logiJET TM4

Operator's Manual

Edition 1.2p

microplex
printware ag

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1. Introduction

1.1. General Description

The logiJET TM4 is a multifunctional non-impact printer based on thermal print technology. The very compact design, the sturdy metal housing and the option to use supply voltages of 12V, 24V or 48V make this device an ideal printer for so called “mobile printing”.
A so called mounting plate (option) can be used to fix this printer to a forklift truck, for example.
The device can be used for thermal transfer printing as well as for thermal direct printing. It can be used to print all kind of information as barcodes, alphanumerical characters and vector graphics e.g. .
This printer not only knows one device-specific page description language as standard thermal printers usually do, but most of the languages used in the industrial field and the well-known market standards of laserprinters, too.
For this printer options are available (for example, cutter).

The logiJET TM4 printer 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.

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).

The resolution is 300 dots per inch corresponding to about 12 dots per mm.

The print speed is up to 6 inch/second (up to 150mm/second).
Roll-fed media as well as continuous-media can be printed on.
The minimum width of media is 25.4mm (1″). The maximum processable width of media for the logiJET TM4 is up to 118mm (4.64″). 106mm (4.17″) of that are printable.

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) or a special kind of paper (thermal direct printing).
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.
While thermal direct printing the dots touch the thermal paper directly. The dyes and developers within the paper respond to the heat of particular dots, change their colour to black and so the wanted image emerges.

The printer logiJET TM4 can be used for both methods of printing.

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.
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. General Safety Regulations

This device produces, employs and possibly radiates high frequency energy. Because of this, incorrect installation can disturb radio communications.

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

Heeding the following instructions ensures secure operation:

- In both cases, while using the mains connection and while "mobile printing", please make sure your electricity source is appropriately grounded.

- Set the DIPswitch located on the DC/DC converter PCB to the nominal voltage supplied by the vehicle's electric system and always use a suitabele fuse (details are described in chapter 5).

- Install the device on solid and level ground.
  For "mobile printing" the printer has to be fixed firmly to the vehicle by using the so called mounting plate (option).

- 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.

- 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.

- The cutter may only be installed by trained personnel.

- Only attach or remove the printhead when the device is switched off.
  After switching off the device, wait at least 3 minutes before removing the printhead.

- 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:

- If the printer is connected to the mains supply, 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.

2. Installation

2.1. Printer Unpacking

1. Open the box and remove the accessory parts.

   Hint: The shipping box etc. of your printer may differ in form and optic from the parts shown in the following 2 figures.

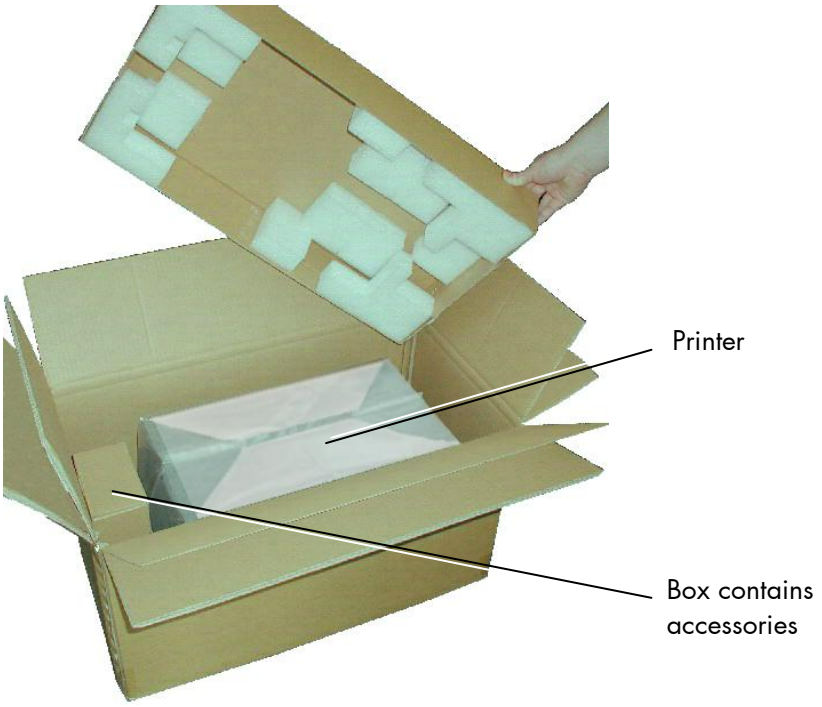


Fig. 2.1.a Printer in the shipping box

2. Take the printer and lift it out the box carefully. Get somebody to hold the box when removing the printer.

Take hold of the printer <u>from the bottom.</u>
Do **not** use other parts of the printer (e.g. plastic parts at the printer's front or rear side ...) to lift the device!

Fig. 2.1.b Lifting the printer

3. Remove the foil covering the printer.

4. Place the printer onto a suitable base (see section 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:

1. Printer logiJET TM4
2. Power cord
3. Data cable (USB)
4. Ribbon supply spindle + Ribbon rewind spindle (eventually both parts are already mounted in the device)
5. empty Ribbon Sleeve (Ribbon Core)
6. Two so called Spacers + two Centering sleeves, each with a knurled screw (all these parts belong to the media supply spindle, eventually these parts are already mounted in the device)
7. CD containing:
    - Operator's Manual for logiJET TM4
    - Print drivers
    - IDOL Programming Manual

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 or rather the connection cables have to be easily accessible.
- The printer should not be located near volatile or combustible materials.

- The printer must be connected to an appropriate AC power source 100 – 240 VAC, 1.6 A, 50 - 60 Hz.
  The socket and the power cord must not be damaged.

- If the printer is equipped with the corresponding option, power sources with 12V, 24V or 48V can be used, too (on-board-electrical system of a forklift truck, for example).
- Use the printer only within the allowed range of connection values (see chapter Specifications).

- In order to run the printer reliably, please maintain the following environmental conditions:

  Temperature: +5°C to +40°C (operating)
  -20°C to +50°C (storage temperature)
  Relative atmospheric humidity: 30% to 85% (without condensation)

2.4. Printer Components

Main view:

Fig. 2.4.a Main view of the printer logiJET TM4

Fig. 2.4.b Side view of the printer

Fig. 2.4.c Rear view of the printer

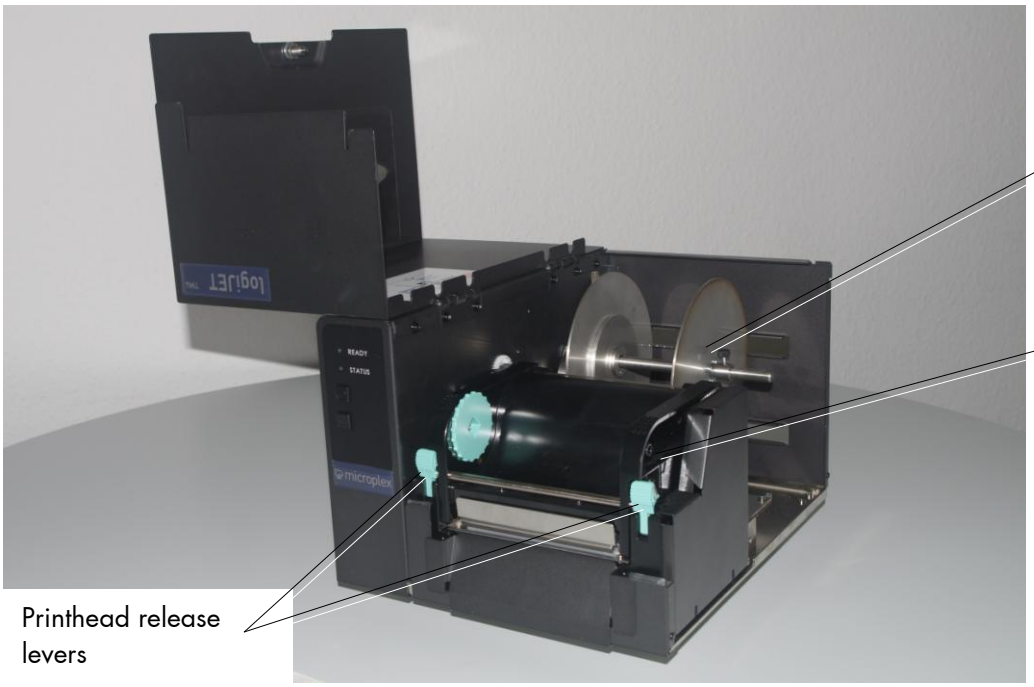


Fig. 2.4.d Inside View of the printer

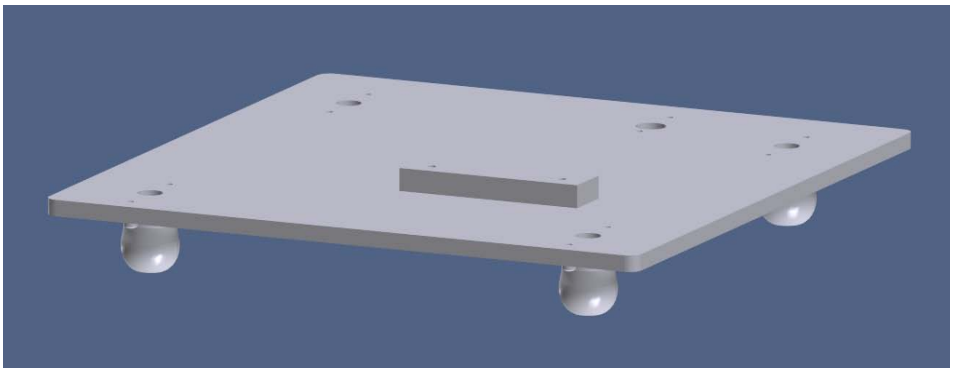


Fig. 2.4.e Mounting Plate for the printer (this Mounting Plate is optional)

