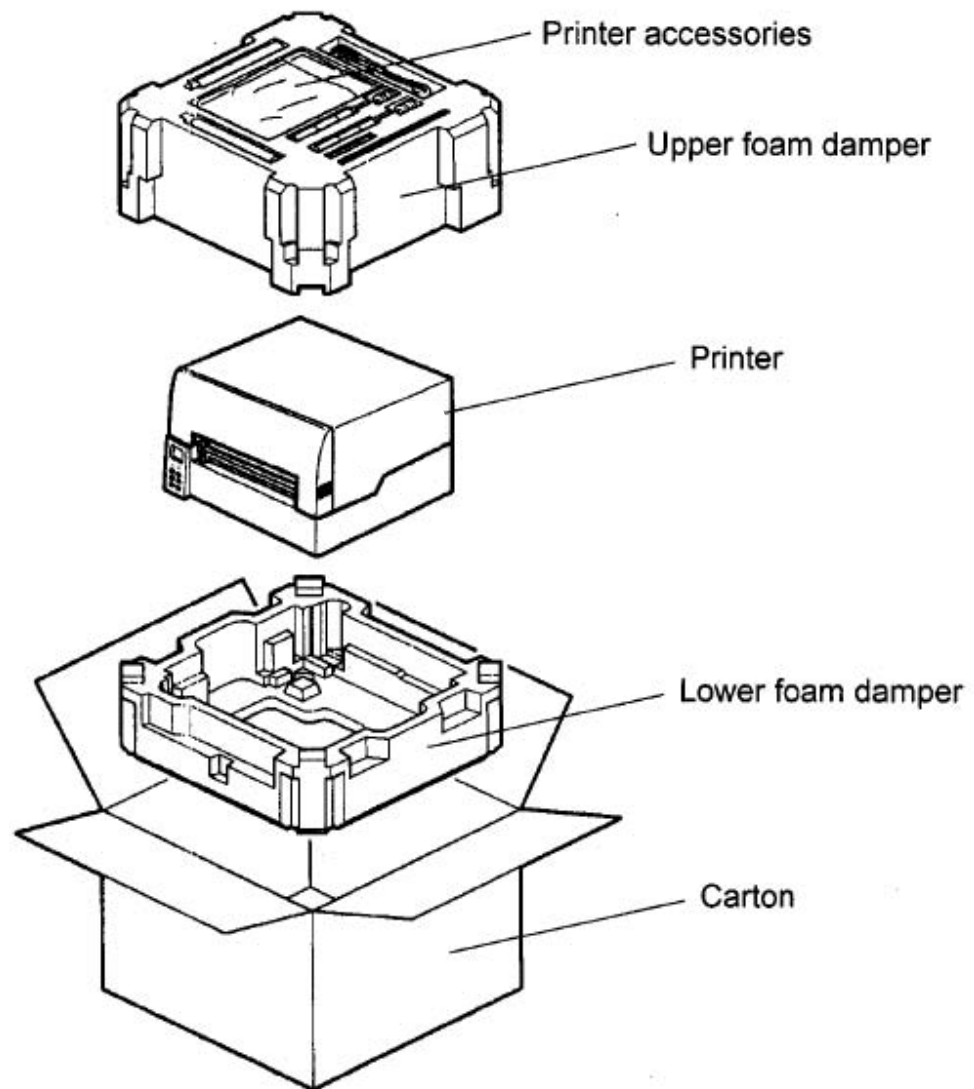
Fig. 2.1.a Printer with packing materials

3. Take out the upper foam damper.

4. Take the printer and lift it out the box carefully.

Get somebody to help you to lift the printer, if necessary.
Take hold of the printer from the bottom of the printer itself.
Get somebody to hold the lower foam damper and the box when
removing the printer.

5. Place the printer onto a suitable base (see chapter 2.3).

Please retain the original packing materials in case the printer
has to be transported in the future.

2.2. Check List

First of all place the printer and the accessories onto a level surface until the definitive location is chosen.

Please make sure that all items are included and that there are no defects.
Immediately inform your supplier of any damage.
Open the cardboard box carefully and check the contents (compare figure 2.2.a, too):

1. Printer logiJET TC8
2. Power cord
3. Ribbon takeup core (option)
4. Ribbon mandrels (4 pieces)
5. CD containing:
   - **Operator's Manual for** logiJET TC8
   - Print drivers
   - IDOL Programming Manual

Power cord

CD

Ribbon mandrel   (in total
4 peaces)

Ribbon takeup core   Ribbon
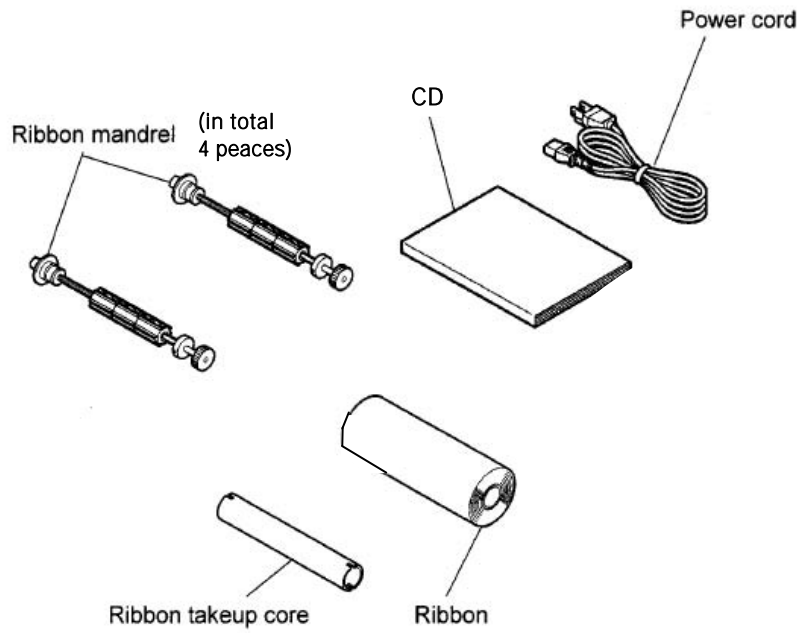
Fig. 2.2.a Accessories for the logiJET TC8 (some of them are optional)

2.3. Printer Installation

- The chosen location should be well-ventilated, clean and dry.
- Damaging environmental factors such as metal vapors, oil mist, corroding lixivium or the like must not come into contact with the printer.
- Position the printer on solid and level ground.
- Do not exposure the printer to shocks or vibrations.
- The printer and socket have to be easily accessible.
- The printer should not be located near volatile or combustible materials (e.g. a curtain).

- The printer must be connected to an appropriate AC power source: 100 – 240 V AC (- 10%, + 6%), 3.2 – 6.4 A, 50/60 Hz
  The power source must be properly grounded.
  The socket and power cords must not be damaged.
- Use the printer only within the allowed fluctuation range (the allowed values are listed above).

- The voltage support must not be impaired by interference.

- In order to run the printer reliably, please maintain the following environmental conditions:
    Temperature: +5°C to +35°C
                              -20°C to +60°C (storage temperature)

   Relative atmospheric humidity: 45% to 75% (without
                                                                    condensation)

- Do not expose the printer to abrupt temperature changes (heating, window or air condition).
- The printer should not be exposed to direct sunlight.

2.4. Printer Components

Main view:

Top cover
Open to insert
material and foil.

Touchscreen (Display
and Control Panel)
Displays printer operation
status, enables settings via
the menu.

Paper output

Fig. 2.4.a Main view of the printer

Rear view:

Ethernet interface

RS232/RS422
interface

Centronics interface

USB interface

Power switch

Input power connector

Paper input opening
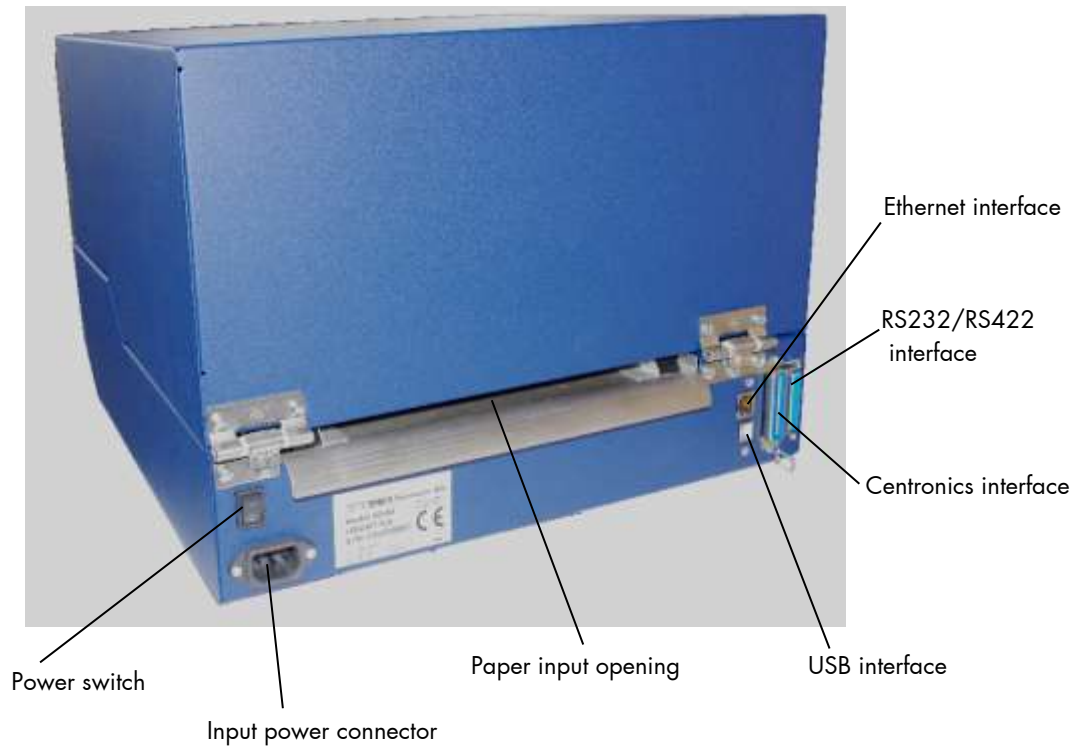
Fig. 2.4.b Rear view of the printer

Top cover
of the printer

Fig. 2.4.c Opening the printer's top cover

Printer interior view:

Front printhead
(Print unit 2)

Rear printhead
(Print unit 1)

Transparent
sensor guide

Upper sensor
(Transparent
 sensor)

Front
platen roller

Front paper
guide

Lower sensor
(Reflex sensor)

Tear bar

Rear paper
guide

Rear
platen roller

Fig. 2.4.d Printer opened

Printhead adjustment lever

Transparent sensor guide
release lever

Printhead release
lever

Ribbon mandrel
holder
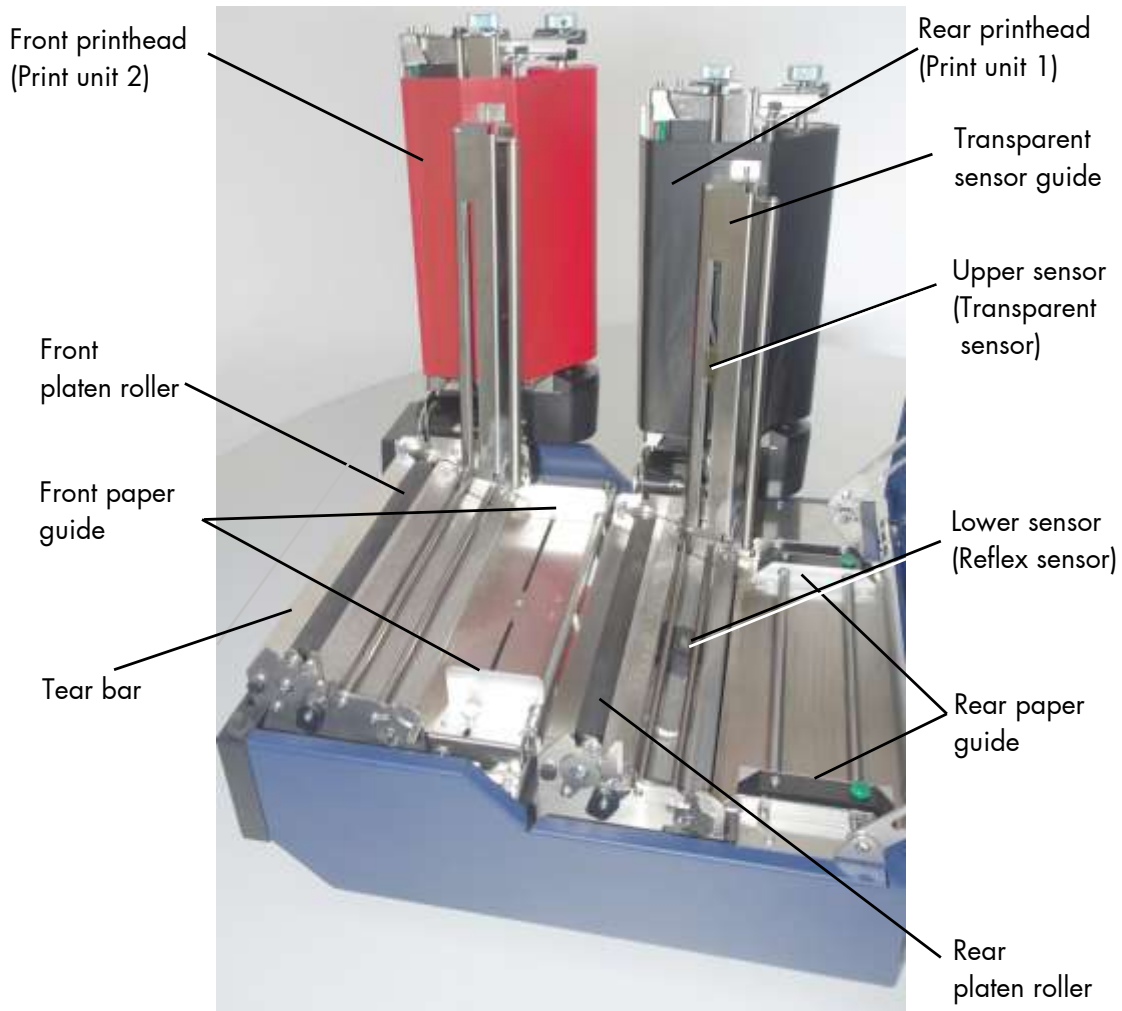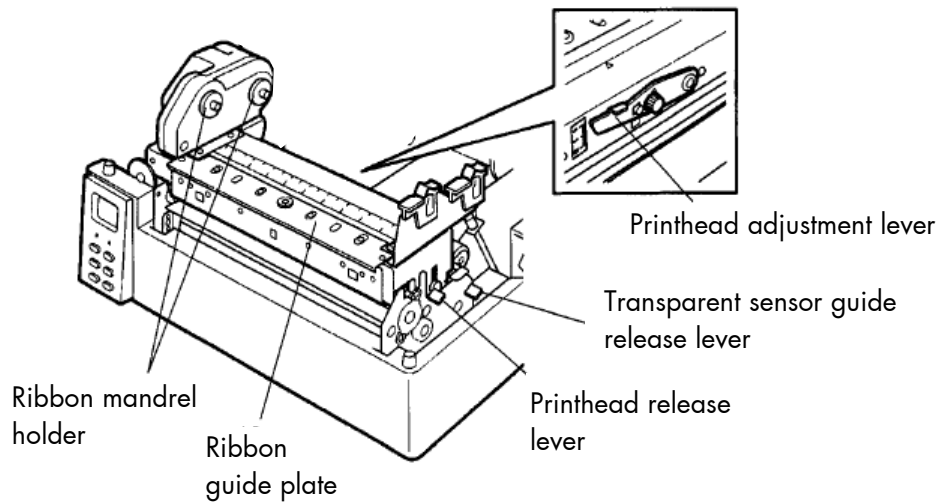
Ribbon
guide plate

Fig. 2.4.e Details at the front print unit (and the rear print unit as well)

3. Media and Ribbon Requirements

Since print quality is affected by media and the ribbons in both print units, printing speeds, and printer operation modes, it is very important to run tests for your applications.
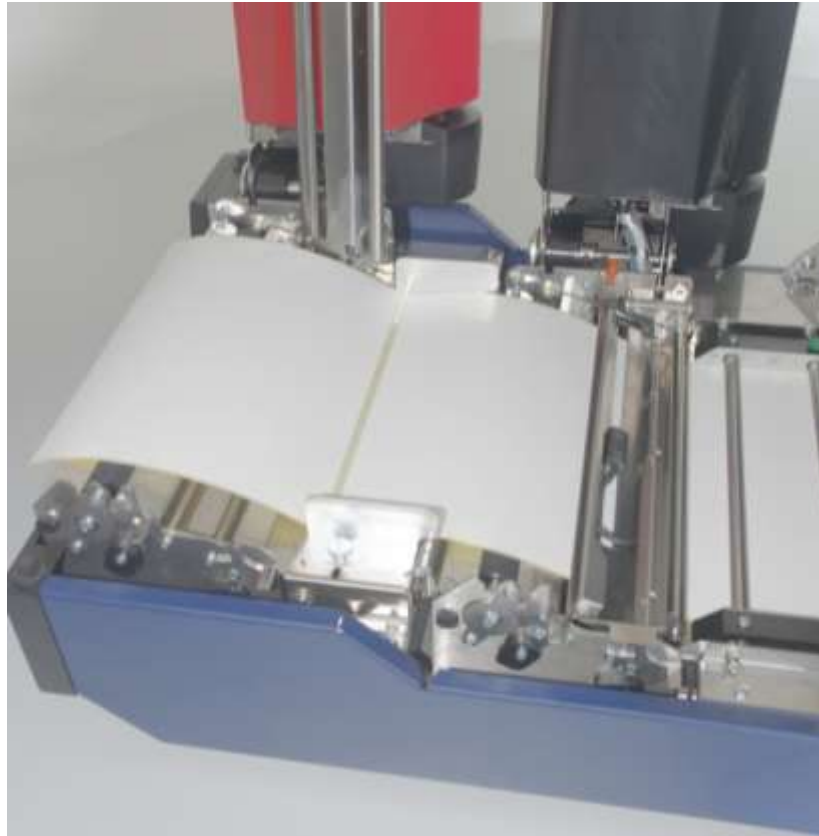
Fig. 3.a Labels

High quality labels are recommended to ensure against premature printhead wear.
We strongly recommend the use of Microplex supplies for continuous high-quality printing.