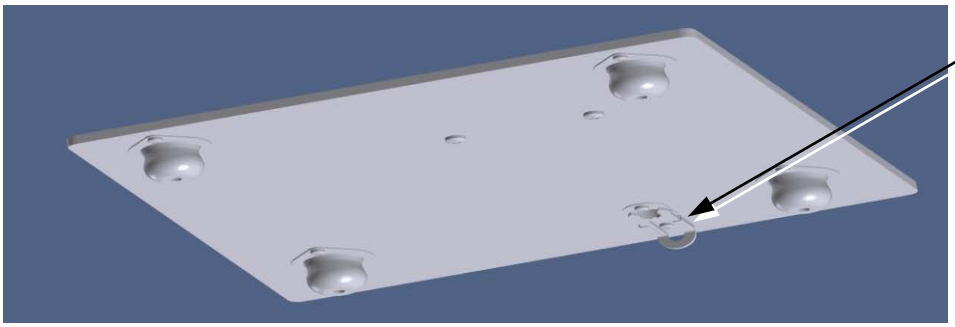


Fig. 2.4.f Mounting Plate: view from below

Details on mounting the printer to a forklift truck:

The Mounting Plate (optional part of the printer) is equipped with 4 rubber feet.
In the bottom of each foot there is a bore hole to incorporate a M4 fastening screw.

The following drawing of the Mounting plate shows the construction offsets of the 4 rubber feet:

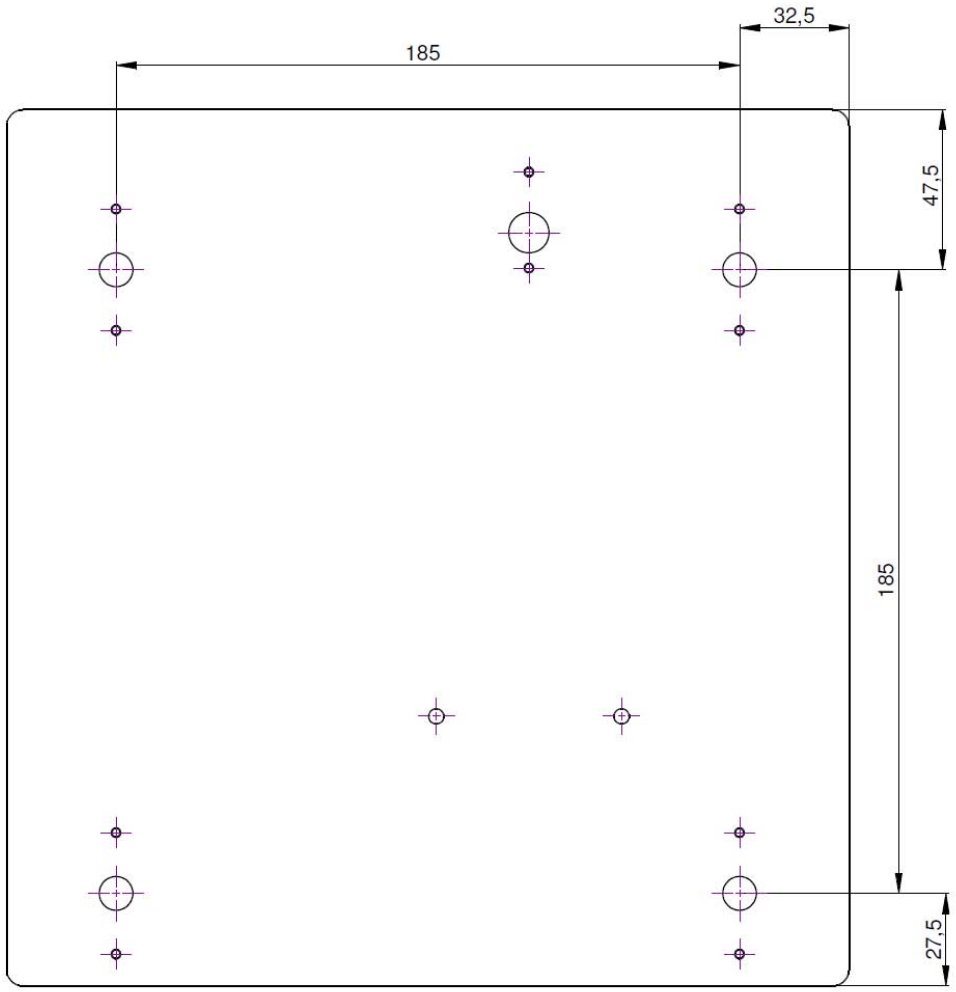


Fig. 2.4.g Drawing of the 4 fixing holes in the Mounting Plate

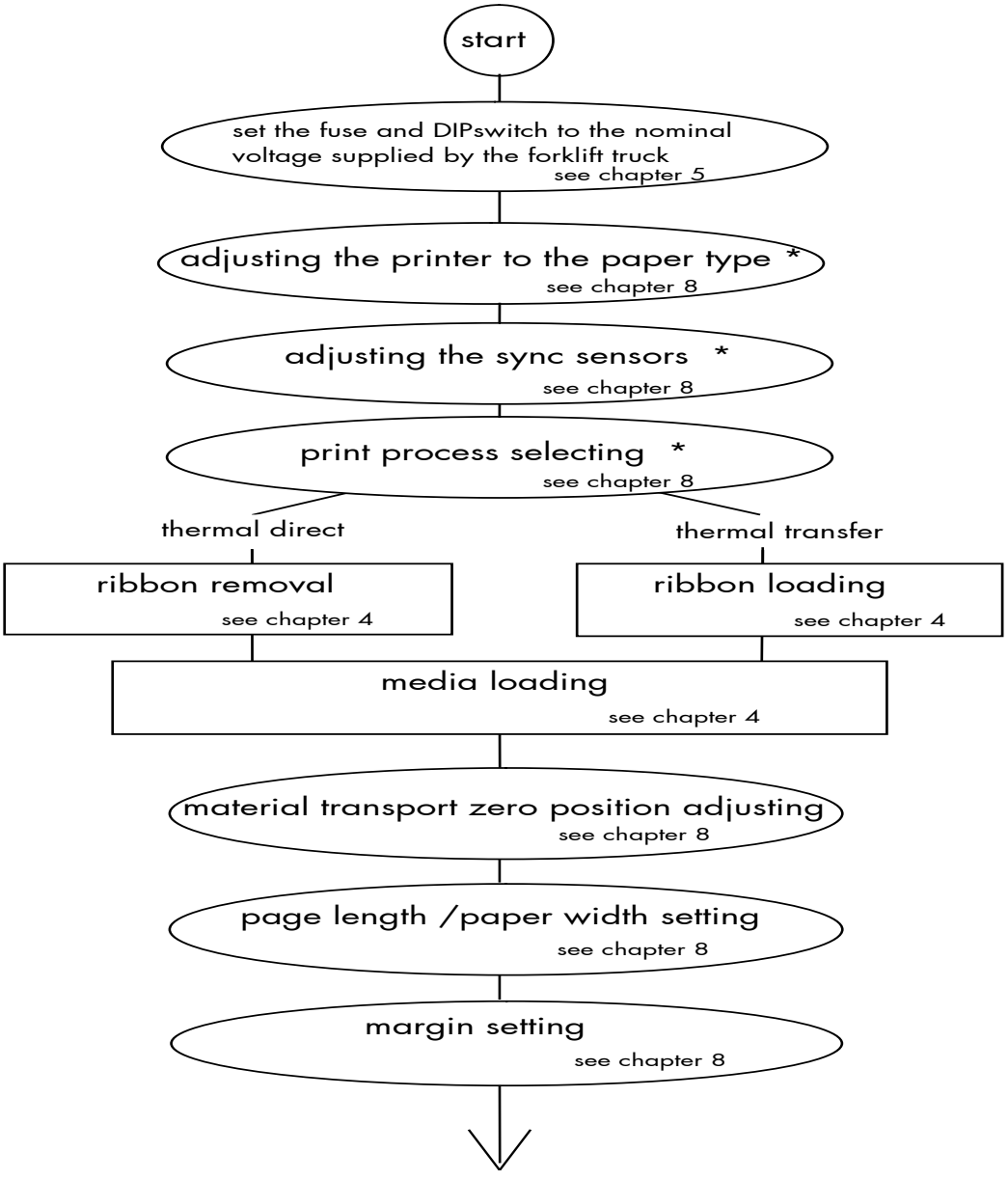
Drill the 4 bore holes (threaded holes or through bores for M4 screws + nuts) into the the surface of your forklift truck (matching the target position of the printer).

Please assemble the Mounting Plate to the forklift truck using four M4 screws.
Then assemble the printer logiJET TM4 to the Mounting Plate (the locking device must engage, compare fig. 2.4.f).

Notes on the electrical connection of the printer can be found in section 5.2 Printer Power Supply.

3. Basic Operation Sequences

3.1. Overview



*) 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.

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 (for example via IP-Admin Panel by operating the ENTER key two times).

An output of the current setting values can be shown on the integrated website (WebPanel). The Status Sheet can be stored and printed, too. (See chapter 7 and section 8.3.9, too.)

After each material changing (print media, label material and ribbon, too) the sensors have to be suitable adjusted (via automatic adjustment or, if necessary, via sensor current and switching threshold, see section 8.3.2 Adjusting the Sync Sensor).

Detailed information on the operations above and to further functions of the printer logiJET TM4 can be found in the following chapters.

4. Handling of Consumables

Pay attention to the following safety instructions and the instructions listed in section 1.4, too!

Safety instructions:

- Set the DIPswitch located on the DC/DC converter PCB to the nominal voltage supplied by the vehicle's electric system and always use a suitabele fuse (details are described in chapter 5).

- The cutter (optional device of your printer) can cause injuries if the printer is operated incorrectly.
- There is a danger of fingers, hair, clothing, jewellery etc. being drawn into the machine in the vicinity of the material transport unit.
- Be careful 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.

For thermal direct printing it is not allowed to load a ribbon to avoid damaging the printhead. Make sure your settings using the integrated website/ IP-Admin Panel (see chapter 5 to 8) fit to the printer implementation (ribbon inserted /not inserted).

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

4.1. Winding Diagram

Hint: The printer shown in the following figure deviates from your logiJET TM4 printer in form and appearance.
The figure is only provided to show you the basical winding directions.

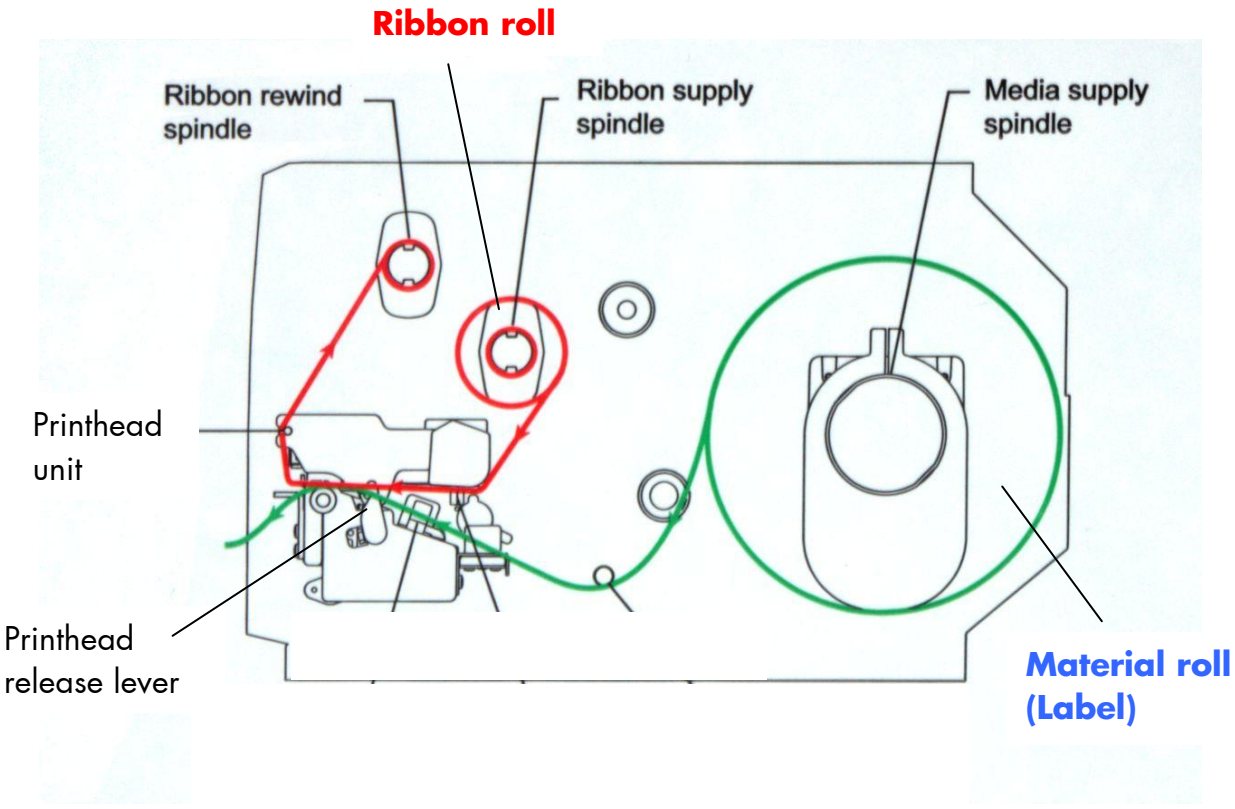


Fig. 4.1.a Schematic drawing: Winding directions of material and ribbon

The diagram above shows the usual winding directions of material and ribbon. Please note: You have to use ribbons with “Ink outside the roll”.

Also pay attention to the instructions located on the inside of the printer cover.

4.2. Handling of Ribbon (Foil)

4.2.1. Ribbon Loading

If you want to operate the printer in the thermal transfer mode a printer ribbon has to be used (compare section 1.1).

Make sure you always use a printer ribbon being wider than the media to print on. In the case of printing on abrasive media printhead damaging can be avoided this way.

To set the ribbon go on like this:

1. Switch the printer to OFF LINE mode.

2. Open the printer cover completely
   (use the cover's handle; compare Fig. 2.4.a).

3. Push the two printhead release levers (both together) to open the printhead mechanism and swivel the mechanism upwards.

Printhead mechanism

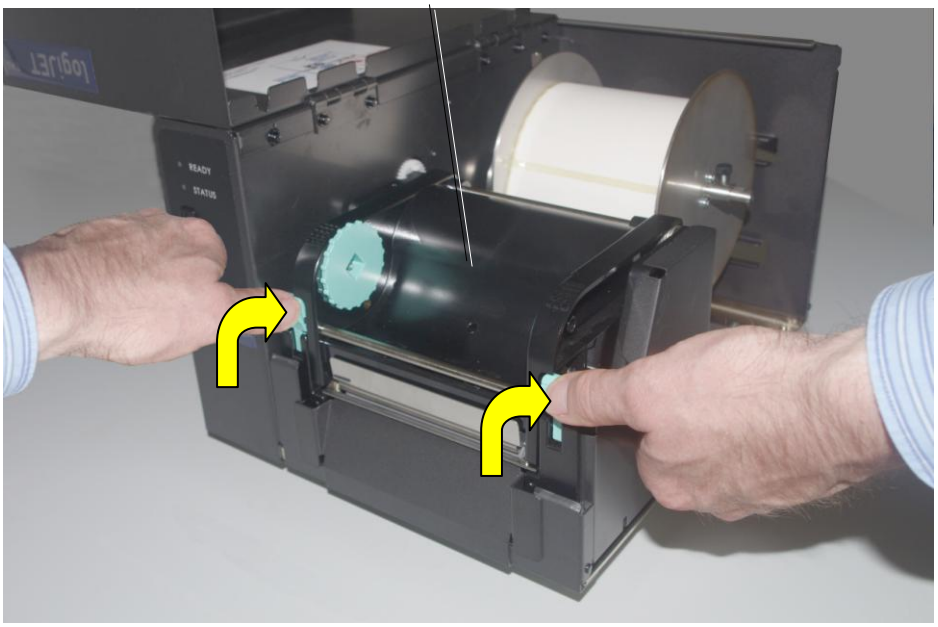


Fig. 4.2.1.a Pushing the printhead release lever clockwise

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

5. Take the ribbon supply spindle (extent of supply). You may have to disassemble it from the inside of the printer first (by an axial movement against the spring force).
The ribbon supply spindle is located at the underside of the printhead unit. To reach this spindle you first have to to open the printhead mechanism and to swivel the mechanism upwards; compare fig.4.2.1.a.

6. Slide the ribbon roll (compare working step 4) onto the ribbon supply spindle.
Please note:
a) All ribbons for this printer have to carry the "Ink outside the roll". Please consider the right winding directions shown in fig. 4.1.a and in the following figure.
b) Please use the skales located on the surface of the ribbon supply spindle to align the ribbon roll centred (key word for this printer: "centred paper transport").

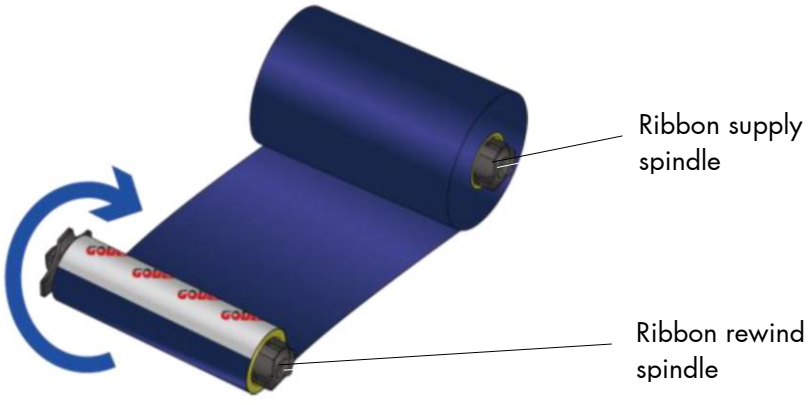


Fig. 4.2.1.b Schematic Drawing: Right winding directions for the ribbon rolls

7. Take the ribbon rewind spindle (extent of supply). You may have to disassemble it from the inside of the printer first (by an axial movement against the spring force).
   The ribbon rewind spindle is located on top of the printhead unit; compare fig. 4.2.1.a.

8. Slide the empty ribbon sleeve (ribbon core; extent of supply) onto the ribbon rewind spindle.
   (Please note: it has to be mounted centered; compare step 6).

9. Peel of the end of foil from the ribbon roll and fasten it to the ribbon sleeve located on the ribbon rewind spindle (turn up the ribbon once so that the adhesive part at the beginning of the ribbon can be used. Adhesive tape can be used, if need be).

Make sure that the ribbon rewind direction is correct. (Compare figure 4.2.1.b.)

10. Wind the ribbon rewind spindle clockwise 2 to 3 rotations at the minimum to get a good connection between the end of the ribbon and the ribbon sleeve.