4. Basic Operation Sequences

4.1. Overview

```
                    ┌─────────┐
                    │  start  │
                    └─────────┘
                         │
┌──────────────────────────────────────────────┐
│             ribbon loading                     │
│                         see chapter 5          │
└──────────────────────────────────────────────┘
                         │
┌──────────────────────────────────────────────┐
│             media loading                      │
│                         see chapter 5          │
└──────────────────────────────────────────────┘
                         │
┌──────────────────────────────────────────────┐
│       printhead pressure adjusting   *         │
│                         see chapter 5          │
└──────────────────────────────────────────────┘
                         │
        adjusting the printer to the paper type *
                         see chapter 7

    label          continuous          Black Mark

             Sync sensor adjusting   *
                         see chapter 7

  lower+upper sensor (Gap)      lower sensor (Reflex)

             slip correction adjusting *
                         see chapter 7

   adjusting the zero position of the material transport *
            (Sync.Sens.Offset)   see chapter 7

          page length /paper width setting
                         see chapter 7

                 margin setting
                         see chapter 7
                         │
                         ▽
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*) A calibration must be performed when media and ribbon are first installed in
    the printer, or when different type of media or ribbon is being used.

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☞   If the panel settings above shall be effective permanently (that
means they do not have to be put in again after a printer
OFF/ON) the setting values can be saved permanently by
operating the ENTER key two times.

An output of the current setting values can be generated using
the "Printing the Status Sheet" panel function (see section 7.8).

Detailed information on the operations above and to further
functions of the printer logiJET TC8 can be found in the
following chapters.

4.2. Characteristics of the logiJET TC8

The **rear print unit** prints the **first color** (standard: black)
The **front print unit** prints the **second color** („spot color")

Print direction

Rear printhead
release lever

Front printhead
release lever
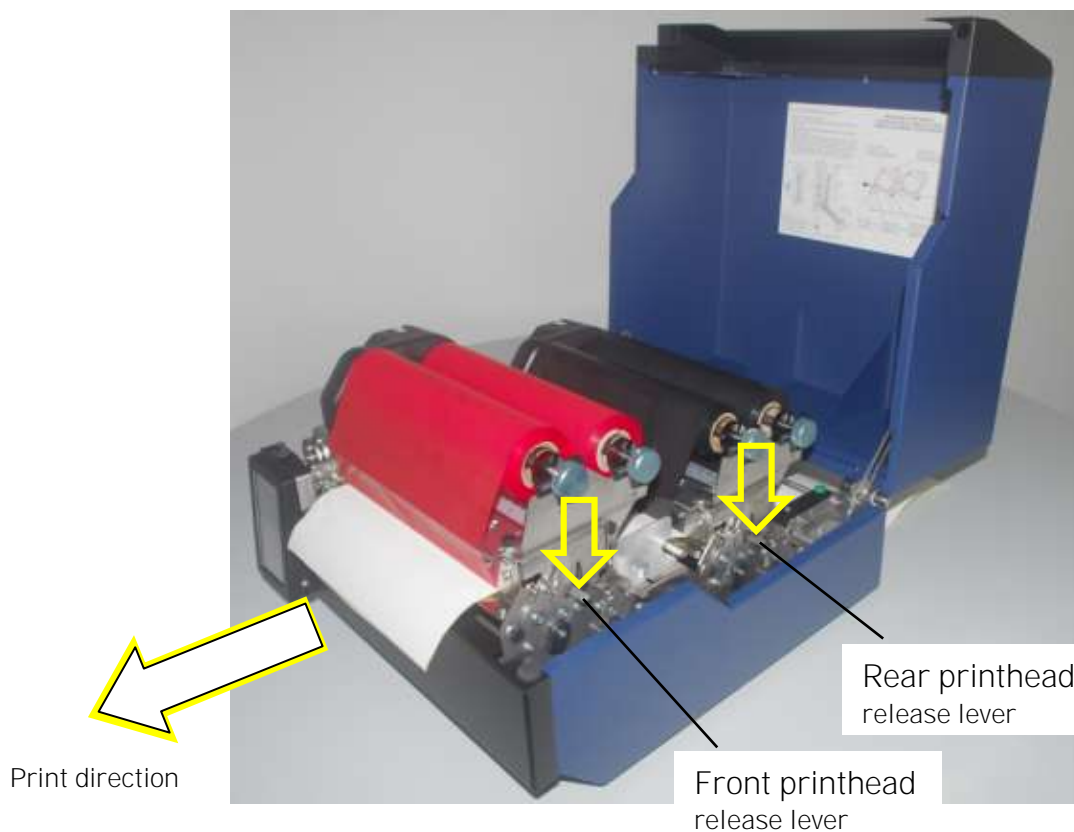
Fig. 4.2.a Position of the print units

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Hint: For everything in your print data that you havn't defined as „black" but as „colored" the TC8 will use the second color („spot color") for printing.

The logiJET TC8 is able to print so-called spot colors depending on the **ribbons loaded to the print units. A color mixture by overlaying isn't** possible.

Detailed information can be found in section 12.1 Color Printing with logiJET TC8.

5. Handling of Consumables

The logiJET TC8 is an 2 color thermal printer. The two print units can be loaded with different colors.

Ribbon and material should only be inserted/exchanged by specially instructed personnel.

Also pay attention to the instructions located on the printer itself (for example the warnings inside the printer).

Only use consumables being specially developed for this device. Using unsuitable consumables may cause a reduction of output quality or damages.

It is possible to open the printer hood while the printer is printing. Do not try to open one of the printhead assemblies while a job is printing.

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Pay attention to the following safety instructions and the instructions listed in section 1.5, too!

<u>Safety instructions:</u>

- The cutter (optional device of your printer) can cause injuries if the printer is operated incorrectly.
- Be careful especially when operating equipment with opened cover hoods (setting-up work or service). Rotating parts can cause injury, and it is possible for hair, clothing, jewellery, etc. to be caught in the machinery.
- Print material should only be inserted and changed by specially instructed personnel.

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5.1. Continuous Media Handling

The logiJET TC8 printer can be used for printing on roll-fed media as well as for printing on fanfold media.
The maximum processable width of media is 9" (228 mm).
8.64" (about 219 mm) of that are printable.
The **center of every print media** (paper) has to be **aligned with** the **center of the printhead**, regardless of media (paper) width.
An output of the current printer values (including the currently set paper size et**c.) can be generated using the** "Status Sheet" panel function (see section 7.8).

5.1.1. Media Loading

The printer is able to process formatted media and unformatted media, too. The panel function to set the media is described in section 7.1.

1.   Turn the printer OFF LINE.

2.   **Open the printer's top cover and swivel it to a vertical positi**on (compare figure 5.1.1.a).

Top cover
 of the printer
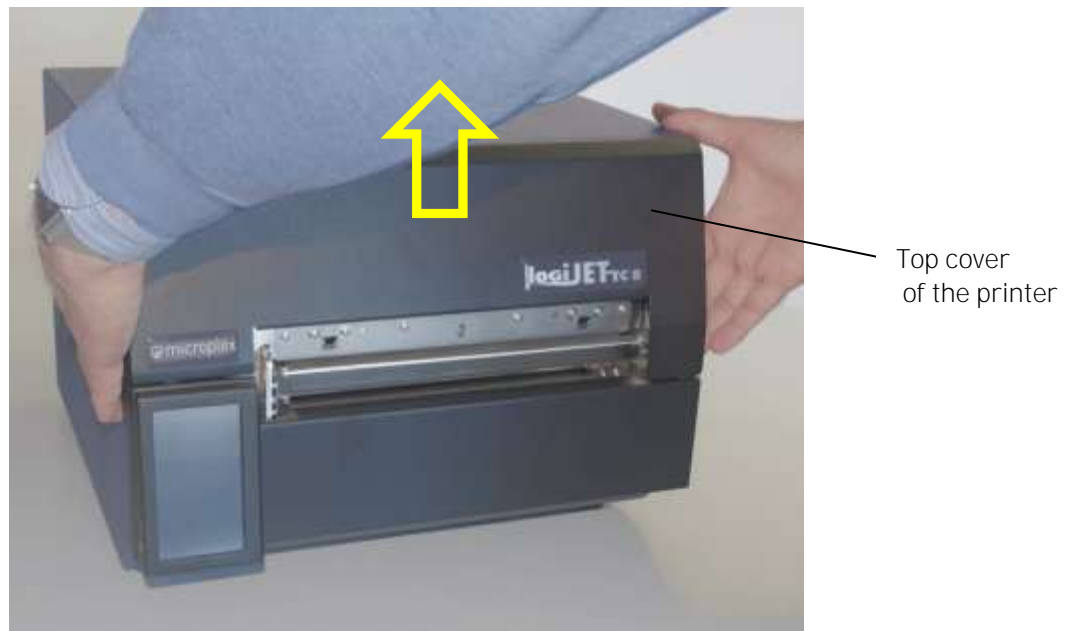
Fig. 5.1.1.a Opening the printer's top cover

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3.   Unlock the front printhead assembly by pushing the
      printhead release lever and raise the printhead assembly to
      a vertical position (see figure 5.1.1.b).

Front printhead
release lever
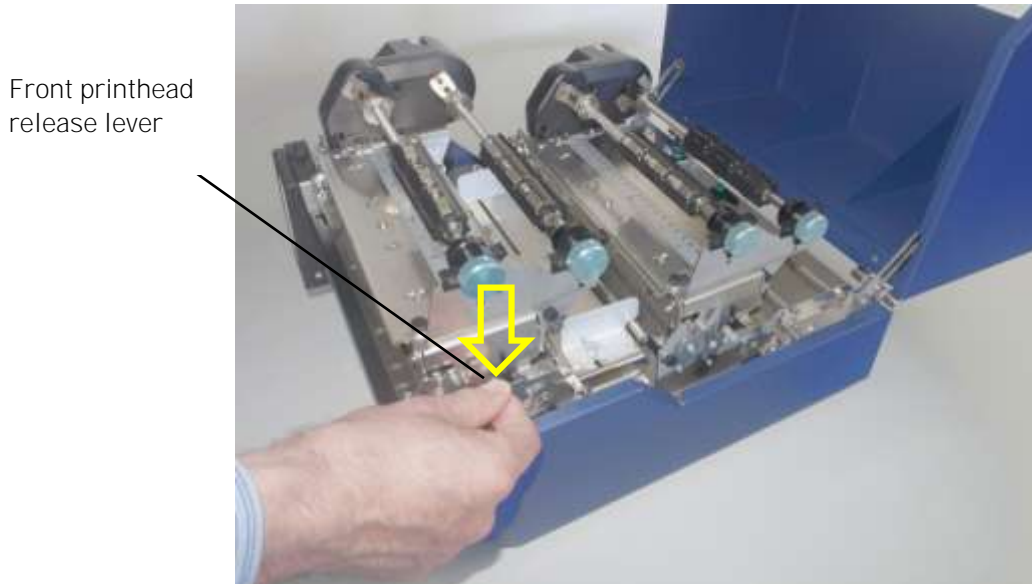
Fig. 5.1.1.b Unlocking the front printhead assembly

Front
printhead
assembly
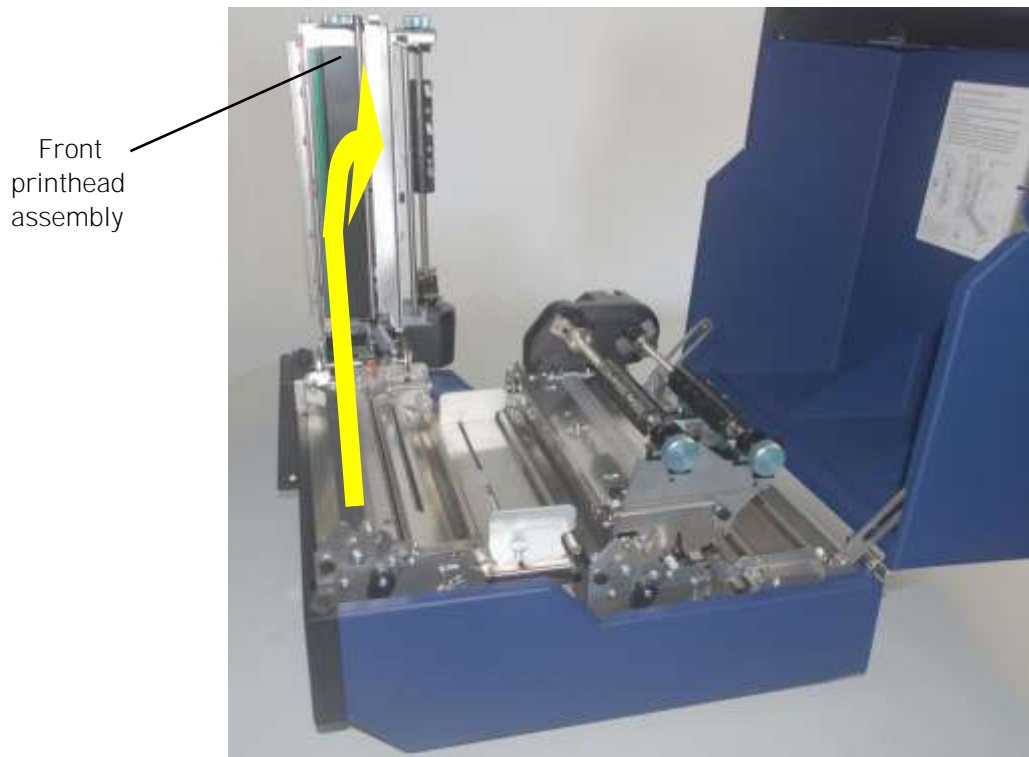
Fig. 5.1.1.c Raising the front printhead assembly

4.   Unlock the front printhead assembly's guide by pushing its
      lever and raise the guide until it stops (as shown in figure
      5.1.1.e).

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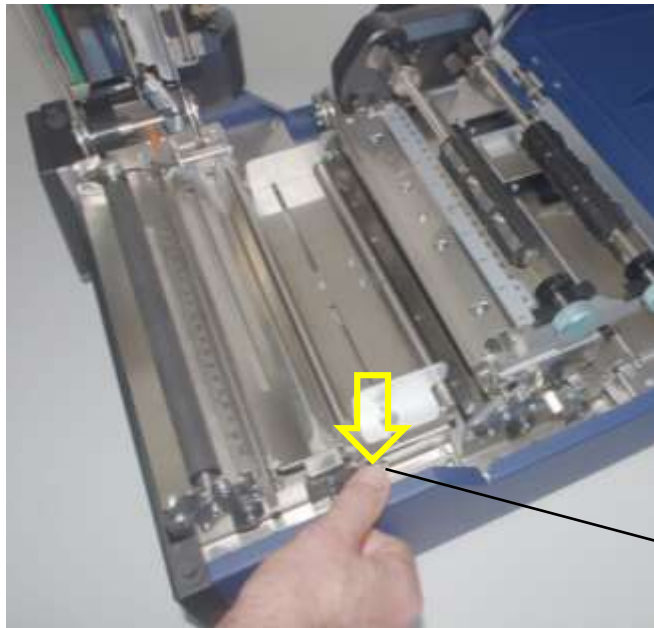
Release lever
of the transpararent
sensor guide

Fig. 5.1.1.d Unlocking the guide of the front print unit

Front
Printhead unit
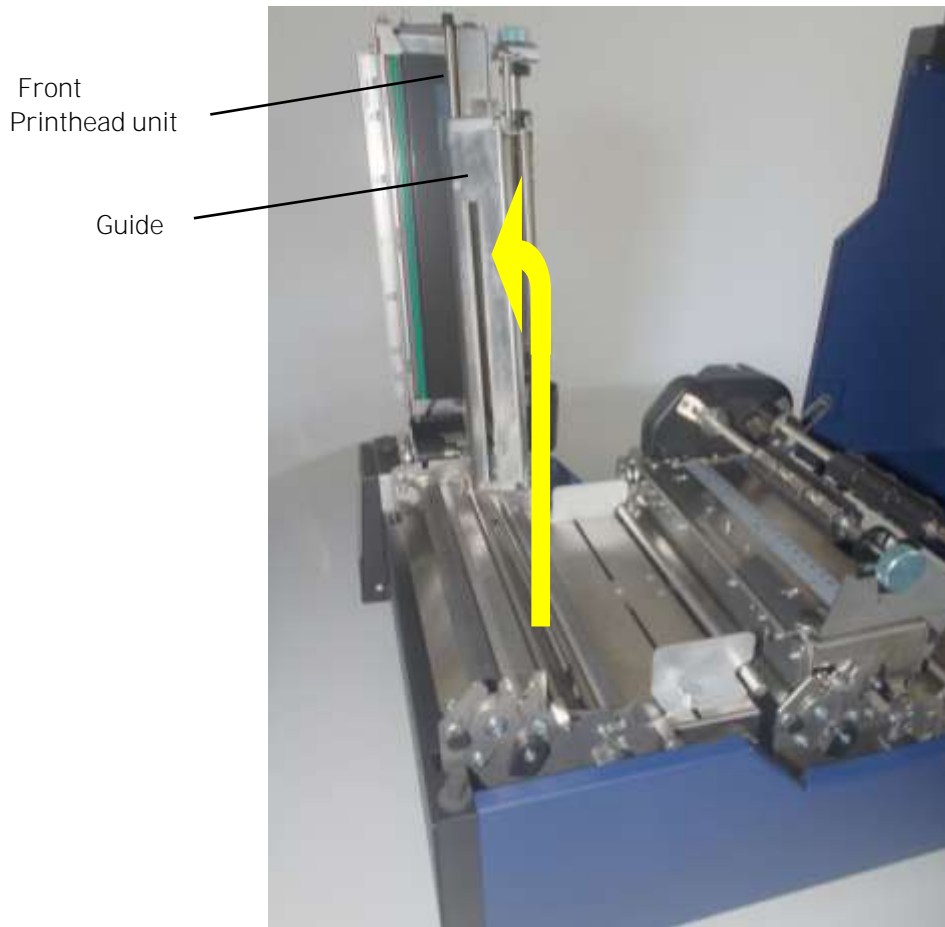
Guide

Fig. 5.1.1.e Raising the front guide

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5.   Unlock the rear printhead assembly by pushing the
      printhead release lever and raise the printhead assembly to
      a vertical position.

6.   Unlock the transparent sensor guide by pushing its lever
      and raise the guide until it stops.

Rear
print head unit

Guide

Transparent Sensor
(Upper Sensor)

Lower Sensor
(includes the
Reflex sensor)
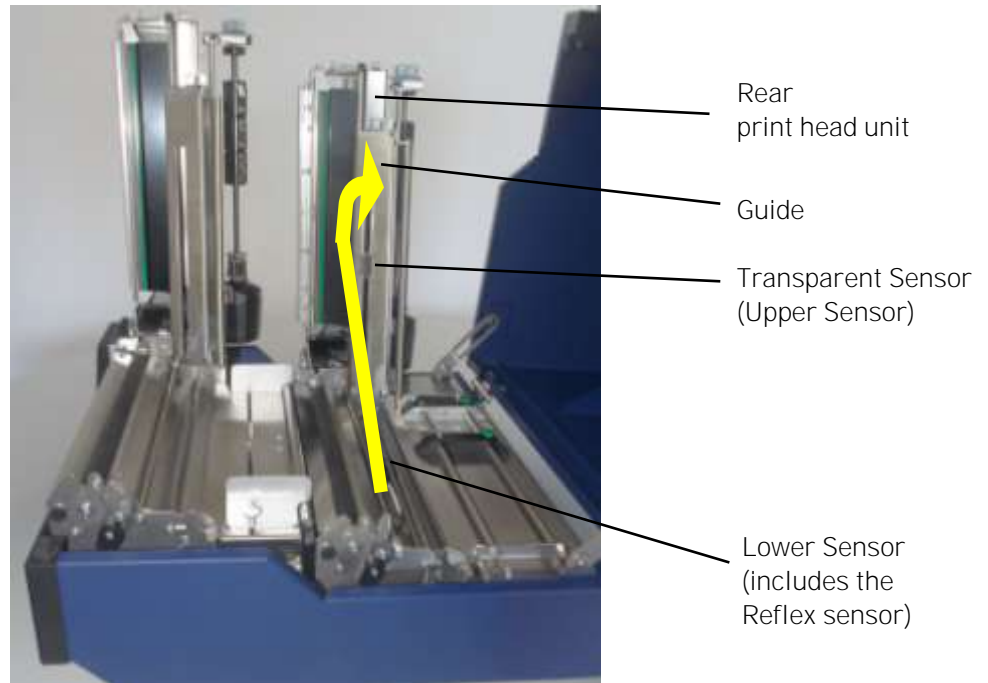
Fig. 5.1.1.f Rear printhead and transparent sensor guide raised

7.   Loosen the 2 fastening screws of the **front** paper guide and
      adjust this paper guide to a width larger than the future paper
      width.

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Fastening screw

Scale

Fastening screw

rear
paper guide
(separately
 adjustable)

front
paper guide
(centered)

Scale

Fastening screw

Fastening screw
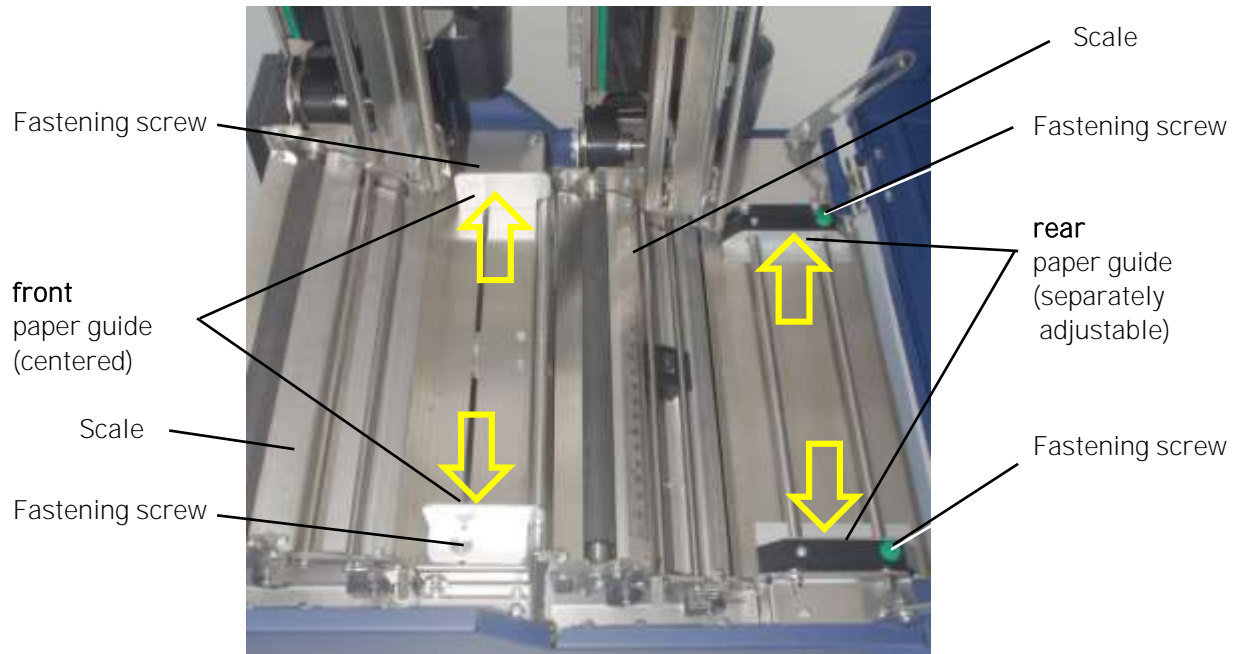
Fastening screw

Fig. 5.1.1.g Roughly adjusting the paper guides to the new paper width

8.   Loosen the 2 fastening screws of the **rear** paper guide and adjust this paper guide to a width larger than the future paper width <u>and</u> for a centered paper transport (using the scales).

9.   Place the continuous media (box containing the fanfold paper, e.g.) on level ground behind the printer.

10.   Please carefully align the stack of fanfold paper to the **middle of the printer's paper path to allow a "centered"** transport of the media into the printer.
      Please note:
      The **stack** not only has to be aligned to the middle of the **printer's paper path.** In addition the stack **has to be aligned** in square **to the paper feed direction**. This is necessary to avoid folds and to secure the paper is running straight!

11.   Take the free end of your continuous media (z-folded paper, e.g.) and move it through the paper input opening into the printer.

12.   Route the free end of the media along the paper path (see **fig. 5.1.1.h: below the 2 "rods" and** always in a centrically way) out to the front of the printer. Finally the media has to jut out over the platen roller of the front print unit.

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2 „Rods"

Platen roller
of the
front print unit

Continuous media
(z-folded, e.g.)
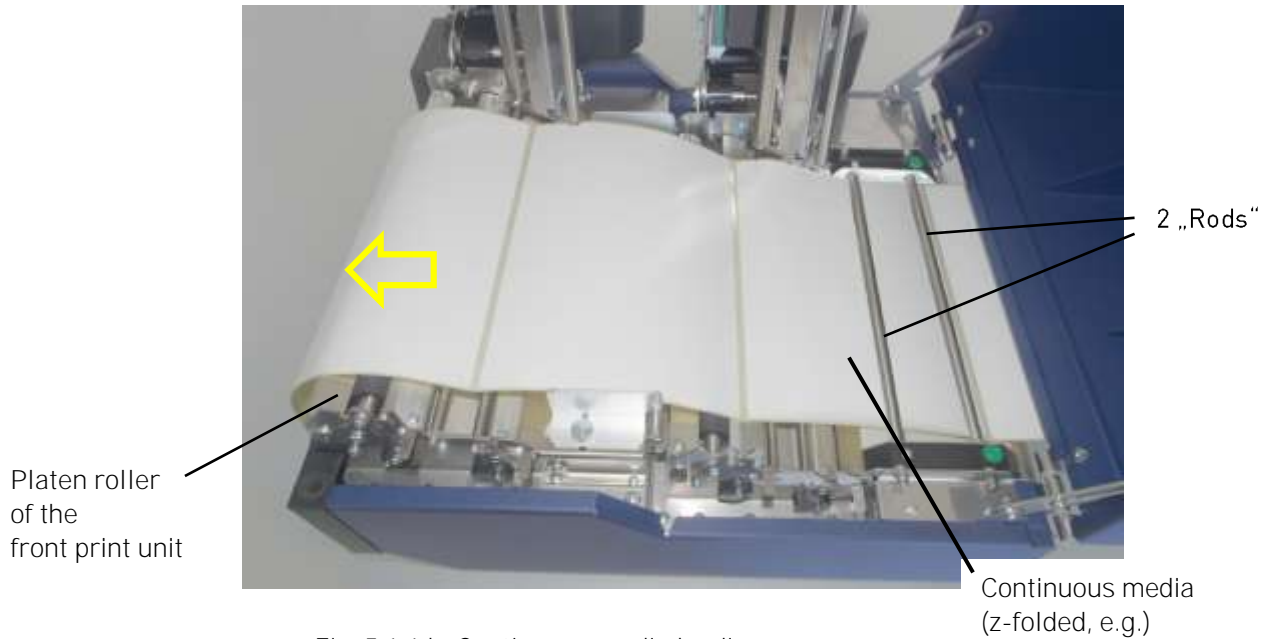
Fig. 5.1.1.h Continuous media loading

13.   Move the **front** paper guide towards the continuous media
until the media is slightly touched.
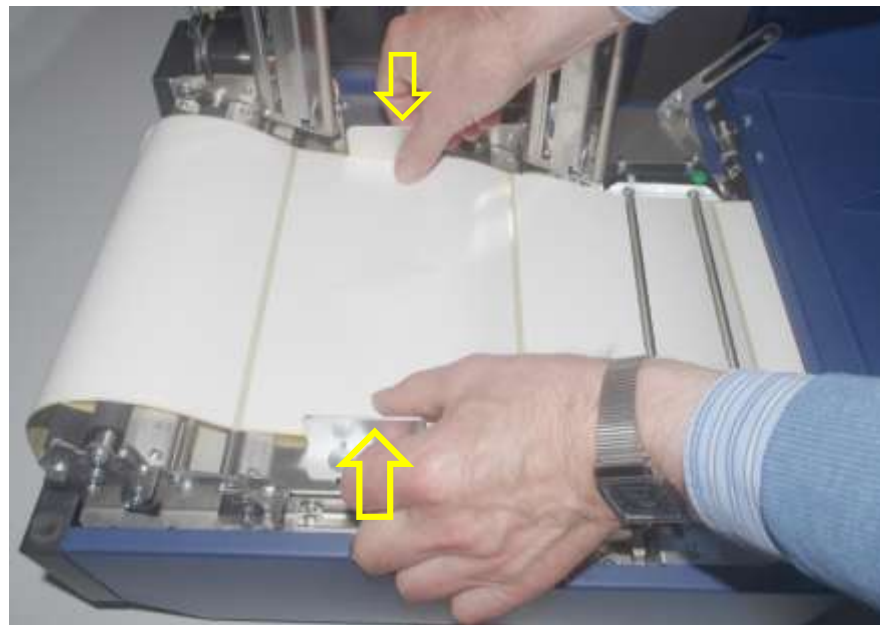
Fig. 5.1.1.i Adjusting the front paper guide

14.   Move both parts (one part after the other) of the **rear** paper
guide towards the continuous media until the media is slightly
touched.

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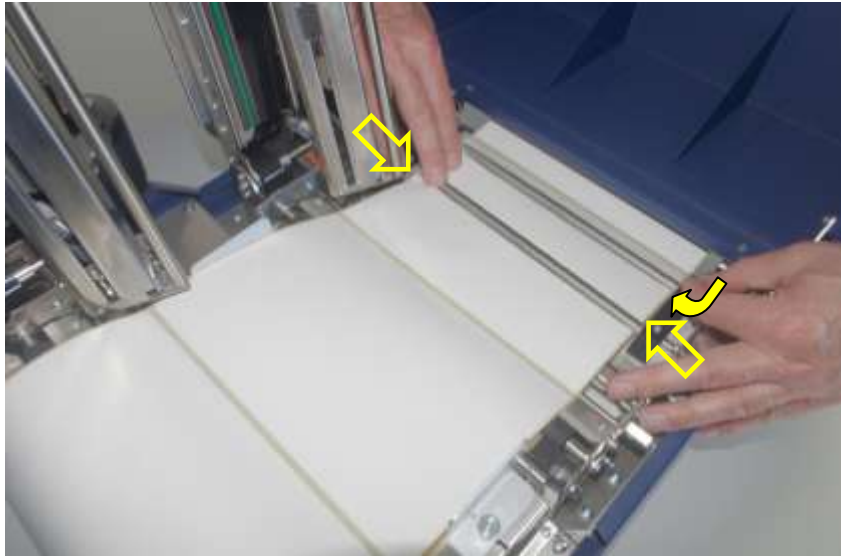
Fig. 5.1.1.j Adjusting the rear paper guide

15.   Use the 2 fastening screws of the rear paper guide to fix this positon of the guide (compare figure above and fig. 5.1.1.g).

16.   Now first remove the front paper guide a little bit from the continuous media and then use the 2 fastening screws to fix this position of the guide.

Explanation: performing the work steps described before helps you to use both, the front and the rear paper guide, to insert the paper. This is useful to allow a **centered** and straight paper transport.
During the print process the paper ought to be guided only by the rear paper guide - therefore step 15 is necessary, too.

Hint: The **adjustment of the printer's sensors** (for example for media with blackmarks or punched label material) is described in section 7.1 and section 7.2.

17.   **First swivel the rear printhead assembly's transparent** sensor guide downward and push it down gently until it clicks into place.

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Continuous media
(z-folded, e.g.)

Transparent
Sensor
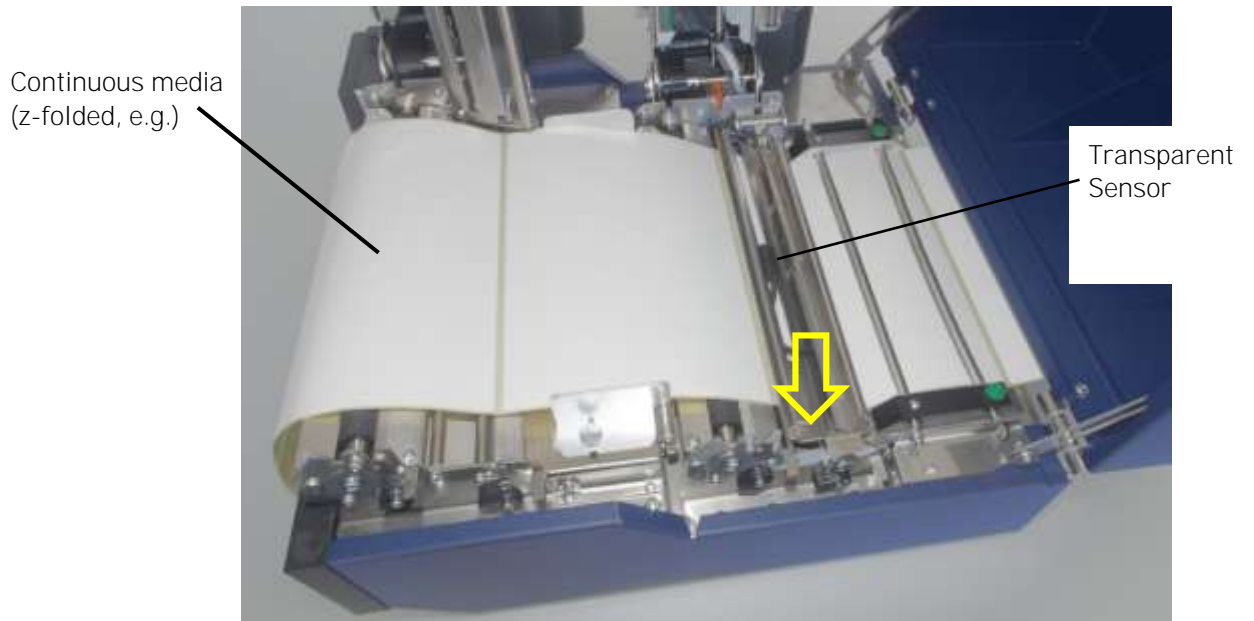
Fig. 5.1.1.k Swivelling down the transparent sensor guide

18.   Now swivel the complete rear printhead assembly
       downward and push it down gently until it clicks into place.
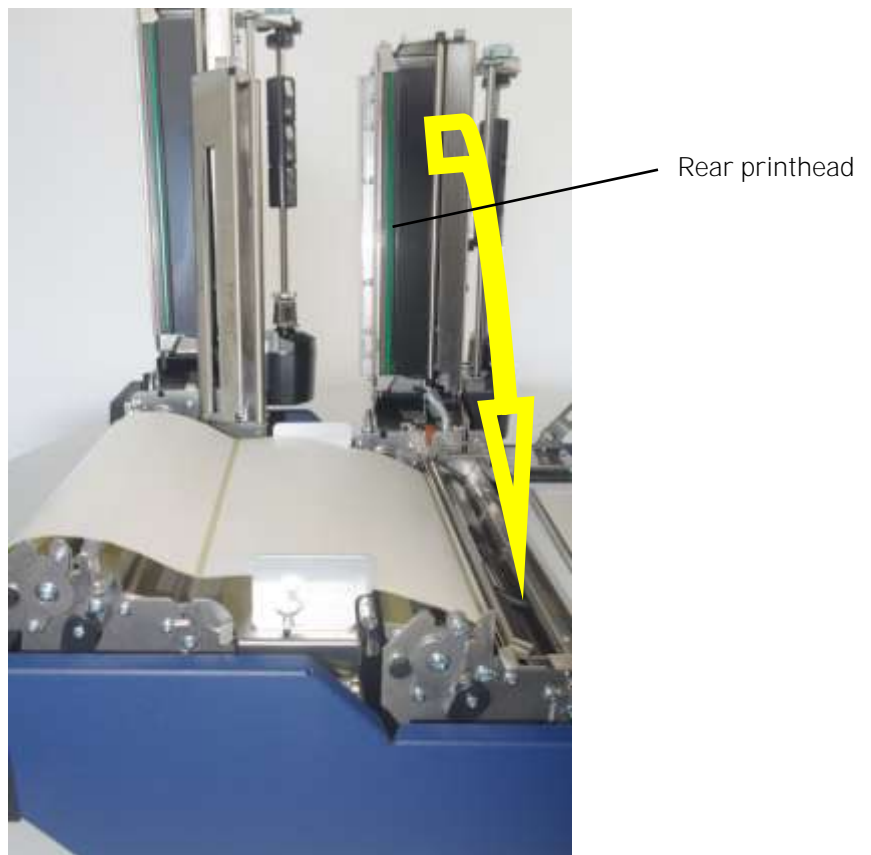
Rear printhead

Fig. 5.1.1.l Swivelling down and locking the rear printhead

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19. Swivel downward both, the guide and the complete
    printhead assembly of the front printhead unit, too.
    (Compare descriptions in step 17 and 18.)

Fig. 5.1.1.m Both printhead assemblies are swivelled down and locked

20. Close the printer's top cover.

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5.1.2. Media Removal

1.   Turn the printer OFF LINE.

2.   **Open the printer's top cover and swivel it to a vertical** position.

3.   Unlock the front printhead assembly by pushing the printhead release lever and raise the printhead assembly

Rear printhead release lever

Front printhead release lever
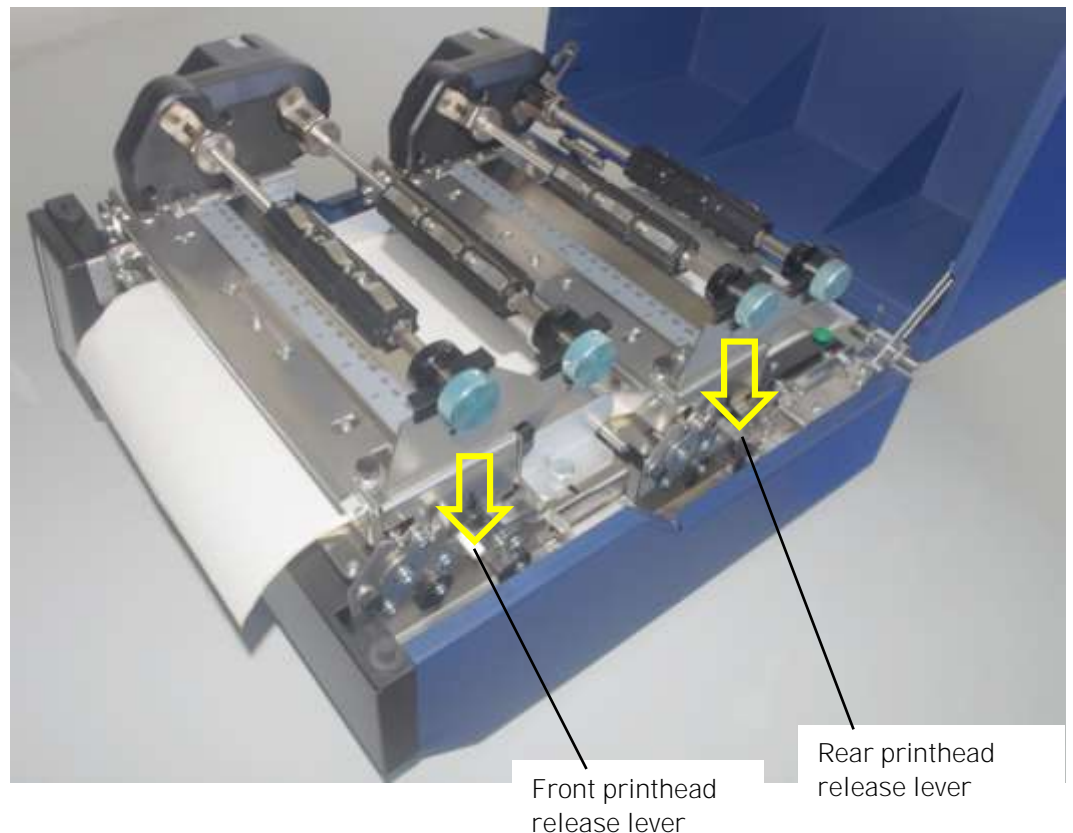
Fig. 5.1.2.a Unlocking the printhead assemblies

4.   Raise the front printhead assembly to a vertical position.

5.   Repeat the work steps 3 and 4 at the rear printhead assembly.

Caution! Both printheads and the platen rollers may be hot.

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6.   Unlock both transparent sensor guides and raise them until they touch the printhead assemblies.

Release lever of the front transpararent sensor guide

Release lever of the rear transpararent sensor guide
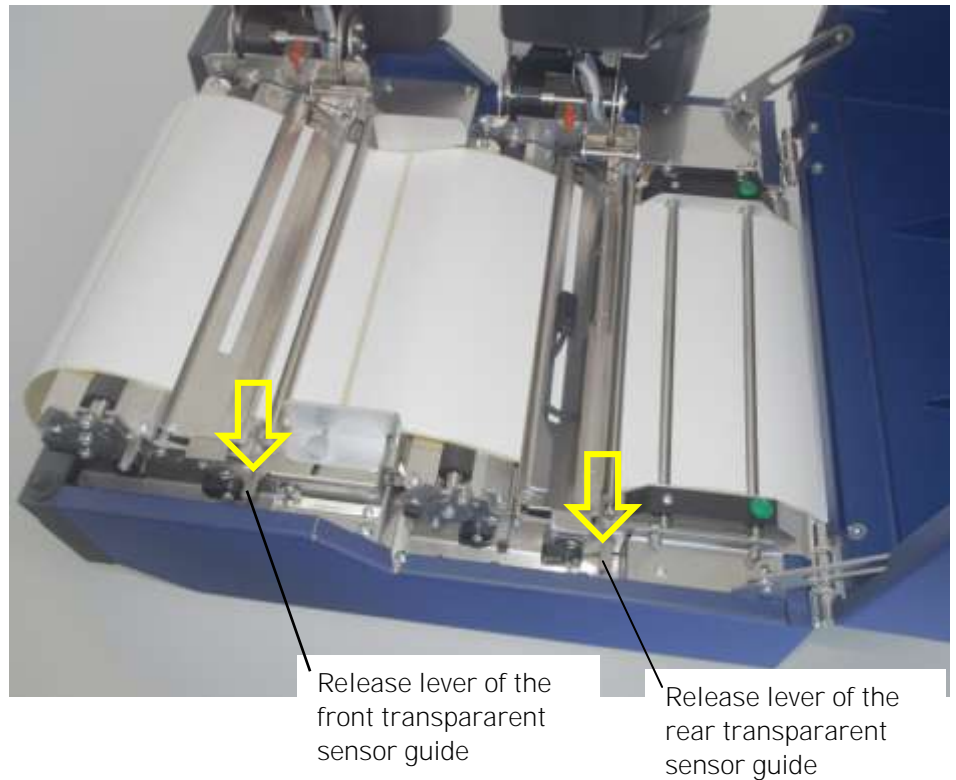
Fig. 5.1.2.b   Unlock both transparent sensor guides
(in order to raise them)

7.   Take the media out of the printer by pulling the continuous media towards the stack behind the printer.

8.   Remove the box containing the print media from behind the printer, if need be.

9.   Now you can load the new media to the printer.

Please note: In order to **prevent the printer**'s interior from dust pollution etc. be sure to perform the following work steps:

10. Swivel downward both transparent sensor guides, and push them down gently until they click into place.

11. Swivel downward the printhead assemblies one after the other, and push them down gently until they click into place.

12. **Close the printer's top cover.**

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5.2. Handling of Ribbon (Foil)

5.2.1. Adjusting the Ribbon Mandrels

The printermechanism (of both, the front and the rear print unit) allows you to align the lateral position of the ribbon to the printhead and to the lateral position of the media. The **ribbon has to be loaded centre-aligned** (matching the print media/paper, compare section 5.1).

To align the ribbon for example to the currently used paper you have to adjust the flange as described in the following (the following work steps are valid for both print units):

1.   Turn the printer OFF LINE.

2.   **Open the printer's top cover an**d swivel it to a vertical position.

Ribbon
supply shaft

Ribbon
rewind shaft

Ribbon
supply shaft

Ribbon
rewind shaft

Front
print unit

Rear
print unit
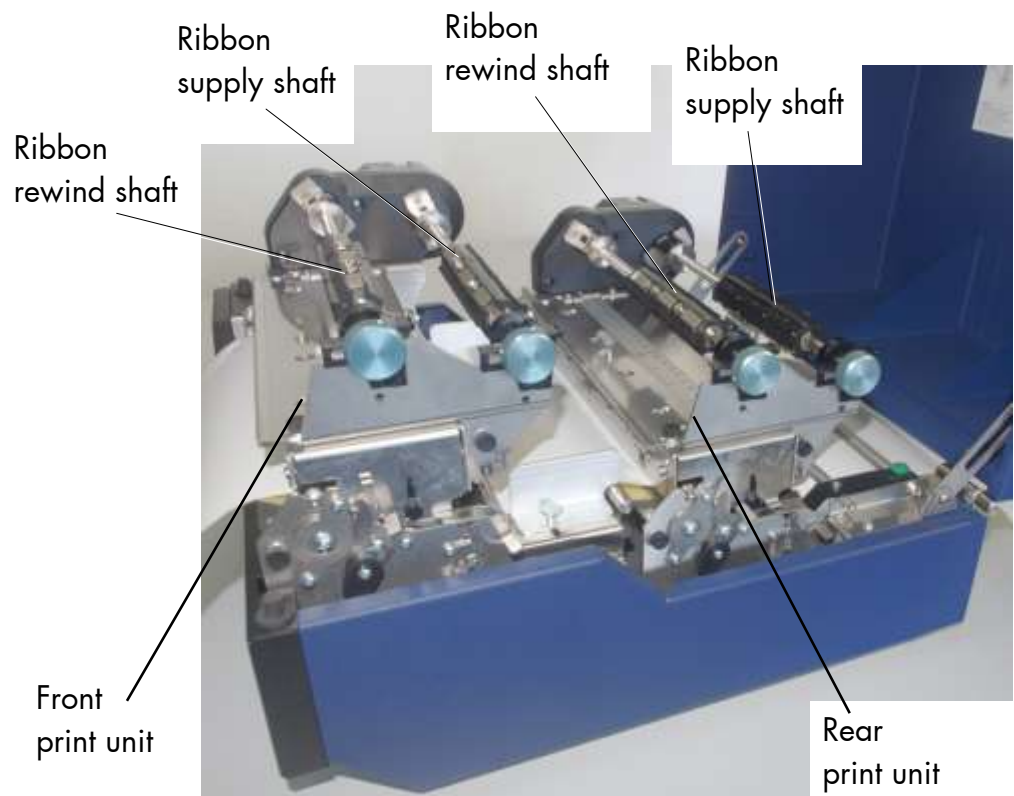
Fig. 5.2.1.a Printer opened

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3. Take the ribbon mandrels (ribbon supply shaft and ribbon rewind shaft) of the relevant print unit out of the printer.
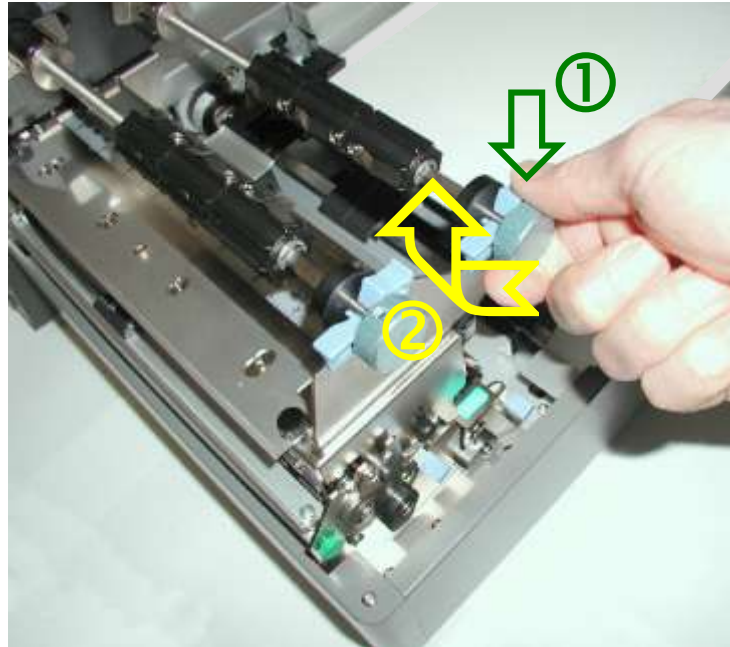
Fig. 5.2.1.b Taking out the ribbon mandrels

4. Remove the old ribbon, if need be (remove the cores from the ribbon mandrels).

Fig. 5.2.1.c Empty ribbon mandrel

5. **First of all you have to turn the ribbon mandrel's lock nut** counterclockwise to allow the following adjustments.
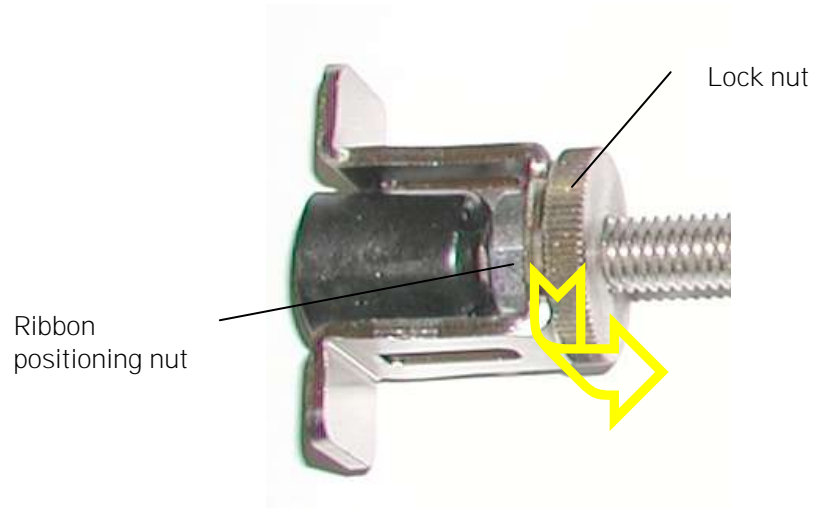
Fig. 5.2.1.d Loosening the lock nut

Lock nut

Ribbon positioning nut

6.   Now turn the Ribbon positioning nut to move it - for example – towards the middle of the ribbon mandrel. In this example the flange can be adjusted to a ribbon with a smaller width.
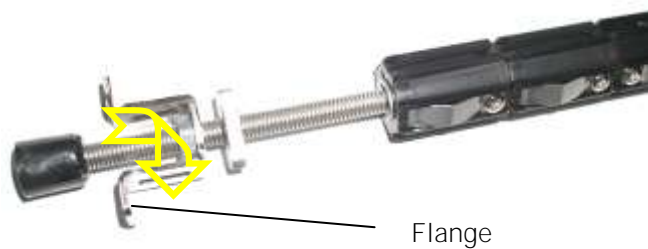
Fig. 5.2.1.e Adjusting the flange to a ribbon with a smaller width

Flange

7.   Referring to the scale on top of the printhead assembly, adjust the flange so that the **ribbon** is put in the **center of the media**. The value of half the ribbon width being used is the actual value on the scale.

_____

Scale

Printhead
assembly
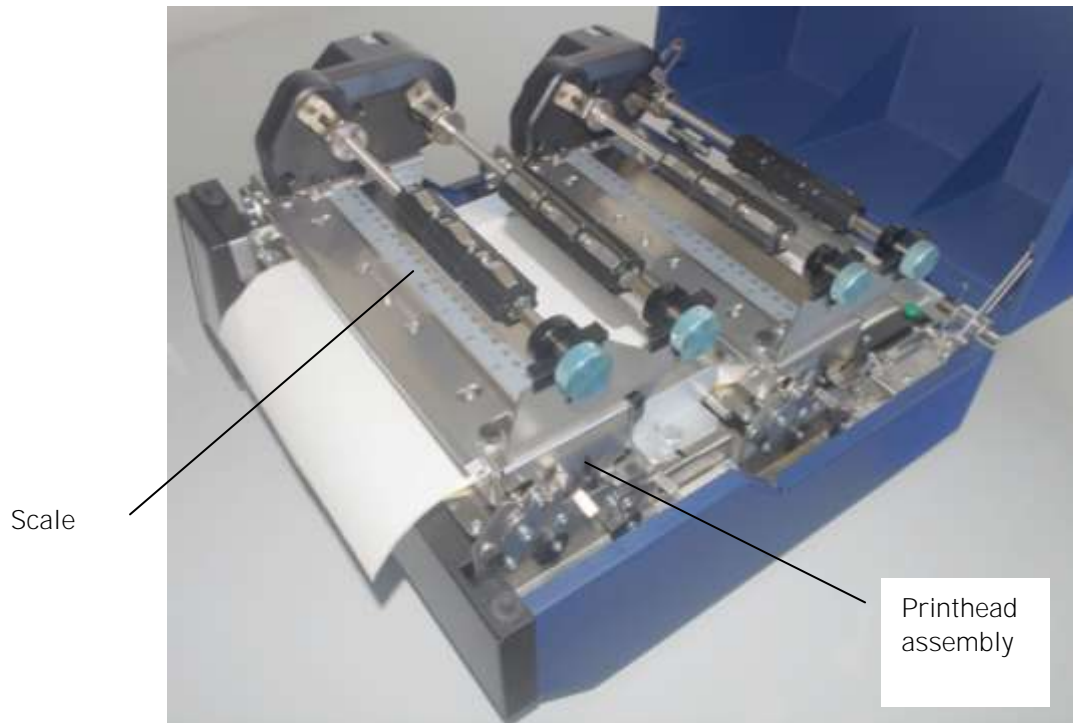
Fig. 5.2.1.f Scale on top of the printhead assembly

8.   Check to see that the ribbon is positioned properly and fix
      the ribbon positioning nut by turning the lock nut
      clockwise.

9.   Repeat the procedure described above for the second
      ribbon mandrel of this print unit. Both mandrels have to
      be adjusted to the same width.

_____

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5.2.2. Ribbon Loading

For printer operation both print units have to be equipped with an own printer ribbon.

☞ Make sure you always use printer ribbons in the same width or being slightly wider than the media to print on.
In the case of printing on abrasive media printhead damaging can be avoided this way.
Don't use much broader ribbons than the media to print on, because this combination may lead to ribbon wrinkles.

To set the ribbon go on like this (the following work steps are valid for both print units):

1.   Turn the printer OFF LINE.

2.   Open the top cover of the printer.
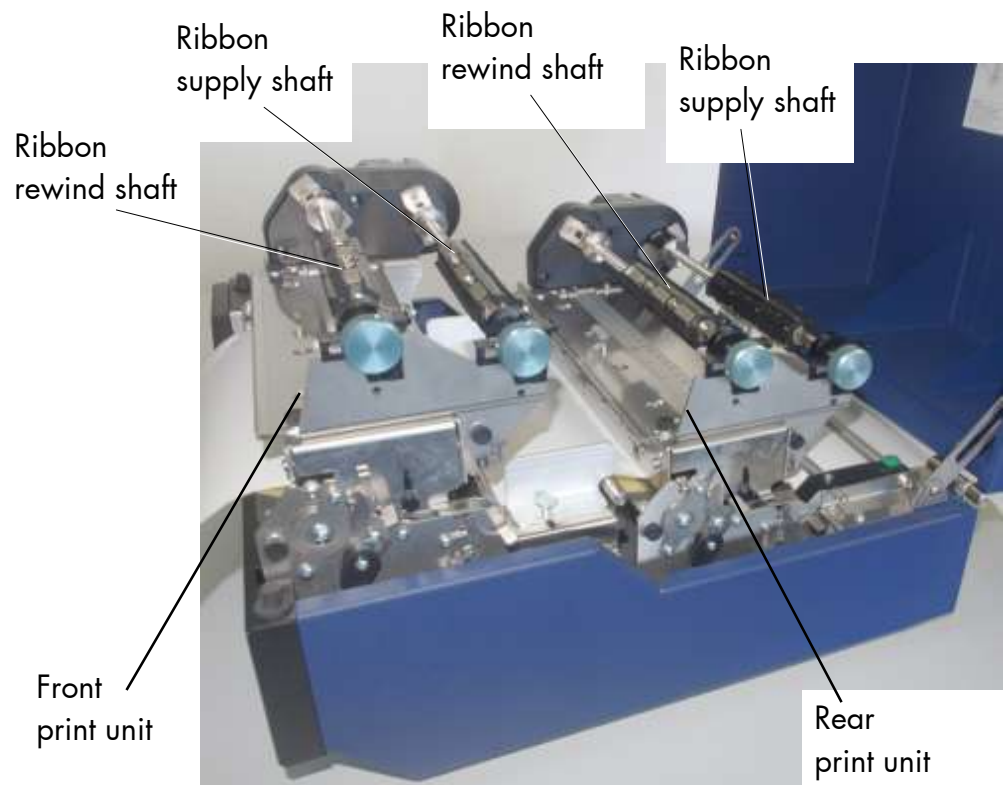
Fig. 5.2.2.a Printer opened

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3.   Unlock the printhead assembly by pushing the release
      lever.
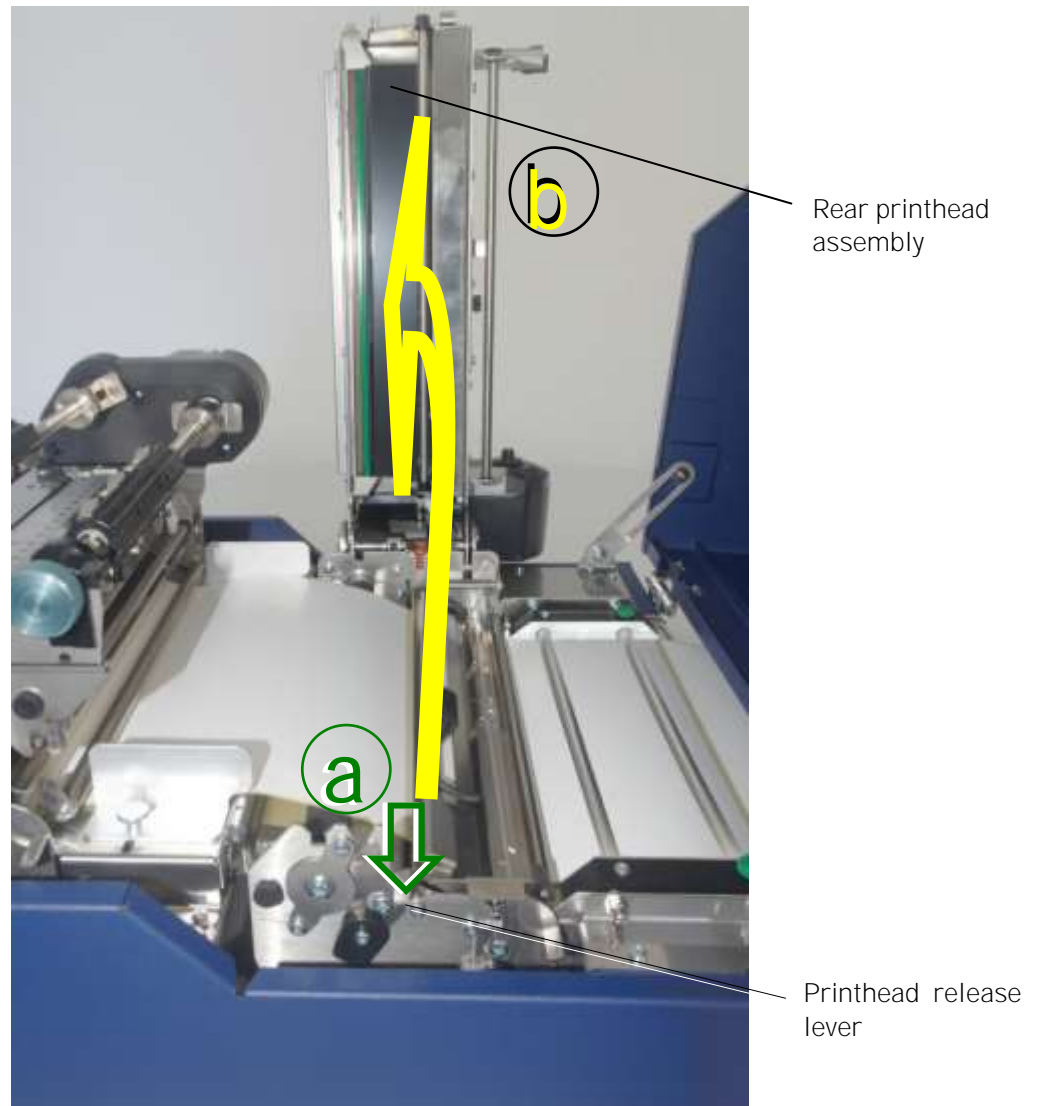
Fig. 5.2.2.b Releasing the printhead assembly and swivelling it upward

4.   Swivel the printhead assembly upward until it stops and
      stands upright.

5.   Take the two ribbon mandrels out of the printer and adjust
      them to the width of your new ribbon.
      (A detailed description of this prodedure can be found in the
      previous section).

_____

6.   Take the ribbon roll and remove the protection foil, if necessary (by unwinding it and cutting it off).

☞   Take care about the right winding direction for your ribbon roll.

7.   Slide one of the ribbon mandrels into the core of the new ribbon roll. Slide the second ribbon mandrel into the ribbon takeup core, which will be used to rewind the (used) ribbon.

Ribbon roll
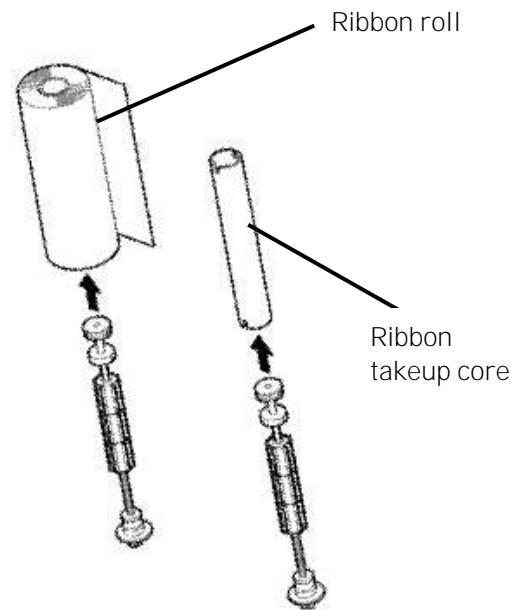
Ribbon takeup core

Fig. 5.2.2.c Inserting the ribbon mandrels into the ribbon roll and into the ribbon takeup core

8.   Make sure the flange touches the ribbon roll.

Detail:

Flange

Fig. 5.2.2.d Sliding the ribbon mandrel completely into the ribbon roll

9.   Loosen the free end of the new ribbon roll and fix this end of the ribbon to the takeup core (using the adhesive end of the ribbon or a small piece of adhesive tape, if need be).
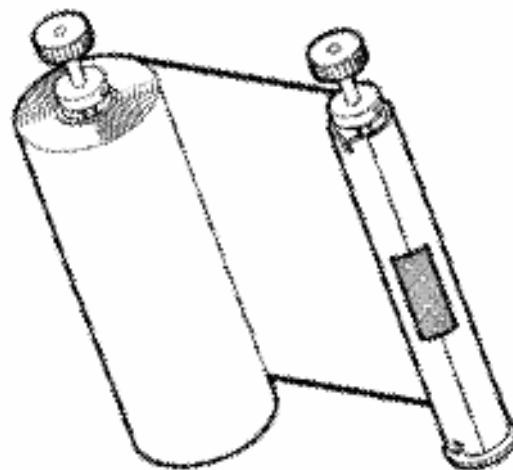
Fig. 5.2.2.e Fixing the end of the ribbon

10.   Slowly wind some ribbon onto the takeup core until the tape is hidden and the ribbon is securely connected to the core.

Fig. 5.2.2.f Winding the end of the ribbon

11. Use **your right hand to hold the 'supply mandrel' (ribbon** supply shaft with the new ribbon) and use your left hand to **hold the 'takeup mandrel' (ribbon rewind shaft with the** takeup core). The end of ribbon between the two mandrels should be about 300 mm (compare figure above).

12. Lead the free end of ribbon around the printhead (take care that the ribbon has no wrinkles).
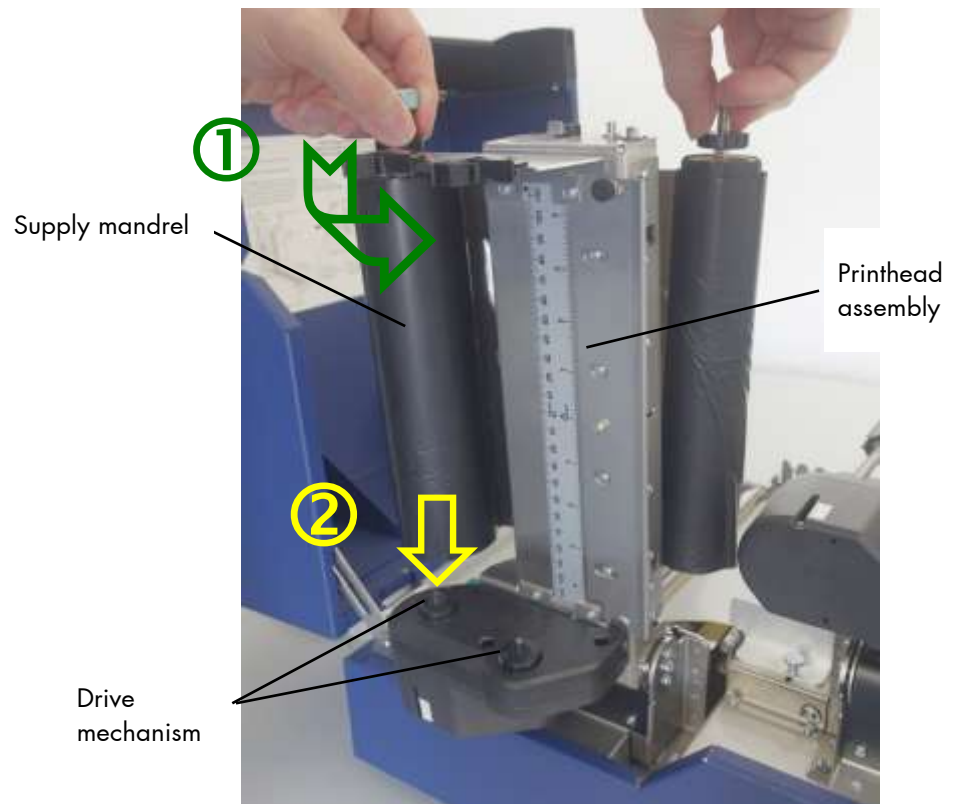
Fig. 5.2.2.g Leading the ribbon around the printhead

_____

13.   Fit the lower end of the supply mandrel to the gearwheel of the ribbon drive mechanism.

☞   Take care about the right winding direction for your ribbon roll.

14.   Click the upper end of the supply mandrel into the correspending mounting bracket of the printhead assembly.

Fig. 5.2.2.h Clicking the supply mandrel onto the printhead assembly

15.   Fit the lower end of the takeup mandrel to the gearwheel of the ribbon drive mechanism.

16.   Click the upper end of the takeup mandrel into the corresponding mounting bracket of the printhead assembly. (See following figure).

_____
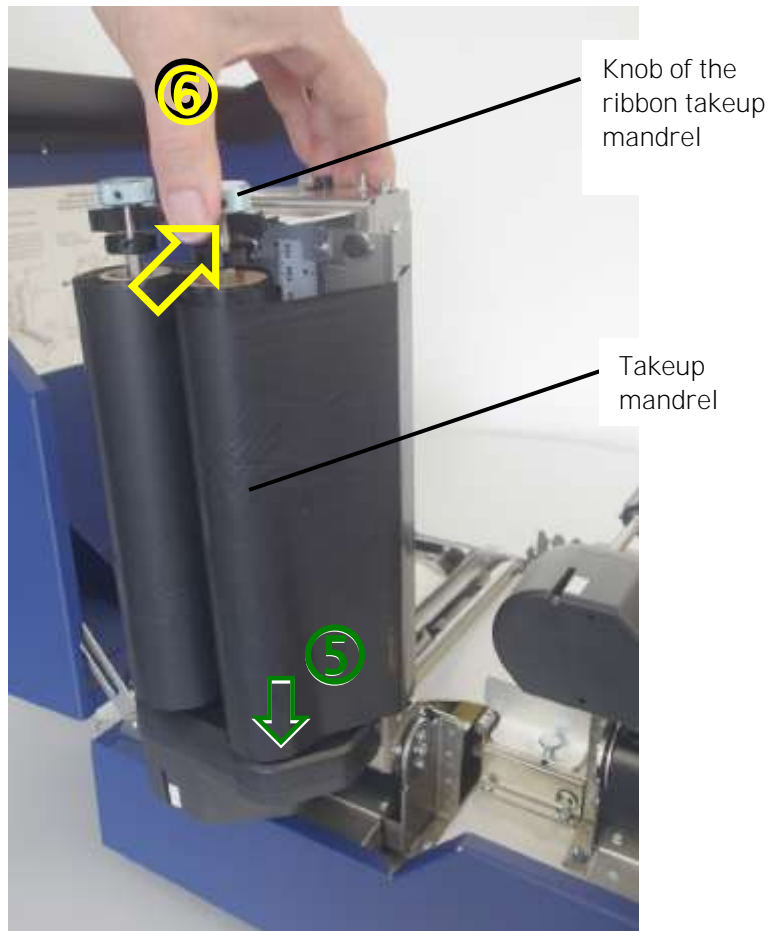
Fig. 5.2.2.i Clicking the takeup mandrel into place and
            tightening the ribbon

17.   Turn the knob of the ribbon takeup mandrel clockwise in
       order to tighten the ribbon.

18.   Check that the ribbon has no folds and is running straight.
       Correct the adjustment of the ribbon guide plate, if need be.
       Tauten the ribbon by turning the takeup mandrel.

Check to see that slack and wrinkles on the ribbon are removed
completely. Do not be afraid to 'waste' a little extra ribbon to
ensure the ribbon is running correctly and wrinkle-free.

19.   Swivel the printhead assembly downward and push it down
       gently until it clicks into place.

_____

Fig. 5.2.2.j Swivelling the rear printhead assembly downward and locking it

20.   Repeat the work steps described above to equip the second
       print unit with a ribbon, too.

Fig. 5.2.2.k Printer with ribbons installed

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21.   Close the printer's top cover.

Top cover
of the printer

Fig. 5.2.2.l Closing the printer's top cover

As soon as both print units have been equipped with ribbon (and continuous media has been loaded as described in section 5.1) the printer is ready for the first test printouts.

_____

5.2.3. Ribbon Tension Adjustment

The ribbon tension should be adjusted as needed according to the consumables (your foil and your print media, paper e.g).

Generally said: the wider the media and the ribbon are, the greater the ribbon tension required.

Guide to find the right ribbon tension value:

Ribbon width	Scale
3 inch	- 0
up to	- 5
8 inch	- 10

A) Increasing the ribbon tension
   After inserting a new ribbon roll, ribbon wrinkles may occur
   (due to different ribbon material properties).
   To solve this problem the ribbon tension has to be increased:

   1.   Insert a coin in to the slit on the ribbon drive mechanism
         and hold down to lock the gear.

Scale: White pointer

Coin

Knob of the
ribbon supply
mandrel
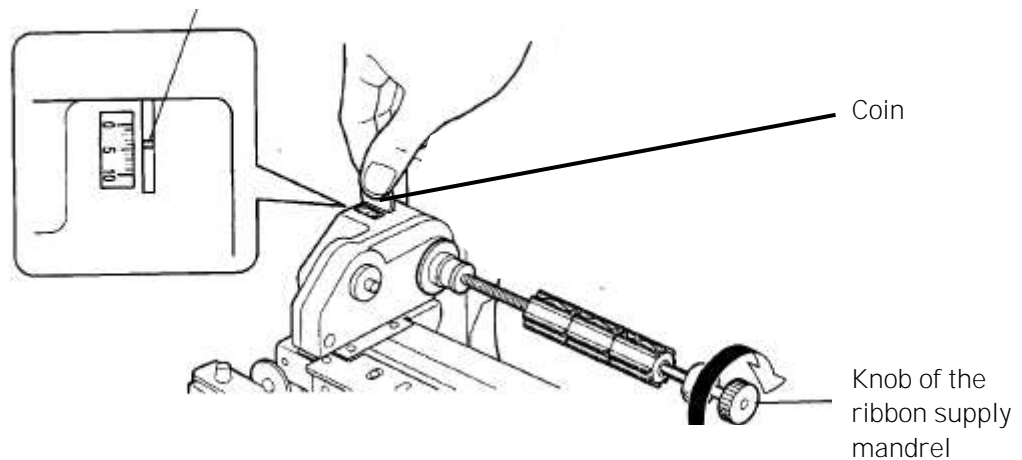
Fig. 5.2.3.a Increasing the ribbon tension

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2.   Turn the ribbon supply mandrel knob clockwise to increase the ribbon tension torque. While doing this, observe the displayed tension value (scale on top of the ribbon drive mechanism).

3.   Remove the coin.

B) Decreasing the ribbon tension
     If the width of the new ribbon is smaller than the previous, the printer might have a problem feeding the material.
     To solve this problem the ribbon tension has to be decreased:

1.   Insert a coin in to the slit on the ribbon drive mechanism and hold down to lock the gear.

Scale: White pointer

Coin

Knob of the ribbon supply mandrel
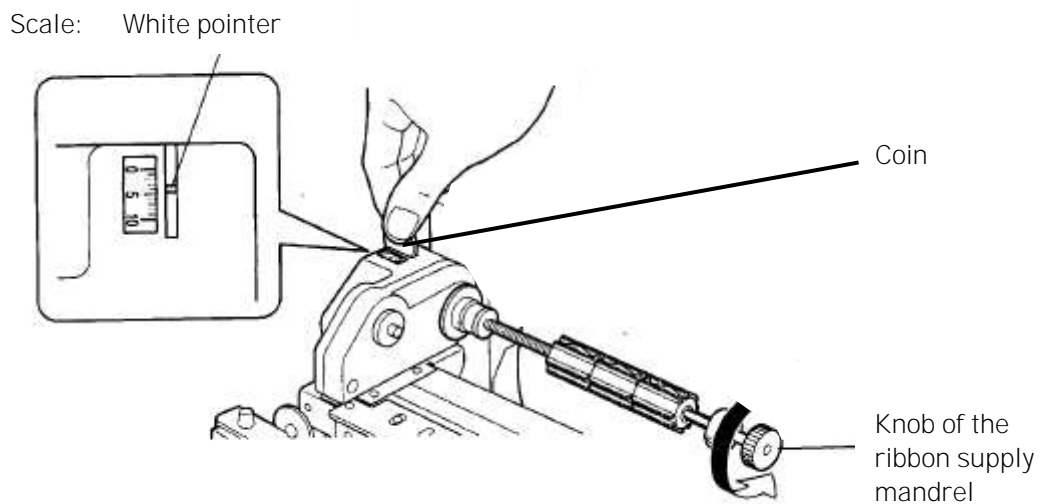
Fig. 5.2.3.b Reducing the ribbon tension

2.   Turn the ribbon supply mandrel knob counterclockwise to decrease the ribbon tension torque. While doing this, observe the displayed tension value (scale on top of the ribbon drive mechanism).

3.   Remove the coin.

If the ribbon wrinkles, the ribbon tension on either side of the ribbon will not be even.
The steps to solve the problem are described in section 8.2 Avoiding Ribbon Slack and Wrinkles.

5.2.4. Ribbon Removal

The following steps are necessary if a ribbon has to be exchanged. The work steps are valid for both print units.

1. Turn the printer OFF LINE.

2. **Open the printer's top cover and swivel it to a vertical position.**

3. Unlock the printhead assembly by pushing the release lever.

Front printhead release lever
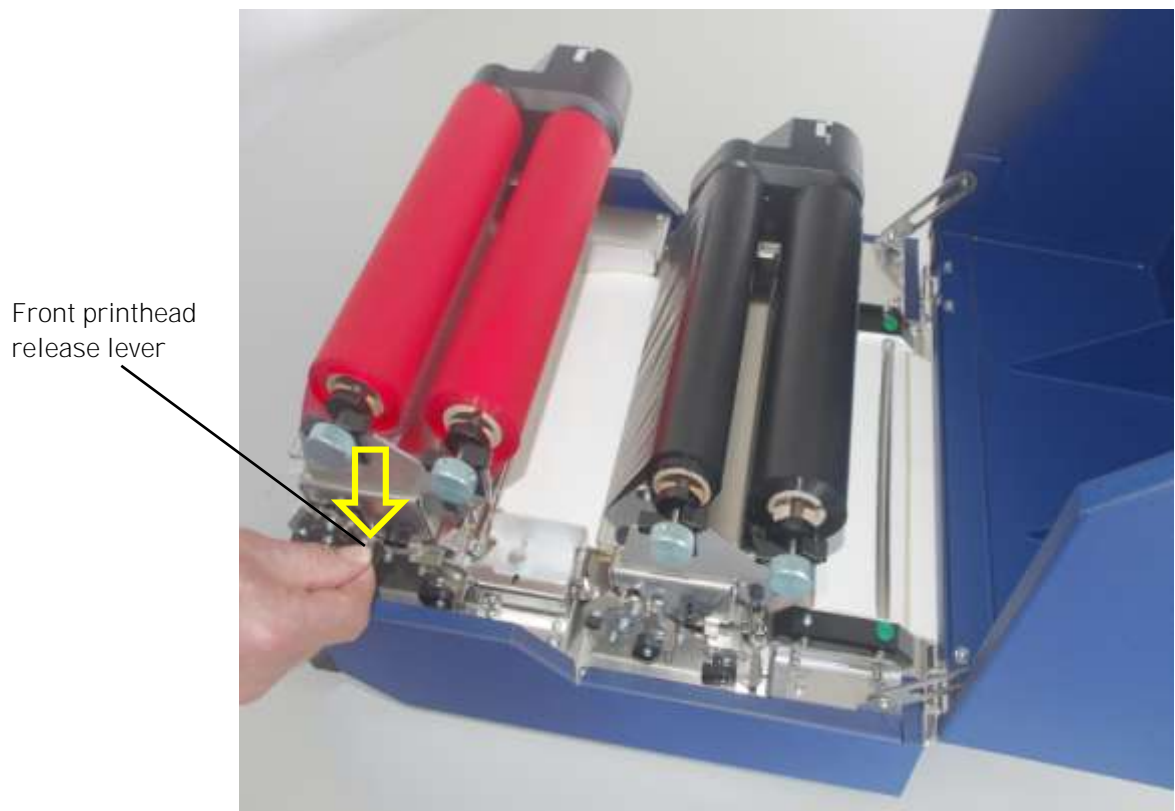
Fig. 5.2.4.a Unlocking the front printhead assembly

4. Open the printhead assembly all the way until it stops and stands upright.

_____

Front
printhead assembly
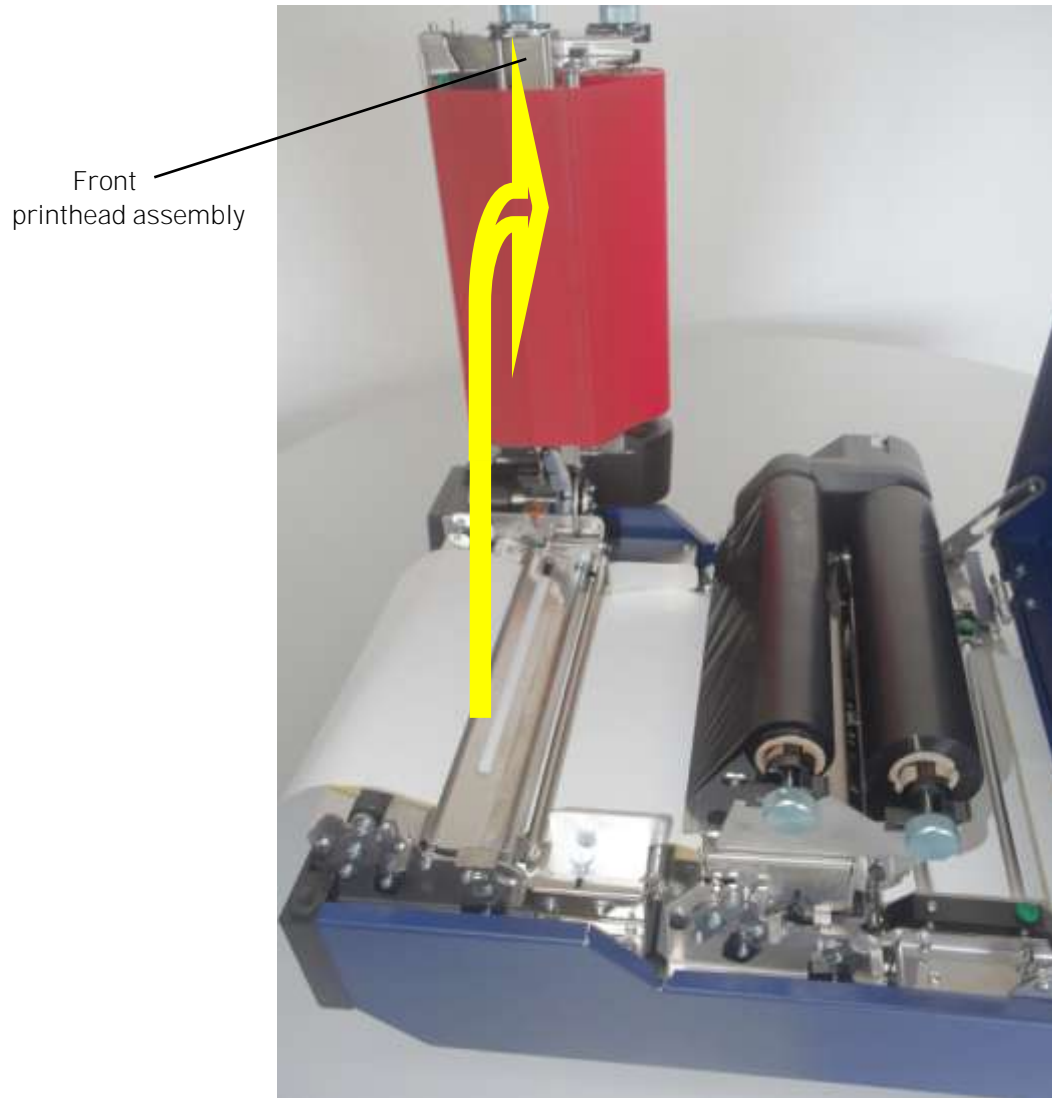
Fig. 5.2.4.b Raising the front printhead assembly

5.   Turn the knob of the ribbon takeup mandrel a little bit
       counterclockwise in order to untighten the ribbon.

6.   Unlock the ribbon takeup mandrel (press on top of the latch
       to release it, see arrow in the following figure).

_____

Printhead
assembly
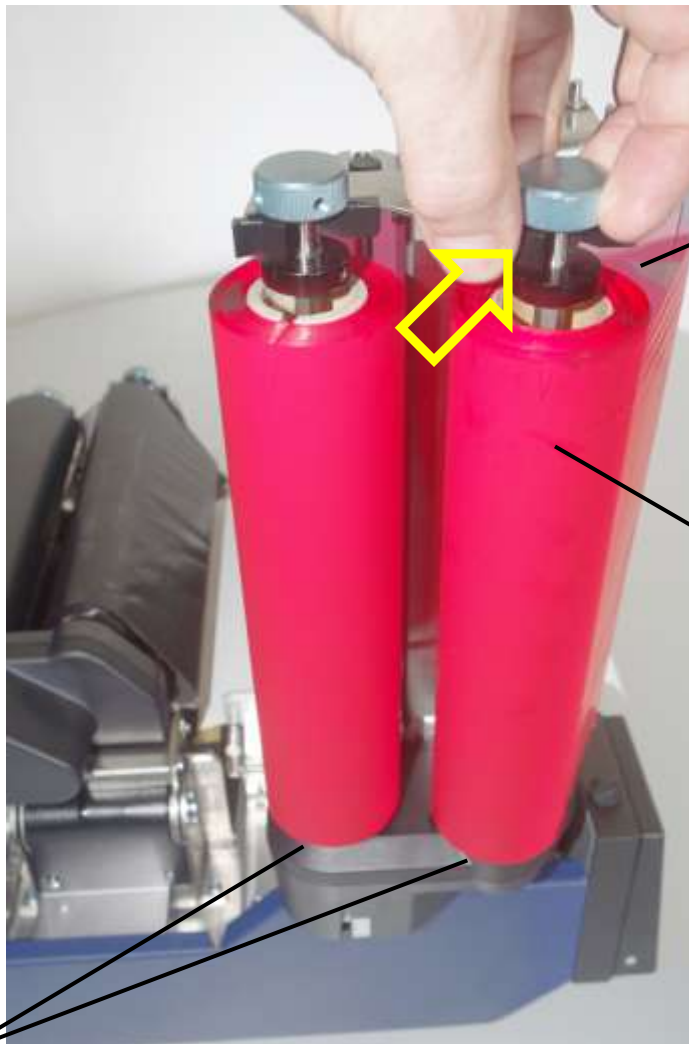
Takeup
mandrel

Drive
mechanism

Fig. 5.2.4.c Unlocking the takeup mandrel to remove it

7.   Lift the takeup mandrel from the gearwheel of the ribbon
      drive mechanism.
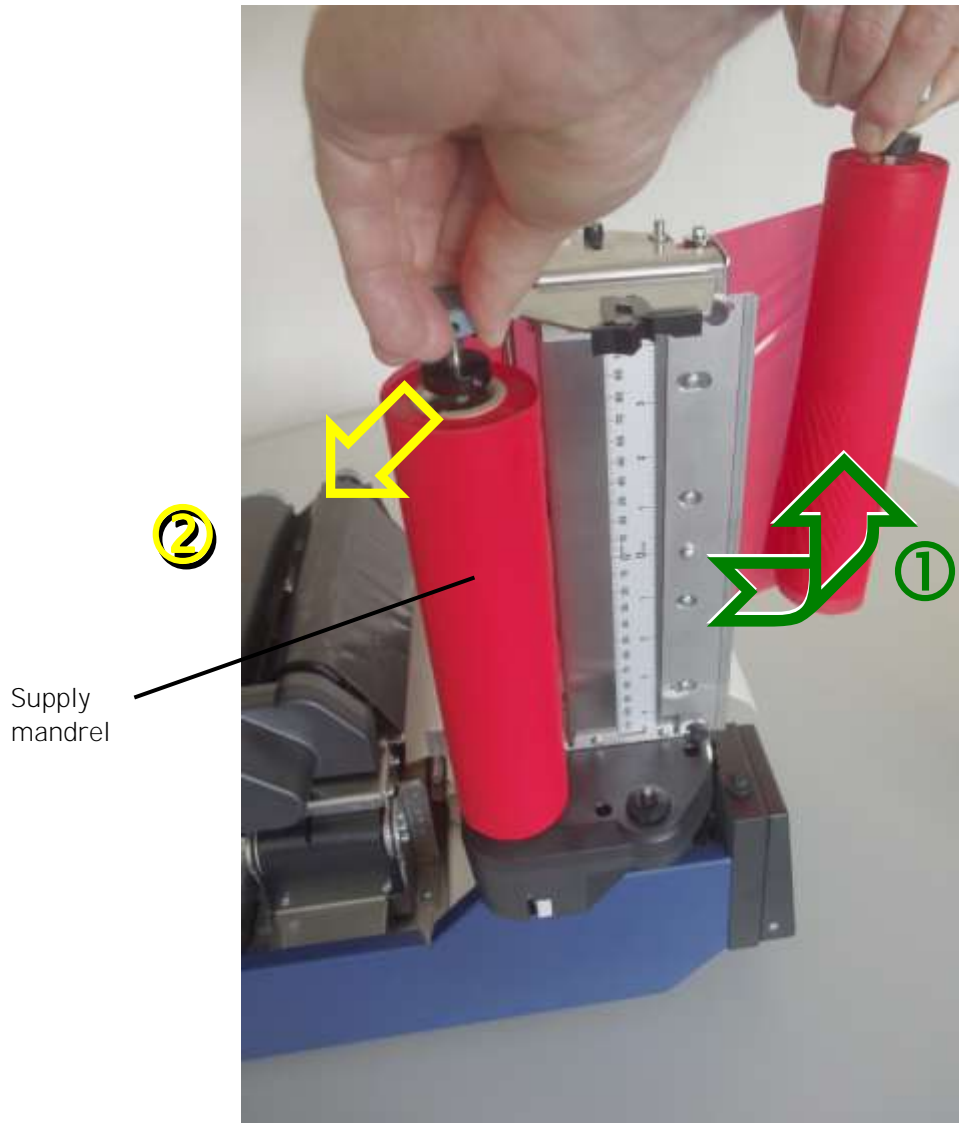
Supply
mandrel

Fig. 5.2.4.d Holding the takeup mandrel and unlocking the supply mandrel

8.   Unlock the supply mandrel and lift it from its gearwheel of
      the ribbon drive mechanism.

Supply mandrel

Printhead
assembly

Drive
mechanism
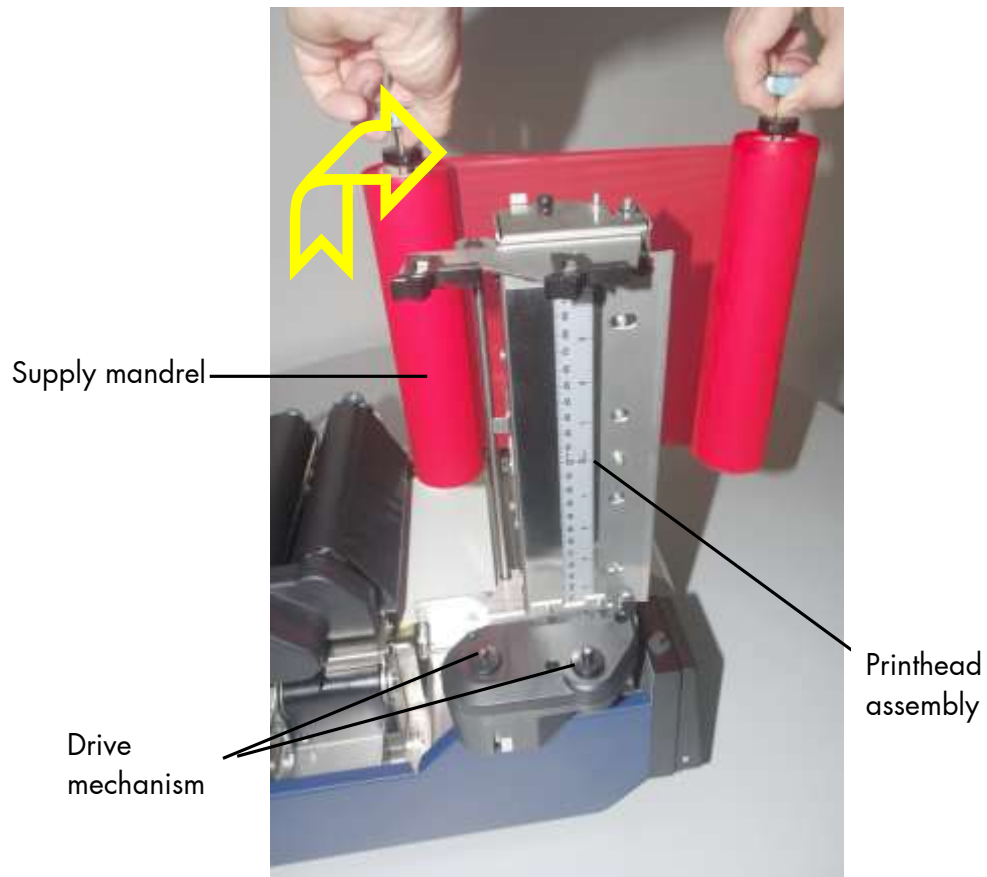
Fig. 5.2.4.e Removing the ribbon

9.   Remove the used-up ribbon from the ribbon takeup
      mandrel and dispose it according to the rules.

10.   The core of a used-up ribbon can be removed by pulling it
      from the ribbon supply mandrel.

If the ribbon isn't used-up (because you now want to use a
ribbon with a different colour, for example), go on like this:

11.   After taking out the takeup mandrel turn it clockwise until the free end of ribbon between the two rolls is winded up.
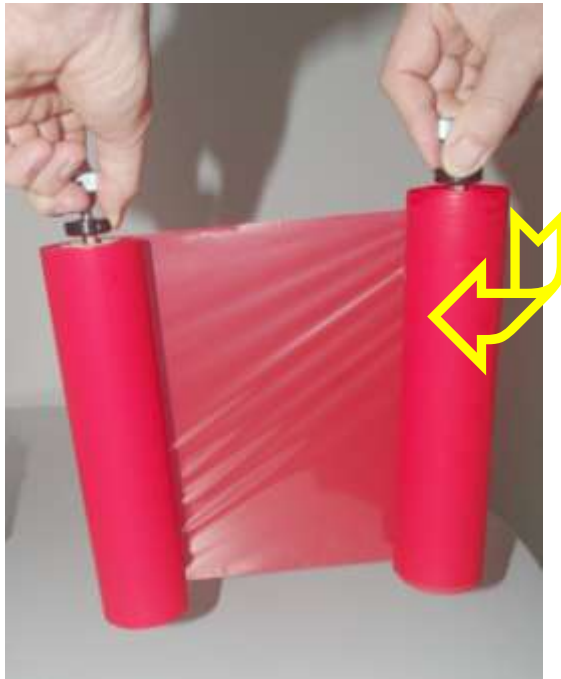
Fig. 5.2.4.f Winding up the free end of the ribbon

12.   Take the two ribbon mandrels out of the ribbon rolls, if need be (compare section 5.2.2).

13.   **Carefully retain the pair of ribbon rolls with the "old" ribbo**n in order to allow using it again in the future.

Now the new ribbon has to be loaded as described in section 5.2.2.

5.3. Printhead Pressure Adjusting

A correction of the pressure value of both prindheads is necessary, if the thickness of the new printmedia is bigger or smaller than the previous one.

In addition the pressure value can be modified in order to adapt the **characteristics of the consumables. An increase of the printhead's** pressure value, for example, can improve the transfer of the image from the corresponding ribbon to the printmedia.
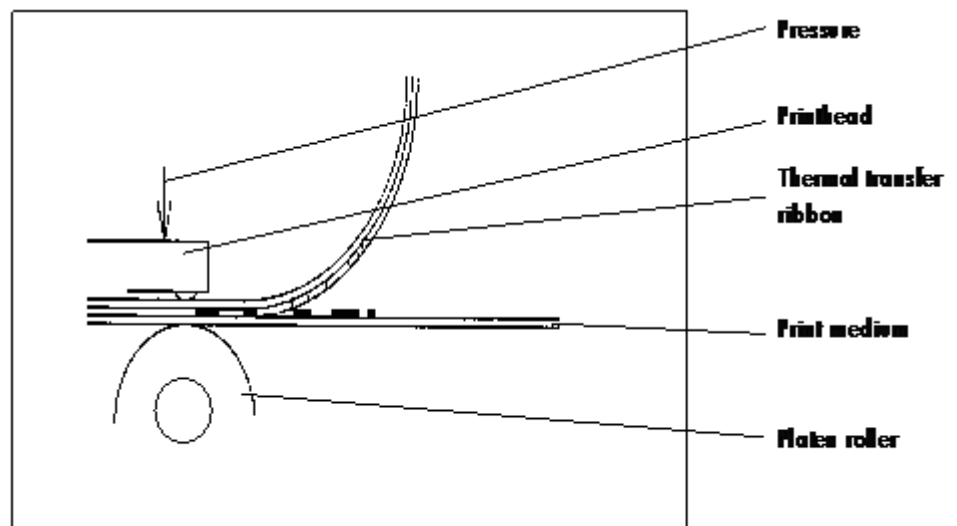
Fig. 5.3.a Principle view of the print process

While printing narrow media the printhead may come in contact with **the platen roller just in that area that isn't covered by the media.** This may lead to an accelerated abrasion of the printhead and to a **print quality that isn't even over the whole print width.**

Please **always do the printhead pressure adjusting for both printheads** (front and rear print unit).
The pressure values of the two printheads should not differ very much.

The operation steps to adjust the pressure value are described on the following pages.
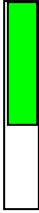