11. Take the ribbon supply spindle (together with the ribbon and the ribbon rewind spindle, compare fig. 4.2.1.b) and first assemble the ribbon supply spindle to the printer. This spindle has to be mounted to the printhead unit just below the printhead (by an axial movement against the spring force).

12. Use both hands to swivel down the printhead unit until it clicks into place (some force is needed).

13. Take the ribbon rewind spindle route the ribbon around the printhead without folds. Then assemble the ribbon rewind spindle on top of the printhead unit; compare the following figure:

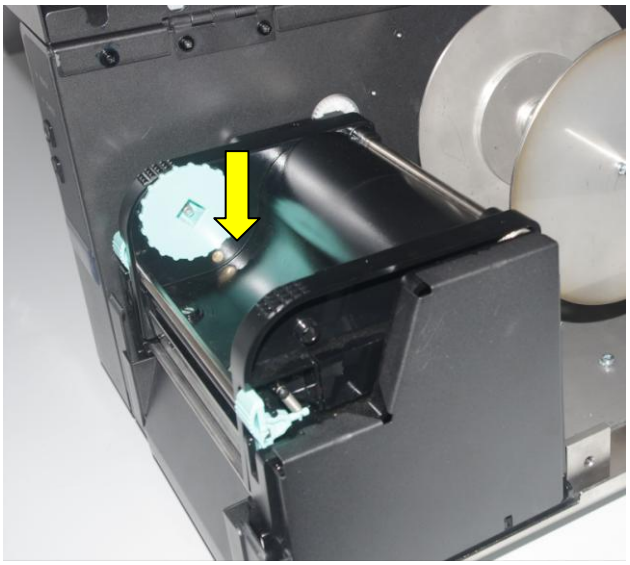


Fig. 4.2.1.c Target position for the ribbon rewind spindle

14. Wind the ribbon rewind spindle 3 to 5 rotations in the shown direction (see the following figure) to tauten the ribbon.

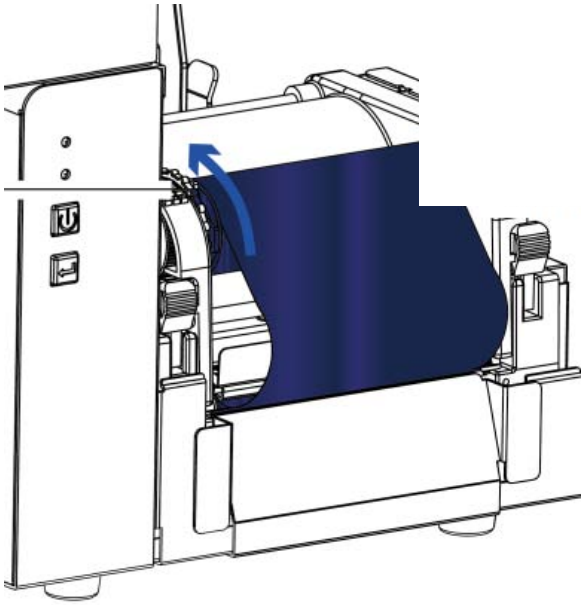


Fig. 4.2.1.d Tautening the ribbon by windingthe ribbon rewind spindle

15. Check that the ribbon has no folds and is running straight. If necessary, tauten the ribbon a little bit more by further winding of the ribbon rewind spindle. Finally the ribbon has to be firmly attached to the ribbon sleeve.

4.2.2. Ribbon Removal

The following steps are necessary if a used-up ribbon has to be replaced by a new one. If you want to switch from printing in the thermal transfer mode to printing in the thermal direct mode, the steps 6 and 7 have to be omitted.

1. Switch the printer to OFF LINE mode.

2. Open the the printer cover completely.

3. Push the two printhead release levers to open the print head mechanism and swivel the mechanism upwards (compare fig. 4.2.1.a) .

4. Disassemble the ribbon supply spindle and the ribbon rewind spindle from the inside of the printer (each by an axial movement against the spring force).

5. Rotate the ribbon supply spindle until the free end of the ribbon is winded up.

The unused ribbon has to be placed on a suitable flat surface until it is used for the next thermal transfer operation (if necessary protect the ribbon against damages and against unintentional unwinding).

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

7. Remove the used-up ribbon from the rewind spindle and dispose it according to the rules.

The ribbon has to be loaded as described in section 4.2.1.
The media for thermal direct printing has to be loaded as described in section 4.3.1.

4.3. Roll-Fed Media Handling

4.3.1. Roll-fed Media Loading

To load roll-fed media for tear off respectively for further external processing go on like this:

The tear off roll-fed media is easier to insert if the end is gored before inserting as shown in the figure below (when using a new roll you should first remove the protection foil if necessary and discard one full turn of the media).

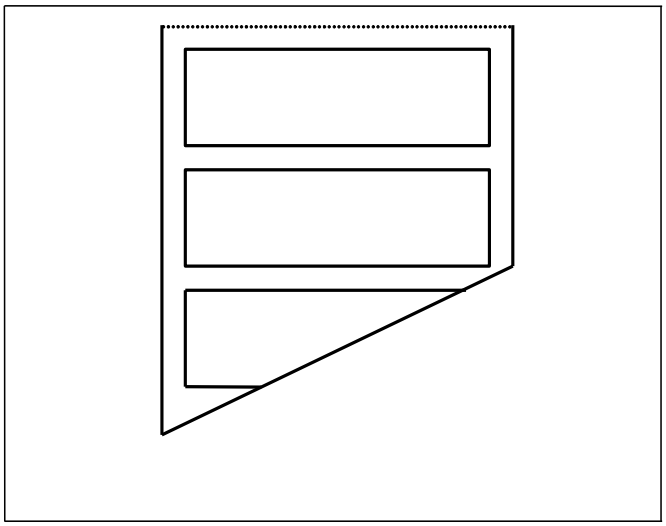


Fig. 4.3.1.a Goring the tear off roll-fed media

1. Switch the printer to OFF LINE mode.

2. Open the printer cover completely.

Fig. 4.3.1.b Opening the printer cover

3. Loosen the knurled screw of the front centering sleeve (please loosen this screw until it is barely kept by the thread).

Fig. 4.3.1.c Loosening the front knurled screw

4. Remove the centering sleeve together with its knurled screw from the printers shaft (pull it off and lay it aside for later reinstallation).

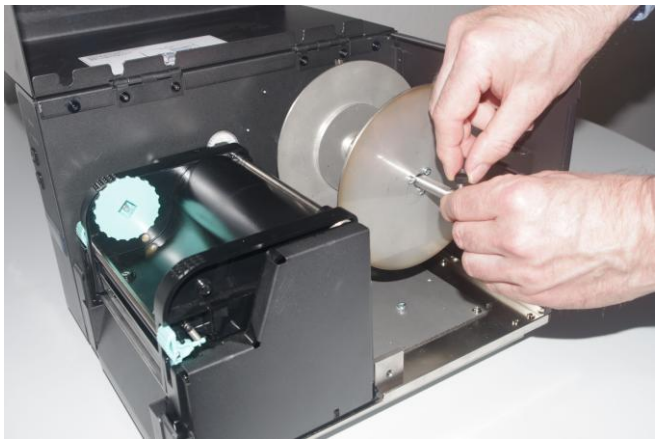


Fig. 4.3.1.d Removing the front centering sleeve

5. Now remove the front spacer (big round metal disc) from the printers shaft and lay it aside for later reinstallation.

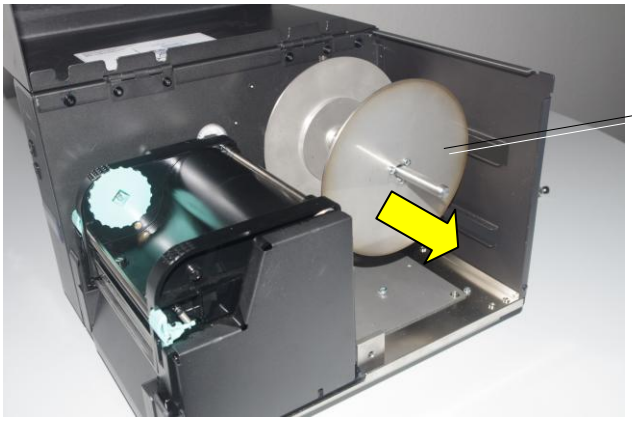


Fig. 4.3.1.e Removingthe front spacer

6. Now roughly adjust the position of the back spacer in accordance to the current media roll width. Fix the position of the back spacer by tightening the long knurled screw (see following figure).

Please note: The aim of all the working steps to adjust the two spacers is to achieve a "centered" position for the media roll in the printer's paper path (key word: "centred paper transport" of the printer).

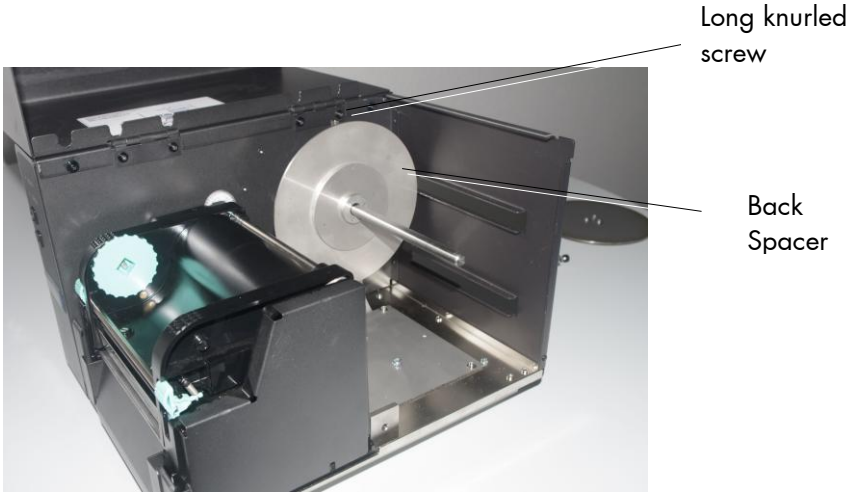


Fig. 4.3.1.f Roughly adjusting the back spacer to the media roll width

7. The media roll must turn counterclockwise when unwinding. Take the media roll and hold it in the corresponding way (see schematic diagram in section 4.1, too).