Please consider that increasing the pressure value will increase the friction between printhead, ribbon, printmedia and the platen roller, too.
The abrasion of the concerning components (for example the printhead surface) will be accelerated considerably due to the increase of the pressure value.

For normal paper and labels (media with little stiffness), both **printheads are adjusted at factory to the "0" position.**

Guide to find the right printhead pressure value:

Tags/Cards	Labels	Scale
		- 0
		- 5
		- 10

For medium thickness cards (moderate stiffness), set the printhead adjustment lever to the middle of the range (scale "5").
For very thick media (stiff tags or cards), set the adjustment lever to the "10" position.

Steps to adjust the printhead pressure

To change the position of the adjustment lever:

1. Loosen the small black adjuster release screw.
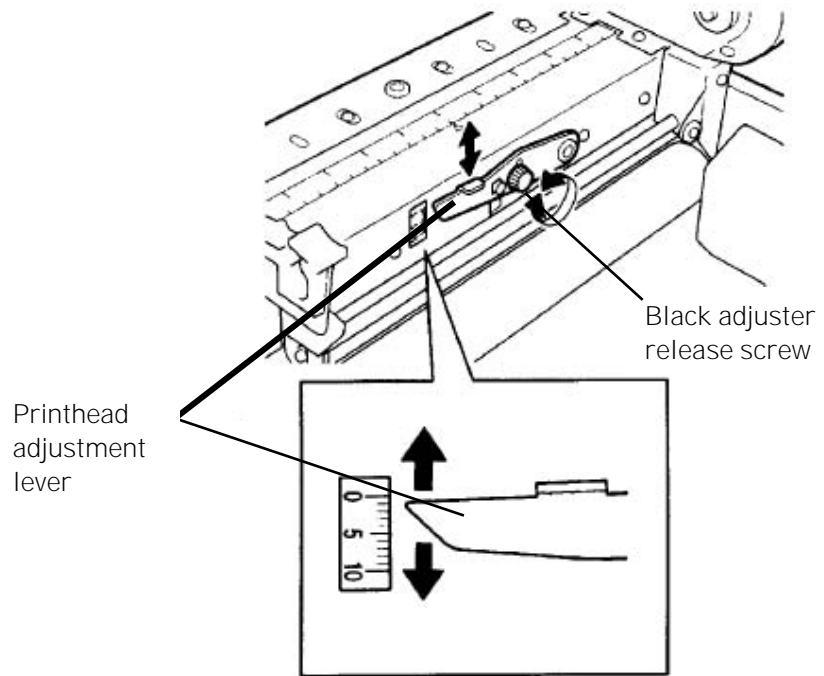
Fig. 5.3.b Adjusting the printhead pressure

2. Slide the printhead adjustment lever to the required position.

3. Re-tighten the black adjuster screw.

4. Ensure the black adjuster screw is tightened firmly to avoid it moving in operation.

If the ribbon wrinkles, the ribbon tension on either side of the ribbon is not even.
The steps to solve the problem are described in section 8.2 Avoiding Ribbon Slack and Wrinkles.

6. Operation and Menu Structure

6.1. Attaching the Printer to a Network/PC

1. Make sure the printer, computer, and any other attached devices
   are turned off and unplugged.

2. Use a proper interface line to connect the printer to the computer or to
   attach the printer to the network.
   The printer logiJET TC8 is provided with several interface:
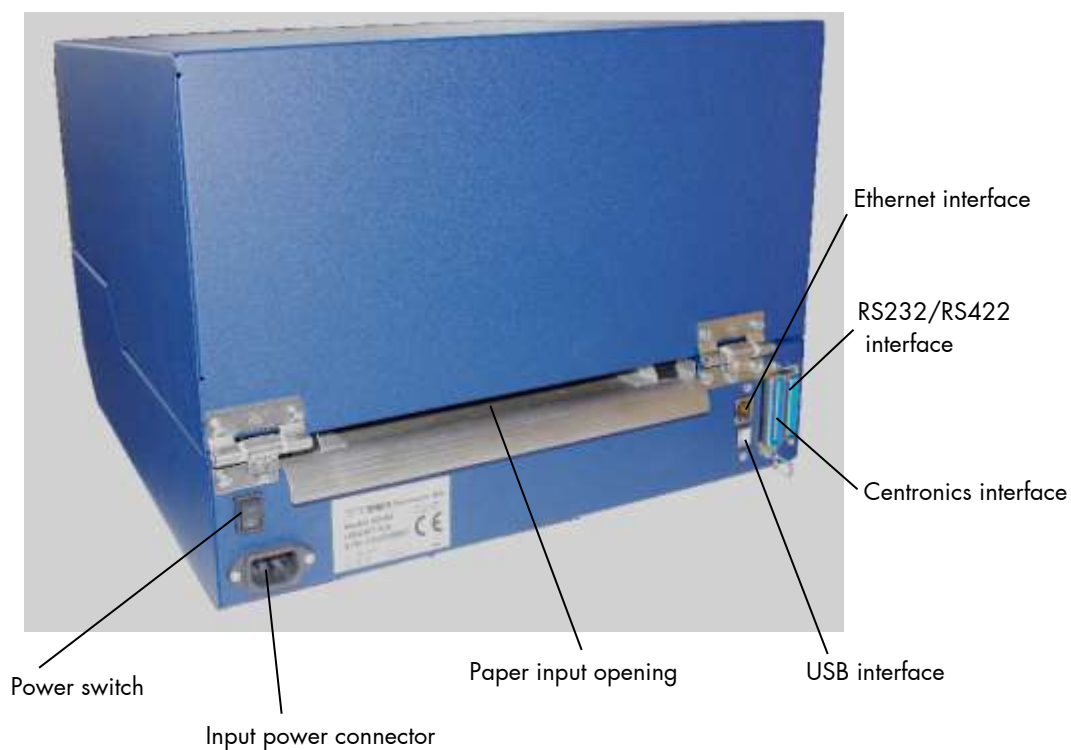
Fig. 6.1.a Rear view of the printer

6.2. Power Supply and Turning on the Printer

Note: Make sure that the voltage of the main power always matches the **printer's voltage requirements.**

☞   Please notice the instructions given in chapter 5 Handling of Consumables.

1. Plug one end of the printer power cord into the socket at the back of the printer and the other end into a properly grounded outlet.
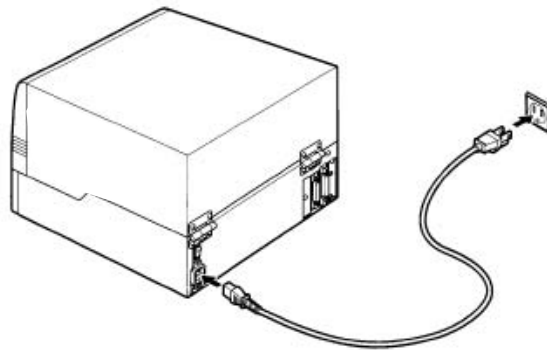
2. Turn on the printer. The power switch is located at the right side of the printer (near the paper input opening).

Power switch

As soon as the **printer's warm up phase is finished the printer goes into** the ON LINE mode. A status message and the name of the printer are displayed.

Note: You can change the language that appears on the touch panel.
Use the "Display Language Selection" panel function (see section 7.18).

6.3. Control Panel View

6.3.1. logiJET TC8 with TouchScreen

Here the printer's status messages are displayed

This are the 6 touch keys
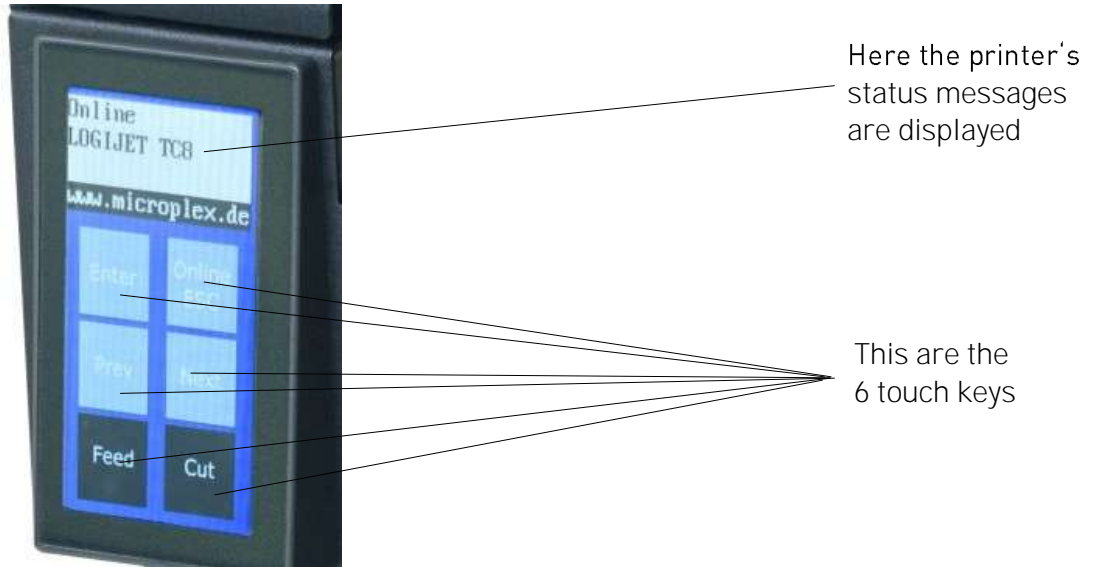
6.3.2. logiJET TC8 with Display und 6 Funktion keys

Display
(four-lined)

LEDs

6 Function keys

_____
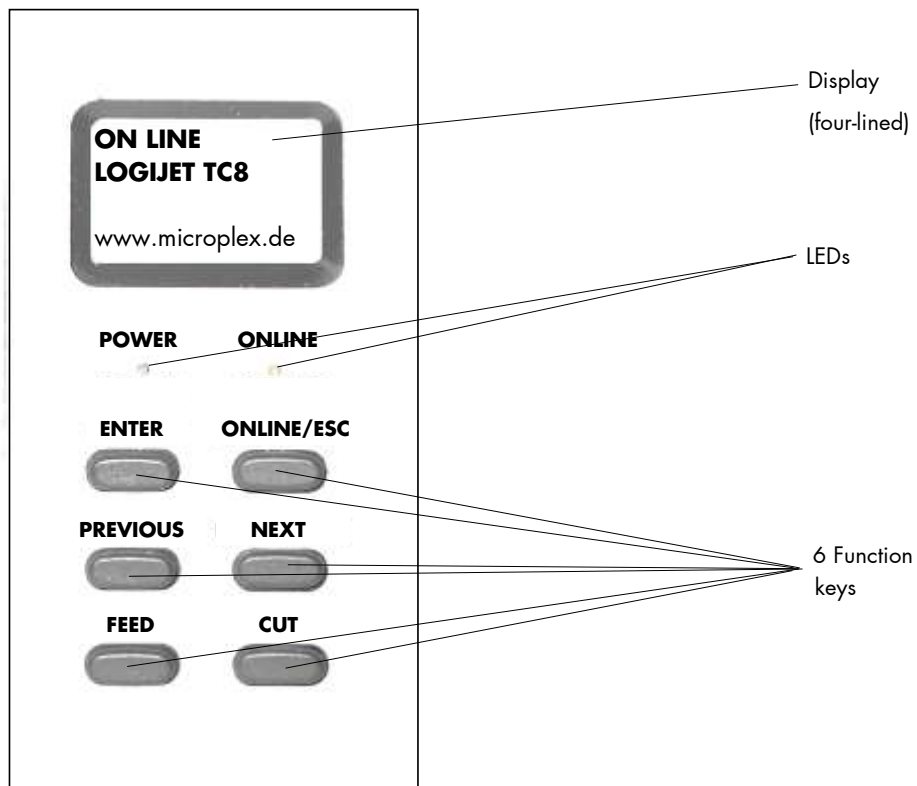
6.4. Function of the Control Panel Elements

Display

> The display serves to show for example the **printer's status** messages.

POWER - LED   (applies only to logiJET TC8 equipped with display and 6 function keys)
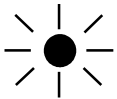
The printer is on.

The printer is off.

ON LINE - LED   (applies only to logiJET TC8 equipped with display and 6 function keys)
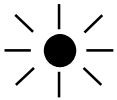
The printer is ready to receive data from the host (the printer is ON LINE).

The printer is not ready to receive data from the host (OFF LINE). The control panel keys are active.

Indication of Errors

When an error occurs, a corresponding error message is displayed by the printer. In addition the background color of the touchscreen changes to red (this only applies to logiJET TC8 printers equipped with touchscreen).

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Control Panel Keys

Now the individual control panel keys are described:

The ONLINE/ESC key is used to turn the printer OFF LINE or ON LINE.
In addition to that this key can be used to clear an error message in the display after the fault was fixed.

In the OFF LINE mode this key is used to **start the cutter** (option).

In the OFF LINE mode the paper is conveyed one format length further after having activated the FEED key.
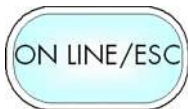
These keys are used for working within the different levels of the menu structure described in the following.

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6.5. Configuration via the Control Panel

You can use the control panel to change the printer configuration and customize your printer to meet your specific needs.

In addition printer configuration via Ethernet is possible.
The MICROPLEX printer controller offers an integrated website, for more information see Networking Features of MICROPLEX Printers.

Chapter 7 (Panel Functions) describes how to reach the particular printer functions via the panel.

T e m p o r a r y changes in printer configuration are effective only as long as the printer stays turned on. To select such changes temporarily, the user must terminate the change of function by pressing the **ENTER key** one single time.

P e r m a n e n t changes in printer configuration are active each time the printer is turned on again. To select such changes permanently, the user must terminate the change of function by pressing the **ENTER key two times**.

An output of the current printer values can be generated using the "**Printing the Status Sheet**" **panel function** (see section 7.8).

Please note:

- User default settings remain in effect until you save new settings or restore the factory defaults.

- Settings you choose from your software application or printer driver can also change or override the user default settings you select from the touch panel.

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Switching the Printer OFF LINE

After the printer was turned on (and as soon as the warm up phase is finished) the printer goes into the ON LINE – Mode

[logiJET TC8   ]   Printer messages are displayed on the control panel display.

ON LINE/ESC
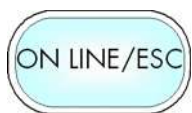
This symbol shows the ON/OFF LINE key.
If the printer is turned OFF LINE with this key you get automatically into the first menu level.

[Menu Level 1   ]   Now this message is displayed on the display.

In the interest of simplicity, in the following chapters only the most important display messages are shown in the Panel display column.

6.6. Menu Structure

Access to the menu structure is possible as soon as the printer is turned OFF LINE.

The menu structure of the printer logiJET TC8 is arranged in different levels:

ON LINE mode

OFF LINE — CUT / FEED

Menu Level 1	Paper Menu	Configuration	Page Menu	Engine	Network
Status Sheet	Paper Size	Interface	Font Number	Printspeed	Timeout
Font List	Paper Length	SIA Timeout	Orientation	Density	SNMP
Show Info	Measure Length	RS 232	Symbol Code	Image X-Pos.	Ethernet
IP Address	in inch	RS 232 Protocol	Line Spacing	Image Y-Pos.	Duplex/Speed
Firmware Release	in mm	RTS/CTS	Char. Spacing	Sync.-Menu	Autonegotiation
Serial Number	in 1/300 inch	XON/XOFF	Line Termination	Auto.Sens.Adj.	10MB HalfDuplex
Printer Emulation	Auto.Measurement	None	Margin	Sync.Sens.Level	10MB FullDuplex
Normal Print/FF	Paper Width	Baudrate	Left	Sync.Sens.Offset	100MB HalfDuplex
File Management	in inch	RS 232 Fm.	from Right	Sync.Sens.Logic	100MB FullDuplex
Print-Files	in mm	Emulation	Top	Sensor Test	IP Assign
Directory	in 1/300 inch	Language	from Bottom	Slip Menu	Off
Cancel Job	Change by IF	Transparent Code	PCL Y-Offset	Testpage DIN A4	DHCP
Menu Page	Two-Up Mode	Input Buffer	NumberOfCopies	Testpage Letter	Manual
Sliding Pattern	Y-Direction	Config. Word		Slip Correction	IP Address
Hexdump	X-Direction	User Config.		Torque Foil Mot.	Subnet Mask
	Print Direct.	Select		TearOff Menu	Gateway
	Paper Type	Define		TearOff Mode	Persistent DHCP
	Label (with Gap)	Factory Default		TearOff Position	
	Black Mark	RFM		Print Mode	
	Continuous	Key Lock		Last Error	
	MediaEnd Detect.	AcousticSignals		Service Menu	
		Key Tone		Dot Test	
		Error Tone		Pattern Page	
		Extended Menu		Pattern Test	
		Time Setting		. . .	
		Date Setting		Optional Devices	
				Periph. Device	
				. . .	
				Head Resistance	
				. . .	
				Image X-Pos.	
				Image Y-Pos.	

This panel function allows the user to choose a **reduced menu** instead of the extended menu shown above.

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Selecting positions in the menu structure:

ON LINE/ESC

This symbol shows the ONLINE/ESC key. You get automatically into menu level 1, if the printer is turned OFF LINE with this key.

PREVIOUS

NEXT

By pressing the keys PREVIOUS and NEXT you can move within the menu levels.

Press and hold the NEXT key to scroll forward quickly or press and hold the key PREVIOUS to scroll backward.

["Menu Level "]

Each menu item / sub-item within a menu level is shown in the display of the control panel.

ENTER

The ENTER key has two main functions. It gives the user access to a particular menu and, once in the menu, it allows the user to select a particular function.

["Function"]

_____

Functions / Changing of function values:

NEXT

Within one function the value can be changed by pressing the key NEXT or PREVIOUS.

PREVIOUS

In case of a multi-digit function value the value of the currently chosen digit will be changed.

ENTER

ON LINE/ESC

In case of a multi-digit function value pressing the ENTER key switches to the next position of the function value.
Pressing the ESC key switches to the previous digit of the function value.

Please note: If you press the ESC key although the absolute left digit of the function value is still arrived, the changing procedure will be cancelled and this moves you to the next menu level above.
If you press the ENTER key although the absolute right digit (digit 1) of the function value is still arrived, the currently displayed function value is stored.

ENTER

By pressing the ENTER key the function values currently displayed are confirmed respectively the selected function is activated (the changes are saved until the next printer power off; this kind of saving is called temporary).

[Save as Setup?]

After this you have to decide, if you want to save the changes permanent (Save as setup).

ENTER

To select such changes permanently, the user must press the ENTER key one more time. These permanent changes in printer configuration are active each time the printer is turned on again.

ON LINE/ESC

If the ESC key is pressed instead, the changes are only stored temporary (not saved as setup).
(This key takes the user to the respective previous menu level).

Return to the ON LINE mode:
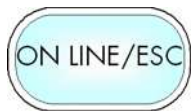
A) In one step:

Pressing the ONLINE/ESC key longer than 2 seconds switches the user directly to the ON LINE mode from nearly any menu position.
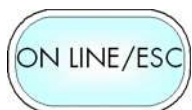
B) Return to the ON LINE mode step by step:

Pressing the ONLINE/ESC key shortly takes the user to the respective previous menu level.

[Menu Level 1]   Aim is to jump back to Menu Level 1.
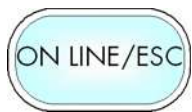
Pressing the ONLINE/ESC key one more time switches the printer to the ON LINE mode.

6.7. Syntax of Diagrams

The control panel functions will be described using diagrams. These diagrams show the course necessary in order to activate a certain function.

First the elements of the diagram are explained:

The sequence on the left describes which keys have to be pressed briefly in succession.
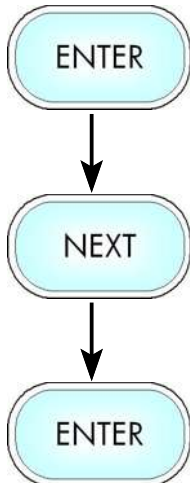
In this example the ENTER key has to be pressed first. Then the ENTER key is released and the NEXT key has to be pressed. Then the NEXT key has to be released and the ENTER key has to be pressed.

["Message"]

The "Panel display" column shows the display messages corresponding to the sequences listed on the left.

In the column "Notes" explanations to particular operational steps are given.

7. Panel Functions

For the panel functions described in the following text, the printer is presumed to be turned on and in the ON LINE mode.

The following panel functions can provide a first overview of the most relevant functions of the logiJET TC8:

➢ **Show Info**   see section 7.9

This function serves to show some basic information about your printer: the IP Address, Firmware Release, Serial Number and the current Printer Emulation.

➢ **Printing the Menu Page** *)   see section 7.14

This function prints a survey of the available panel functions.

➢ **Printing the Status Sheet** *)   see section 7.8

This function generates a status sheet.
The status sheet contains information about the current printer configuration and the available fonts.

*) Please follow the instructions step by step (as described in the following sections: 7.1. Print Material Setting, 7.2. Adjusting the Sync Sensors ...).

7.1. Adjusting the Printer to the Print Material (Paper Type)

This function is necessary to adjust the printer to the current media in use. This adjustment selects the active Light Sensor Type (SyncSensor).

The printer is able to handle
- continuous media
- material with Gaps (label material)
- material with Black Marks

The **Gap Sensor** (Transparent Photoelectric Switch) is suitable for labels with transparent or register gaps.
The **Reflex Sensor** (Reflex Photoelectric Switch) is suitable for materials with markings / Black Marks.

Panel display	Notes
[ON LINE]	Turn the printer OFF LINE with this key.
[Menu Level 1] • • •	Press the NEXT or PREVIOUS key until [Paper Menu] is displayed.
[Paper Menu]	Press the ENTER key. This selects the Paper menu.
[Paper Size] • • •	Press the NEXT or PREVIOUS key until [Paper Type] is displayed.
[Paper Type]	Press the ENTER key. This selects sub-menu Paper Type.
[Label (with Gap)]	The currently set value is displayed.
• • • [Black Mark]	Press the NEXT or PREVIOUS key until the statement shown by the display corresponds to the inserted media (Black Mark e.g.).
	The printer is adjusted to material with Black marks.
[Save as Setup?]	In addition this new value can be saved as setup value (using the ENTER key). After this decision turn the printer ON LINE again: Press the ONLINE key longer than 2 seconds.

7.2. Adjusting the Sync Sensors

Please note: **Always adjust** the **sensors** of your printer to your consumables in use (**sensor positions as well as the levels and currents**).

7.2.1. Checking and Adjusting the Position of the Sensors

The device is provided with sensors to enable controlling of consumable movements (Synchronization).
The upper media sensor (Transparent sensor) as well as the lower media sensor (Reflex sensor) are located "below" the printhead mounting.

Move the sensors to the accurate position (appropriate to your consumables):

Please note: The printer uses the **sensors located at the rear print unit**.
Always adjust all sensors of this print unit to your current consumables (sensor positions and the levels and currents).

1. **Open the printer's top cover and swivel it to a vertical position.**

2. Unlock the rear printhead assembly by pushing the printhead release lever and raise the printhead assembly to a vertical position.

3. Unlock the transparent sensor guide by pushing its lever and raise the transparent sensor guide until it stops (as shown in figure 7.2.1.a and figure 7.2.1.b).

_____

Rear printhead
already raised

Transparent sensor
guide release lever

Top cover
of the
printer
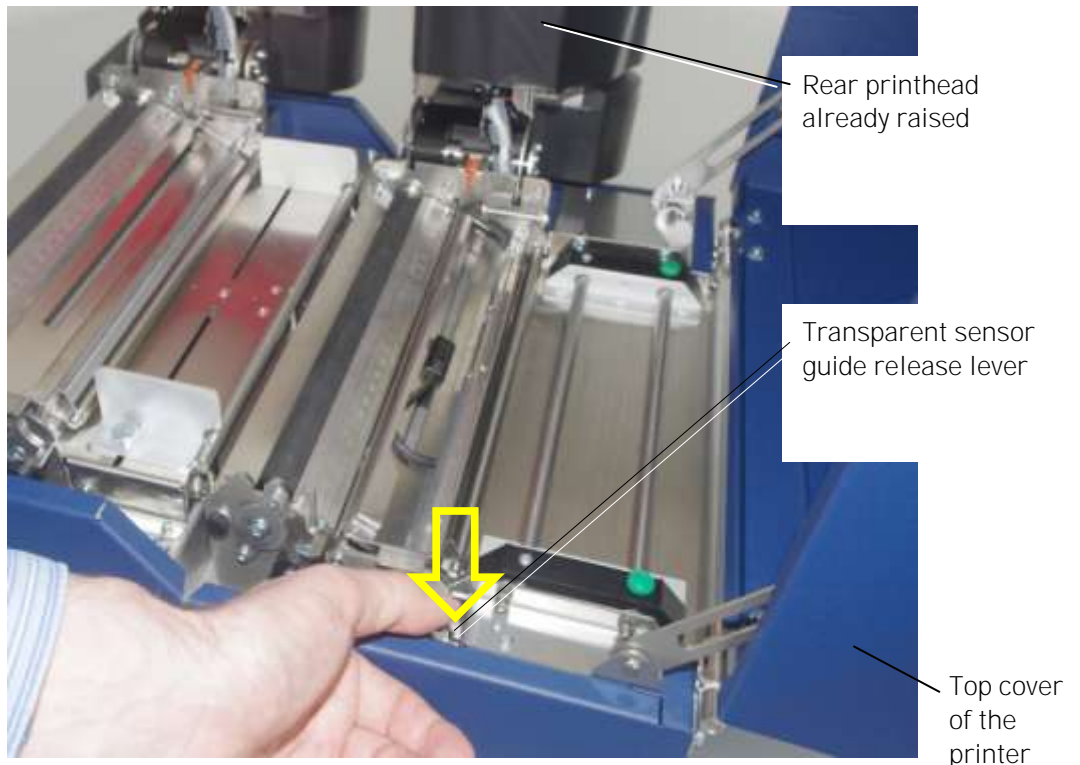
Fig. 7.2.1.a Unlocking the transparent sensor guide of the rear print unit

Upper sensor
(Transparent sensor)

Lower Sensor
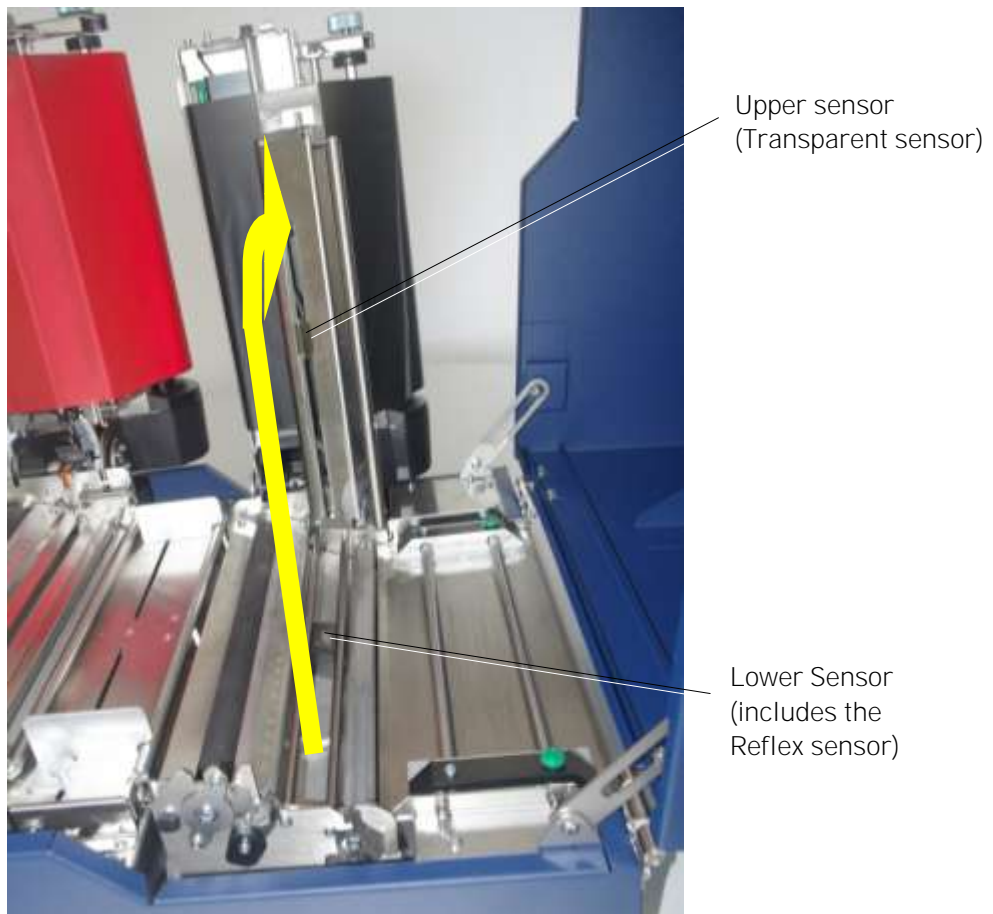(includes the
Reflex sensor)

Fig. 7.2.1.b Rear printhead and transparent sensor guide raised

_____

4. Insert the consumables and set the paper guides to the paper width (refer to section 5.1 for details).

5. Find out the position of the gaps/marks of your consumable.

6. The following table gives you an **overview of print media and sensor target positions** (upper sensor = transparent sensor, lower sensor = includes the reflex sensor):

Media	Sensors required	Sensor position mark
Media with Black marks	Lower sensor (Black mark) (+ upper sensor for paper end detection)	Directly over the black mark
Die-cut label	Lower and upper sensor (Gap)	The middle of media
Center-punched hole tag	Lower and upper sensors(Gap)	Directly over the hole
Notched tag	Lower and upper sensors(Gap)	Directly over the notch

7. Set the lower sensors to the lateral position of the gaps or marks of your material. (Compare the yellow arrows in the following figure.)

8. Use the correct mark for this (transparent or reflex, compare the following figure).

Example:
When the media is a center-punched hole or notched tag, first align the lower sensor position mark 'T' with the hole or notch of the media.

9. Read the value of the scale on the media guide plate pointing the 'T' mark. (The transparent sensor has to be set to the same value, compare step 10.)

Mark of the transparent sensor: T

Mark of the reflex sensor: R

Scale on the media guide plate of the rear printhead

Schematic drawing of the lower sensor:

Light-emitting device

Reflective sensor (light-receiving device)
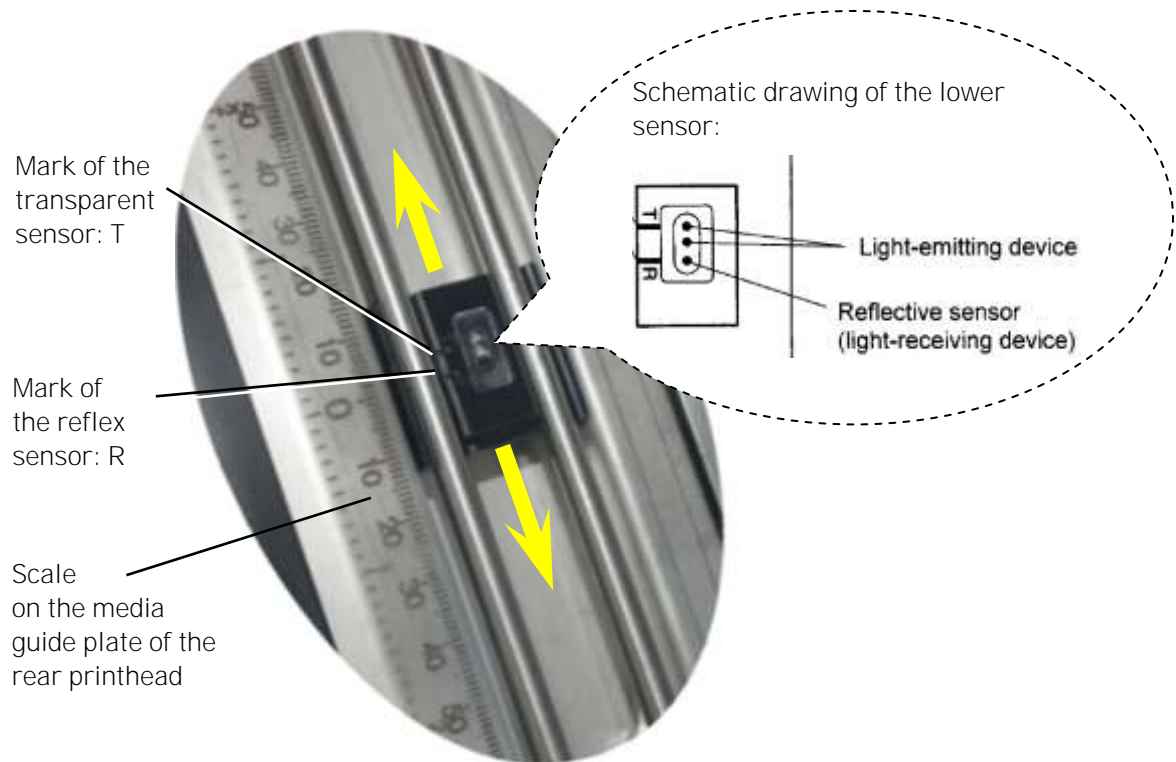
Fig. 7.2.1.c Setting **the lower** sensor to the right position

10. Swivel the transparent sensor guide downward.

Scale
on the media
guide plate
of the rear
printhead

Transparent
sensor

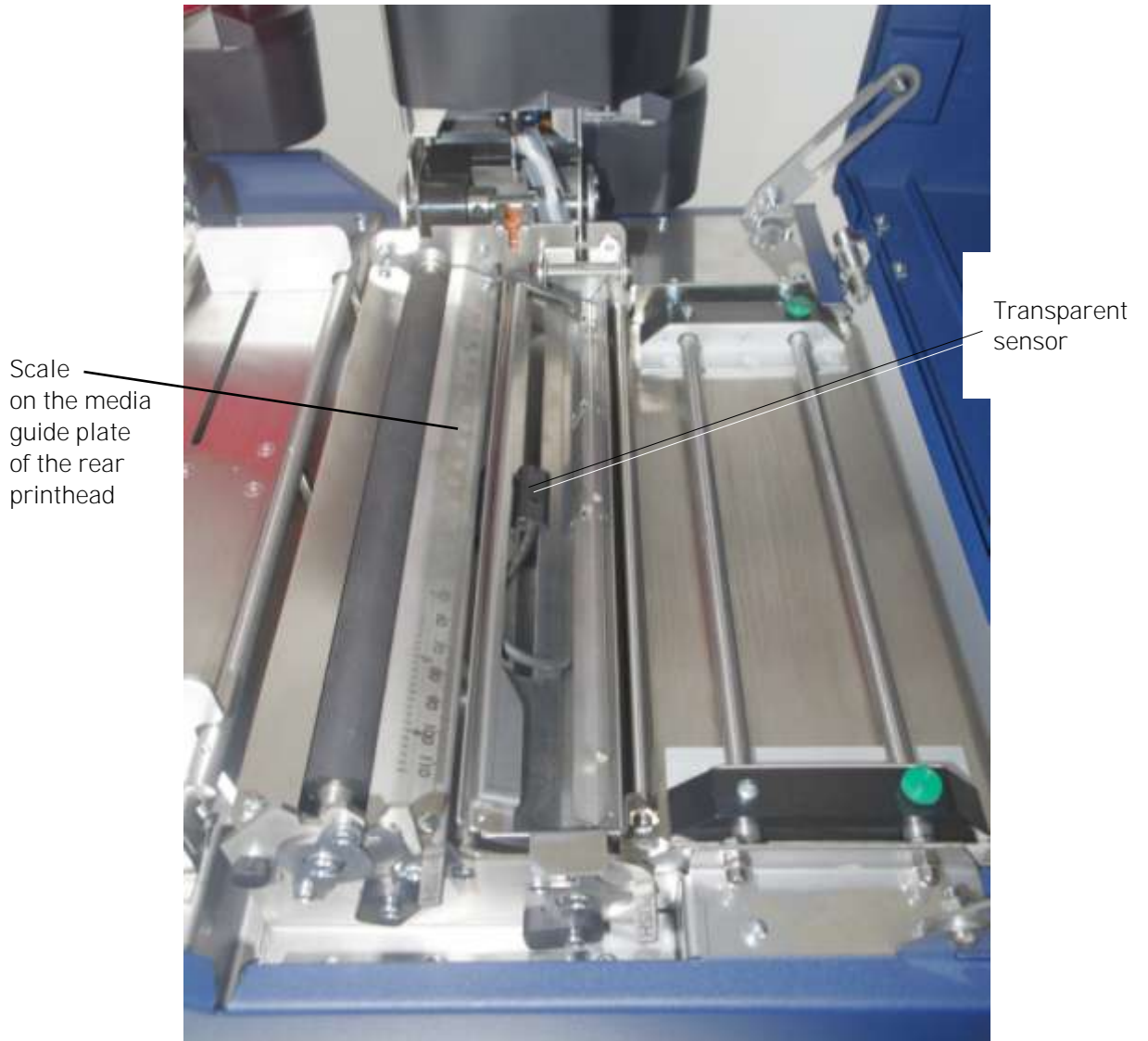Fig. 7.2.1.d Transparent sensor guide swivelled down

11.   Slide the transparent sensor to the accurate position, compare
       the scale value of step 8:

Pointer
of the
transparent
sensor

Transparent
sensor
(upper
sensor)

Scale
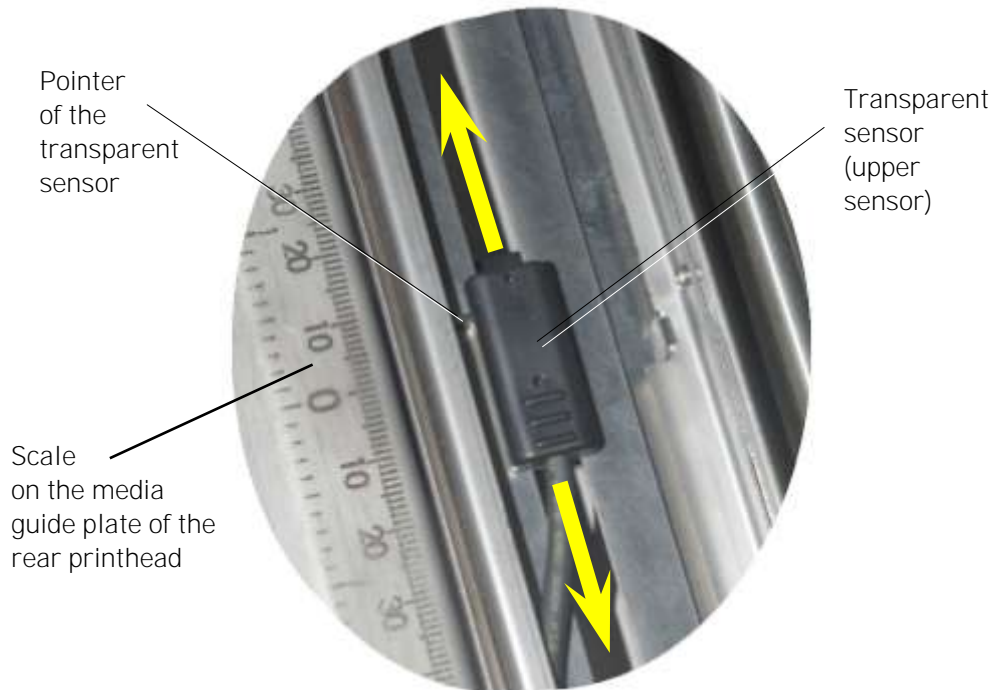on the media
guide plate of the
rear printhead

Fig. 7.2.1.e Sliding the **upper sensor** (transparent sensor) to the accurate position

For **through-beam functionality** it is important, that the **Transparent sensor and Reflex sensor** are facing each other.

This can be tested as follows:

12. Take out the consumables.

13. Push the transparent sensor guide down gently until it clicks into place.

14. Swivel the printhead assembly downward and push it down gently until it clicks into place.

15. Use the **Sensor Test** panel function (in the engine menu), to check the signal of the sensor:

After successful adjustment of the sensor positions the **measured value** should be **slightly above 0%.** (Level without material in the light barrier).

☞ If the measured value is not as expected: please carry out the sensor position adjustment steps as described above once again and carefully, before proceeding with the the following sections.

The next step is to adjust the currents and the switching thresholds of the sensors. (Please read the following sections.)

Always adjust **both sensors** to your current consumables (upper sensor and lower sensor)!

For applying the **through-beam light barrier** functionality it is anyway necessary to use both, the upper Transparent sensor as well as the lower Reflex sensor.

For using the **reflex light barrier** functionality only the (lower) Reflex sensor is needed to detect the markings / Black Marks, but the through-beam light barrier is needed for paper end detection.
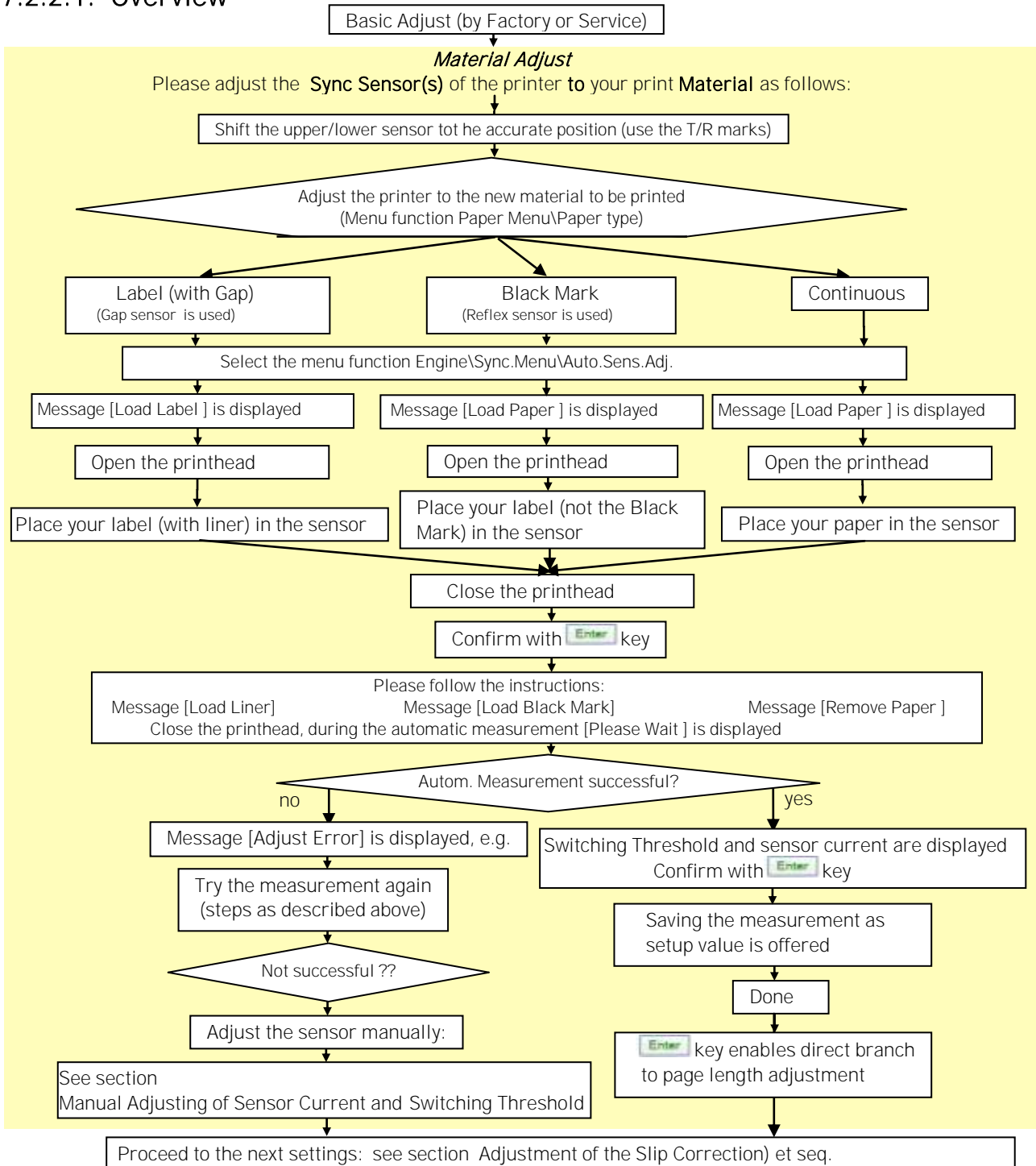
7.2.2. Automatic Adjust of Sensor Current and Switching Threshold

This function serves to adjust the level and current of the printer's Sync Sensors (located at the rear print unit) to the material in use.
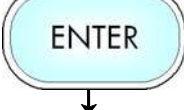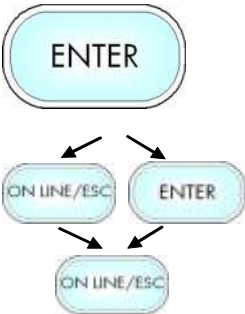
☞ If this _automatic function does not work_ with your specific print material, please perform the steps described in section 7.2.3 Manual Adjusting of Sensor Current and Switching Threshold.

7.2.2.1. Overview

Basic Adjust (by Factory or Service)

Material Adjust
Please adjust the **Sync Sensor(s)** of the printer **to** your print **Material** as follows:

Shift the upper/lower sensor tot he accurate position (use the T/R marks)

Adjust the printer to the new material to be printed
(Menu function Paper Menu\Paper type)

| Label (with Gap) | Black Mark | Continuous |
| (Gap sensor is used) | (Reflex sensor is used) | |

Select the menu function Engine\Sync.Menu\Auto.Sens.Adj.

| Message [Load Label] is displayed | Message [Load Paper] is displayed | Message [Load Paper] is displayed |

| Open the printhead | Open the printhead | Open the printhead |

| Place your label (with liner) in the sensor | Place your label (not the Black Mark) in the sensor | Place your paper in the sensor |

Close the printhead

Confirm with [Enter] key

Please follow the instructions:
Message [Load Liner]   Message [Load Black Mark]   Message [Remove Paper]
Close the printhead, during the automatic measurement [Please Wait] is displayed

Autom. Measurement successful?
no   yes

Message [Adjust Error] is displayed, e.g.

Switching Threshold and sensor current are displayed
Confirm with [Enter] key

Try the measurement again
(steps as described above)

Saving the measurement as setup value is offered

Not successful ??

Done

Adjust the sensor manually:

[Enter] key enables direct branch to page length adjustment

See section
Manual Adjusting of Sensor Current and Switching Threshold

Proceed to the next settings: see section Adjustment of the Slip Correction) et seq.

_____

7.2.2.2. Example

Adjusting the printer to the actual used media (Paper Type) is described in section 7.1. The following example describes the steps of the **automatic sensor adjust** of the Gap Sensor (transparent sensor).

	Panel display	Notes
ON LINE/ESC	[ON LINE]	Turn the printer OFF LINE with this key.
	[Menu Level 1]	
NEXT	• • •	Press the NEXT or PREVIOUS key until [Engine] is displayed.
	[Engine]	
ENTER		Press the ENTER key. This selects the Engine menu.
	[Printspeed]	
NEXT	• • •	Press the NEXT or PREVIOUS key until [Sync. Menu] is displayed.
	[Sync. Menu]	
ENTER		Press the ENTER key. This selects the Sync. menu.
	[Auto.Sens.Adj.]	
ENTER		Press this key to start the autom. sensor adjustment.
	[Load Label]	Open the rear printhead and place label (with liner) in the sensor area. Close the printhead.
ENTER		Press ENTER: the printer automatically measures the contrast value.
	[Load Liner]	Open the rear printhead and place (only) liner in the sensor area. Close the printhead.
ENTER		Press ENTER: the printer automatically measures the contrast value.
	[Save as Setup?]	In addition this new value can be saved as setup value (using the ENTER key). After this decision turn the printer ON LINE again: Press the ONLINE key longer than 2 seconds.
ON LINE/ESC ENTER		
ON LINE/ESC		

_____

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7.2.3. Manual Adjusting of Sensor Current and Switching Threshold

Manual adjusting of the Sync sensor current and switching threshold allows the processing of materials with high contrast proof points within the label, which would otherwise be falsely measured by the system. *)

The panel functions Sensor Test and Sync Sens Level serve to adjust the Sync sensors (Reflex sensor and Gap sensor) to special media (material to print on).

The following sections describe the steps to adjust the Black mark sensor (reflex sensor) and the Gap sensors (transparent sensor) in form of flow charts as well as in form of step by step listings.

*) Special solution: If the adjusting of the Gap Sync sensor failes because the contrast value of the label material itself is very low, you can use the panel function **Sync.Sens.Logic** to invert the logic. (Black marks can be used as "inverse gaps" in this way.)

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To get access to the Service Functions you have to **start** the printer in the **Service Mode**:

 The Service Functions can be carried out by a MICROPLEX authorized operator or a service engineer.
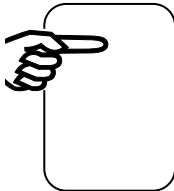A not trained person is **not allowed** to carry out this operations.

 Please be especially careful when carrying out the following operations to avoid maladjustments and damaging the printer.

Turn off the printer.

Start the printer in the **Service Mode:**
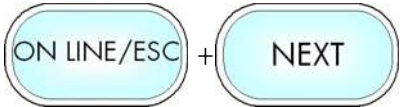
Version A (for logiJET TC8 with **Touchscreen)**
========

	Panel display	Notes
Turn the printer off		
Put a fingertip on the touch screen		Before starting the printer touch the printer screen (centrally in the upper area of the touchscreen) with your fingertip.
Turn the printer on		Turn the printer on and keep the finger on the touchscreen for about 1 second, then remove it.
	[Service Mode]	
		Now the functions of the service menu are available (compare dashed areas in the Menu Structure of section 6.6).

• • •

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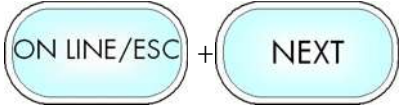**Version B** (for logiJET TC8 with **Display and 6 Function keys**)