8. Take the media roll and slide it onto the cylindrical stud of the back spacer.

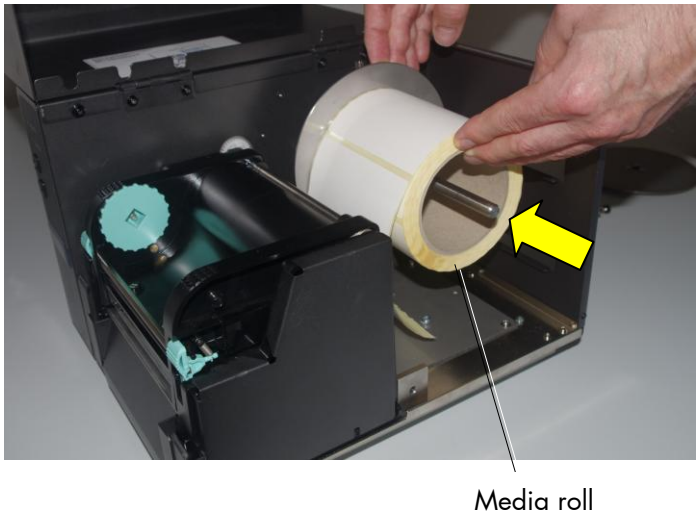


Fig. 4.3.1.g Sliding the media roll onto the back spacer

9. Use one of your hands to hold the media roll "in position" and use your second hand to take the front spacer now.

Fig. 4.3.1.h Holding the media roll and taking the front spacer

10. Assemble the front spacer to the printers shaft and move it towards the media roll until it touches.

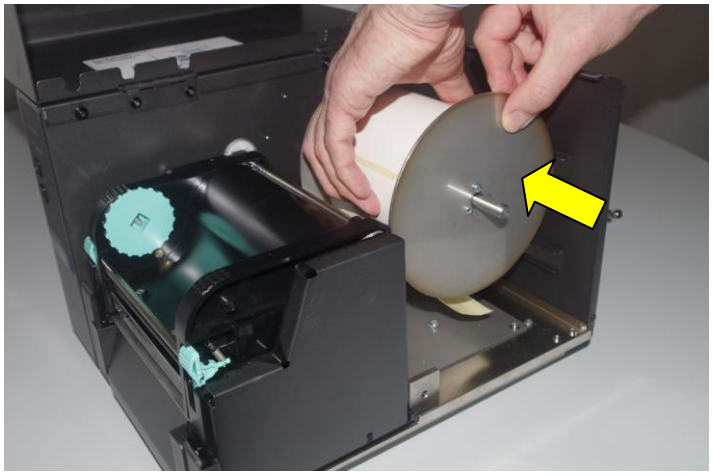


Fig. 4.3.1.i Assembling the front spacer to the printers shaft

11. Use one of your hands to lock the position of the front spacer with and use your second hand to take the centering sleeve now (compare working step 4).

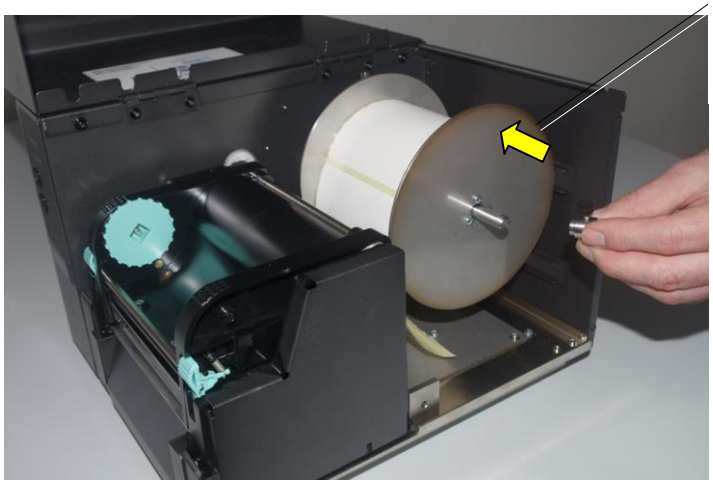


Fig. 4.3.1.j Locking the parts and taking the centering sleeve with the other hand

12. Assemble the centering sleeve to the printers shaft, too (move it towards the spacer until it touches).

13. Tighten the knurled screw of the centering sleeve while you use your second hand to keep all parts in position (please spend enough force to keep the front spacer and the centering sleeve close to the media roll).

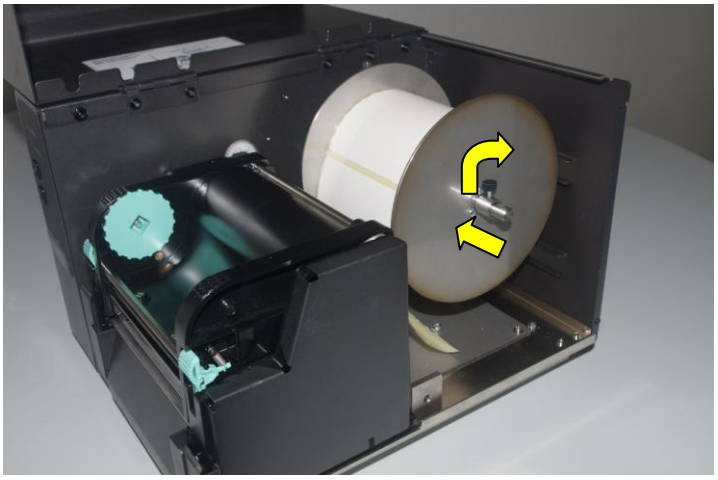


Fig. 4.3.1.k Pushing the centering sleeve and tightening the knurled screw

14. Push the two printhead release levers to open the printhead mechanism and swivel the mechanism upwards.

Printhead mechanism

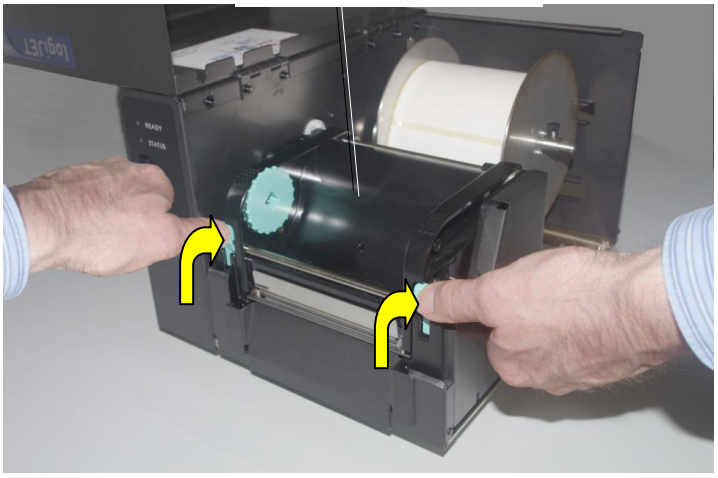


Fig. 4.3.1.l Pushing the two prindhead release levers

Fig. 4.3.1.m Printhead mechanism swivelled upwards

15. Please adjust the sensors of your printer to your current consumables:

    Details are described **in** section 8.3.2 **Adjusting the Sync Sensors** and in the following sections, where the associated panel functions are described.

16. Use your fingers to slide the two media guides to its outermost position (maximum throughput width).

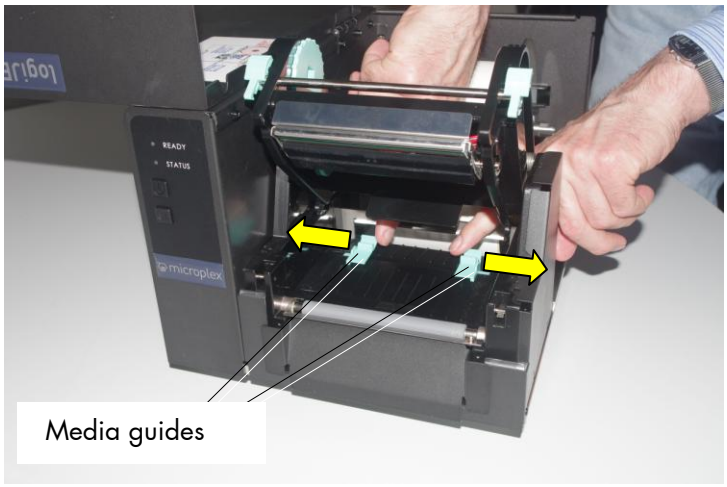


Fig. 4.3.1.n Sliding the two media guides laterally

17. Use your fingers to route the free end of the media roll through between the two media guides towards the printhead.

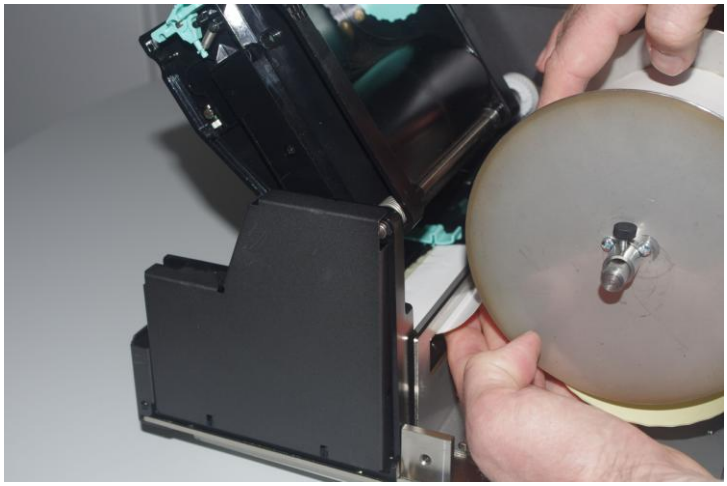


Fig. 4.3.1.o Routing the free media end towards the printhead

18. Route the media end into the printhead area and then pull the media end out ot the printer a little bit (compare the following figure).

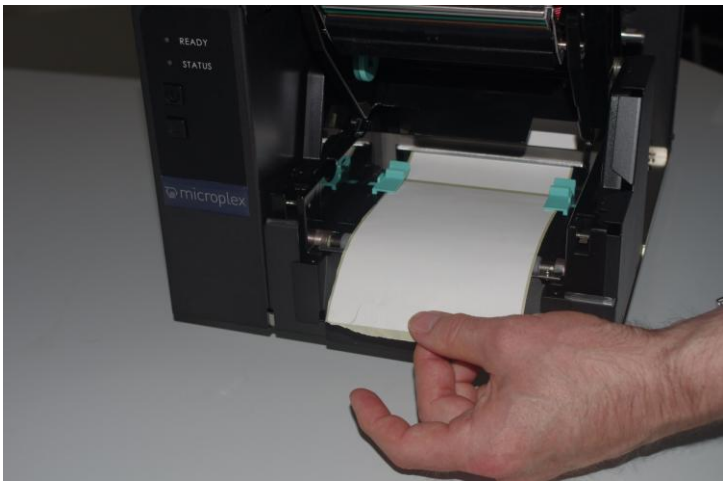


Fig. 4.3.1.p Free end of the media roll pulled out of the printer

19. Please place yourself behind the printer and then use both hands to move the two media guides carefully towards the media (compare following figure).

Please note: The right positon of the guides is reached as soon as both guides (slightly) touch the media.

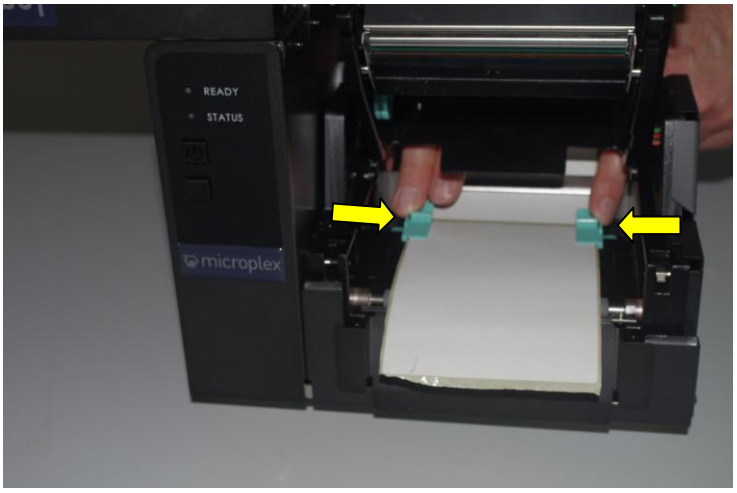


Fig. 4.3.1.q Moving the media guides carefully against the media

20. Take a look along the complete paper path now to check wether the media roll is in one line with the paper guides (or rather with the part of media guided in this area of the printer).

Please note: For a trouble-free operation of the printer a straight media transport is necessary. Please take time to carry out a thorough inspection and please carry out any necessary correction.

21. If the media roll is not yet in one line with the paper guides, please carry out the following four working steps. Otherwise you can skip the following four steps:

22. Use one hand to loosen the long knurled screw of the back centering sleeve and use your other hand to loosen the knurled screw of the front centering sleeve.

Please note: Both screws have to be loosened only a little bit (!) and here lateral movements of all parts (media roll with both spacers and the centering sleeves) have to be avoided.

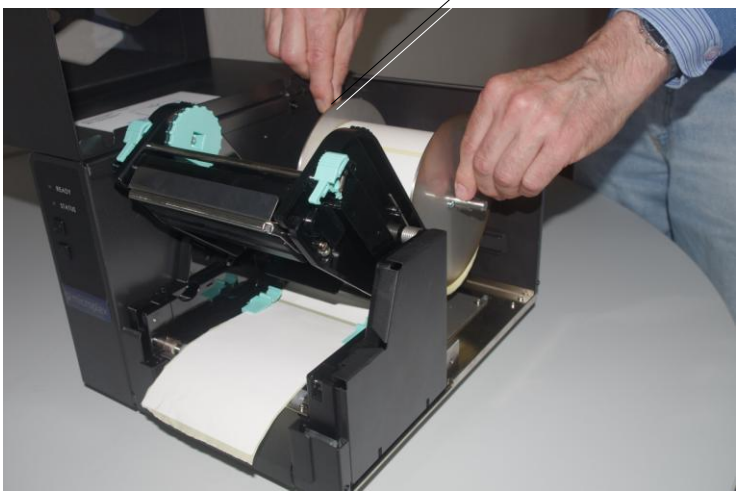


Fig. 4.3.1.r Carefully loosening two knurled screws a little bit

23. Now carefully perform a controlled lateral movement of all parts together to get the media roll in one line with the paper guides.

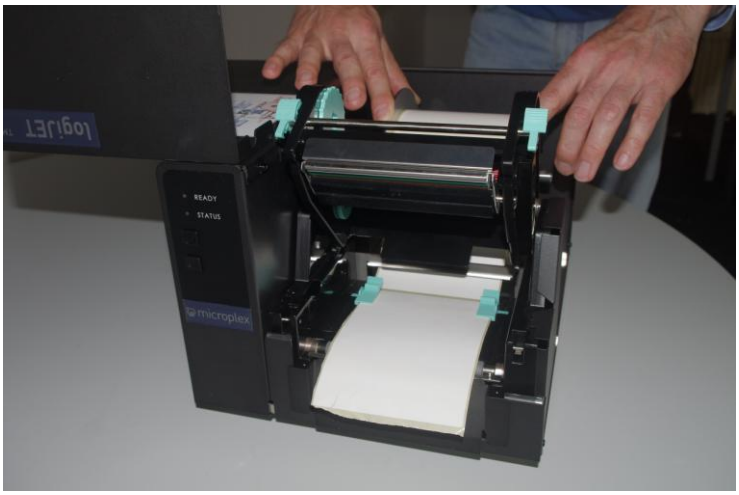


Fig. 4.3.1.s Lateral movement of "all" parts together
(i.e..: Media roll together with the spacers and the centering sleeve)

24. Please stop the lateral movement as soon as the media roll is in one line with the paper guides.

25. Now use one of your hands to tighten the long knurled screw of the back centering sleeve and use your second hand to tighten the knurled screw of the front centering sleeve. (Please take care that there is no lateral movement of "all" those parts described in fig. 4.3.1.s.)

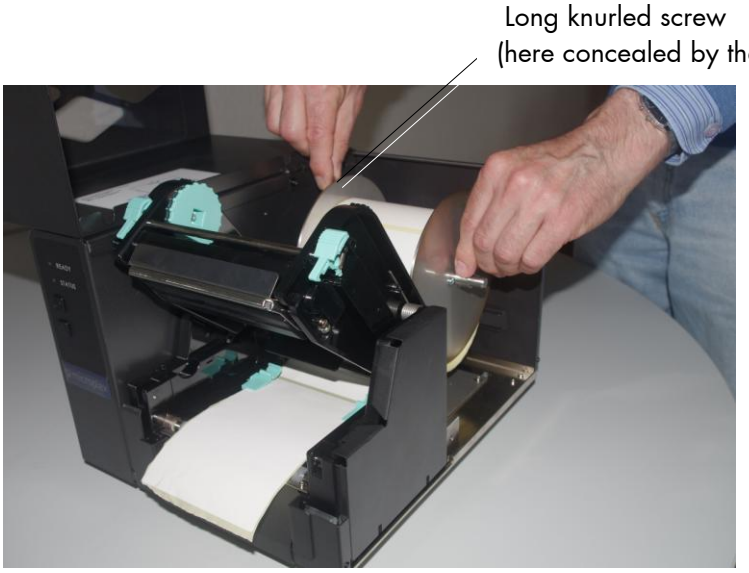


Fig. 4.3.1.t Carefully tightening the two knurled screws

26. Repeat the working steps 19 and 20 (see above).

27. Swivel down the printhead unit until it clicks into place.

28. Close the cover of the printer.

The printer now is ready to print using the thermal direct process.

Please note: For thermal direct printing a special kind of paper is needed (the ink has to be "inside" the paper).

If your current media is "only" suitable for thermal transfer printing, the printer has to be equipped with a ribbon first before you can start to print.

All steps for ribbon loading are described in section 4.2.1.

29. Before starting the printer first please read chapter **5 Operation**.

30. Use the printer's WebPanel/Menu to select the appropriate print process.
Details are described **in** section 8.3.3
Print Process Selecting.

4.3.2. Media Removal

1. Switch the printer to OFF LINE mode.

2. Open the cover of the printer.

3. Push the two printhead release levers (both together) to open the printhead mechanism and swivel the mechanism upwards. (Compare figure 4.3.1.l.)