========

	Panel display	Notes
Turn the printer off		
		Before starting the printer the ON LINE key and NEXT key have to be pressed simultaneously.
ON LINE/ESC + NEXT		
Turn the printer on		Turn the printer on and keep the keys ON LINE/ESC and NEXT pressed until the messages [Service Mode] is displayed **shortly**.
	[Service Mode]	
		Now the functions of the service menu are available (compare dashed areas in the Menu Structure of section 6.6).
	● ● ●	

Hint: After performing the steps of Version B some older displays may show a
          upside down and inverted image.

So if the display does not work as expected, please perform the following steps
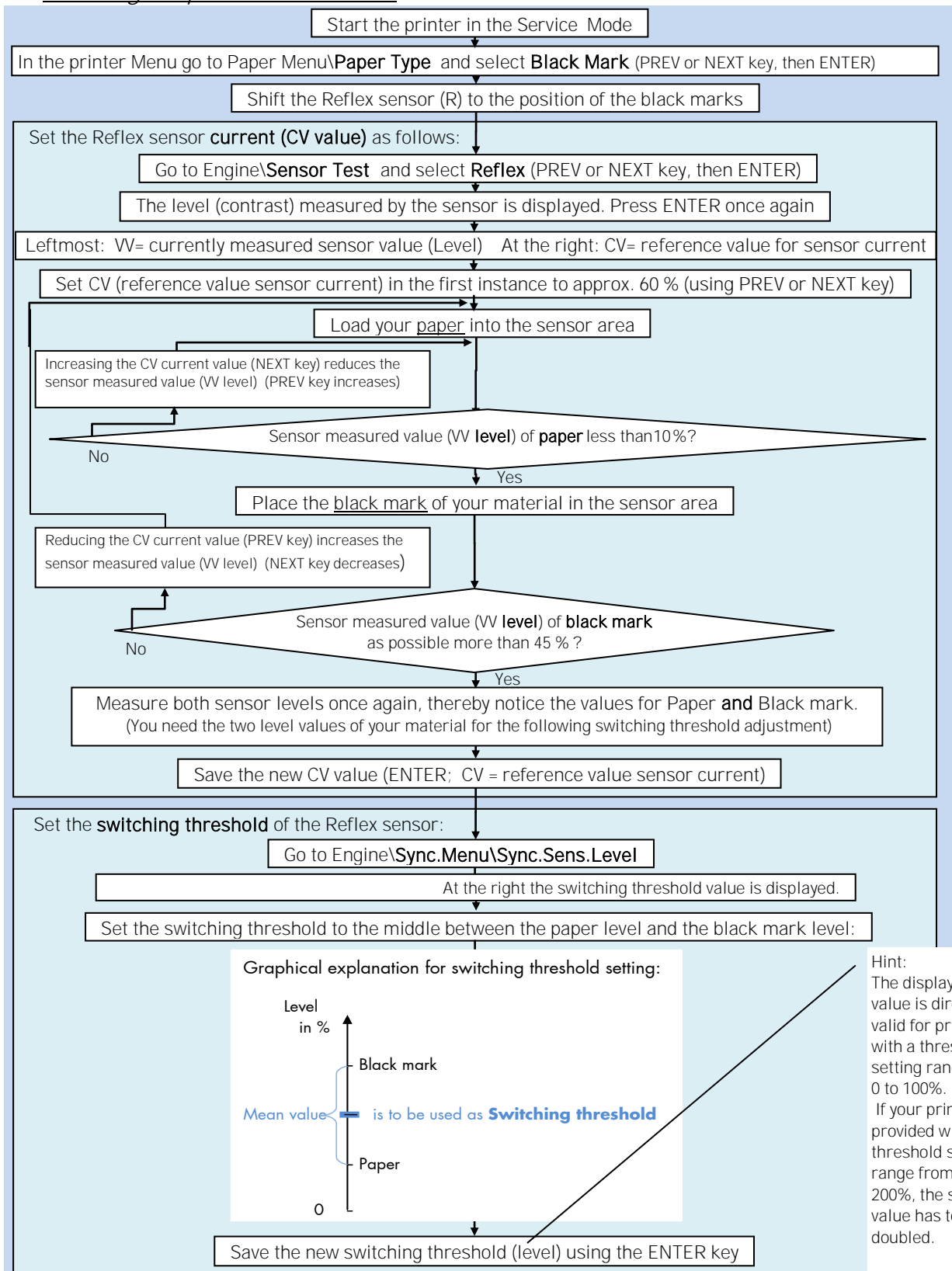(pay attention to the different chronological order of the steps in this Version C):

Version C (for logiJET TC8 with **Display and 6 Function keys**)
========

	Panel display	Notes
Turn the printer off		
Turn the printer on		(Without pressing any key)
		Wait until the display lights up, then
ON LINE/ESC + NEXT		press the ON LINE/ESC key and NEXT key simultaneously. Keep the keys pressed until the messages [Service Mode] is displayed.
	[Service Mode]	
		Release the keys.
		Now the functions of the service menu are available (compare dashed areas in the Menu Structure of section 6.6).
	● ● ●	

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7.2.3.1. Reflex Sensor (Black Mark Sensor)

Working Steps as Flow Chart:

Start the printer in the Service Mode

In the printer Menu go to Paper Menu**Paper Type** and select **Black Mark** (PREV or NEXT key, then ENTER)

Shift the Reflex sensor (R) to the position of the black marks

Set the Reflex sensor **current (CV value)** as follows:

Go to Engine**Sensor Test** and select **Reflex** (PREV or NEXT key, then ENTER)

The level (contrast) measured by the sensor is displayed. Press ENTER once again

Leftmost: VV= currently measured sensor value (Level)   At the right: CV= reference value for sensor current

Set CV (reference value sensor current) in the first instance to approx. 60 % (using PREV or NEXT key)

Load your paper into the sensor area

Increasing the CV current value (NEXT key) reduces the sensor measured value (VV level) (PREV key increases)

Sensor measured value (VV **level**) of **paper** less than 10 %? — No / Yes

Place the black mark of your material in the sensor area

Reducing the CV current value (PREV key) increases the sensor measured value (VV level) (NEXT key decreases)

Sensor measured value (VV **level**) of **black mark** as possible more than 45 % ? — No / Yes

Measure both sensor levels once again, thereby notice the values for Paper **and** Black mark. (You need the two level values of your material for the following switching threshold adjustment)

Save the new CV value (ENTER; CV = reference value sensor current)

Set the **switching threshold** of the Reflex sensor:

Go to Engine**Sync.Menu\Sync.Sens.Level**

At the right the switching threshold value is displayed.

Set the switching threshold to the middle between the paper level and the black mark level:

Graphical explanation for switching threshold setting:

Level in %

Black mark

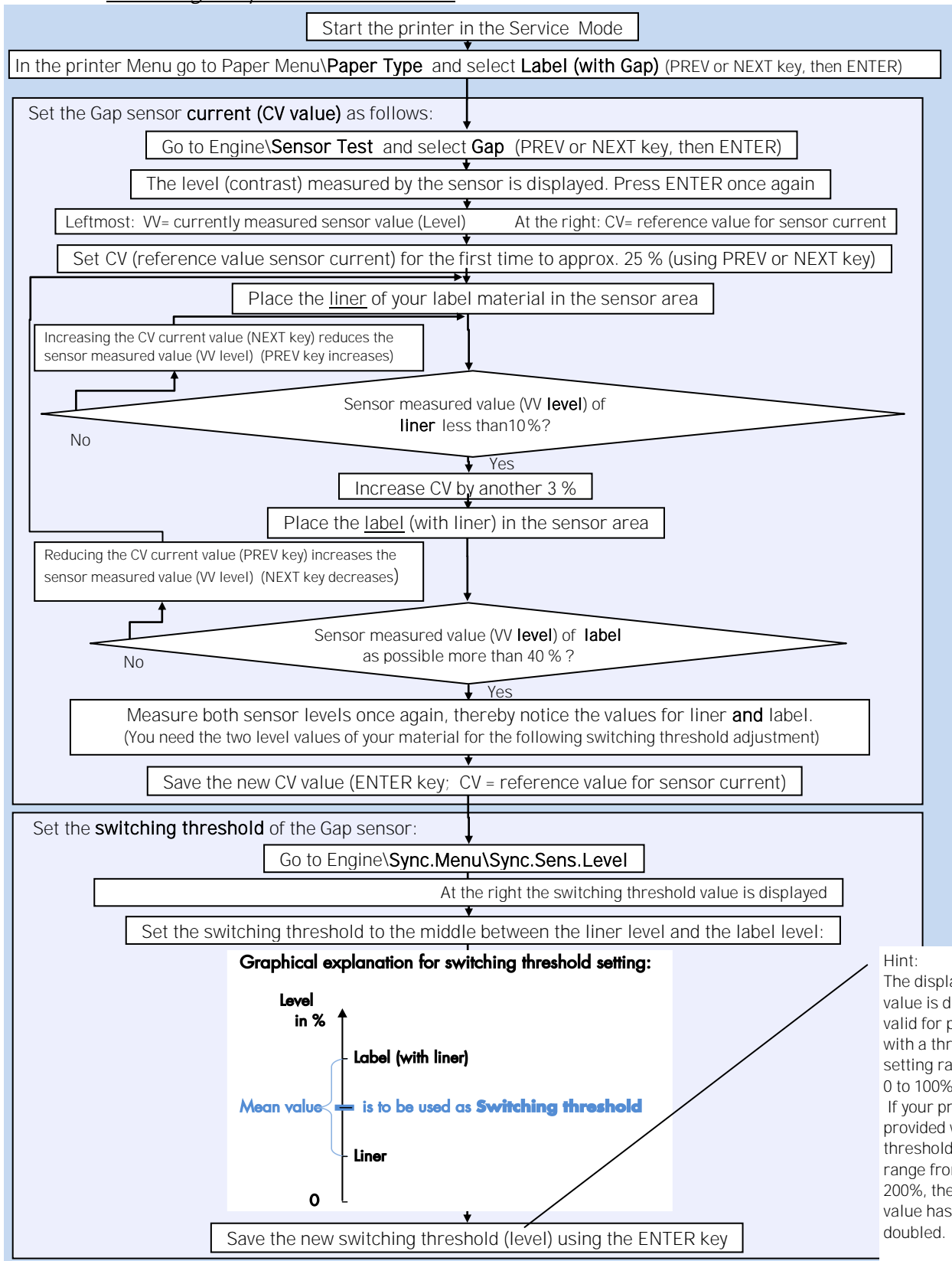Mean value — is to be used as **Switching threshold**

Paper

0

Hint: The displayed level value is directly valid for printers with a threshold setting range from 0 to 100%. If your printer is provided with a threshold setting range from 0 to 200%, the setting value has to be doubled.

Save the new switching threshold (level) using the ENTER key

_____

*Description of the Working Steps for the **Reflex Sensor** (Black Mark Sensor):*

A) Start the printer in the Service Mode, compare section 7.2.3 (necessary for steps in section D).

B) Select the **Paper Type**   Black Mark

> Please go to [**Paper Type**] in the printer menu structure:
> > Paper Menu\Paper Type\ select **Black Mark**
> > > (use PREV or NEXT key, then ENTER)

C) Shift the **Reflex sensor (R)** to the **position** of your **black marks**
> See section 7.2.1 Checking and Adjusting the Position of the Sensors

D) **Sensor Current** (**CV** value) adjusting   Reflex
> Please go to **Sensor Test** and select the subpoint **Reflex**:
> > Engine\Sensor Test\ select Reflex
>
> The currently measured sensor level (contrast) is displayed.
> Press the ENTER key again, after this 2 values are displayed:
> Left VV = curr. measured sensor value (level)   Right CV = reference value for sensor current.
> > CV is modifiable (and has an effect on the VV value).
>
> Use the NEXT or PREV key to set the CV value.   Approx. CV value: 60 %
>
> **Load** paper into the **sensor**.
> The sensor measured value (VV **level**) of the **paper** (not black mark)
> should count less than 10%.
> > If the VV level is too high, increase CV (sensor current).
>
> Put a **black mark** **into** the **sensor** area.
> The sensor measured value (VV **level**) of the black mark should count
> as possible more than 45 %.
> > ☞ If the sensor measured value (VV level) of black mark is too
> > low, the CV value should be decreased.
> >
> > > Higher black mark VV values than 45 % are more advantageous so
> > > long as there is no rising above 10 % of the paper VV level.
>
> Measure both sensor levels once again for Paper **and** Black mark.
> (You need the two level values of your material for the following switching threshold adjustment)
>
> Save the new current value (CV) using the ENTER key.

E) **Sensor Switching Threshold** adjusting
> Please go to [**Sync.Sens.Level**] in the printers menu structure:
> > Engine\Sync.Menu\Sync.Sens.Level
>
> At the right the switching threshold value is displayed.
>
> Use the NEXT and PREV keys to set the
> switching threshold of the sensor to the
> middle between the paper level and the
> black mark level:
>
> Save the new switching threshold
> (ENTER key).

Graphical explanation for switching threshold setting:

Level
in %

Black mark

Mean value ➤ is to be used as **Switching threshold**

Paper

0
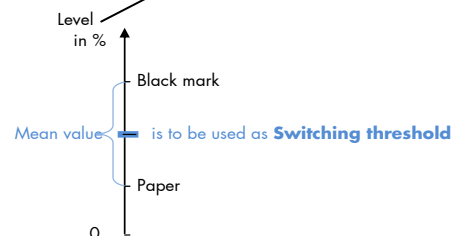
Hint:
The displayed
level value is
directly valid for
printers with a
threshold setting
range from 0 to
100%.
If your printer is
provided with a
threshold setting
range from 0 to
200%, the setting
value has to be
doubled.

_____

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7.2.3.2. Gap Sensor (Transparent Sensor)
Working Steps as Flow Chart:

Start the printer in the Service Mode

In the printer Menu go to Paper Menu**Paper Type** and select **Label (with Gap)** (PREV or NEXT key, then ENTER)

Set the Gap sensor **current (CV value)** as follows:

Go to Engine**Sensor Test** and select **Gap** (PREV or NEXT key, then ENTER)

The level (contrast) measured by the sensor is displayed. Press ENTER once again

Leftmost: VV= currently measured sensor value (Level)   At the right: CV= reference value for sensor current

Set CV (reference value sensor current) for the first time to approx. 25 % (using PREV or NEXT key)

Place the liner of your label material in the sensor area

Increasing the CV current value (NEXT key) reduces the sensor measured value (VV level) (PREV key increases)

Sensor measured value (VV **level**) of **liner** less than10 %?

No

Yes

Increase CV by another 3 %

Place the label (with liner) in the sensor area

Reducing the CV current value (PREV key) increases the sensor measured value (VV level) (NEXT key decreases)

Sensor measured value (VV **level**) of **label** as possible more than 40 % ?

No

Yes

Measure both sensor levels once again, thereby notice the values for liner **and** label.
(You need the two level values of your material for the following switching threshold adjustment)

Save the new CV value (ENTER key; CV = reference value for sensor current)

Set the **switching threshold** of the Gap sensor:

Go to Engine**Sync.Menu\Sync.Sens.Level**

At the right the switching threshold value is displayed

Set the switching threshold to the middle between the liner level and the label level:

Graphical explanation for switching threshold setting:

Level
in %

Label (with liner)

Mean value — is to be used as **Switching threshold**

Liner

0

Hint:
The displayed level value is directly valid for printers with a threshold setting range from 0 to 100%.
 If your printer is provided with a threshold setting range from 0 to 200%, the setting value has to be doubled.

Save the new switching threshold (level) using the ENTER key

_____

_____

Description of the Working Steps for the **Gap Sensor** (Transparent Sensor):

A) Start the printer in the Service Mode, compare section 7.2.3 (necessary for steps in section D).

B) Select the **Paper Type**   Label with Gap

   Please go to [**Paper Type**] in the printers menu structure:
   > Paper Menu\Paper Type\ select **Label (with Gap)**
   > > (use PREV or NEXT key, then ENTER)

C) Set the **sensor (T)** to the accurate **position** (upper and lower sensor)
   See section 7.2.1 Checking and Adjusting the Position of the Sensors

D) **Sensor Current (CV** value**)** adjusting   Gap
   Please go to **Sensor Test** and select the subpoint **Gap**:
   > Engine\Sensor Test\ select Gap
   The currently measured sensor level (contrast) is displayed.
   Press the ENTER key again, after this 2 values are displayed:
   Left VV = curr. measured sensor value(level)   Right CV = reference value for sensor current.
   > CV is modifiable (and has an effect on the VV value).

   Use the NEXT and PREV keys to set the CV value.   <u>Approx. CV value</u>:   25 %

   Put the <u>liner</u> (not the label) of your material into the **sensor**.
   Increase CV (current) until the sensor measured value (VV **level)** of the
   liner is <u>under 10 %</u>.

   After that increase CV (sensor current) by another 3 %.   + 3 %

   Load <u>label</u> (with liner) **into the sensor**.
   The measured sensor level (VV **Pegel)** of **label** should count
   as possible <u>more than 40 %</u>.

   > ☞ If the sensor measured value (VV level) of label is too low,
   > the CV value should be decreased.
   > > Higher label VV values than 40 % are more advantageous so long as
   > > there is no rising above 10 % of the liner VV level.

   Measure both sensor levels once again for Liner **and** Label.
   > (You need the two level values of your material for the following switching threshold adjustment)
   Save the new current value (CV) using the ENTER key.

E) **Sensor Switching Threshold** adjusting
   Please go to [**Sync.Sens.Level**] in the printers menu structure:
   > Engine\Sync.Menu\Sync.Sens.Level
   At the right the switching threshold value is displayed.

   Use the NEXT and PREV keys to set the
   switching threshold of the sensor to the
   <u>middle between</u> the <u>liner level</u> <u>and the</u>
   <u>label level</u>:
   Save the new switching threshold
   (ENTER key).

Graphical explanation for switching threshold setting:

Level
in %

Label (with liner)

Mean value   is to be used as **Switching threshold**

Liner

0
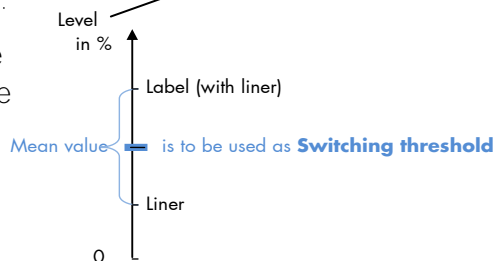
Hint:
The displayed
level value is
directly valid for
printers with a
threshold setting
range from 0 to
100%.
If your printer is
provided with a
threshold setting
range from 0 to
200%, the setting
value has to be
doubled.

_____

7.2.3.3. Example: Determining the Switching Threshold for a Label Material

After selecting the **panel function Sync.Sens.Level** the contrast of the inserted material (placed in the photoelectric sensor area) is shown on the printer display. The **left level value** is the **currently measured sensor value** (You'll find more details in the previous sections.)

For **all** different **contrast zones** of the current **material** now sensor values (level values in %) have to be measured. **Place** every specific zone of the material **in the** photoelectric **sensor area** and read the level values.

Example: Self-adhesive material with black bars across the label

Zone of the inserted material:	Sensor measured value (level):
Label + liner + black bar	75 %
Label + liner	44 %
Liner (other names: carrier or backing)	12 %

Calculation of the Switching Threshold

Graphical explanation for switching threshold setting:
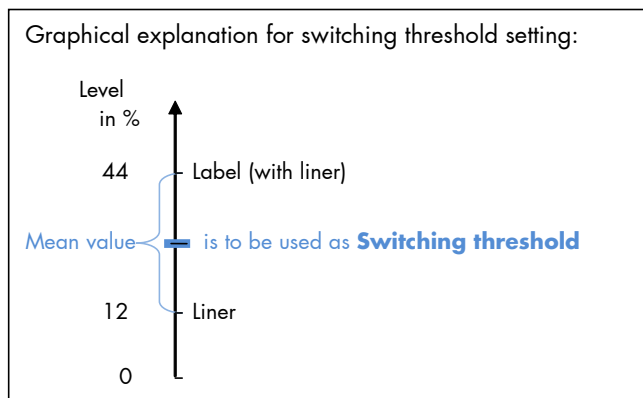
The **middle between the label level** (incl. liner) **and the liner level** has to be calculated:

$$(44\% - 12\%)/2 + 12\% = 28\%$$

In this example the switching threshold is to be set to the value 28 %.

Hint: This setting value of 28 % is valid for printers with a threshold setting range from 0 to 100%. If your printer is provided with a threshold setting range from 0 to 200%, the setting value has to be doubled (here to 56 %).

The steps to set the Sync sensor level at the printer panel can be found on the following page:

_____

Steps to **set the Switching Threshold (Sync.Sens.Level)** at the printer panel:

	Panel display	Notes
ON LINE/ESC	[ON LINE] [Menu Level 1]	Turn the printer OFF LINE with this key.
↓ NEXT	• • • [Engine]	Press the NEXT or PREVIOUS key until [Engine] is displayed.
↓ ENTER	[Printspeed]	Press the ENTER key. This selects the Engine menu.
↓ NEXT	• • • [Sync. Menu]	Press the NEXT or PREVIOUS key until [Sync. Menu] is displayed.
↓ ENTER	[Auto.Sens.Adj.]	Press the ENTER key. This selects the Sync menu.
↓ NEXT	• • • [Sync.Sens.Level]	Press the NEXT or PREVIOUS key until [Sync.Sens.Level] is displayed.
↓ ENTER	[Level: 44% 40.0%]	Press the ENTER key to adjust the switching threshold of the sensor.

Sensor measured value

Switching Threshold

At the right the currently set switching threshold is displayed. (At the left the sensor measured contrast value is displayed.)

↓ NEXT	• • • [Level: 44% 28.0%]	Press the NEXT or PREVIOUS key until the desired switching threshold is displayed.
↓ ENTER	[Save as Setup?]	In this example the switching threshold is adjusted to 28%.
ON LINE/ESC ENTER ↓ ON LINE/ESC		In addition this new value can be saved as setup value (using the ENTER key). After this decision turn the printer ON LINE again: Press the ONLINE key longer than 2 seconds.

_____

After you finished the sensor adjustments you have to **turn off the printer**. This is necessary to terminate the Service Mode (to lock the access to the service functions).

7.3. Adjustment of the Slip Correction

A calibration must be performed when media and ribbon are first installed in the printer, or when a different type of media or ribbon is being used.
The adjustment of the **slip correction** via **panel function** is used **to align the two print images (colors) to each other** (in print direction) **and** to **correct the print length**.

Slip Correction settings are dependent upon a variety of factors including ribbon type, media type and dimensions, and last but not least the condition of the feed rollers and the printhead.

Hints on Material and Ribbon Loading:
Make sure the media is taut and parallel with itself and the pathway when wound onto the rewind spindle/core. (Continue winding to remove any slack in the media before closing the printhead. More details are described in chapter 5.)

7.3.1. Using the new Built-in Testpage

Slip correction is used to align the two print images (colors) to each other (in print direction) and to correct the print length.

The following describes the usage of a new built-in testpage (available with Firmware 5.3.64 and newer). **The test pattern serves to find the right setting value for the slip correction.**

Hint: The previous methods are still available. You can find a description in section 7.3.2 Alternative: Measuring the Label Length.

1. Start the printing of the **Testpage** at the Engine Menu
logiJET TC8 \ Engine \ Slip Menu \ Testpage DIN A4   ##)

The result is a printout that looks like the following example:

Test pattern
(The „bars"
serve to find
the right value
for the slip
correction)

Printing the slip correction testpage

2. Put one sheet of an A4 paper ##) onto the Testpage printout as shown in the following figure.

3. **First align the "upper long edge" of the A4 paper with all the upper ends of the** bars (calibrating distances) of the Test pattern.

Align the A4 page
to the upper ends
of the bars

A4 page

-20   -10
            0   10
                  20
                        30
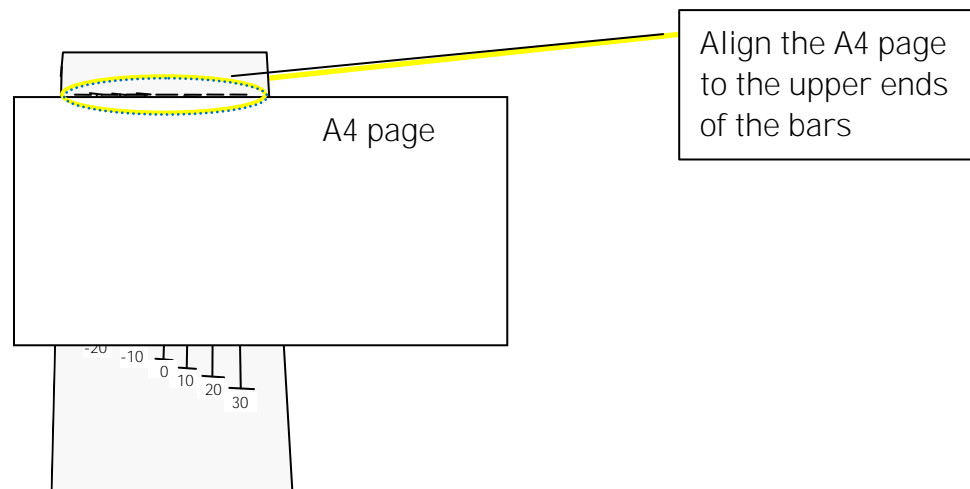
Aligning the A4 page to the testpage

Note ##):   If you have no A4 page (to use the A4 width 210mm for the procedure) you may use a letter
page (US Standard Letter): Therefore you have to print the "Testpage Letter". The steps to
use such a letter paper (landscape, width 8.5 inch) to find the right slip correcture are the
same as described for the A4 page.

4. Now find that bar that meets the lower edge of the A4 paper best:

A4 page

This bar meets
the lower edge of
the A4 paper
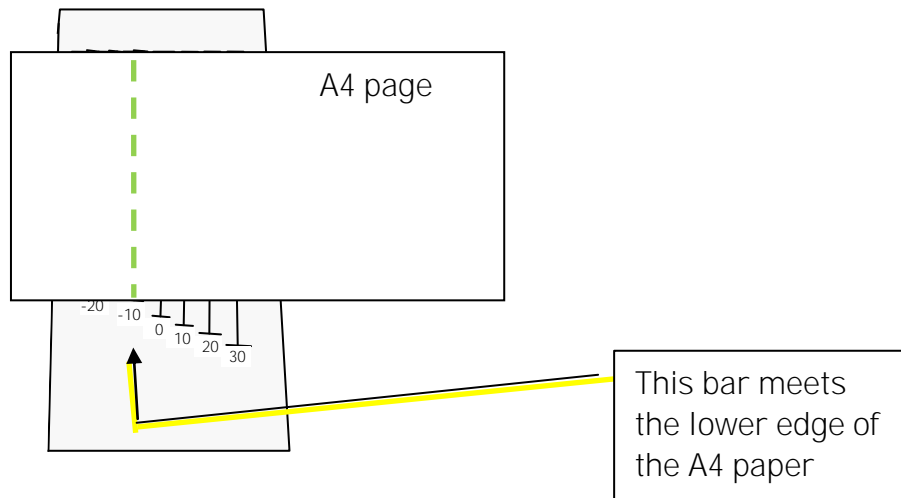
Finding the right value for the slip correction

5. Read the value printed under that bar (in this example -10).

☞ If the lower paper edge is between the ends of two bars, please
    interpolate (choose a value between the two relevant values).

6. **Set the „Slip Correction" at** the engine menu to this new value
    logiJET TC8 \ Engine \ Slip Menu \ Slip Correction

In this example the slip correction setting needs to be altered by   -10.

See next page.

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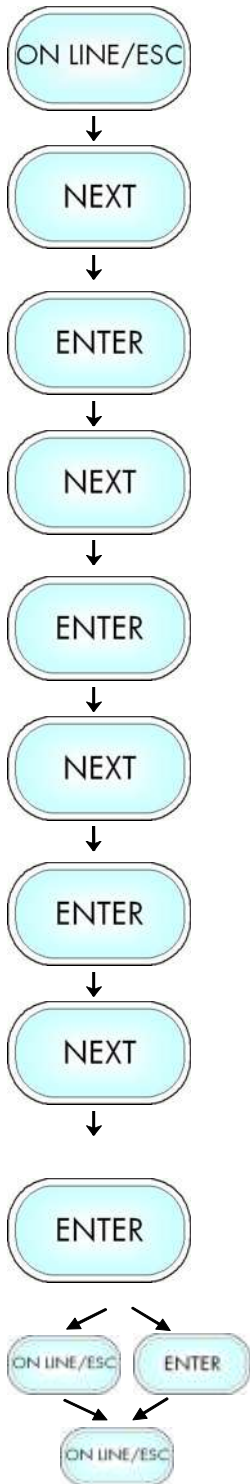| Panel display	Notes
[ON LINE]	Turn the printer OFF LINE with this key.
[Menu Level 1]	Press the NEXT or PREVIOUS key until [Engine] is displayed.
• • •	
[Engine]	Press the ENTER key. This selects the Engine menu.
[Printspeed]	Press the NEXT or PREVIOUS key until [Slip Menu] is displayed.
• • •	
[Slip Menu]	Press the ENTER key. This selects the Slip Menu.
[Testpage DIN A4]	Press the NEXT or PREVIOUS key until [Slip Correction] is displayed.
• • •	
[Slip Correction]	The panel function Slip Correction is selected.
[35]	The currently set value is displayed.
	Please add your new slip correction considering the signs (in this example we have to add -10 to 35).
• • •	(Operating the NEXT or PREVIOUS key changes the Slip correction value.)
[25]	
	Now the new correction setting is saved.
[Save as Setup?]	
	In addition this new value can be saved as setup value (using the ENTER key). After this decision turn the printer ON LINE again: Press the ON LINE key longer than 2 seconds.

ON LINE/ESC
↓
NEXT
↓
ENTER
↓
NEXT
↓
ENTER
↓
NEXT
↓
ENTER
↓
NEXT
↓
ENTER
↙ ↘
ON LINE/ESC   ENTER
↘ ↙
ON LINE/ESC

_____

Print another Testpage to check this new „Slip Correction" for proper operation:

7. Start the printing of the second Testpage at the Engine Menu

   logiJET TC8 \ Engine \ Slip Menu \ Testpage DIN A4   ##)

   The printout looks something like this (simplified):

This bar was printed with your new slip correction setting.

If the slip correction setting was done correctly, the bar is just as long as the **A4** ##) paper width.
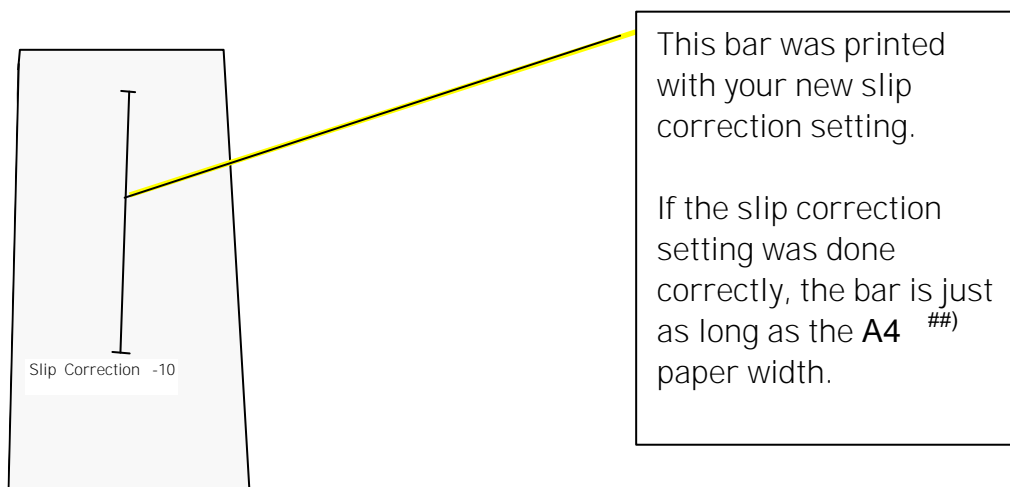
Slip Correction -10

Second testpage utilizing the new slip correction

8. Put the sheet of an A4 ##) paper onto the Test pattern and check if the bar is just as long as the paper width.

   If the test result does not comply your requirements, please repeat the working step 1 to 8.

_____

7.3.2. Alternative: Measuring the Label Length

When using formatted media (non-continuous material with gaps...), you can use the label length to determine the Slip Correction. (This is an alternative to the usage of the testpattern described in the previous section.)

1. Please measure the length of the label manually.

   Let's call the result the Nominal label length.

   For example:
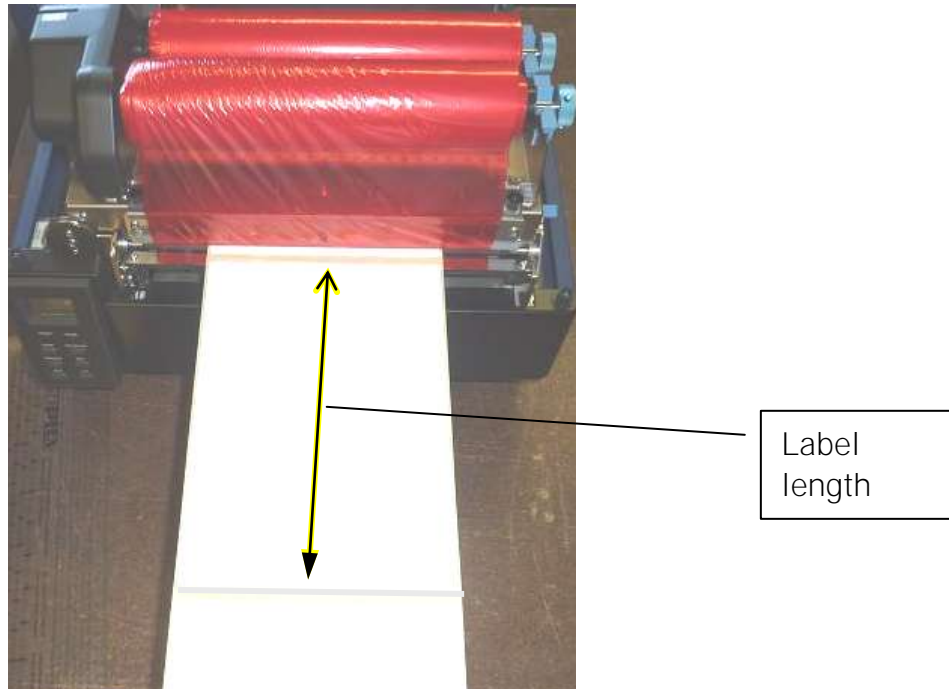
   Label
   length

   Measure the nominal label length

   Hint: A large measuring length (label length) provides higher resolution and accuracy. (A label length of 210mm (approx. 8 inch) or more is suitable.)

2. To prepare the printer for a successful automatic measurement please set the Paper length to a larger length than the real length of your label (so that the printer will feed more than a label length and can find the gaps ...):

   Use the Paper Length panel function for this

   logiJET TC8 \ Paper Menu \ Paper Size \ Paper Length

More details are described in section 7.5 Paper Length Adjustment.

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3. Now let the **printer measure** the **label length** automatically:

    use the AutoMeasurement panel function for this

    logiJET TC8 \ Paper Menu \ Paper Size \ Paper Length \ Auto.Measurement

4. Check if there is a difference between your measured label length and the
    printer's automatical measurement.

5. If there is a significant difference, you have to calculate the slip correction

$$\text{Slip correction} = \frac{\text{Nominal label length} - \text{Printer measured label length}}{\text{Printer measured label length}} * 1000$$

For example:

    If you measured a nominal label length of 210 mm and the printer's automatic
    measurement shows 205.5 mm:

$$\text{Slip correction} = \frac{210\text{ mm} - 205.5\text{ mm}}{205.5\text{ mm}} * 1000 = -20$$

The slip correction setting needs to be altered by -20.

☞   Heavily simplified: if the printout is too long, the slip correction has to be reduced.

6. **Set the new „Slip Correction" at the engine menu**

    logiJET TC8 \ Engine \ Slip Menu \ Slip Correction

        The printer shows the currently setting value, please add your new
        slip correction (considering the signs).

        In continuation of the example above:
        If the printer shows the current slip correction value 35 you have to
        add the value -20. The result is: reduce the slip correction to 15.

More details on setting the Slip Correction are described in the previous section.

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7.4. Adjusting the Zero Position of the Material Transport (Sync.Sens.Offset)

Using this function an **offset** from the detected paper feed zero-position can be set. (See figure next page) By this the position of **printout and tear off/cut** is adjusted **relatively to the material**. (TOF, offset from the printer-detected punch position, that means relatively to the gap/perforation and start of the label). The setting range for the offset is approximately ± 15 mm.

Note: Please execute this offset adjusting after you have successfully adjusted the Sync sensors and the slip correction. (See previous sections).

	Panel display	Notes
ON LINE/ESC	[ON LINE]	Turn the printer OFF LINE with this key
	[Menu Level 1]	
NEXT	• • •	Press the NEXT or PREVIOUS key until [Engine] is displayed.
	[Engine]	
ENTER		
	[Printspeed]	
NEXT	• • •	Press the NEXT or PREVIOUS key until [Sync. Menu] is displayed.
	[Sync. Menu]	
ENTER		
	[Auto.Sens.Adj.]	
NEXT	• • •	Press the NEXT or PREVIOUS key until [Sync.Sens.Offset] is displayed.
	[Sync.Sens.Offset]	
ENTER		
	[Offset: + 0.0 mm]	The currently set value is displayed.
NEXT	• • •	Press the NEXT or PREVIOUS key until the desired offset is displayed.
	[Offset: + 1.0 mm]	
		The gap position is shifted 1 mm against the feed direction.
ENTER	[Save as Setup?]	
ON LINE/ESC ENTER		In addition this new value can be saved as setup value (using the ENTER key). After this decision turn the printer ON LINE again: Press the ON LINE key longer than 2 seconds.
ON LINE/ESC		

_____

Gap position
detected by
the printer,
zero-position

feed direction

print material

+ Offset   - Offset

Fig. 7.4.a Adjusting the Zero Position of the Material Transport

Hint: The printer uses the sensors located at the rear print unit.

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7.5. Paper Length Adjustment (Page Length)

After inserting new material (e.g. paper) this function is used to adjust the printer to the new paper length.

Hints: Alternatively, the printer itself is able to measure the label length. See next sections. Please execute **this** length adjusting **after** you have successfully **adjusted** the Sync **sensors**, the **slip correction** and the **Sync.Sens.Offset** (See previous sections).

	Panel display	Notes
ON LINE/ESC	[ON LINE]	Turn the printer OFF LINE with this key.
NEXT	[Menu Level 1] • • •	Press the NEXT or PREVIOUS key until [Paper Menu] is displayed.
ENTER	[Paper Menu]	Press the ENTER key to select the paper menu.
ENTER	[Paper Size]	Press the ENTER key to select the paper size menu.
ENTER	[Paper Length]	Press the ENTER key to adjust the paper length.
NEXT	[Measure Length] • • •	Press the NEXT or PREVIOUS key if you want to **adjust the paper length manually**:
ENTER	[in mm] • • •	mm = currently selected measuring unit. (Alternative the units inch or 1/300 inch can be chosen with NEXT or PREVIOUS).
NEXT	[Digit4 1̲49.9] • • • [Digit1 149.5̲]	Pressing the NEXT or PREVIOUS key changes the value of the current digit (Digit4 = left position, in this example: 1). Pressing the ENTER key moves you to the next digit (the ESC key moves you back, if need be).