4. Rotate the media roll clockwise until the free end of the media is winded up.

5. Loosen the knurled screw of the front centering sleeve (please loosen this screw until it is barely kept by the thread; compare fig. 4.3.1.c).

6. Remove the centering sleeve together with its knurled screw from the printers shaft (pull it off and lay it aside for later reinstallation; compare fig. 4.3.1.d).

7. Now remove the front spacer (big round metal disc) from the printers shaft and lay it aside, too.

8. Remove the roll with the tear off roll-fed media (if necessary protect the media against unintentional unwinding first).

9. Reinstall the parts mentioned above (Spacer and centering sleeve together with its knurled screw) to the printer.

10. Close the cover of the printer.

5. Operation

5.1. Attaching the Printer to a Network/PC

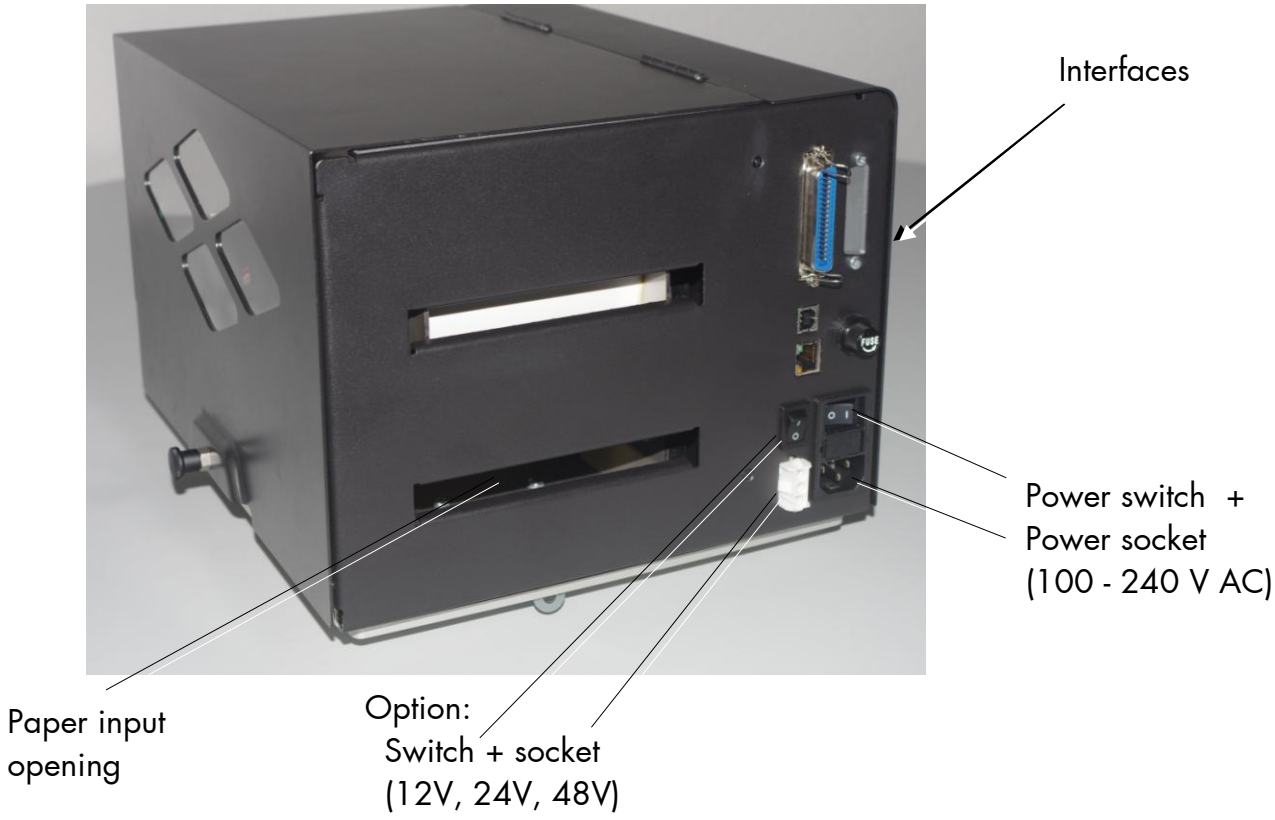


Fig. 5.1.a Rear view of the printer

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

2. Use a proper interface line to connect the printer to your computer or to the network.
   The printer logiJET TM4 is provided with several interfaces. See figure above and chapter 12 Specifications.

5.2. Printer Power Supply

Please notice the instructions given in chapter 4 Handling of Consumables.

1. Make sure that the printer is turned off. The power switches are located at the back of the printer (next to the paper input opening of the printer, see figure 5.1a).

2. Connecting the Printer to the Power Supply

Either Connecting the Mains Voltage

2a. 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.

2b. Turn on the printer. The power switch is located at the back side of the printer (at the lower right corner of the printer, see fig. 5.1a).

or Connecting to the electric system of the Forklift Truck (Option)

2a. Demount the side cover (located next to the cover of the printer).

Fig. 5.2.a Rear view of the printer: Position of the side cover

2b. Set the **DIPswitch** located on the **printer** DC/DC converter PCB **to the** nominal **voltage supplied by** the **forklift truck**. ***)**

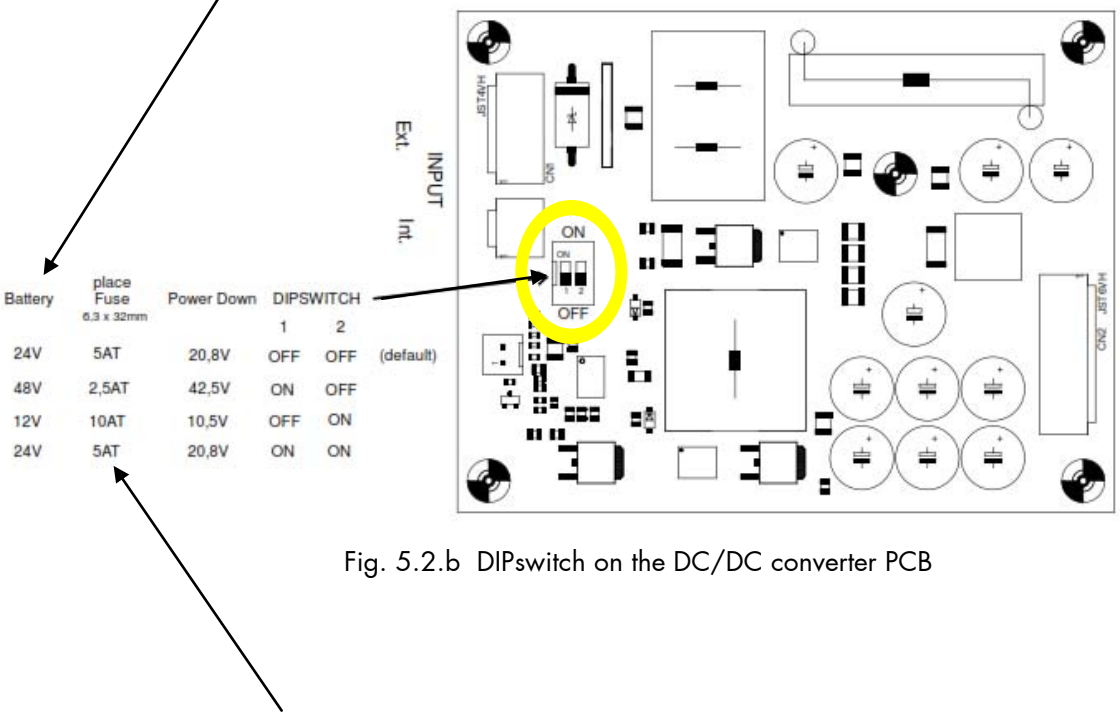


Fig. 5.2.b DIPswitch on the DC/DC converter PCB

2c. Use a suitable **fuse** for the printer power supply. Please refer to the details of the table above. ***)**

2d. Remount the side cover to the printer.

2e. Use the white socket at the back of the printer (see fig. 5.1.a), to connect the printer to the electric system of the forklift truck.