ENTER	[Save as Setup?]	The paper length is changed to 149.5 mm. In addition this new value can be saved as setup value (using the ENTER key). After this decision turn the printer ON LINE again: Press the ONLINE key longer than 2 seconds.
ON LINE/ESC ENTER ON LINE/ESC		

_____

7.5.1. Starting the Printer's Measurement of Label Length

Use the panel function
    logiJET TC8 \ Paper Menu \ Paper Size \ Paper Length \ **Measure Length**

The printer performs a material feed and reports the measured label length on the display.
Use the ENTER key to confirm this value (configuration of the measured label length).
In addition this new value can be saved permanent as setup value (using the ENTER key, again).

7.5.2. Configuration of Semiautomatic Label Length Measurement

The panel function
    logiJET TC8 \ Paper Menu \ Paper Size \ Paper Length \ **Auto.Measurement**

serves to switch the semiautomatic label length measurement function to on or off (and to save this setting as setup value).

If the semiautomatic label length measurement function is chosen, the printer **automatically offers** you the **measurement of the label length** after every printer power on and **after every closing of the printhead** (for example after the inserting of a new label roll):
        Panel display [Measure length]

Use the ENTER key to start the measurement of label length, use the FEED key to suppress this function.
The printer saves the measured label length temporary (as long as the printer stays turned on).

7.6. Material Width Adjustment (Paper Width)

The paper width (print width) has to be adjusted with this function according to the currently used format.). The setting range for the paper width is from 100 mm up to 228 mm (219 mm printable).
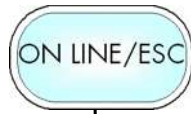
Panel display	Notes
[ON LINE]	Turn the printer OFF LINE with this key.
[Menu Level 1]	Press the NEXT or PREVIOUS key until [Paper Menu] is displayed.
• • •	
[Paper Menu]	Press the ENTER key to select the paper menu.
[Paper Size]	Press the ENTER key to select the paper size menu.
[Paper Length]	Press the NEXT or PREVIOUS key until [Paper Width] is displayed.
• • •	
[Paper Width]	Press the ENTER key to adjust the format width to the paper width.
[in mm]	mm = currently selected measuring unit. (Alternative the units inch or 1/300 inch can be chosen with NEXT or PREVIOUS).
• • •	
[Digit4 108.4]	Pressing the NEXT or PREVIOUS key changes the value of the current digit (Digit4 = left position, in this example: 1). Pressing the ENTER key moves you to the next digit (the ESC key moves you back, if need be).
• • •	
[Digit1 108.0]	The format width (paper width) is changed to 108.0 mm.
[Save as Setup?]	In addition this new value can be saved as setup value (using the ENTER key). After this decision turn the printer ON LINE again: Press the ONLINE key longer than 2 seconds.
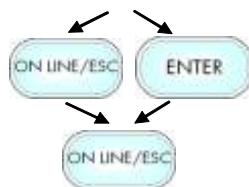
ON LINE/ESC

NEXT

ENTER

ENTER

NEXT

ENTER

ENTER

NEXT

ENTER

ON LINE/ESC   ENTER

ON LINE/ESC

7.7. Configuration of Text Margins

This function sets text margins. Margins are expressed in dots at the concerning edge of the paper.

Panel display	Notes
[ON LINE]	Turn the printer OFF LINE with this key.
[Menu Level 1]	
• • •	Press the NEXT or PREVIOUS key until [Page Menu] is displayed.
[Page Menu]	
[Font Number]	
• • •	Press the NEXT or PREVIOUS key until [Margin] is displayed.
[Margin]	
[Left]	
• • •	Press the NEXT or PREVIOUS key until the desired margin is displayed.
[from Right]	
[Digit4 0081]	Pressing the NEXT or PREVIOUS key changes the value of the current digit (Digit4 = left position, in this example: 0). Pressing the ENTER key moves you to the next digit (the ESC key moves you back, if need be).
• • •	
[Digit1 0087]	The right margin is changed into 87 dot.
[Save as Setup?]	In addition this new value can be saved as setup value (using the ENTER key). After this decision turn the printer ON LINE again: Press the ON LINE key longer than 2 seconds.
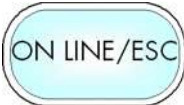
7.8. Printing the Status Sheet

This function generates a status sheet.
The status sheet contains information about the current printer configuration and the available fonts.

Panel display   Notes

[ON LINE]

Turn the printer OFF LINE with this key.

[Menu Level 1]

Press the ENTER key. Menu level 1 is selected.

[Status Sheet]

Press the ENTER key again.

A status sheet is printed.

[Status Sheet]

Turn the printer ON LINE again: Press the ONLINE key longer than 2 seconds.

Status sheet contents:

The first lines, entitled SERVICE INFORMATION, contain hexadecimal coded configuration parameters.
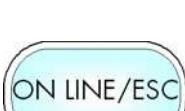
Printed in plain text:

- Device Info
- Controller version / memory / serial number
- Firmware release
- Interface
    parameters of Parallel, Serial, USB, Network (Ethernet)
- Network
    parameters and addresses
- Printer emulation
- User-RAM / free User-RAM
- Input data buffer
- Transparent code
- Paper size
- Default margins   top / left
                                    bottom / right
- Default character code
- Options
- Fonts installed (Font banks)

Note: Use the panel function Printing the Font List to show the fonts installed (see the following section).

7.9. Show Info (IP Address, Firmware Release ...)

This function serves to show some basic information about your printer:
the IP Address, Firmware Release, Serial Number and the current Printer
Emulation.

	Panel display	Notes
ON LINE/ESC	[ON LINE]	
		Turn the printer OFF LINE with this key.
↓	[Menu Level 1]	
ENTER		Press this key. Menu Level 1 is selected.
↓	[Status Sheet]	
NEXT	• • •	Press the NEXT or PREVIOUS key until [Show Info] is displayed.
↓	[Show Info]	
ENTER		Press this key. The Show Info menu is selected.
↓	[IP Address]	
ENTER		Press this key again to show the IP Address of your printer.
↓		Alternative: Use the NEXT or PREVIOUS key to select for example the Firmware Release or the Serial Number of your printer.
	[192.168.002.002]	The currently set IP Address is displayed.
		If you need to change the setting, refer to section 7.33 Configuration of Network Parameters.
ON LINE/ESC		Turn the printer ON LINE again: Press the ON LINE key longer than 2 seconds.

7.10. Printing the Font List
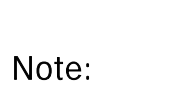
This function generates a list of all fonts installed to the printer.
The font list shows demo prints of all fonts and, in addition, the concerning PCL selection commands. These commands contain information on font width and font height (see section 7.22 Font Selection, too).

Panel display   Notes

[ON LINE]

ON LINE/ESC   Turn the printer OFF LINE with this key.

[Menu Level 1]

ENTER   Menu Level 1 is selected.

[Status Sheet]

NEXT   • • •   Press the NEXT or PREVIOUS key until [Font List] is displayed.

[Font List]

ENTER   The font list is printed.

[Font List]

ON LINE/ESC   Turn the printer ON LINE again: Press the ONLINE key longer than 2 seconds.

_____

7.11. Hexdump Mode Activation
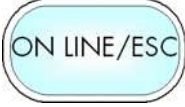
Within the Hexdump Mode the printer prints all characters received via interface without any interpretation (hexadecimal coded). This mode helps with error diagnosis. The Hexdump Mode can be activated only temporarily.

	Panel display	Notes
ON LINE/ESC	[ON LINE]	Turn the printer OFF LINE with this key.
ENTER	[Menu Level 1]	Menu level 1 is selected.
NEXT	[Status Sheet] • • •	Press the NEXT or PREVIOUS key until [Hexdump] is displayed.
ENTER	[Hexdump] [Hexdump]	The Hexdump Mode is activated.
ON LINE/ESC		Turn the printer ON LINE again: Press the ONLINE key longer than 2 seconds.

Note: By activating the normal print mode (see next section) or by turning the printer off and on again the printer can be taken out of Hexdump Mode.
Time between turning the printer off and on again should be at least 15 seconds.

_____

7.12. Normal Print Mode Activation (incl. FORM FEED)
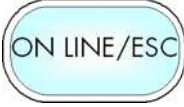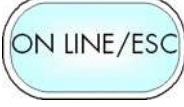
The normal print mode suspends the Hexdump Mode.
This function is activated, when a print job must be continued
without turning the printer off and on again.
In addition to that the function "Normal Print Mode Activation" is
used to produce a FORM FEED.

Panel display	Notes
[ON LINE]	Turn the printer OFF LINE with this key.
[Menu Level 1]	
	Menu level 1 is selected.
[Status Sheet]	
• • •	Press the NEXT or PREVIOUS key until [Normal Print/FF] is displayed.
[Normal Print/FF]	
	The normal print mode is activated.
[Normal Print/FF]	
	Turn the printer ON LINE again: Press the ONLINE key longer than 2 seconds.

ON LINE/ESC

ENTER

NEXT

ENTER

ON LINE/ESC

Note: After activating the normal print mode a FORM FEED is released
automatically and one sheet is put out.
This is necessary because after a test in the Hexdump Mode it is
possible that data can remain in the input buffer unintentionally
(cause: in the Hexdump Mode no control characters are evaluated
and no FORM FEED is effected).

7.13. Clearing the Input Buffer (Cancel Job)
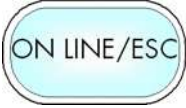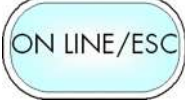
This function permits the resumption of a print job at a particular page after a print interruption (e.g. paper jam). The data contained in the input buffer before the interruption are cleared.

Panel display	Notes
[ON LINE]	Turn the printer OFF LINE with this key.
[Menu Level 1]	
	Menu level 1 is selected.
[Status Sheet]	
• • •	Press the NEXT or PREVIOUS key until [Cancel Job] is displayed.
[Cancel Job]	
	All data contained in the input buffer will be cleared.
[Cancel Job]	
	Turn the printer ON LINE again: Press the ONLINE key longer than 2 seconds.

_____

7.14. Printing the Menu Page
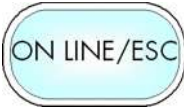
This function prints a survey of the available panel functions.

Note: When printing the menu page please use a large paper.

	Panel display	Notes
ON LINE/ESC	[ON LINE]	Turn the printer OFF LINE with this key.
	[Menu Level 1]	
ENTER		Menu level 1 is seleced.
	[Status Sheet]	
NEXT	• • •	Press the NEXT or PREVIOUS key until [Menu Page] is displayed.
	[Menu Page]	
ENTER		A menu structure presentation of the logiJET TC8 is printed out (compare section 6.6).
	[Menu Page]	
ON LINE/ESC		Turn the printer ON LINE again: Press the ONLINE key longer than 2 seconds.

_____

7.15. Generating Test Prints (Sliding Pattern)

This function generates a series of test prints without sending data to the printer.
These test prints facilitate error analysis.

Panel display	Notes
[ON LINE]	
	Turn the printer OFF LINE with this key.
[Menu Level 1]	
	Menu level 1 is selected.
[Status Sheet]	
• • •	Press the NEXT or PREVIOUS key until [Sliding Pattern] is displayed.
[Sliding Pattern]	
	A series of test prints is generated.
[Sliding Pattern]	
	Turn the printer ON LINE again: Press the ONLINE key longer than 2 seconds.

The printing out of test prints can be stopped by pushing the ESC key.

7.16. Data Interface Configuration
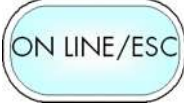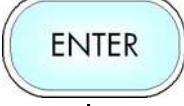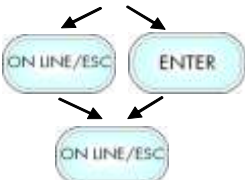
This function is used to set the interface parameters.

Panel display	Notes
[ON LINE]	Turn the printer OFF LINE with this key.
[Menu Level 1]	Press the NEXT or PREVIOUS key until [Configuration] is displayed.
• • •	
[Configuration]	
[Interface]	
[SIA Timeout]	Press the ENTER key to change the timeout.
[30 s]	The currently set value for he timeout is displayed (here: 30 seconds).
• • •	Pressing the NEXT or PREVIOUS key changes the timeout.
[40 s]	The timeout (the waiting period for SIA to switch to the next interface) is increased to 40 seconds.
[Save as Setup?]	In addition this new value can be saved as setup value (using the ENTER key). After this decision turn the printer ON LINE again: Press the ON LINE key longer than 2 seconds.

Note: The printer uses SIA (Simultaneous Interface Administration) to check, which interface is currently used for the transfer of print data.

7.17. Emulation Selection

With this function you can change the active emulation.

	Panel display	Notes
ON LINE/ESC	[ON LINE]	Turn the printer OFF LINE with this key.
	[Menu Level 1]	
NEXT	• • •	Press the NEXT or PREVIOUS key until [Configuration] is displayed.
	[Configuration]	
ENTER	[Interface]	
NEXT	• • •	Press the NEXT or PREVIOUS key until [Emulation] is displayed.
	[Emulation]	
ENTER	[SOLID Standard]	
NEXT	• • •	Press the NEXT or PREVIOUS key until the desired emulation (e.g. HP PCL 5) is displayed.
	[HP PCL 5]	
ENTER		The emulation HP PCL 5 is selected.
ON LINE/ESC ENTER	[Save as Setup?]	In addition this new value can be saved as setup value (using the ENTER key).
ON LINE/ESC		After this decision turn the printer ON LINE again: Press the ON LINE key longer than 2 seconds.

Available Emulations:

Standard:

Microplex IDOL,	*
HP LaserJet (PCL 5c),	*
Epson FX,	*
IBM Proprinter,	
Datamax (FGL),	
Eltron EPL2,	
Tally MT 6xx,	
TIFF (CCITT group 4),	
µPostscript,	
ZPL II (Zebra Programming Language)	

Optional:

Kyocera Prescribe,	*
Printronix IGP/PGL,	(*)
Magnum Code V,	(*)
Express,	
IPDS (via PPD/PPR Protocol)	

(More emulations on request)

* Color is supported by this emulations.

(*) **These page description languages natively don't come with color** commands.
Microplex made color control possible by adding own commands to these emulations.

Notice:

The brand names mentioned are registered trademarks of the enterprises named above.
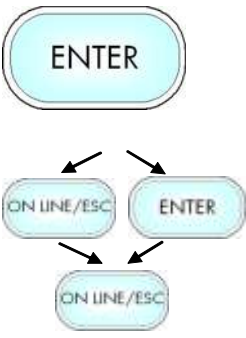
7.18. Display Language Selection

This function enables the user to determine the language for the display messages, the status sheet and the font list.

Panel display	Notes
[ON LINE]	Turn the printer OFF LINE with this key.
[Menu Level 1]	
• • •	Press the NEXT or PREVIOUS key until [Configuration] is displayed.
[Configuration]	
[Interface]	
• • •	Press the NEXT or PREVIOUS key until [Language] is displayed.
[Language]	
[German]	
• • •	Press the NEXT or PREVIOUS key until the desired language (e.g. English) is displayed.
[English]	
[Save as Setup?]	The display language English is selected.

In addition this new value can be saved as setup value (using the ENTER key).
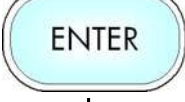After this decision turn the printer ON LINE again: Press the ON LINE key longer than 2 seconds. |

ON LINE/ESC
NEXT
ENTER
NEXT
ENTER
NEXT
ENTER
ON LINE/ESC   ENTER
ON LINE/ESC

7.19. Transparent Code Adjustment

This function configures the transparent code. Using the transparent code enables you to initiate the commands of the page description language IDOL by **printable** characters. The transparent code pre-setting is 2625. These are the ASCII character codes (hexadecimal) for the characters *&%* (ref. IDOL Programming Manual).

Panel display	Notes
[ON LINE]	Turn the printer OFF LINE with this key.
[Menu Level 1]	
• • •	Press the NEXT or PREVIOUS key until [Configuration] is displayed.
[Configuration]	
[Interface]	
• • •	Press the NEXT or PREVIOUS key until [Transparent Code] is displayed.
[Transparent Code]	
[Digit4 2625]	The hexadecimal number for *&%* is preset. Pressing the NEXT or PREVIOUS key changes the value of the current position (Digit 4 = left position, in this example: 2). Pressing the ENTER key moves you to the next digit (the ESC key moves you back, if need be).
• • •	
[Digit1 2626]	
	2626 is selected as transparent code. From now on use the characters *&&* before programming the IDOL commands.
[Save as Setup?]	In addition this new value can be saved as setup value (using the ENTER key). After this decision turn the printer ON LINE again: Press the ON LINE key longer than 2 seconds.
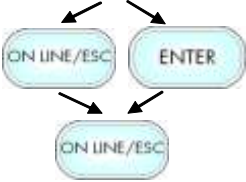
7.20. Selection of Memory Distribution (Input Buffer)

This function enables the user to choose the distribution of the available RAM memory between input buffer and macro/download memory.

Panel display	Notes
[ON LINE]	Turn the printer OFF LINE with this key.
[Menu Level 1]	
• • •	Press the NEXT or PREVIOUS key until [Configuration] is displayed.
[Configuration]	
[Interface]	
• • •	Press the NEXT or PREVIOUS key until [Input Buffer] is displayed.
[Input Buffer]	
[32 kB]	
• • •	Press the NEXT or PREVIOUS key until the desired memory distribution is displayed. The input buffer size is specified in kilobyte (kB) or in percent of the installed memory.
[100 kB]	
	100 kB is selected as input buffer.
[Save as Setup?]	In addition this new value can be saved as setup value (using the ENTER key). After this decision turn the printer ON LINE again: Press the ON LINE key longer than 2 seconds.
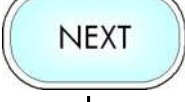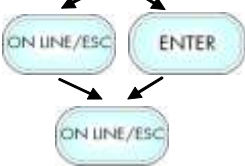
7.21. Setting to Factory Default

This function back-outs all configurations to factory defaults.

Panel display	Notes
[ON LINE]	Turn the printer OFF LINE with this key.
[Menu Level 1]	Press the NEXT or PREVIOUS key until [Configuration] is displayed.
• • •	
[Configuration]	
[Interface]	Press the NEXT or PREVIOUS key until [Factory Default] is displayed.
• • •	
[Factory Default]	
[Save as Setup?]	Only if you press the ENTER key a second time the configuration will be back-outed to factory defaults.
	Turn the printer ON LINE again: Press the ONLINE key longer than 2 seconds.

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7.22. Font Selection

This function selects the active font. Select font number out of the list of available fonts.

Panel display	Notes
[ON LINE]	Turn the printer OFF LINE with this key.
[Menu Level 1]	
• • •	Press the NEXT or PREVIOUS key until [Page Menu] is displayed.
[Page Menu]	
[Font Number]	
[Font 600]	
• • •	Press the NEXT or PREVIOUS key until the desired font number (e.g. 5507 Langeoog) is displayed.
[Font 5507]	
	The font number 5507 Langeoog is selected.
[Save as Setup?]	In addition this new value can be saved as setup value (using the ENTER key). After this decision turn the printer ON LINE again: Press the ON LINE key longer than 2 seconds.

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The **logiJET TC8 standard equipment** contains the following **fonts**:

Font no.	Font width	Font height	Font name
0600	10	12	Kurilen
0602	10	12	Kurilen Italic
0610	12	10.1	Kurilen
1710	12	10.1	Kurilen Italic
4508	P	8.1	Helgoland
4510	P	10	Helgoland
4714	P	14.4	Helgoland Bold
5507	20	7	Langeoog
5508	16.6	7.9	Langeoog
5509	15	9.1	Langeoog
6610	10	10.1	Juist Monosp.
9210	P	10.1	Tasmanien
9310	P	10.1	Tasmanien Italic
2000	P	SC	Tasmanien
9900	P	SC	Neuwerk

Resumption of this standard font list see next page.

Explanations:

Font width:
  Character distance in CPI (Characters Per Inch).
  P = proportional, (meaning that each character has an individual width).
Font height:
  Font height from the lowest descender to the upper edge of the highest character, measured in graphical points (1/72 inch).
  SC = scalable.

Font no.	Font width	Font height	Font name
0050	SC		Plakatschrift
0590	SC		OCR /B
0591	SC		OCR /A
6600	SC		Juist Monospaced
0699	SC		Kurilen
1700	SC		Kurilen Italic
1800	SC		Kurilen Bold
1900	SC		Kurilen Bold Italic
5500	SC		Langeoog
5600	SC		Langeoog Bold
5700	SC		Langeoog Italic
5800	SC		Langeoog Bold Italic
2100	P	SC	Texel Bold
2200	P	SC	Texel Italic
2300	P	SC	Texel Bold Italic
9800	P	SC	Neuwerk Italic
9500	P	SC	Neuwerk Bold Italic
9600	P	SC	Neuwerk Bold
0060	SC		Plakatschrift
9501	P	SC	Neuwerk-II Condensed Italic
9601	P	SC	Neuwerk-II Condensed Bold Ital.
9801	P	SC	Neuwerk-II Condensed Bold
9901	P	SC	Neuwerk-II Condensed
0530	P	SC	PiktoWin
5100	P	SC	Amrum
5200	P	SC	Amrum Bold
5300	P	SC	Amrum Italic
7500	P	SC	Antigua
7700	P	SC	Antigua Bold
7800	P	SC	Antigua Italic
7900	P	SC	Antigua Bold Italic
9199	P	SC	Tasmanien-II Bold Italic
9299	P	SC	Tasmanien-II
9399	P	SC	Tasmanien-II Italic
9499	P	SC	Tasmanien-II Bold

PCL 5 compatible }

Notes: Additional fonts can be selected from the font catalogue depending upon the memory capacity.

You can use the panel function Printing the Font List (see section 7.10) to generate a list of all fonts installed to the printer.

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7.23. Text Orientation Selection

This function selects the active text orientation.
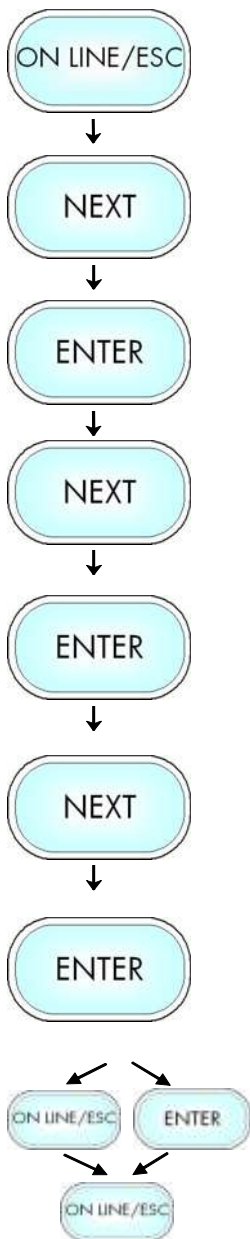
Panel display	Notes
[ON LINE]	Turn the printer OFF LINE with this key.
[Menu Level 1]	
• • •	Press the NEXT or PREVIOUS key until [Page Menu] is displayed.
[Page Menu]	
[Font Number]	
• • •	Press the NEXT or PREVIOUS key until [Orientation] is displayed.
[Orientation]	
[Orientation 0]	
• • •	Press the NEXT or PREVIOUS key until the desired orientation is displayed.
[Orientation 1]	
[Save as Setup?]	The orientation 1 = landscape is selected.
	In addition this new value can be saved as setup value (using the ENTER key). After this decision turn the printer ON LINE again: Press the ON LINE key longer than 2 seconds.

Text orientation assignment: Orientation 0 = Portrait (upright format)
                                    Orientation 1 = Landscape (horizontal format)
                                    Orientation 2 = Portrait upside down
                                    Orientation 3 = Landscape upside down

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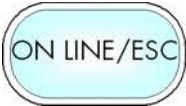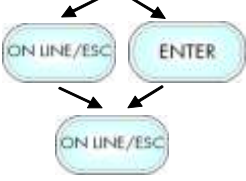
7.24. Symbol Code Selection

This function selects the active symbol code.

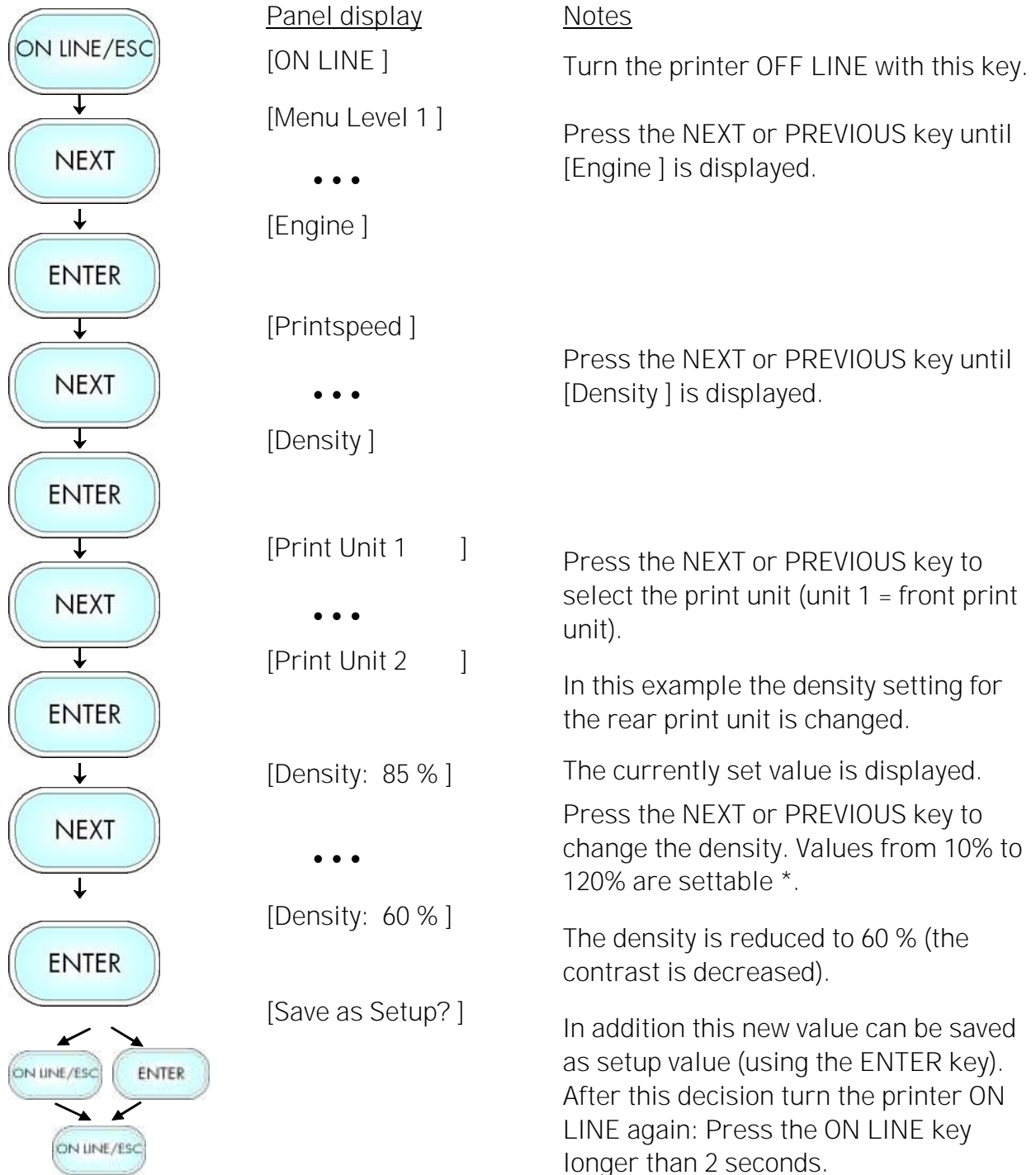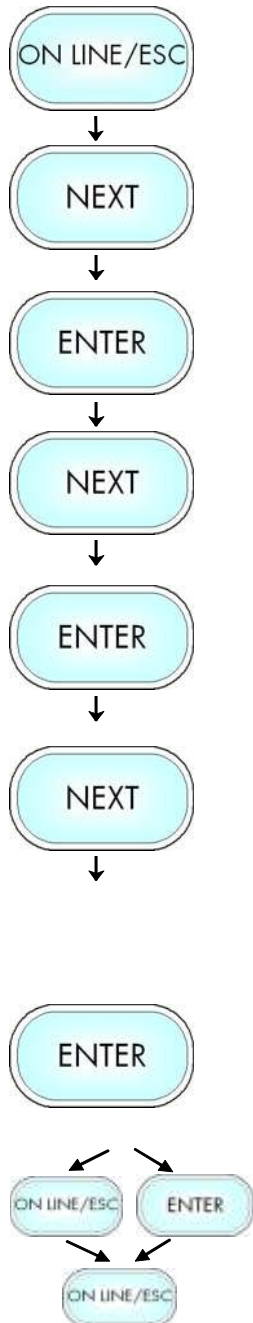|	Panel display	Notes
ON LINE/ESC	[ON LINE]	Turn the printer OFF LINE with this key.
	[Menu Level 1]	
NEXT	• • •	Press the NEXT or PREVIOUS key until [Page Menu] is displayed.
	[Page Menu]	
ENTER	[Font Number]	
NEXT	• • •	Press the NEXT or PREVIOUS key until [Symbol Code] is displayed.
	[Symbol Code]	
ENTER	[902, IBM PC-II]	
NEXT	• • •	Press the NEXT or PREVIOUS key until the desired symbol code is displayed.
	[901, IBM PC-I]	
ENTER		The symbol code 901, IBM PC-I is selected.
ON LINE/ESC ENTER	[Save as Setup?]	In addition this new value can be saved as setup value (using the ENTER key).
ON LINE/ESC		After this decision turn the printer ON LINE again: Press the ON LINE key longer than 2 seconds.

7.25. Print Speed Adjustment

This function is used to change the print speed (adaptation to the actual used materials, e.g. to optimize the density of the printout). The setting range for the print speed is 2 inch/s to 6 inch/s.

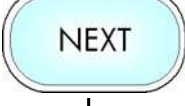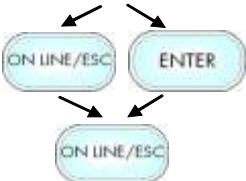| Panel display	Notes
[ON LINE]	Turn the printer OFF LINE with this key.
[Menu level 1]	
• • •	Press the NEXT or PREVIOUS key until [Engine] is displayed.
[Engine]	
[Printspeed]	
[6 inch/s]	The currently set value is displayed.
• • •	Press the NEXT or PREVIOUS key until the desired value is displayed.
[4 inch/s]	
[Save as Setup?]	Here the print speed is reduced to 4 inch/s. In addition this new value can be saved as setup value (using the ENTER key). After this decision turn the printer ON LINE again: Press the ON LINE key longer than 2 seconds.

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7.26. Density (Contrast) Setting

Using this function the print density (contrast) of the printed characters can be changed. The contrast is adjustable for both print units (colors) separately.

	Panel display	Notes
ON LINE/ESC	[ON LINE]	Turn the printer OFF LINE with this key.
NEXT	[Menu Level 1] • • • [Engine]	Press the NEXT or PREVIOUS key until [Engine] is displayed.
ENTER	[Printspeed]	
NEXT	• • • [Density]	Press the NEXT or PREVIOUS key until [Density] is displayed.
ENTER	[Print Unit 1] • • •	Press the NEXT or PREVIOUS key to select the print unit (unit 1 = front print unit).
NEXT	[Print Unit 2]	In this example the density setting for the rear print unit is changed.
ENTER	[Density: 85 %]	The currently set value is displayed.
NEXT	• • • [Density: 60 %]	Press the NEXT or PREVIOUS key to change the density. Values from 10% to 120% are settable *. The density is reduced to 60 % (the contrast is decreased).
ENTER	[Save as Setup?]	
ON LINE/ESC ENTER ON LINE/ESC		In addition this new value can be saved as setup value (using the ENTER key). After this decision turn the printer ON LINE again: Press the ON LINE key longer than 2 seconds.

* Note: Please consider that using high density values (more than 100%) can result in a reduced lifetime of the printhead.
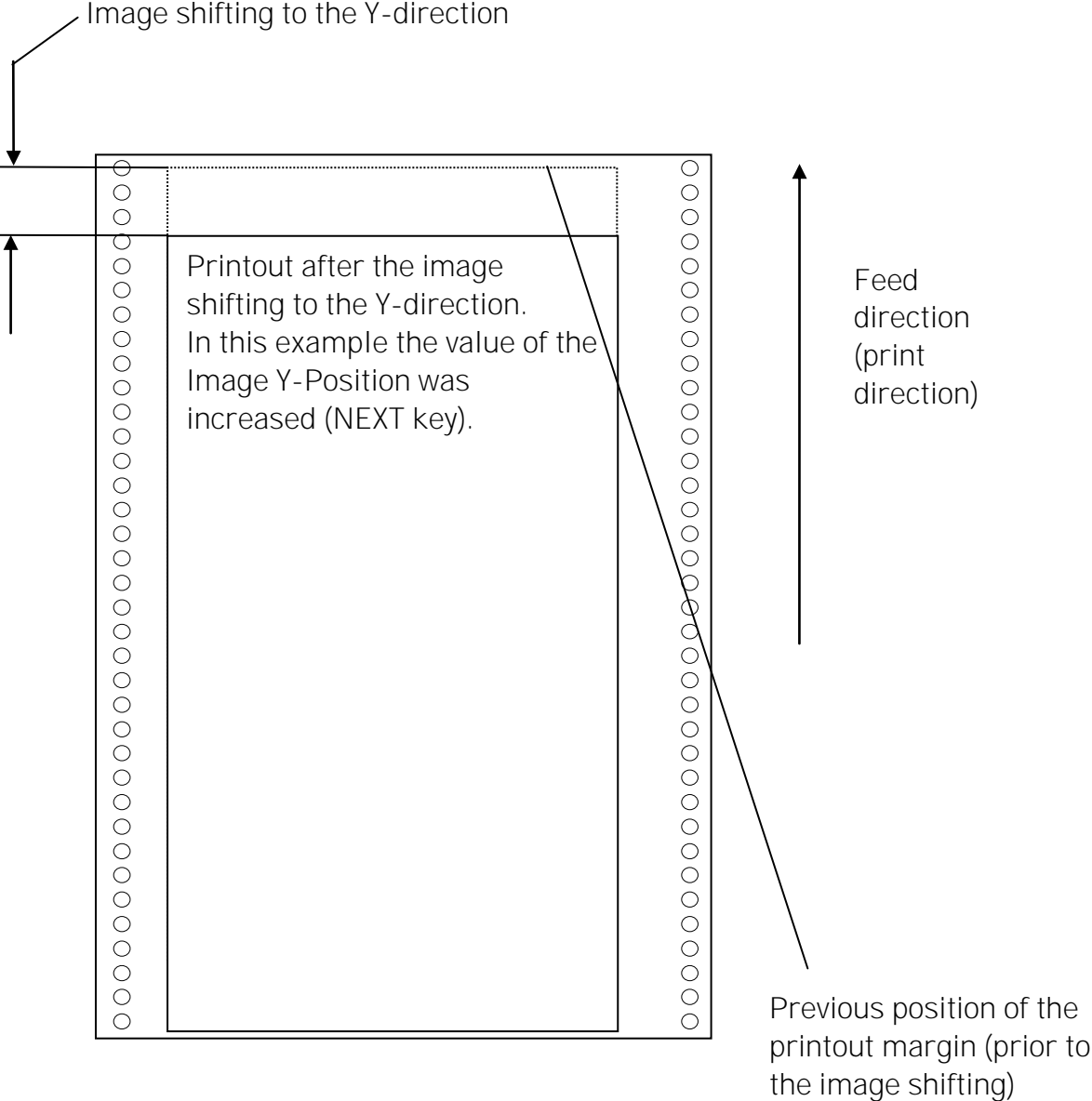
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7.27. Image Shifting to the X-Direction

This function shifts the print image (both colors together) in relation to the paper to the X-direction (crosswise the print direction).

Panel display	Notes
[ON LINE]	Turn the printer OFF LINE with this key.
[Menu Level 1]	
• • •	Press the NEXT or PREVIOUS key until [Engine] is displayed.
[Engine]	
[Printspeed]	
• • •	Press the NEXT or PREVIOUS key until [Image X-Pos.] is displayed.
[Image X-Pos.]	
	The panel function Image Shifting to the X-Direction is selected.
[X-Pos.: 0 Dot]	Currently set value (0 =Default). Operating the NEXT or PREVIOUS key the value for the image shift can be altered. Values from -288 up to +288 Dot are settable, so a max. image shifting of appr. ±1 Inch (approx. ±25 mm) can be reached.
• • •	
[X-Pos.: +160 Dot]	
	Now the new image X-Position is saved.
[Save as Setup?]	In addition this new value can be saved as setup value (using the ENTER key). After this decision turn the printer ON LINE again: Press the ON LINE key longer than 2 seconds.

Example for shifting the image to the X-direction:

Image shifting to the X-direction

Printout after the image shifting to the X-direction. In this example the value of the Image X-Position was increased (NEXT key).

Feed direction (print direction)

Previous position of the printout margin (prior to the image shifting)
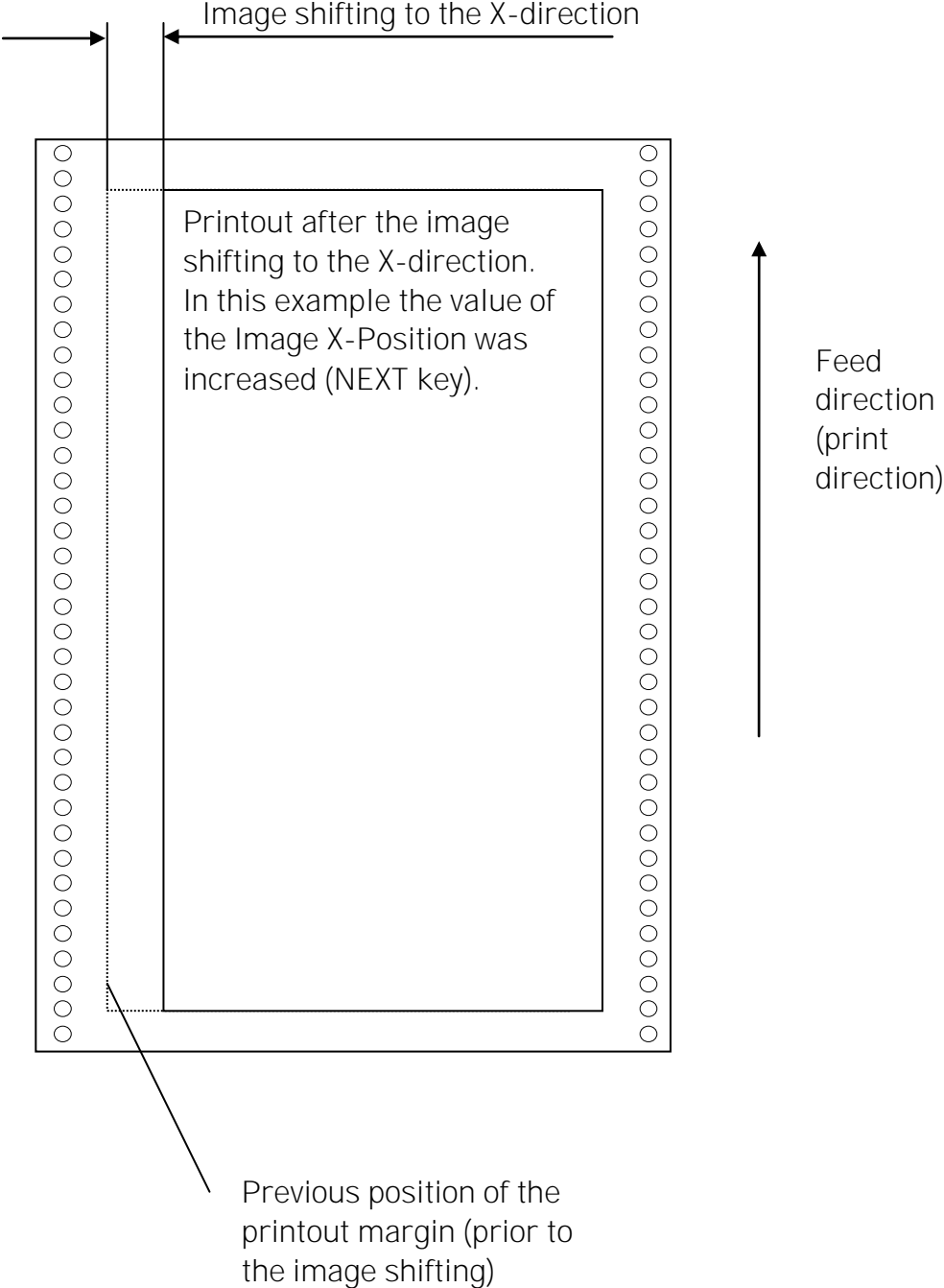
7.28. Image Shifting to the Y-Direction

This function shifts the print image (both colors together) in relation to the paper to the Y-direction (print direction).

Panel display	Notes
[ON LINE]	Turn the printer OFF LINE with this key.
[Menu Level 1]	
• • •	Press the NEXT or PREVIOUS key until [Engine] is displayed.
[Engine]	
[Printspeed]	
• • •	Press the NEXT or PREVIOUS key until [Image Y-Pos.] is displayed.
[Image Y-Pos.]	
	The panel function Image Shifting to the Y-Direction is selected.
[Y-Pos.: 0 Dot]	Currently set value (0 =Default). Operating the NEXT or PREVIOUS key the image can be shifted relative to the paper. Values from -496 up to +496 Dot are settable, so a max. image shifting of approx. ± 1.6 Inch (approx. ± 42 mm) can be reached.
• • •	
[Y-Pos.: +120 Dot]	
	Now the new image Y-Position is saved.
[Save as Setup?]	In addition this new value can be saved as setup value (using the ENTER key). After this decision turn the printer ON LINE again: Press the ON LINE key longer than 2 seconds.

Example for shifting the image to the Y-direction:

Image shifting to the Y-direction

Printout after the image shifting to the Y-direction. In this example the value of the Image Y-Position was increased (NEXT key).

Feed direction (print direction)

Previous position of the printout margin (prior to the image shifting)

7.29. Peripheral Device Activation (Tear Off Edge, Cutter)

After installation or deinstallation of a peripheral device this function
has to be used to adjust the printer configuration.

Start the printer in the **Service Mode:**

The steps to enter the Service Mode are described in section

7.2.3. Manual Adjusting of Sensor Current and Switching Threshold

Peripheral device selection:

	Panel display	Notes
ON LINE/ESC	[ON LINE]	Turn the printer OFF LINE with this key.
↓	[Menu Level 1]	
NEXT	• • •	Press the NEXT or PREVIOUS key until [Engine] is displayed.
↓	[Engine]	
ENTER		
↓	[Printspeed]	
NEXT	• • •	Press the NEXT or PREVIOUS key until [Service Menu] is displayed.
↓	[Service Menu]	
ENTER		
↓	[Dot Test]	
NEXT	• • •	Press the NEXT or PREVIOUS key until [Optional Devices] is displayed.
↓	[Optional Devices]	
ENTER		
↓	[Periph. Device]	
ENTER		Select the submenu [Periph. Device] .
↓	[TearOff Edge]	
NEXT	• • •	Press the NEXT or PREVIOUS key until the desired peripheral device is displayed.
↓	[Cutter]	
ENTER		The cutter is selected.
↓	[Saved !]	
ON LINE/ESC		Turn the printer ON LINE again: Press the ON LINE key longer than 2 seconds.

Hint: After having finished the settings described above, the **printer has to be turned off and on**. After printer power off and on the new settings will be valid.

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7.30. Selecting the Tear Off Mode (Option: Cutting Mode)

With this function the printer's material transport can be adjusted to the following media processing.

	Panel display	Notes
ON LINE/ESC	[ON LINE]	Turn the printer OFF LINE with this key.
	[Menu Level 1]	
NEXT	• • •	Press the NEXT or PREVIOUS key until [Engine] is displayed.
	[Engine]	
ENTER	[Printspeed]	
NEXT	• • •	Press the NEXT or PREVIOUS key until [TearOff Menu] is displayed.
	[TearOff Menu]	
ENTER	[TearOff Mode]	
ENTER	[OFF]	Press the NEXT or PREVIOUS key until the desired value is displayed.
NEXT	• • •	
	[ON]	
ENTER		The tear off mode is selected.
	[Save as Setup?]	In addition this new value can be saved as setup value (using the ENTER key). After this decision turn the printer ON LINE again: Press the ON LINE key longer than 2 seconds.
ON LINE/ESC ENTER		
ON LINE/ESC		

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Information on the Tear Off mode:

OFF = After printing no additional media transport takes place, the printhead position is TOP OF FORM.

ON = The printer will feed the material (label) out to the tear edge, waiting for the user to tear it off before printing the next label. This additional media transport after printing enables to disjoin the material along/at the perforation. *)
The tear off mode is not carried out, if the next page is already ready to print. (In this case the next page is printed instead).

*) A draw back of the material can be selected. Prior to the next print job the material is moved back until the printhead position is TOP OF FORM (Real 1:1 Mode).
Use the panel function Selecting the Print Mode for this (see the following pages).

Please note: The material can only be drawn back until it reaches the front print unit (not as far as the rear print unit).
A „**loss of material" according to the distance of the print heads (183 mm)** occurs in case of single-sheet printing and after tear off/cutting the last page of a print job. In addition, the proportion of label length to the distance of the print heads can have a negative effect. (It is unfavourable, for example, if the label/format length is only a little shorter or much longer than the distance of the two print heads.)

If the **optional cutter** is installed and activated, the menu structure of the printer contains the **Cutting Menu** instead of the Tear Off Menu. The adjustment of the cutting parameters has to be done in the same way as it is described for the tear off functions.

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7.31. Adjusting the Tear Off Position (Option: Cutting Position)

The tear off position② is identical to the detected gap position, i.e. with the perforation or the start of the label. With this function a fine setting of the tear off position is carried out. The setting range for the offset is approximately +- 10.7 mm.

	Panel display	Notes
ON LINE/ESC	[ON LINE]	Turn the printer OFF LINE with this key.
	[Menu Level 1]	
NEXT	• • •	Press the NEXT or PREVIOUS key until [Engine] is displayed.
	[Engine]	
ENTER	[Printspeed]	
NEXT	• • •	Press the NEXT or PREVIOUS key until [TearOff Menu] is displayed.
	[TearOff Menu]	
ENTER	[TearOff Mode]	
NEXT	• • •	Press the NEXT or PREVIOUS key until [TearOff Pos.] is displayed.
	[TearOff Pos.]	
ENTER	[Position: - 2.0 mm]	The currently set value is displayed.
NEXT	• • •	Press the NEXT or PREVIOUS key until the desired offset is displayed.
	[Position: - 2.5 mm]	
ENTER		The tear off position is shifted 0.5 mm (additionally) in feed direction.
	[Save as Setup?]	
ON LINE/ESC ENTER ON LINE/ESC		In addition this new value can be saved as setup value (using the ENTER key). After this decision turn the printer ON LINE again: Press the ON LINE key longer than 2 seconds.

② If a cutter is installed and activated, the concerning panel function Cutting Position has to be used.

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Hints on adjusting the position:

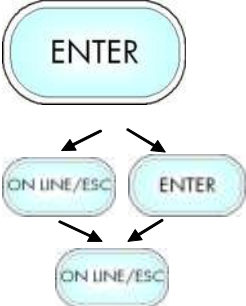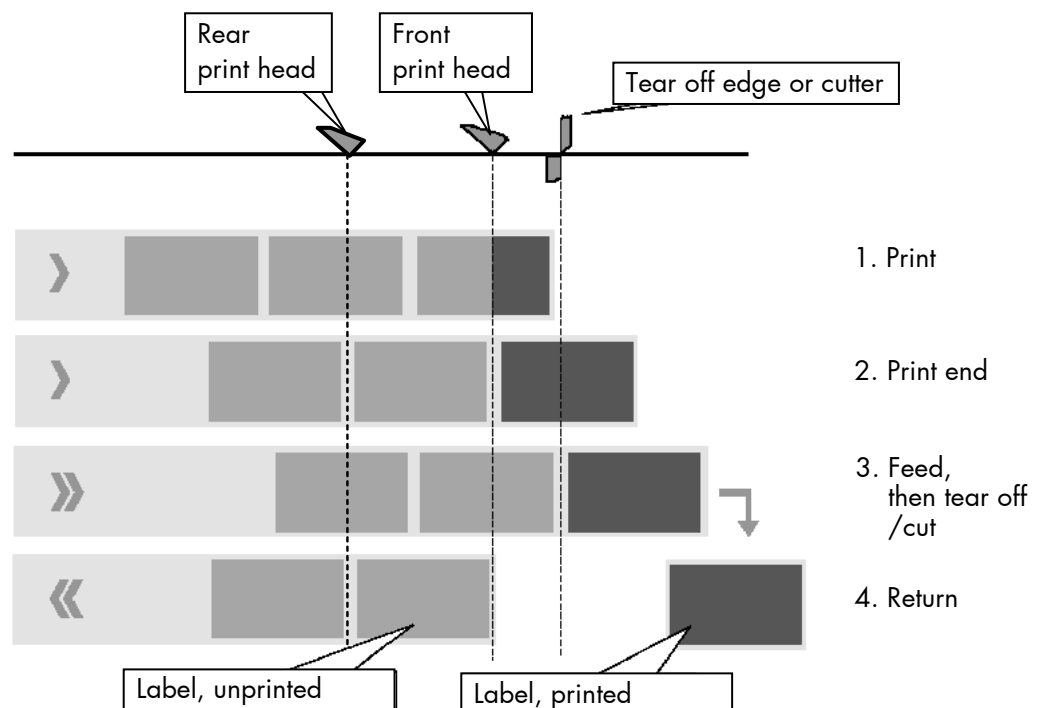This function is used to change the cutting position of the optional cutter:
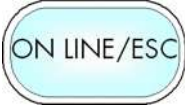
Adjusting causes a shift of the cutting position relative to the printer detected gap position (i.e. relative to the perforation or the start of the label, compare the following figure).
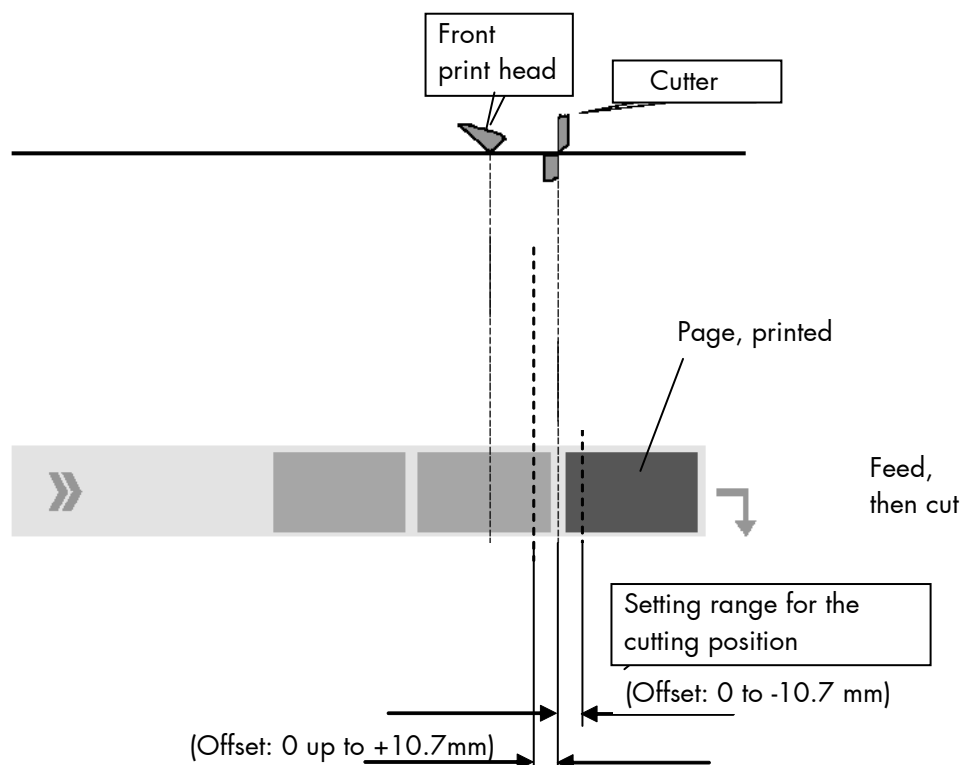
Please note: Changing the SyncOffset has an effect on the cutting position, too. For **further information** see section 7.4 Adjusting the Zero Position of the Material Transport.

7.32. Selecting the Print Mode

With this function the procedure for the label output and print is defined. The different print modes are described on the following pages.

	Panel display	Notes
ON LINE/ESC	[ON LINE]	Turn the printer OFF LINE with this key.
↓	[Menu Level 1]	
NEXT	• • •	Press the NEXT or PREVIOUS key until [Engine] is displayed.
↓	[Engine]	
ENTER		
↓	[Printspeed]	
NEXT	• • •	Press the NEXT or PREVIOUS key until [TearOff Menu] is displayed.
↓	[TearOff Menu]	
ENTER		
↓	[TearOff Mode]	
NEXT	• • •	Press the NEXT or PREVIOUS key until [Print Mode] is displayed.
↓	[Print Mode]	
ENTER		
↓	[Real 1:1 Mode]	The currently set print mode is displayed.
NEXT	• • •	Press the NEXT or PREVIOUS key until the desired print mode is displayed.
↓	[Normal 1:1 Mode]	
ENTER		The Normal 1:1 mode is selected.
ON LINE/ESC ENTER	[Save as Setup?]	In addition this new value can be saved as setup value (using the ENTER key). After this decision turn the printer ON LINE again: Press the ONLINE key longer than 2 seconds.
ON LINE/ESC		

Real 1:1 Mode

The whole surface of the label is printable.
The label is pushed forward to the tear off edge for tear off (see the previous section: Selecting the Tear Off Mode) or to the cutter.
After the tear off/cut, the **beginning of the next label is drawn back under** the **printhead**. This reduces the output volume (in relation to a certain time).

Please note: The material can only be drawn back until it reaches the front print unit (not as far as the rear print unit).
A **„loss of material" according to the distance of the print heads (183 mm)** occurs in case of single-sheet printing and after tear off/cutting the last page of a print job. In addition, the proportion of label length to the distance of the print heads can have a negative effect. (It is unfavourable, for example, if the label/format length is only a little shorter or much longer than the distance of the two print heads.)

Rear
print head

Front
print head

Tear off edge or cutter

1. Print

2. Print end

3. Feed,
then tear off
/cut

4. Return

Label, unprinted

Label, printed

Normal 1:1 Mode

In this mode after tear off or cut no draw back of the unprinted material takes place. The output volume is at its maximum level. As a result the first 18 mm of the label are not printable. These measurements correspond to the distance between printhead and tear off edge or cutter.
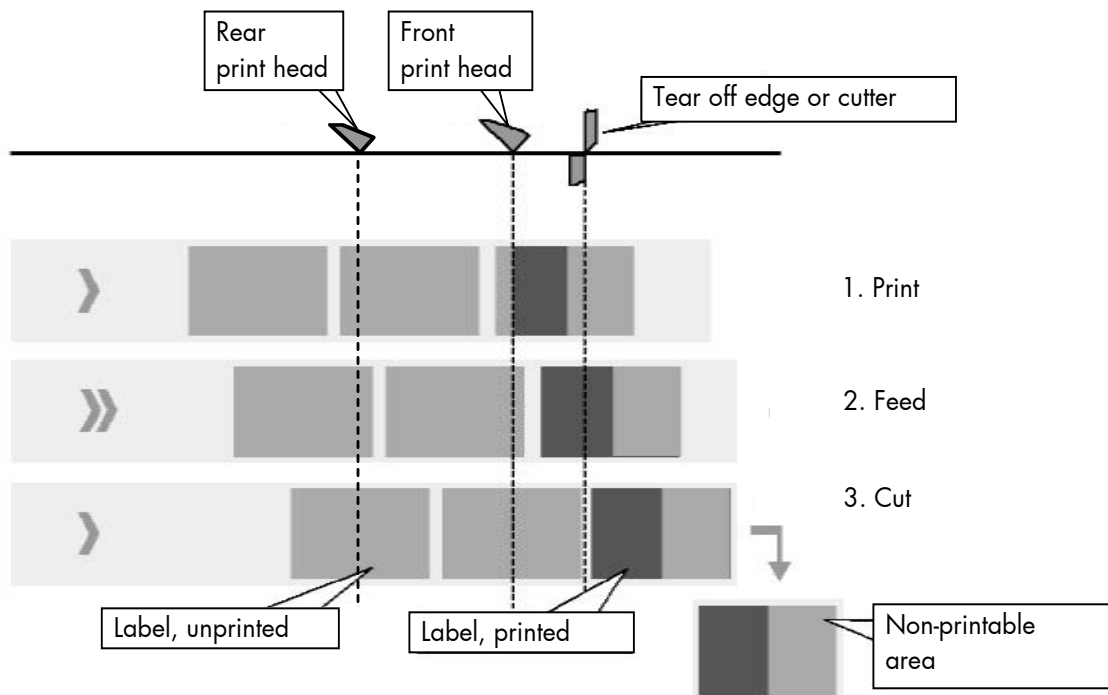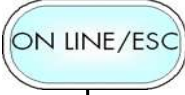

Please note: A „**loss of material" according to the distance of the print heads (183 mm)** occurs in case of single-sheet printing and after tear off/cutting the last page of a print job. In addition, the proportion of label length to the distance of the print heads can have a negative effect. (It is unfavourable, for example, if the label/format length is only a little shorter or much longer than the distance of the two print heads.)

_____

7.33. Configuration of Network Parameters (IP Address, e.g.)

The functions of the submenu Network are used to set the parameters for connecting the printer to a network (Ethernet).

Setting the IP address manually:

Panel display	Notes
[ON LINE]	Turn the printer OFF LINE with this key.
[Menu Level 1]	Press the NEXT or PREVIOUS key until
• • •	[Network] is displayed.
[Network]	Press the ENTER key to select the Network menu.
[Timeout]	Press the NEXT or PREVIOUS key until
• • •	[Ethernet] is displayed.
[Ethernet]	Press the ENTER key to select the Ethernet menu.
[Duplex/Speed]	Press the NEXT or PREVIOUS key until
• • •	[IP Assign] is displayed.
[IP Assign]	Press the ENTER key to select the IP Assign menu.
[Off]	The current setting value is displayed.
• • •	Press the NEXT or PREVIOUS key until
[Manual]	[Manual] is displayed.
[IP Address]	Press the ENTER key to set the IP address manually.
[1̲92.168.002.002]	Pushing the NEXT or PREVIOUS key changes the value of the current position (left digit first, in this example: 1).
• • •	Pressing the ENTER key moves you to the next digit (the ESC key moves you back, if need be).
[192.168.010.12̲3̲]	The new IP address is saved as setup value.
[Saved !]	Turn the printer ON LINE again: Press the ON LINE key longer than 2 seconds.

ON LINE/ESC
↓
NEXT
↓
ENTER
↓
NEXT
↓
ENTER
↓
NEXT
↓
ENTER
↓
NEXT
↓
ENTER
↓
ENTER
↓
NEXT
↓
ENTER
↓
ON LINE/ESC

_____

Hint: The current network settings are shown on the Status Sheet of your printer, too.

Notes: If your network is using DHCP[①] , an address can be automatically assigned (select the item **DHCP** from the network submenu IP Assign).

The parameters **Subnet Mask** and **Gateway** are configured in the same way as described above. Please select the concerning panel functions for this (compare section 6.6 Menu Structure).

Select the subitem **Off** from the network menu to switch off the network access.

[①] Dynamic Host Configuration Protocol: offers among other things a centralized address management.

Duplex/Speed Setting

This panel function is located in the network menu
(submenu Duplex/Speed Setting).

The factory default value is Autonegotiation.
> Autonegotiation means that devices on the network agree a
> transmission mode, which each unit is able to handle, before
> data transmission starts. By this the printer automatically
> adjusts itself to maximize link performance.

Hint: Autonegotiation is the recommended setting!
> If you set the Duplex/Speed parameters manually, you may
> experience problems. Wrong settings can slow down the
> speed of the link (worst case: communication does not occur).

Explanations:

Auto-Negotiation
A Ethernet procedure that allows devices at either end of a link
segment to advertise and negotiate modes of operation such as
the speed of the link (100 Mbit/s or 10 Mbit/s) and half- or full-
duplex operation.

Half duplex
A device can either receive or send data at a given time.

Full duplex
Capability of a device for sending and receiving data at the
same time. In the case of full duplex, collision detection is
deactivated. A full duplex capable device is able to buffer data
packets.

8. Operator Maintenance

In order to run the printer on its highest quality level, it is necessary to perform regularly simple cleaning operations, and to occasionally replace certain components.
These operations can be performed by a Microplex trained operator. A not trained person is not allowed to perform these operations.

8.1. Printer Cleaning

By a regular and conscientious performance of the following operations, the printer is guaranteed to always work at an optimum reliability.

For safety pull out the mains plug first. Make sure the elements that are to be cleaned have cooled down.

Please be especially careful to avoid damaging mechanical or electronic modules.
Do not use detergents, or any other devices or tools not mentioned in this manual to avoid damages and unnecessary costs of repairs.

For the following cleaning operations the concerning parts or modules have to be freely accessible. Because of this please perform the following operational steps first if necessary:

- ribbon removal (see section 5.2.4)

- media removal (see section 5.1.2)

After the cleaning operations please load the wanted consumables (again), see chapter 5: Handling of Consumables.

8.1.1. Printer Cabinet Cleaning

Soilings like dust, grease or similar things can be removed with a soft, lint-free cloth. If necessary the cloth can be moistured with water or a neutral detergent. Inside the printer dust or paper dust can be removed best with a soft (non-metallic) brush.

8.1.2. Cleaning the Printheads

This maintenance operations should be done after each ribbon exchange. Furthermore both printheads have to be cleaned not later than the print quality is reduced (unwanted "lines" or "gaps" in the printout).

Hint:
The sections that follow describe the cleaning of the front printhead. For the cleaning of the rear printhead refer to the following, too.

Please pay attention to the following:
- For the printheads cleaning there is <u>no need</u> to disassemble or remove the printheads.
- The printheads can be damaged by electrostatic charges. Therefore first of all touch a properly grounded part of the printer (f.e. the base plate of the printer).

1. **Open the printer's top cover and swivel it to a vertical position.**

2. Unlock the front printhead assembly by pushing the release lever.
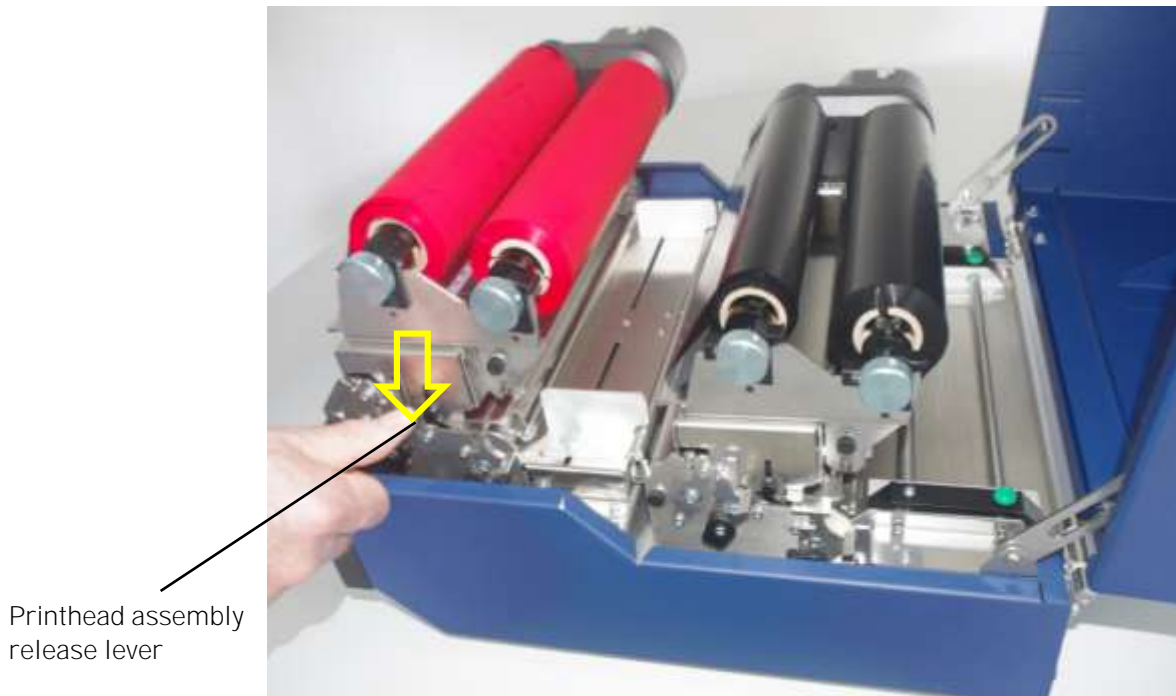
Printhead assembly
release lever

Fig. 8.1.2.a Releasing the front printhead assembly

3.   Swivel the printhead assembly upward until it stops and stands upright.

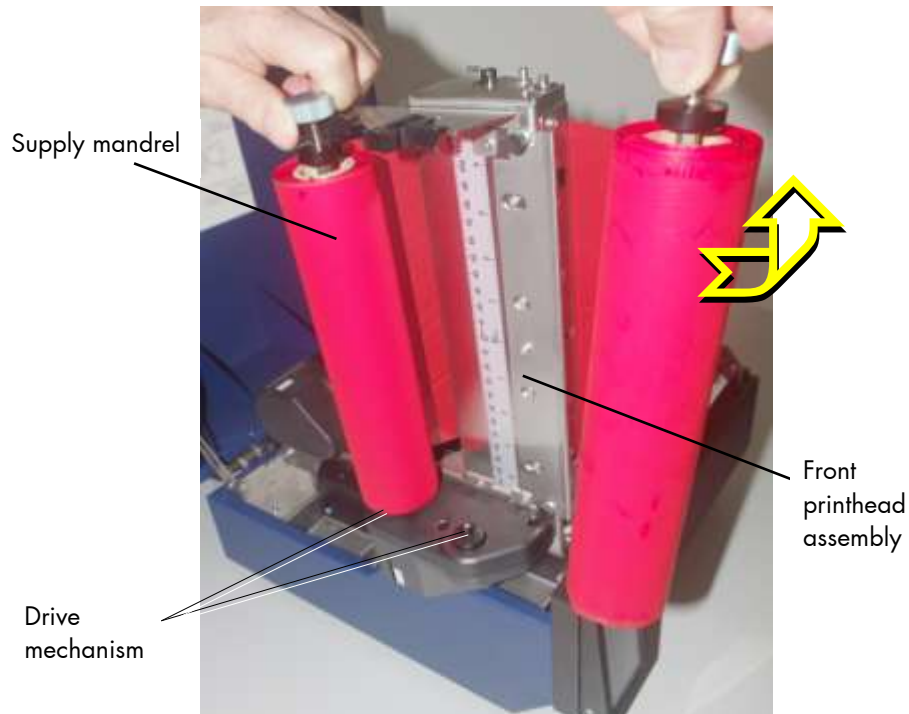4.   Take out the ribbon if one is loaded. (Refer to section 5.2.4 for more details.)
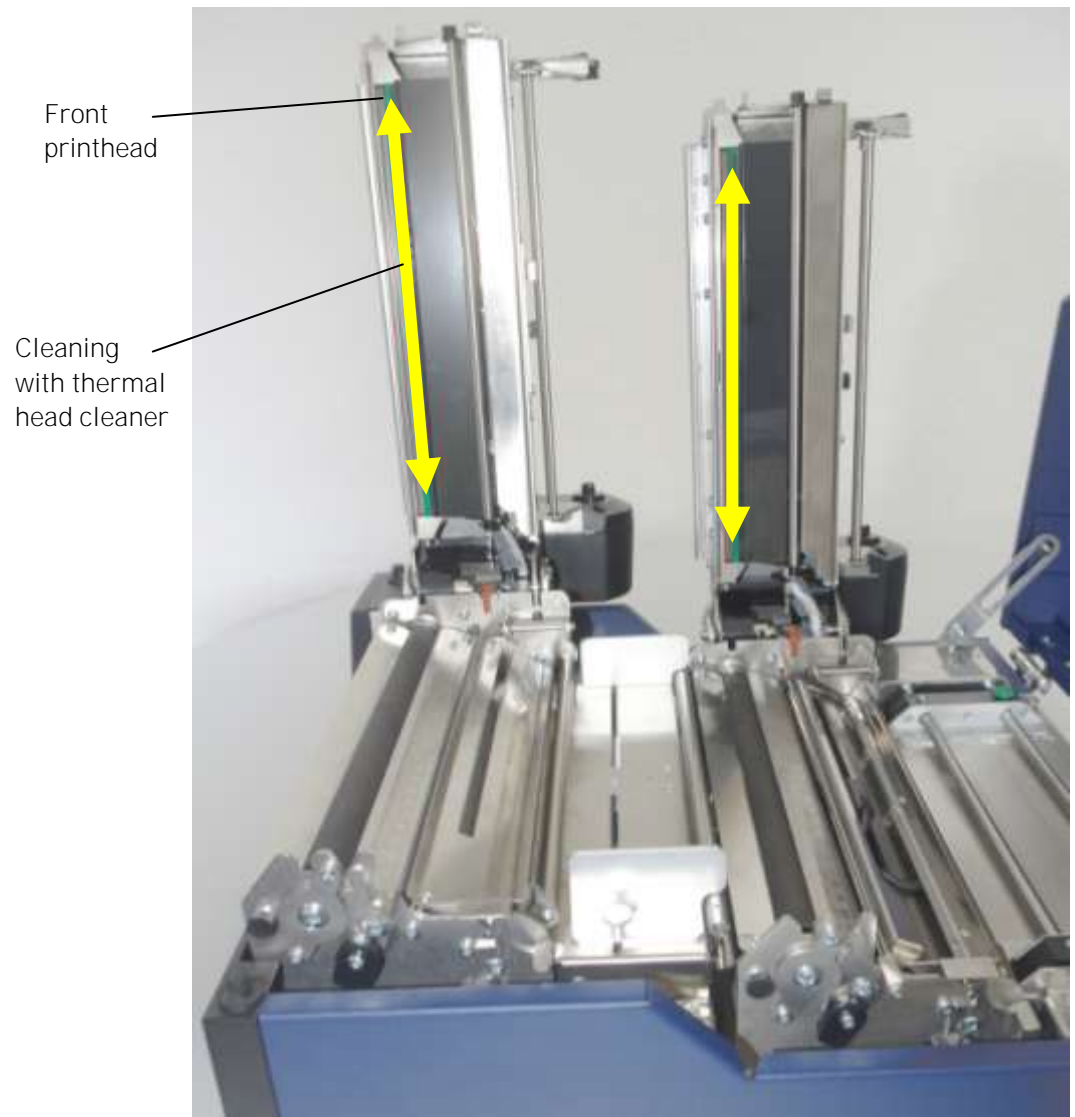

Supply mandrel

Front printhead assembly

Drive mechanism

Fig. 8.1.2.b Removing the ribbon

Front
printhead

Cleaning
with thermal
head cleaner

Fig. 8.1.2.c Cleaning the printheads

5. Clean the printhead using a soft, lint-free cloth or a special
    cleaning pen:

    • Move the cloth or pen along the print area of the printhead (see
      figure 8.1.2.c). This working step requires light pressure and
      has to be repeated several times.

    • If the printhead is very dirty: Use a soft lint-free cloth, moisten
      it with **spirit** (Ethanol) and then use it to wipe several times
      along the print area of the printhead (compare figure 8.1.2.c).

Spirit is an easily combustible liquid!
Take notice of the safety instructions for combustible liquids!

Don't smoke!

- Allow the printhead to dry for 2-3 minutes.

6. Install a ribbon (see section 5.2).

7. Swivel the printhead assembly downward and push it down gently until it clicks into place.

8. **Repeat** the **work steps 2 to 7** to **clean the rear printhead**.

9. **Close the the printer's top cover. The printer is ready for printing again.**

To help keep the printheads clean and to avoid premature wear out of the printheads, the **printer's top cover should always be closed.**

Moreover it is not allowed to use dusty or dirty print media.

8.1.3. Platen Roller Cleaning

The printer's platen rollers can be soiled by the print media (e.g. with adhesive residues).

☞ For the following cleaning operations the hints of section 8.1 are valid, too !

☞ Hint:
The sections that follow describe the cleaning of the front printhead assembly. For the cleaning of the rear printhead assembly refer to the following, too.

1. **Open the printer's top cover and swivel it to a vertical position.**

2. Unlock the front printhead assembly by pushing the release lever.

Printhead assembly
release lever
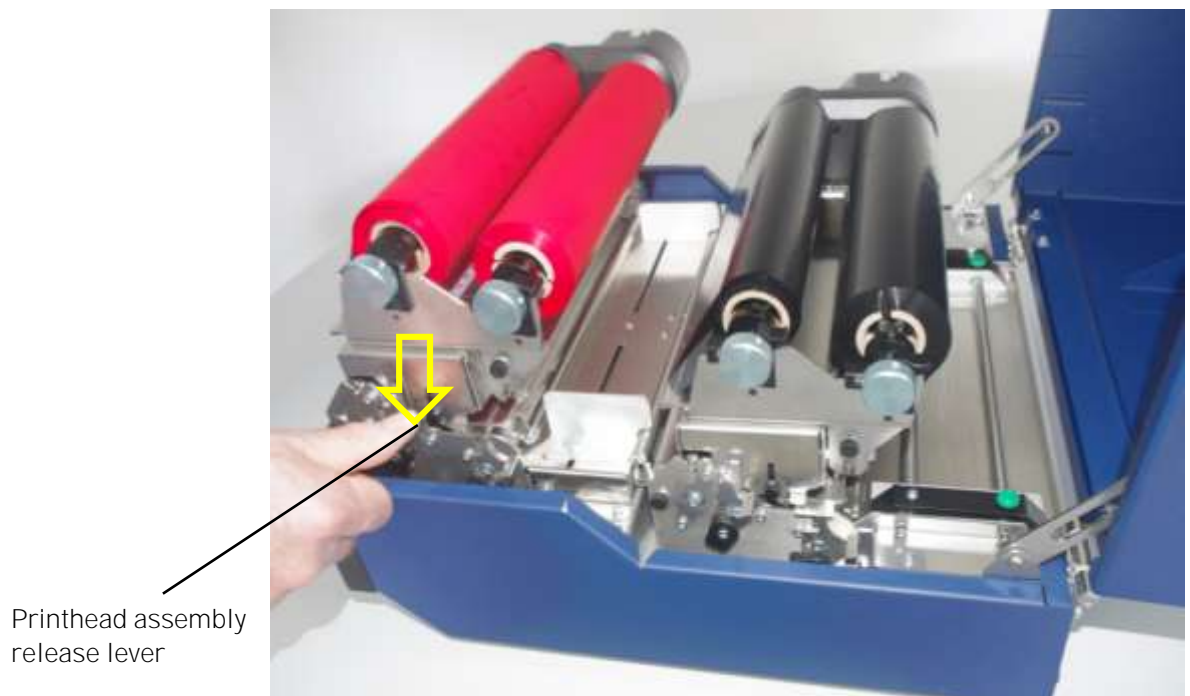
Fig. 8.1.3.a Releasing the front printhead assembly

3. Swivel the printhead assembly upward until it stops and stands upright.

4. Take out the ribbon if one is loaded. (Refer to section 5.2.4 for more details.)
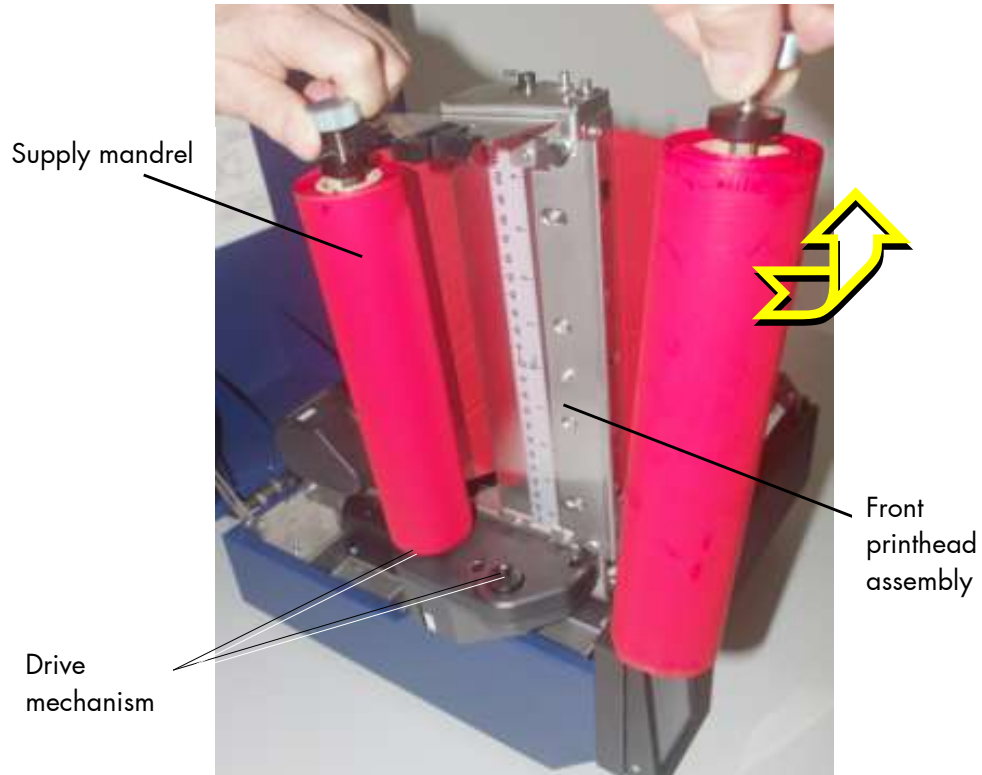
Supply mandrel

Front
printhead
assembly

Drive
mechanism

Fig. 8.1.3.b Removing the ribbon

Front
platen

Rear
platen
roller

Fig. 8.1.3.c Position of the platen rollers

5. Stickings can be removed best with a soft lint-free cloth saturated with isopropyl alcohol (99.9 %).

Make sure the platen rollers have been cleaned on their whole extent so that there is no reason for irregular media transport after that.

Allow the platen rollers to dry for at least 3 minutes.

6. Install a ribbon (see section 5.2).

7. Swivel the printhead assembly downward and push it down gently until it clicks into place.

8. **Repeat** the **work steps 2 to 7** to **clean the rear platen roller**.

9. **Close the the printer's top cover. The printer is ready for printing again.**

8.1.4. Cleaning the Sensors

The device is provided with sensors to enable controlling of consumable movements.
The upper media sensor (Transparent sensor) and the lower media sensor (Reflex sensor) are both   **located "below" the rear printhead** mounting:

During the print process this two sensors first of all may be soiled by paper dust. A large amount of dirt is able to cause problems.

Go on like this to remove dust and dirt from the sensors:

1. Switch the printer OFF.

2. **Open the printer's top cover and swivel it to a vertical position.**

3. Unlock the **rear printhead assembly** by pushing the printhead release lever and raise the printhead assembly to a vertical position.

4. Unlock the transparent sensor guide by pushing its lever and raise the transparent sensor guide until it stops (as shown in figure 8.1.4.a+b).
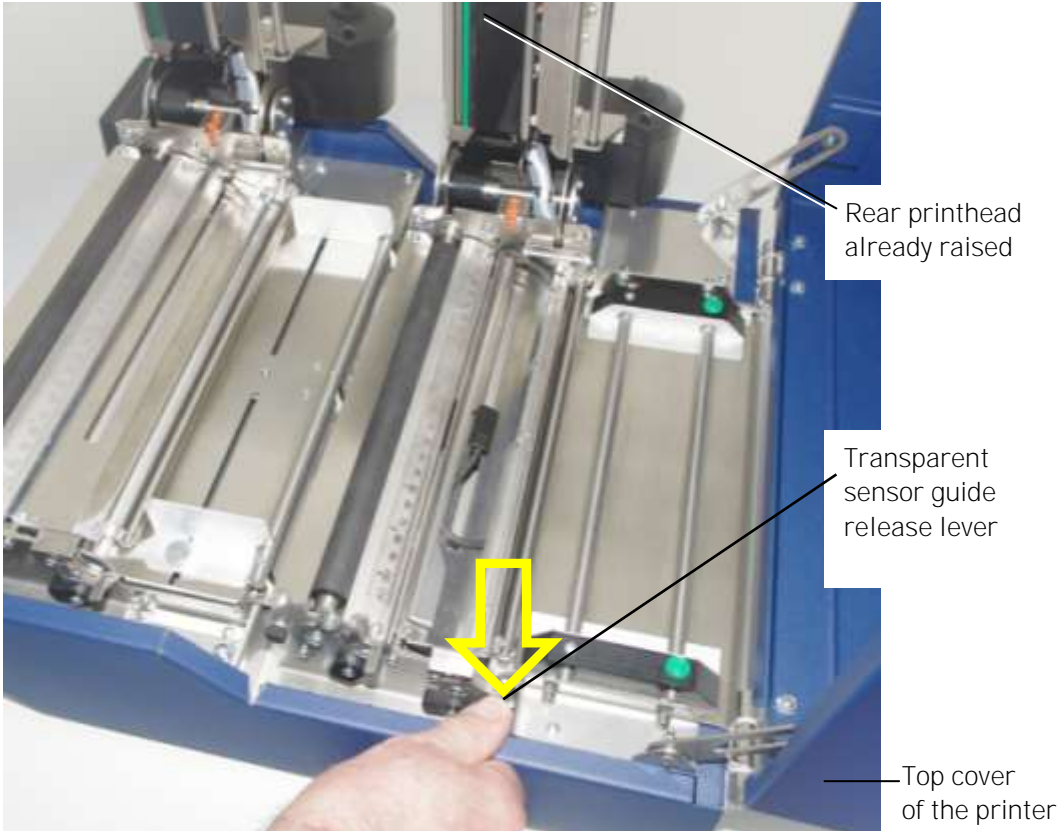
Rear printhead
already raised

Transparent
sensor guide
release lever

Top cover
of the printer

Fig. 8.1.4.a Unlocking the transparent sensor guide (rear printhead unit)

Rear
printhead

Transparent
sensor guide
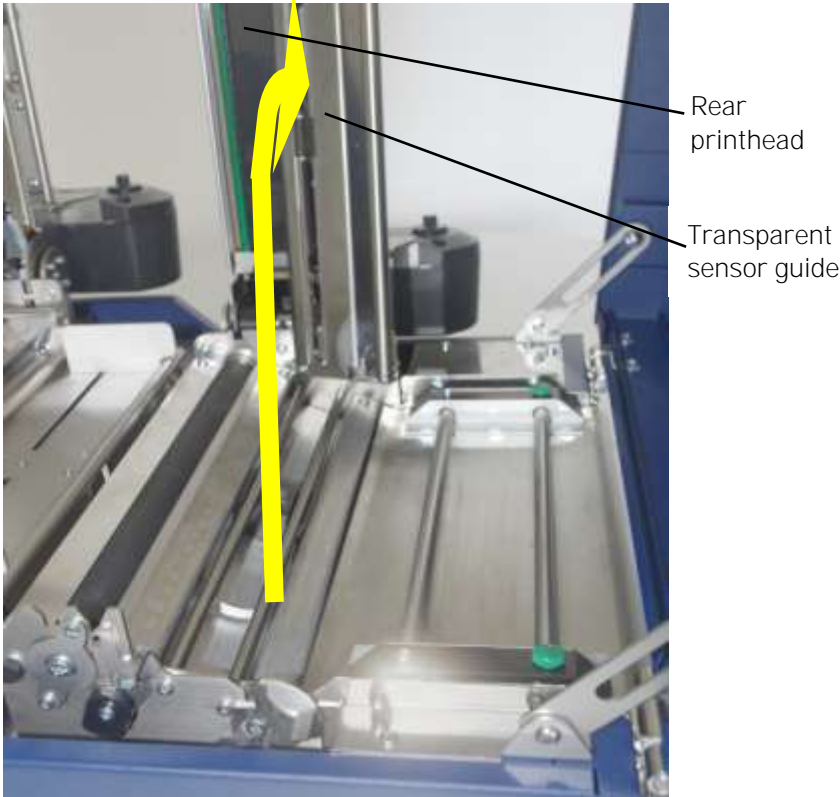
Fig. 8.1.4.b Swivelling the transparent sensor guide upward

Upper sensor
(Transparent
sensor)

Transparent
sensor guide

Lower sensor
(Reflex
sensor)

Fig. 8.1.4.c Position of Transparent sensor and Reflex sensor within the printer

5.   Carefully clean the sensors with compressed air.

Do not use any sharp tools or detergents to clean the sensors!

Please pay attention to the hints given in chapter 8.1 !

6.   Swivel the transparent sensor guide downward and push it down
     gently until it clicks into place.

7.   Swivel the printhead assembly downward and push it down
     gently until it clicks into place.

8.   **Close the the printer's top cover. The printer is ready for**
     printing again.

8.2. Avoiding Ribbon Slack and Wrinkles

If the ribbon wrinkles, the ribbon tension on either side of the ribbon is not even.
Remove slack on the ribbon in the following order:

1. Turn the printer OFF LINE.

2. **Open the printer's top cover and swivel it to a vertical posi**tion.

3. Check both print units: is the ribbon wrinkled, is the ribbon tension on either side of the ribbon not even?

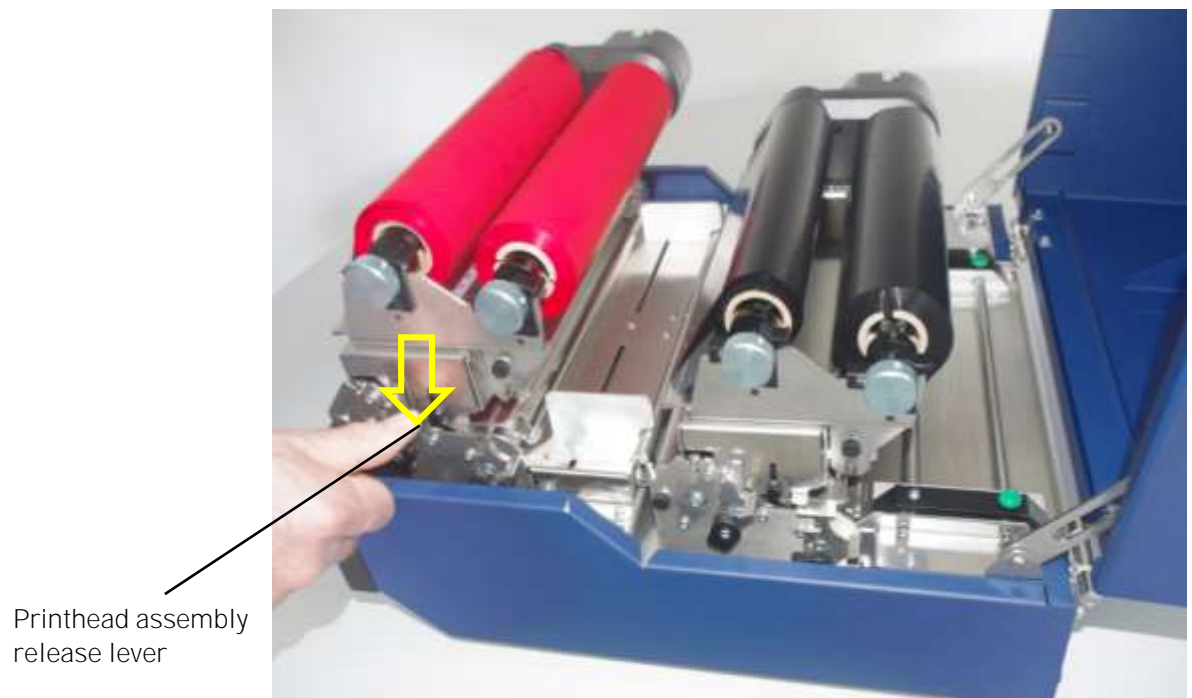4. Unlock the printhead assembly by pushing the release lever.

Printhead assembly
release lever

Fig. 8.2.a Releasing the front printhead assembly

A) Removing slack on feeding side of ribbon (at paper input side of the printhead)

5. Open the printhead assembly all the way until it stops and stands upright.

6. Loosen the knurled screw that holds the ribbon guide shaft approximately one turn.

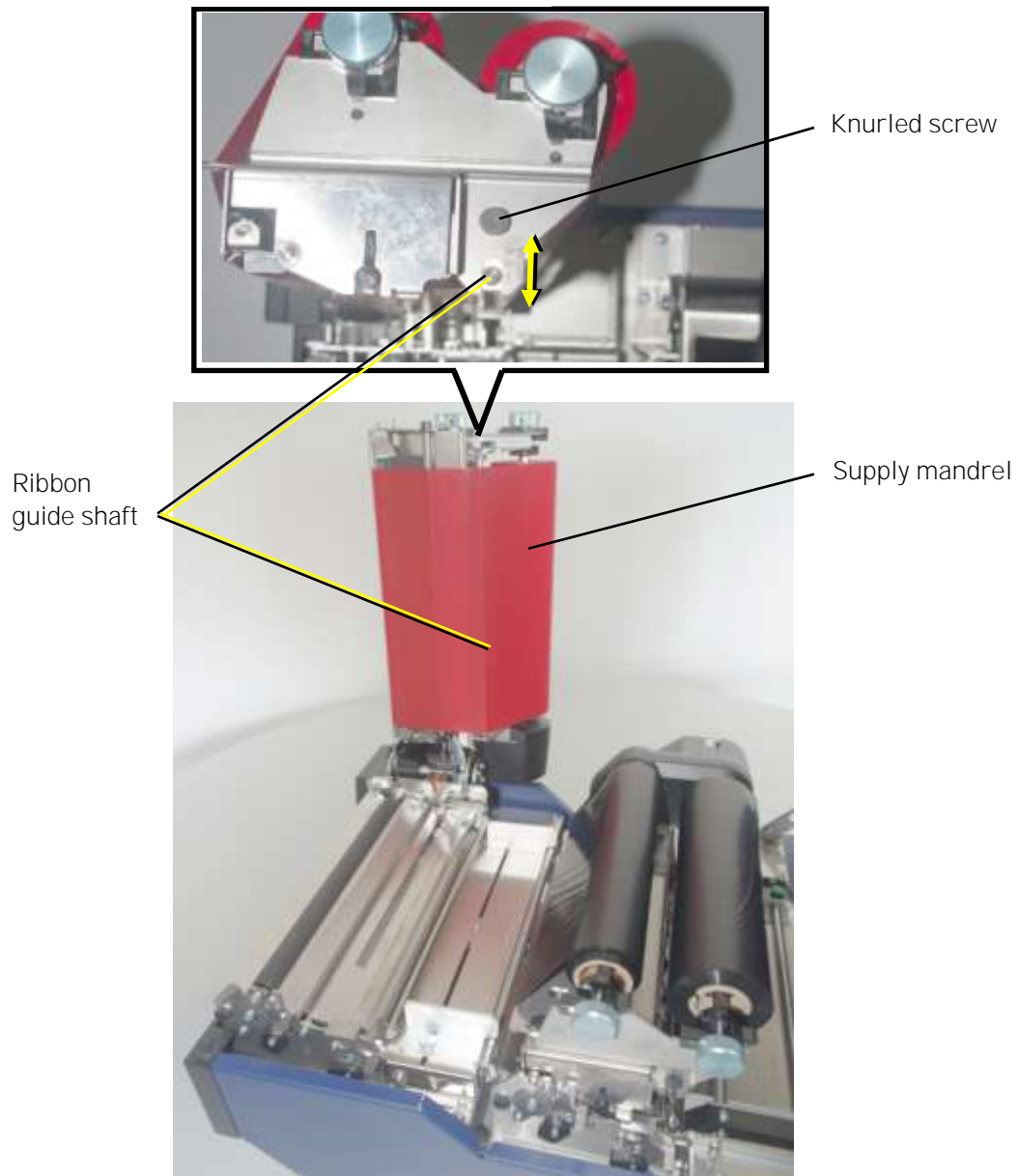Please note: Do **not** remove the knurled screw, just loosen it a little.

Top View:

Knurled screw

Ribbon guide shaft

Supply mandrel

Fig. 8.2.b Loosen the ribbon guide shaft in order to adjust it

7. Solve the problem that causes ribbon slack and wrinkles:

   • If they are found on the right side of the ribbon (viewed from the front of the printer), move the knurled screw including the ribbon guide shaft towards the value of 10 on the scale.
   • If they are found on the left side of the ribbon (viewed from the front of the printer), move the knurled screw including the ribbon guide shaft towards the value of 0 (zero) on the scale.

8. Remove any slack by turning the knob of the ribbon rewind shaft clockwise.

9. Check that the ribbon has no folds and is running straight. Correct the adjustment of the ribbon guide shaft, if need be. Tauten the ribbon by turning the rewind shaft.

Check to see that slack and wrinkles on the ribbon are removed completely. **Do not be afraid to 'waste' a little extra ribbon to ensure the ribbon is running correctly and wrinkle-free.**

10. Lastly tighten the knurled screw that holds the ribbon guide shaft.

B) Removing slack on winding side of ribbon
(at paper output side of the printhead)

11.   Open the printhead assembly all the way until it stops and tands upright.

12.   Loosen both knurled screws that hold the ribbon guide plate approximately one turn. (These screws are located on both ends of the ribbon guide plate, see figure 8.2.c).

Please note: Do **not** remove the two knurled screws, just loosen them one turn.
Never loosen screws other than these!

13.   You should be able to make adjustments to the ribbon guide plate while the ribbon is still installed.
Of course this depends on the width of the ribbon, that is currently used.
However, adjustments will be easier, if you remove the ribbon first.

14.   Solve the problem that causes ribbon slack and wrinkles:

   • If they are found on the right side of the ribbon (viewed from the front of the printer, compare the following figure), move the right end of the ribbon guide plate towards you.

   • If they are found on the left side of the ribbon (viewed from the front of the printer, compare the following figure), move the left end of the ribbon guide plate towards you.
     (The ribbon guide plate can turn on the center set screw as the rigid point of support).

Printhead
assembly

Details View:

Knurled screws
(loosened)

Ribbon guide
plate

Center set
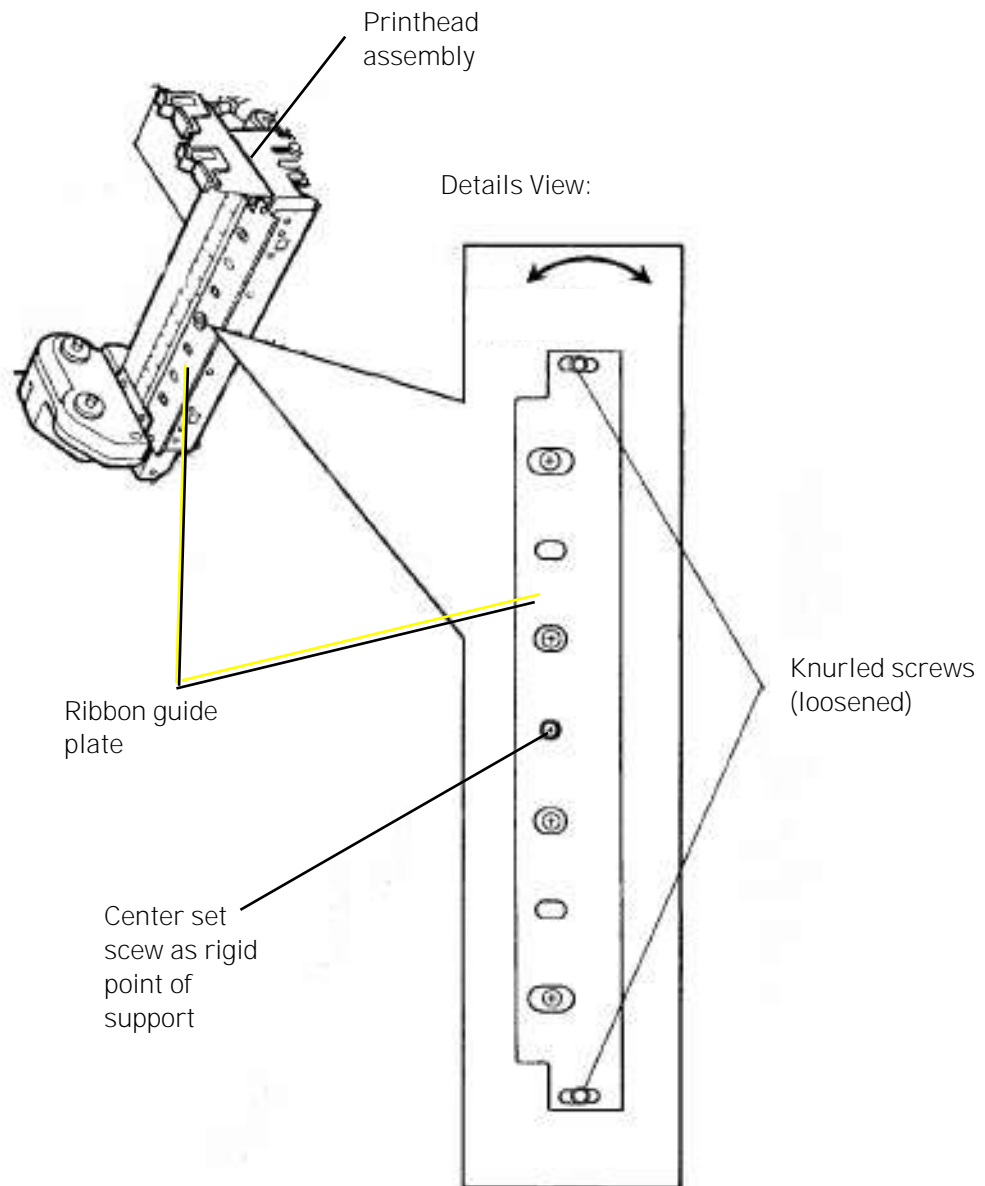scew as rigid
point of
support

Fig. 8.2.c Adjusting the ribbon guide plate (this illustration shows no ribbon)

15.   Remove any slack by turning the knob of the ribbon rewind
      shaft clockwise.

16.   Check that the ribbon has no folds and is running straight.
      Correct the adjustment of the ribbon guide plate, if need be.
      Tauten the ribbon by turning the rewind shaft.

Check to see that slack and wrinkles on the ribbon are removed completely. **Do not be afraid to 'waste' a little extra** ribbon to ensure the ribbon is running correctly and wrinkle-free.

17.   Lastly tighten the guide plate knurled screws on both ends.

18.   Swivel the printhead assembly downward and push it down gently until it clicks into place.

19.   **Close the printer's top cover.**

20.   Switch the printer to the ON LINE mode.

The printer is ready for printing again.

8.3. Check the Printhead Pressure

A correction of the pressure values of both printheads is necessary, if the thickness of the new printmedia is bigger or smaller than the previous one.
In addition the pressure values can be modified in order to adapt the characteristics of the consumables. An increase of the pressure value of a printhead, for example, can improve the transfer of the image onto the printmedia.
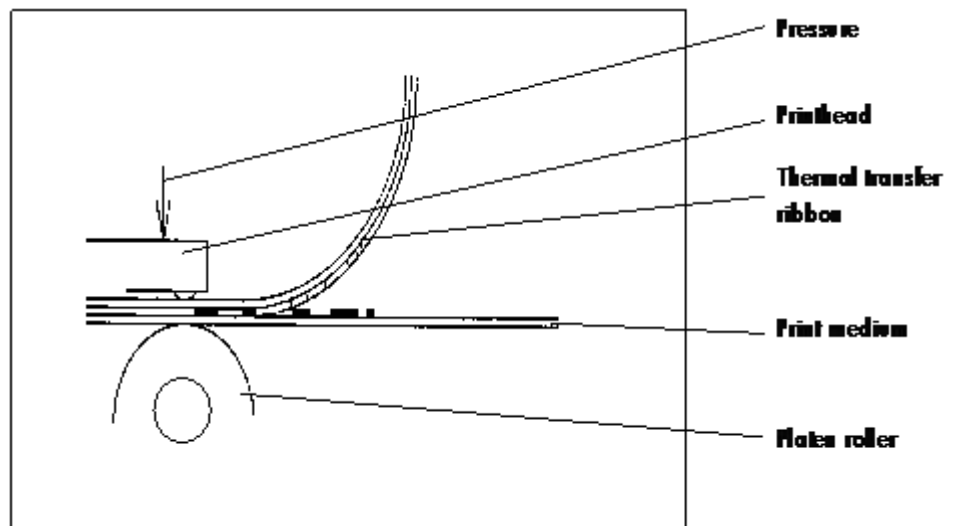

Fig. 8.3.a Principle view of the print process

While printing narrow media the printhead may come in contact with the platen roller just in that area that isn't covered by the media. This may lead to an accelerated abrasion of the printhead and to a print quality that isn't even over the whole print width.

The operation steps to adjust the pressure value are described in section 5.3.

Please consider that increasing the pressure value will increase the friction between printhead, ribbon, printmedia and the platen roller, too.
The abrasion of the concerning components (for example the printhead surface) will be accelerated considerably due to the increase of the pressure value.

9. Troubleshooting

When an error occurs, a corresponding error message is displayed in the control panel (see section 9.1).

Please address the problems described in this chapter yourself (especially the consumable replacement).
Please regard the following subjects if an opening of the printer becomes necessary:

- While operating the printer components inside the device will heat up. Take care that you do not burn your fingers when removing a paper jam.

- Make sure all covers of the device are completely closed afterwards.

Any others but the troubles described on the following pages are only to be repaired by a Microplex authorized operator or a service engineer.
When reporting a problem to your service engineer, please give him the exact error message. That helps to localize the error more quickly.

9.1. Error Messages

Panel display	Remedies

[Load Paper   ]
   or
[No Paper   ]
	- insert a printmedia (paper)
	- make sure the media has been
	  loaded correctly
	  (compare section 5.1)
	- clean the sensors
	  (compare section 8.1.4)

[Foil Error!]	For printing printer ribbons are needed.
	- insert ribbons in both print units
	- make sure the ribbons have been
	  loaded correctly in both print units
	  (compare section 5.2)
	- remove the jammed consumables
	  (labels sticking together e.g.)

[Head Open!] [Print Unit 2]	A printhead assembly is not firmly in place. Re-open the relevant printhead assembly and make sure it closes tightly: - swifel the printhead assembly downward and push down gently to lock.

Panel display	Remedies
[HeadNot Found!]	- one of the printheads is not connected or faulty.
[Head defectiv!]	- the printhead is defective. A new printhead has to be installed.
[High Head Temp.]	The printhead temperature is too high. - make sure the consumables have been loaded correctly (compare section 5.1 up to 5.3)
[Head Life End!]	- a new printhead has to be installed
[CutterNotFound!]	The optional cutter is selected, but not connected or defective. - make sure the cutter is installed correctly. Also, see section 7.29 Peripheral Device Activation (Tear Off Edge, Cutter) - Unselect the cutter, if the cutter was deinstalled. See section 7.29
[Cutter Error!]	An error occured during cutter operation. - check for a paper jam. Remove the jammed paper. - reload the consumables (paper)

Panel display	Remedies
[Punch Error!] or [Sync.Mark Error!]	- check the position of the sensors (reflective sensor and transparent sensor). - set the sensor positions in accordance to your consumables. See section 7.2.1. Checking and Adjusting the Position of the Sensors. - clean the sensors See section 8.1.4. Cleaning the Sensors - Make sure all material pieces are removed after a paper jam. See section 9.3. Incorrect Media Transport.

If the remedies above are not successful, please call a Microplex authorized service engineer.

9.2. Reduced Print Quality

Defect	Remedies
Printout too light	- check the printhead pressure of both printheads (see section 5.3 Printhead Pressure Adjusting). - check the ribbon transport of both print units (load the ribbon again, if necessary; see section 5.2) - check both print units: is the ribbon tension on either side of the ribbon even? If not, adjust the ribbon tension on either side of the ribbon. (See section 8.2 Avoiding Ribbon Slack and Wrinkles) - increase the density (see section 7.26) - choose different consumables (Adjust media to the ribbon or vice versa. See chapter 3, 4, 5 and 7) - check the environment conditions and correct them if necessary. (Admissible values for humidity, temperature etc., see section 2.3 and chapter 11)
Printout too strong	- reduce the density (see section 7.26)

Defect	Remedies
Printout blurred or incomplete	- clean both printheads (see section 8.1.2) - check the ribbon transport of both print units (load the ribbon again, if necessary; see section 5.2) - also, see section 9.3: Incorrect Media Transport - the printheads have to be exchanged if, for example after a big printout performance the **printout isn't correct any more.**

If the remedies above are not successful, please call a Microplex authorized service engineer.

9.3. Incorrect Media Transport

Defect	Remedies
Incorrect media transport (no gap detection between labels e.g.)	- perform the basic operations (see chapter 4) - check if the Sync Sensor has been adjusted correctly (see section 7.2) - Adjust the position of the sensors (reflective sensor and transparent sensor) suitable to your consumables. - check if the media has been loaded correctly (compare section 5.1) - check if the ribbons have been loaded correctly (compare section 5.2) - clean the sensors (see section 8.1.4) - check if the jammed consumables have been removed completely.
No straight transport of the consumables (torsion or folding of the ribbon, e.g.)	- check if the ribbons have been loaded correctly (compare section 5.2) - check if the media has been loaded correctly (compare section 5.1) - check both print units: is the ribbon tension on either side of the ribbon even? If not, adjust the ribbon tension on either side of the ribbon. (See section 8.2 Avoiding Ribbon Slack and Wrinkles) - check the printhead pressure of both printheads (see section 5.3 Printhead Pressure Adjusting). - clean the platen rollers (see section 8.1.3)

Defect	Remedies

Media Jam	- <u>Ribbon jam</u> clearing:
	  Follow the working steps described above.
	- <u>Paper jam</u> clearing:
	  in addition to the remedies above:
	- follow the steps from the next section:
	  Clearing Paper Jam
	- check if the jammed consumables have
	  been removed completely.

If the remedies above are not successful, please call a Microplex authorized service engineer.

9.4. Clearing Paper Jam

Operation steps for clearing a paper jam are described in this paragraph.

a) Turn the printer OFF LINE.

b) **Open the printer's top cover and swivel it to a vertical position.**

c) Unlock the front printhead assembly by pushing the release lever.
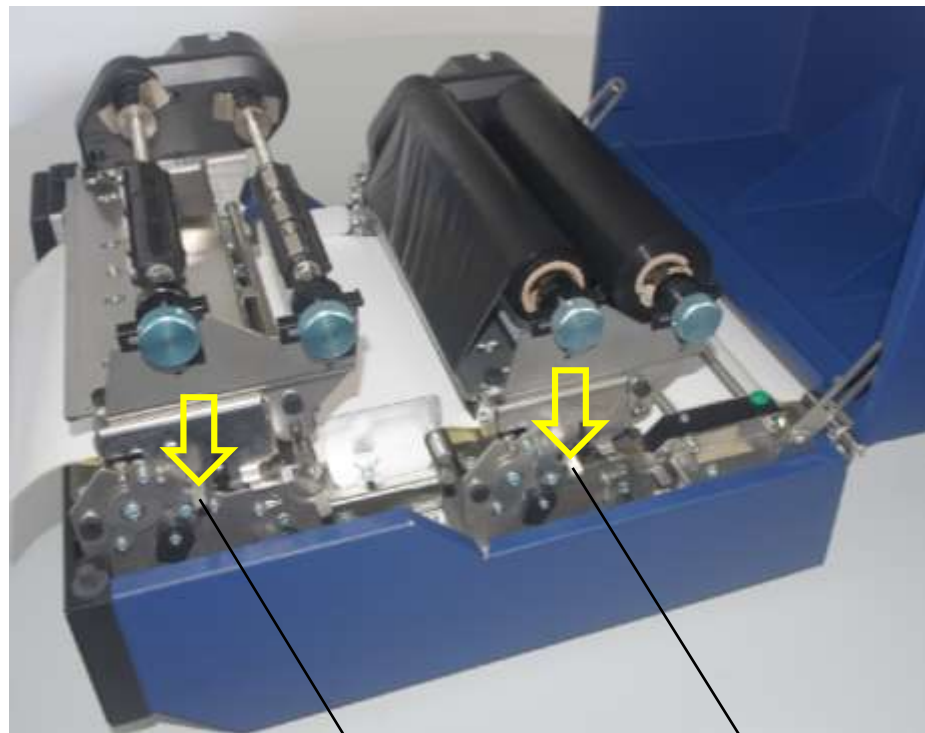
Front printhead
assembly release lever

Rear printhead
assembly release lever

Fig. 9.4.a Releasing the printhead assemblies

d) Swivel the printhead assembly upward until it stops and stands upright.

e) Repeat the work steps c and d to open the rear printhead.

Caution! The printheads and the platen rollers may be hot.

f) Unlock both metal guides (transparent sensor guides) and
    swivel them upward until they touch the printhead assemblies.
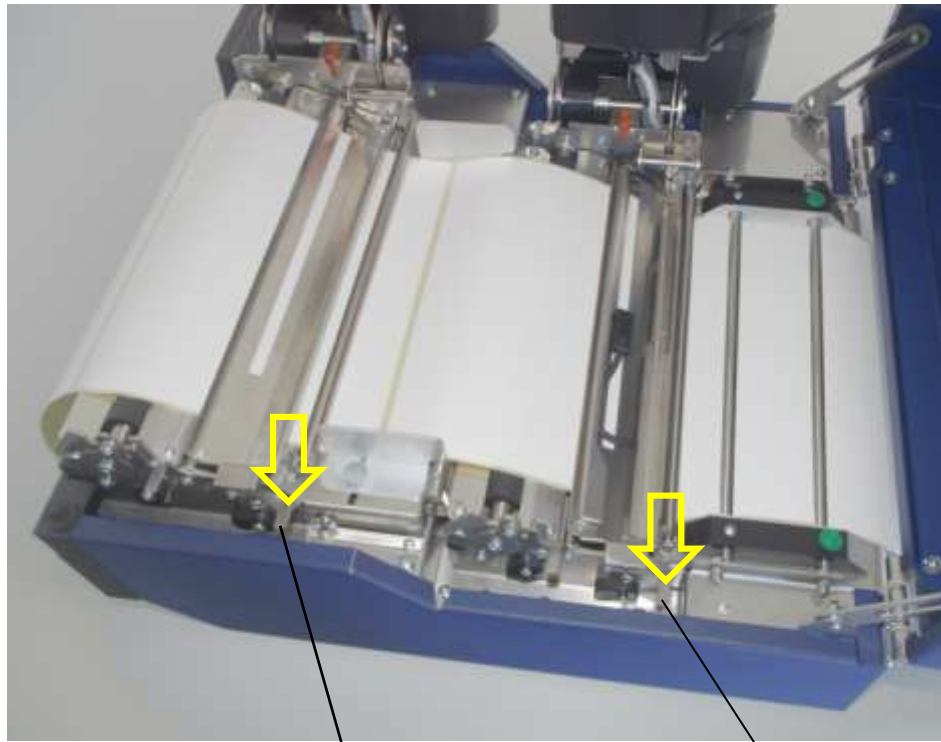
Release lever of the   Release lever of the
front transparent sensor   front transparent sensor

Fig. 9.4.b Releasing both metal guides (in order to swivel them upward)

g) Remove the creased paper from the printer.   (For example
    pull the z-folded paper completely out of the printer.)

After every paper jam the paper has to be removed completely from
the paper path.

h) Detach the creased paper at the next perforation.

i) Load new paper to the printer (see chapter 5).
    Check if the paper is impeccable (crushed or damped paper
    must not be inserted).

j) Swivel both metal guides downward and push them down gently
    until they click into place.

k) Swivel both printhead assemblies downward (one at a time)
    and push it down gently until it clicks into place (in each case).

l) **Close the printer's top cover.**

m) Press the ON LINE key to continue printing.

Data is kept in the printer's memory. After the paper jam has been
cleared, all the pages on the paper path will be printed again. (See
next section for more information.)

9.5. Print Repetition after an Error

The printer is provided with an automatic jam safety
function to prevent a loss of data.
When an error occurs, all the pages on the paper path will
be printed again. This ensures that no data will get lost.

The exact number of pages to repeat depends on the
format length and the position where the error occurred
on the page.

This automatic jam safety function can be switched off (by
changing the EEPROM - configuration) if the user wants to
resume the print job at a position he chooses himself.
In addition to this see panel function Clearing the Input
Buffer (chapter 7.13).

10. Measures for Transport and Shipping (Repacking)

The Printer is shipped with special packing material and fixing measures.
It is recommended to store the boxes and those packing materials.

In case of further shipping or returning of the products they must be repacked in the original way in order to avoid damaging during transportation.

The following list gives you an overview of the working steps necessary for repacking. Pay attention to the notices located on the products and the hints given in the Service Manual as well.

If you are not familiar with any of the working steps please ask your service engineer or your supplier.

- **Remove the printer's additional optional devices .**
- Remove the paper.
- Remove the ribbons, if any is loaded.
- Close the printhead.
- Lock all moveable parts of the printer (use all original transport safety devices, adhesive fasteners and so on).

Repack all items in their original packing material and ship them in the original boxes.

11. Specifications

Print technology: non-impact, thermal transfer printing

Print speed: up to 150 mm / second, corresponding up to 6 Inch / second

Resolution: 300 dpi (dots per inch, horizontal and vertical)

Media width: 100 mm up to max. 222 mm
max. Print width: 219 mm

Media thickness: 0.14 to 0.25 mm

Interfaces: parallel: IEEE 1284 (Centronics; Back channel is currently not supported),
                (MP-BUS, SPS-Control GPIO, optional)
        serial: USB 2.0
                (RS232, RS422 optional)
        LAN: Ethernet 10/100 Mbit (TCP-IP)

Dimensions:
        Width (W):   395 mm
        Depth (D):   440 mm
        Height (H):   300 mm

Environment: temperature: +5°C to +35°C (operating)
                                -20°C to +60°C (storage temperature)
        relative atmospheric humidity: 45 to 75 % (without condensation)

Mains connection: 100 - 240 V AC (-10%, + 6%), 3.2 – 6.4 A, 50/60 Hz

Power input: appr. 0.40 kVA (operating)

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Costs per Page for Microplex Print Systems

The term "costs per page" is the most frequently used one in connection with the purchase of a printer.
Nevertheless this term is the one with the biggest lack of definition.
The distributors normally attach great importance to having small values for the costs per page. The user normally wants to have a value that is as realistic as possible.

There isn't any generally valid rule to calculate the costs per page. Therefore values given by different manufacturers are very often not comparable.

The values given by Microplex are based on the utilization time of the so-called consumables of the printer. There isn't any generally valid rule for this calculation, either. Therefore Microplex has fixed the definition of consumables as follows:

1. Consumables Consumables are parts or substances which the user can exchange or refill without tools.

Microplex understands by this definition that the user can decide by visible criteria when he should exchange or refill consumables. The working steps can be done by the user in accordance with the manual without the usage of tools.

Consumables can be different depending on the printer type.
The most important consumable for example is **toner**.

Usually the utilization time of these materials is given as a number of pages (DIN A4). These values often refer to the print density (3%, 4%, or 5%) which is given as an application specific parameter.
Usually a value of 5% print density is defined, very seldom is 4% used.
In the case of a low print density (e.g. 3%) the utilization time increases, in the case of a high print density (e.g. 10%) the utilization time is decreased.
Therefore the utilization time is strongly dependant upon the application. This applies especially to all print systems used in start/stop operation freqently.
Experience proves that in professional applications a print density of higher than 5% is usually reached. For a delivery note containing a form and some bar codes a print density of 8 - 10% is quite normal.

There are further parts that must be exchanged in addition to the consumables during the life time of a print system. Microplex divides these additional parts into two categories:

2. Application specific wearing materials

Application specific wearing materials are parts which have to be exchanged by a service engineer or a trained operator. The criterias for the exchange aren't always easily recognizable for a user. Some of the criterias require measuring techniques or the experience of a service engineer or operator.
In a normal application, parts of this category are:
- fuser unit
- process unit (drum, OPC)
- ozone filter

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3. Spare parts

Spare parts are exchanged by the service engineer, when they fail.
Examples for spare parts are:
- couplings
- electronic assemblies
- rollers

Depending on the application some parts may change categories under certain circumstances. If for example very rough paper is used, the rollers can become an (application specific) wearing part.

It's a fact, that the right time to exchange a component depends not only on the failure of a component but also on a possible loss of print quality in the printouts.

MNPSQ = Mean Number of Prints with Specified Quality (SQ).
This value is often associated with "Lifetime". This term is not correct. MNPSQ describes the period of time in which a defined print quality is maintained.
The print quality is determined by the values for
- print density
- background darkness
- homogeneity

The value IQ (Initial Quality) is used to designate the print quality that is reached with a new printer.
CAQ (Customer Acceptable Quality) is a purely subjective lower limit which a respective customer is willing to accept the print quality. An exchange of parts is only then necessary even if the MNPSQ is already exceeded.
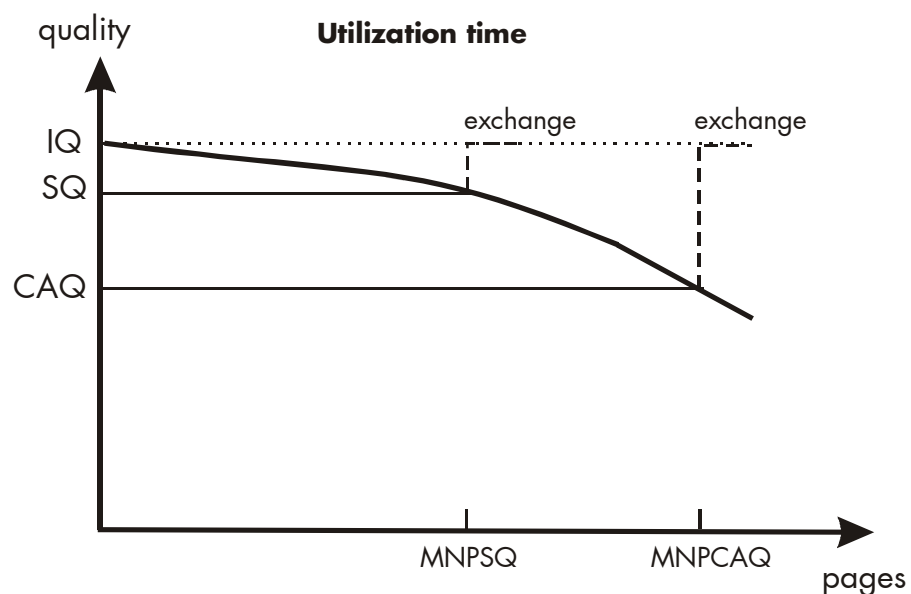
12. Appendix

12.1. Color Printing with logiJET TC8

The logiJET TC8 is a thermal printing system with 2 print modules. These print modules can be equipped with ribbons of various color.
Therefore multi-colored printouts are possible. Such printouts are needed for example for GHS conform labels. These labels, consisting of red and black elements, are used for dangerous goods.

Characteristics of the logiJET TC8:
> The **rear print unit** prints the **first color** (standard: black)
> The **front print unit** prints the **second color** („spot color")

Hint: For everything in your print data that you hav**n't defined as „black" but as „colored" the TC8 will use the second color („spot color")**.

The logiJET TC8 is able to print so-called spot colors depending on the **ribbons loaded to the print units. A color mixture by overlaying isn't** possible.
This attribute must be taken into account by the application software and the driver. Several pathways are available to feed the logiJET TC8 with color print data.
These are explained in the following.

12.2. Basically Approach for Generating Colors

The colors to be printed must be represented by the equipped 2 colored transfer foils. Basically you have the following capabilities:
- printing whole areas with the first printing color
- printing whole areas with the second printing color
- pattern printing with the first printing color (Dithering)
- pattern printing with the second printing color (Dithering)

The colors to be generated must be assigned to the two print colors by the application or the driver. The allocation of the colors to the print colors is as follows:

1. First print color (full area)

   o Black   RGB: 0,0,0
                   CMYK: 0,0,0,100

2. **First print color "rasterized" (Dithering)**

   o Gray tones (shades) RGB values the same   (e.g. 10,10,10)
                          CMY values = 0, K values 1..100   (e.g. 0,0,0,10)

3. Second print color (full area)

   o All primary colors
      ▪ Red   RGB: 255,0,0   CMYK: 0,100,100,0
      ▪ Green   RGB: 0,255,0   CMYK: 100,0,100,0
      ▪ Blue   RGB: 0,0,255   CMYK: 100,100,0,0
      ▪ Yellow   RGB: -   CMYK: 0,0,100,0
      ▪ Cyan   RGB: -   CMYK: 100,0,0,0
      ▪ Magenta   RGB: -   CMYK: 0,100,0,0

4. **Second print color "rasterized" (Dithering)**

   o All other color values

         All colors, that are not black, gray or primary colors, are printed
         dithered with the second print color.

   Hints on how to deal with mixed colors

      If you want to print for example colored pictures or colored diagrams,
      in your application these objects ought to be created using the two
      colors of the printer. Eventually you have to delete the old color areas
      and replace them by the 2 spot colors (black and red, for example).

12.3. Using the Windows Printer Driver

The Microplex Windows printer driver for logiJET TC 8 represents the simplest way to generate a printout in color. The Windows driver produces a print data stream according to the colors defined in the application.
The color allocations (compare section 12.1 and 12.2) have to be taken into account when working in the application.

12.3.1. Plug and Play Installation

1. Connect the logiJET TC8 printer to your PC via Ethernet or USB, e.g.

2. Turn the printer logiJET TC8 on.

3. The operating system of your PC should detect the printer and the Windows hardware assistant should appear.

4. Choose that you want to install the driver from a specific source and select the drive that contains the Microplex CD (USER MANUALS AND TOOLS).

5. Enter the driver directory (MPX-Manuals\Drivers).

6. Select the file that carries the extension INF.

7. Follow the instructions.

12.3.2. Using the Add Printer Wizard

1. Start the Add Printer Wizard:
   Windows Start\Printer and Faxes\Add a printer

2. Follow the instructions.

3. Choose that you want to install the driver from a specific source and select the drive that contains the Microplex CD (USER MANUALS AND TOOLS).

4. Enter the driver directory (MPX-Manuals\Drivers).

5. Select the file that carries the extension INF.

6. Follow the instructions.

7. Connect the printer logiJET TC8 to your PC.

12.3.3. How to access the Driver Screens

How you access the driver screens depends on your computer and its operating system.
Note: Example driver screenshots are used throughout this manual and as such may not represent the driver screens for your machine.

1. Accessing the printer driver directly from the Windows "Printers" folder ("Printers and Faxes" folder in Windows XP).

   If you choose this method any changes you make will become the driver defaults. This means they will remain active for all your applications unless you specifically **change them from within the application's Print dialogue.**

2. **Accessing the printer driver from your application's Print** dialogue.
   If you choose this method any changes you make will usually only last for as long as the particular application is running, or until you change them again. In most cases, once you quit the application the driver defaults will return.

*Note: Settings made from the printer's own control panel are the **printer defaults**. They determine how your printer will behave unless you specify otherwise from your computer.*

*Note: The **driver defaults** override the printer defaults. **Application Print settings** override both the printer defaults and the driver defaults.*

12.3.4. Driver Settings

When creating your color document (for example by using a windows application software), please do not disregard the color allocations described in section 12.1 and 12.2.

When you print a file, be sure that the driver settings are correct:

See example screenshots on the next pages.

1. If you choose to print your document from a Windows application program a print dialogue box appears.

This dialogue usually specifies the name of the printer on which you will print your document.
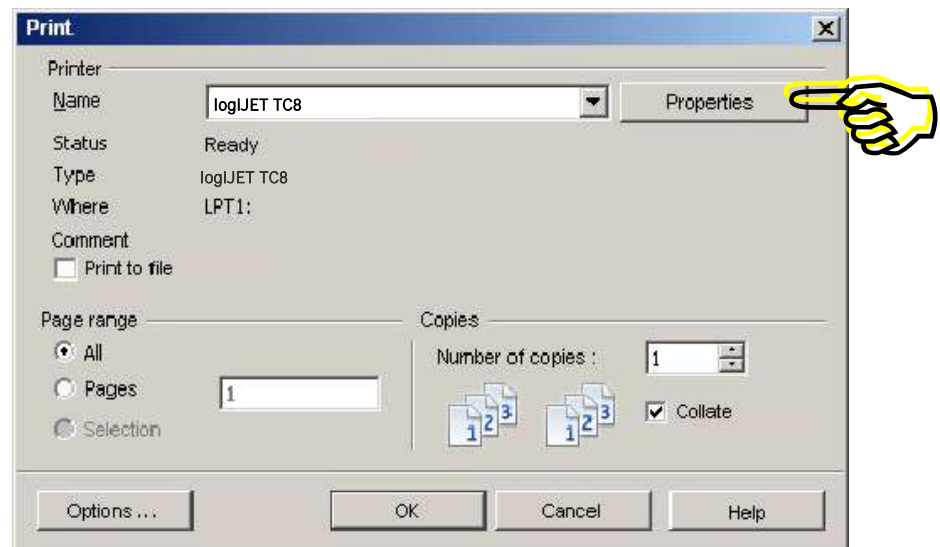
Fig. 12.3.4.a Print dialogue box

2. **Click the Properties button from your application's Print** dialogue.

The driver window opens to allow you to specify your printing preferences for this document:
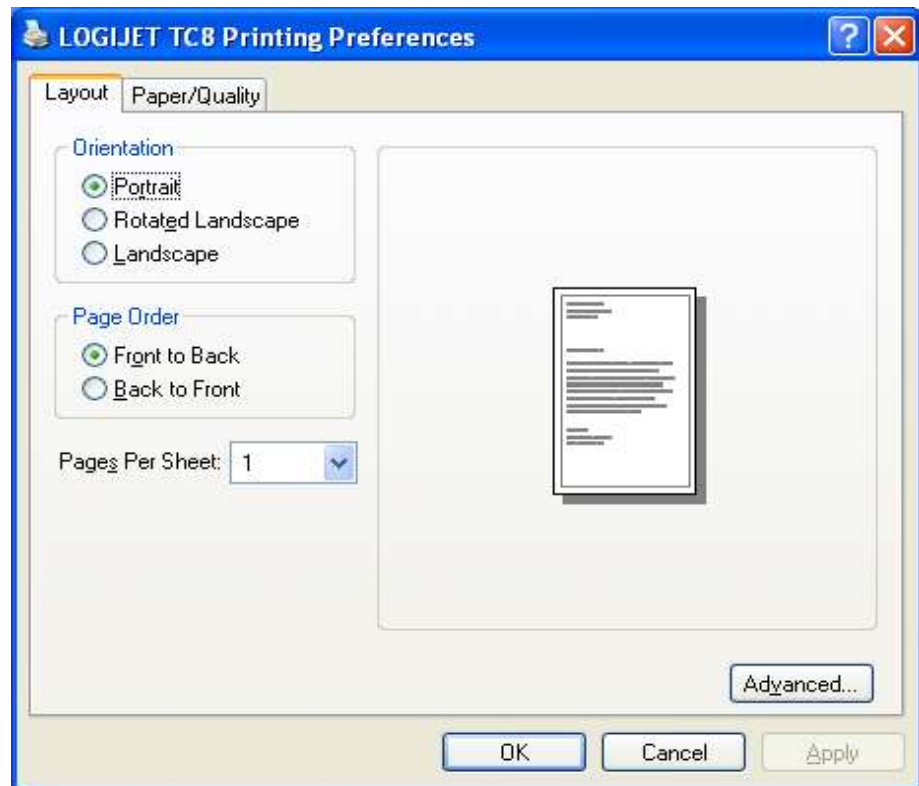
Fig. 12.3.4.b Layout tab of the printer driver

3. On the Paper/Quality tab you can set the color setting (Black&White or Color).
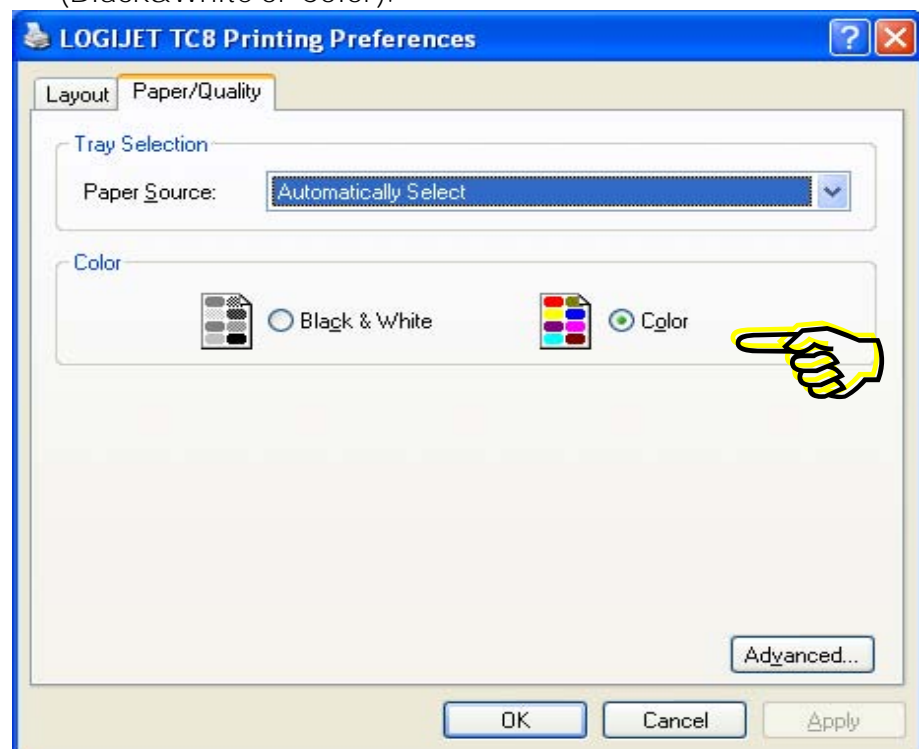
Fig. 12.3.4.c Paper/Quality tab (color on/off)

Downright on the tab you find the Advanced... button.
The concerning configuration window enables you **to set additional printing parameters** of the logiJET TC8:

4. **Click the Advanced... button from your application's Print** dialogue.
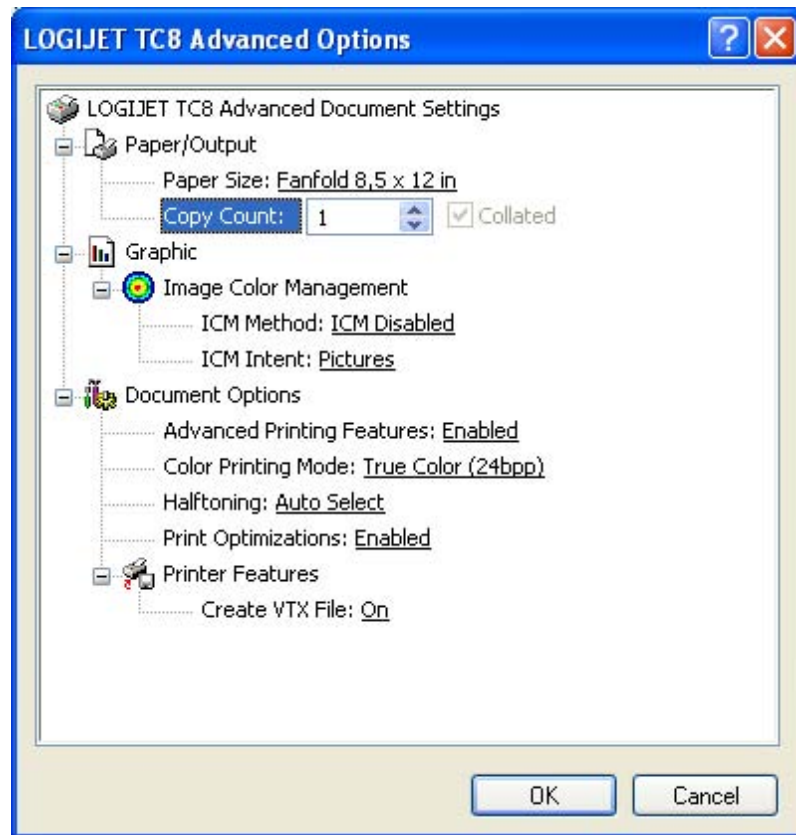
Fig. 12.3.4.d "Advanced Options" configuration window of the printer driver

Among others, this window allows you to select the color printing mode:
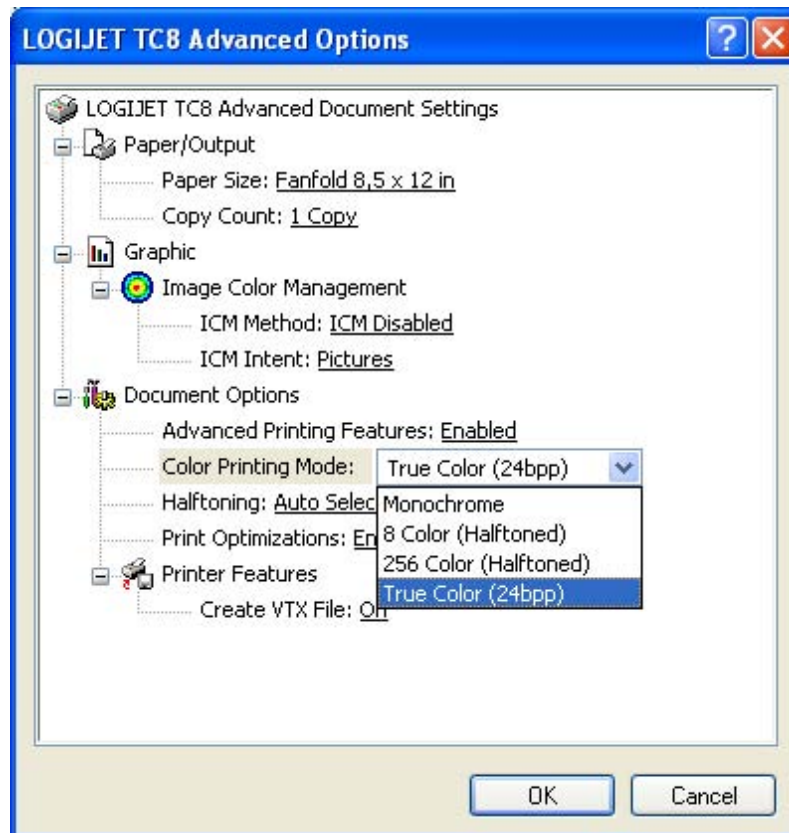
Fig. 12.3.4.e Selecting the Color Printing Mode

5. Confirm your settings with OK.

12.4. Color Support by several Emulations

Characteristics of the logiJET TC8:
The **rear print unit** prints the **first color** (standard: black)
The **front print unit** prints the **second color** („spot color")

Hint: For everything in your print data that you havn't defined as „black" but as „colored" the TC8 will use the second color („spot color").

12.4.1. IDOL

The Microplex programming language IDOL provides commands for print color switch over.
The syntax of the command is as follows:

Function: This function selects the print color. The chosen color is used for all print elements (text and graphics).

Syntax: **`<ESC><ESC>18 <nnn>`**   (27)(27)(49)(56)...

Parameters: <nnn>   = 001 ... 007   : current print color

<nnn>   = 001   : 1st color (Default: black)
<nnn>   = 002   : yellow
<nnn>   = 003   : cyan
<nnn>   = 004   : magenta
<nnn>   = 005   : red
<nnn>   = 006   : green
<nnn>   = 007   : blue

Note: The printer ignores this command if color printing is not available.

Example: The word 'MICROPLEX' is to be printed in red. The text following is to be printed in black.

&%&%18 005MICROPLEX&%&%18 001

MICROPLEX

_____

12.4.2. IGP

The original page description language IGP has no commands for color control.
Microplex has added commands in IGP syntax to this emulation which enable
a color control.
Another possibility to bring color into the application under IGP is to create
graphics and logos in color and to load them into the printer using the IGP
specific commands.

a) IGP Color commands:

COLOR; <n>

<n> = 1	1st color (Default: black)
<n> = 2	yellow
<n> = 3	cyan
<n> = 4	magenta
<n> = 5	red
<n> = 6	green
<n> = 7	blue

Example:

```
^CREATE;AB1
COLOR;5                 (color switch over to "red")
ALPHA
02;40;2;2;' ORDER CONFIRMATION'
C12;03;63;0;0;'Normalauftrag     '
STOP
SCALE;CHAR;10;10
COLOR;1                 (color switch over to 1st color „black")
BOX
2;22;4;27;80
STOP
```

A color switch over is effective from the position, on which it was set, up to the next
color command.

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b) Colored logos:

Colored logos can be defined using the following IGP command
^LOGO;LOGO NAME;VL;HL

The following formats are supported:

PCX: 1 bit black/white
        24 Bit RGB
TIFF: 1 bit black/white

12.4.3. CODE V

The original page description language CODE V has no commands for color control.
Microplex has added commands in CODE V syntax to this emulation which enable a color control.

Command for switching a color on:

^|COLOR; <n>

<n> = 1	1st color (Default: black)
<n> = 2	yellow
<n> = 3	cyan
<n> = 4	magenta
<n> = 5	red
<n> = 6	green
<n> = 7	blue

12.4.4. Prescribe IIe

The following color commands are available at present:

ACLI index, color1, color2, color3;   Add Color by Index

> Index: 1 .. 255
> color: 0 .. 255

SCOL number;   Select Color

> number: 0 .. 255

CID color-space, encoding;   Configure Color Image Data

> color-space:
>> 0 = Device-dependent RGB (Default)
>> 1 = Device-dependent CMY
>> 2 = Void
>> 3 = CIE L*a*b
>
> encoding (Pixel encoding):
>> 1 = Indexed by Pixel (Default)
>> 3 = Direct by Pixel

Color bitmaps (24 Bit RGB, uncompressed) can be defined using the following command:

RVCL length, data;   Receive Color Raster Data

> length: bytes of raster data
> data: binary raster data 0H to FFH

12.4.5. Epson FX (ESC/P)

This color commands are Epson Stylus compatible.

Command for switching a color on:

<ESC>r <nn>

<nn> = 00	black
<nn> = 01	magenta
<nn> = 02	cyan
<nn> = 03	magenta
<nn> = 04	yellow
<nn> = 05	red
<nn> = 06	green

13. Index