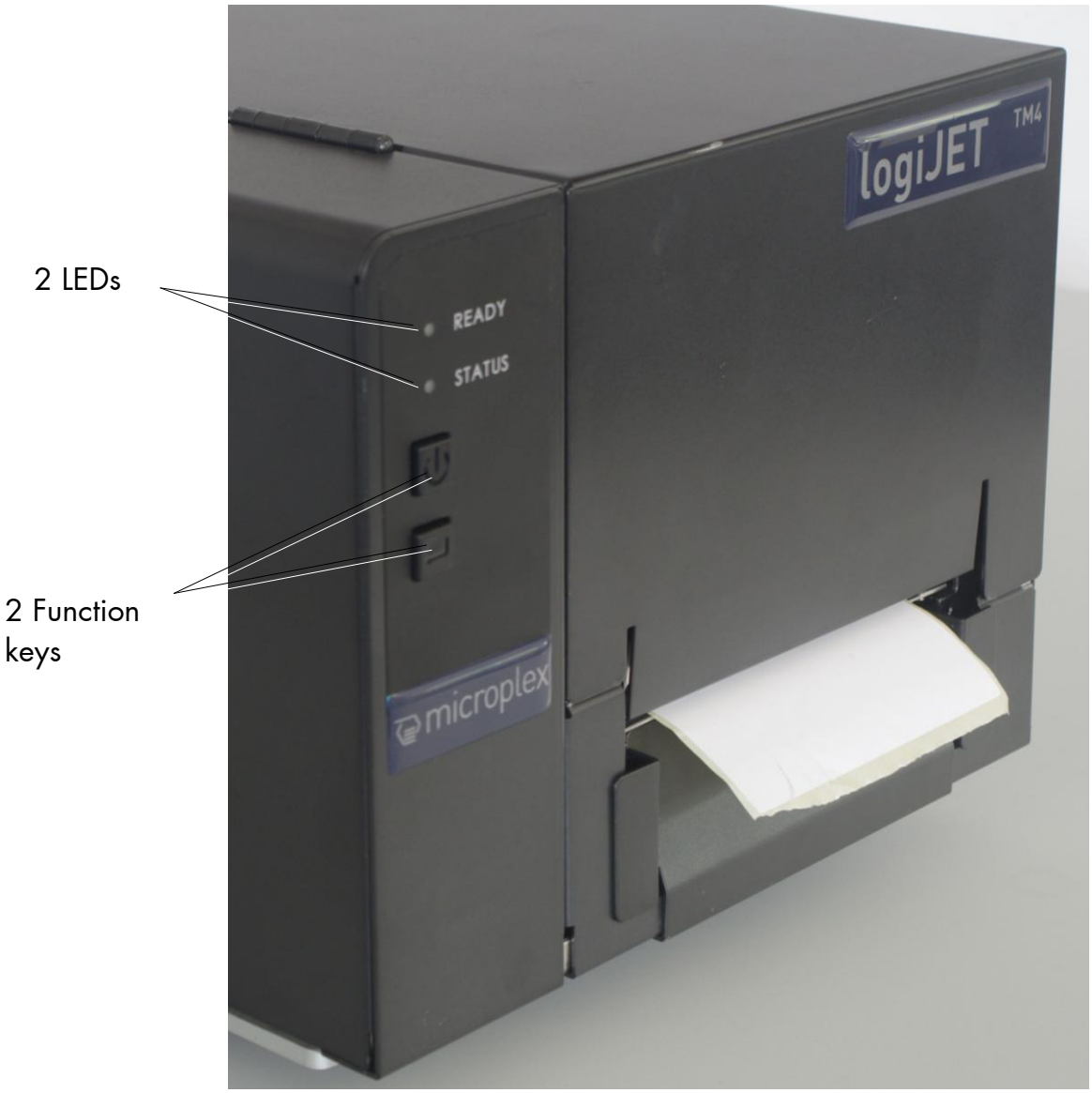
2f. Turn on the printer. The power switch is located at the back of the printer (next to the paper input opening of the printer, see fig. 5.1a).

*) to protect the battery of the forklift truck

The print system requires time to initialize and to warm up after you turn it on.

As soon as the printer's warm up phase is finished the printer goes into the ON LINE mode.

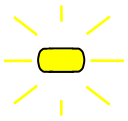
5.3. Control Panel View



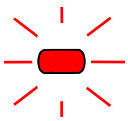
5.3.1. Function of the Control Panel Elements

READY LED (Green /Yellow/Red)

The printer is on and **ON LINE**.
(The printer is ready to receive data from the host).



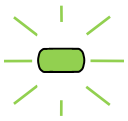
The printer is on and **OFF LINE**.
(The printer is not ready to receive data from the host).



An **error** occurred in the printer. The printer is OFF LINE.

The printer is off.

STATUS LED (Green)



The LED blinks: the printer is **waiting for data**
(The page is not finished, data is missing.)

The printer is **processing data** (the printer prints).

The printer is idle.

Control Panel Keys

This symbol shows the ONLINE key. This key is used to **turn** the printer **OFF LINE and ON LINE**. (Press the key briefly).

In addition to that this key can be used to clear an error message in the display after the fault was fixed.

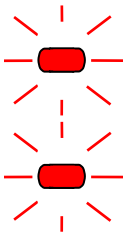
Printer OFF LINE:

In the OFF LINE mode this key (**press the key briefly**) is used to start the **feed/cut function** (cutter = option).

If this **key is pressed longer** (>1 second), the printing of a ***status sheet*** is initiated.

5.3.2. Setting to Factory Defaults

The following key combination is used to back-out all configurations to factory defaults.

	Panel display	Notes
Turn the printer off		
		Before starting the printer press the **key**  **and**  **simultaneously.**
Turn the printer on	 READY STATUS	Turn the printer on and keep the keys pressed until both LEDs of the printer light up red.
		Release the keys. Now (in Offline Mode) press and hold the lower key (>1 second).
	Long Beep	The configuration of the printer is back-outed to factory defaults.

6. Access to the integrated Web Page of the logiJET TM4

6.1. Abstract

The internal web page of the MICROPLEX Controller enables you for example to control or configure the printer logiJET TM4 using a computer that is connected via Ethernet (MICROPLEX WebPanel and IP-Panel).

6.2. Connecting the Printer to the Network

1. Connect the logiJET TM4 to your network* (via the Ethernet port, compare section 5.1 Attaching the Devices to a Network/PC).

   The following network parameters** are for instance factory default settings of the logiJET TM4:

IP Address	192.168.128.128
Subnet mask	255.255.255.0
Gateway	0.0.0.0

2. The status sheet gives an overview of the current printer configuration and shows the currently set IP.

   If this panel key of the logiJET TM4 is pressed and hold for a while (>1 second), the printing of a status sheet is released.

3. Start your Web Browser and type the IP address of the printer in the address bar of the Web browser:
   http://192.168.128.128/

   The Web Browser shows the Information page of the MICROPLEX **WebPanel**:

On the **Overview page** the printer status is displayed ①, as well as information on the controller and firmware version of your device:

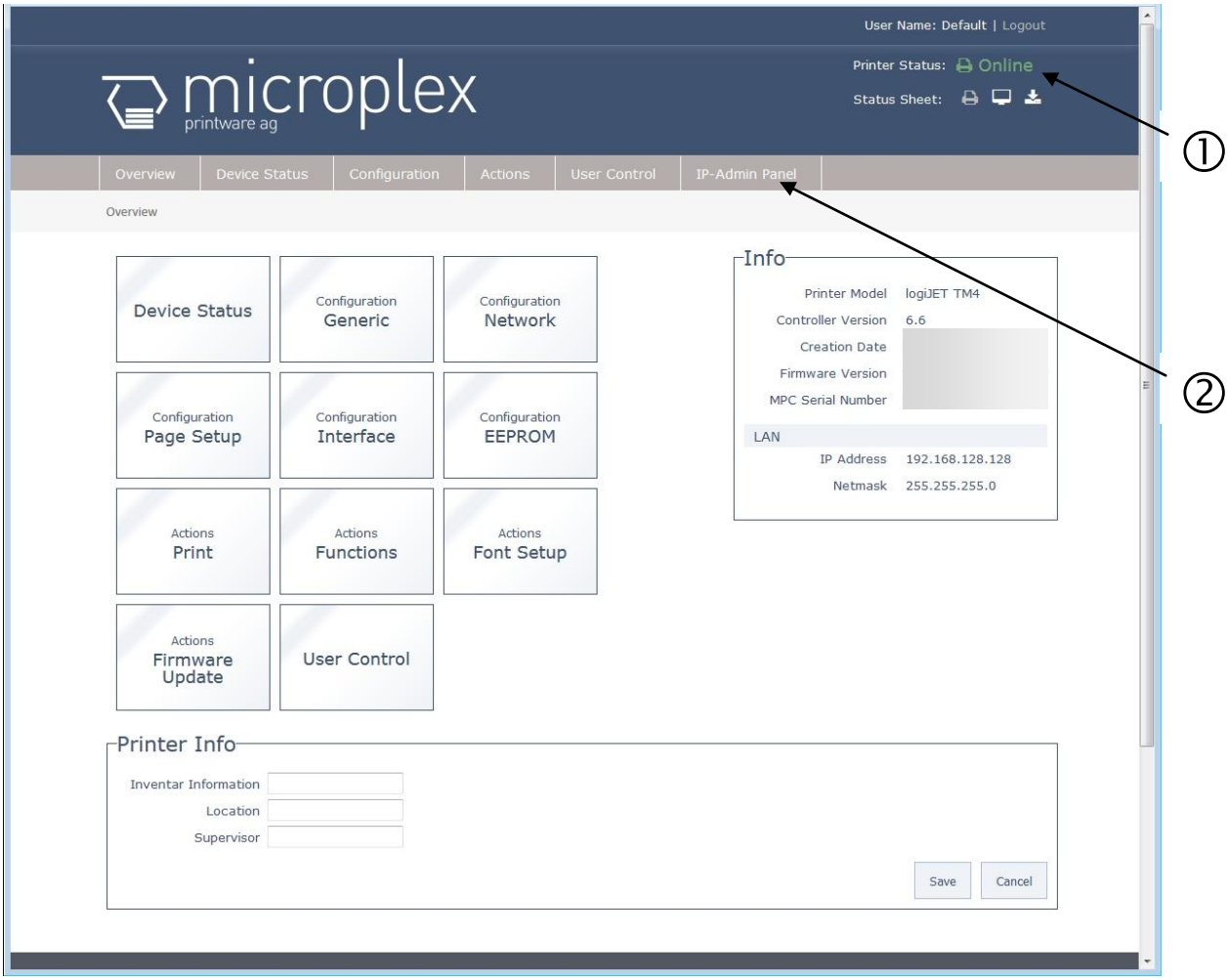


Fig. 6.2.a Overview page of the MICROPLEX WebPanel

In section 8 and subsequent the usage of the **IP-Admin Panel** ② is described.
It is a „virtual control panel" for the printer.
If you are already familiar with the panel functions of MICROPLEX printers
the IP Panel enables you to do the well-known operating steps.

* More details are described in the document Networking Features of MICROPLEX Printers. You'll find this document on the MICROPLEX Documentation CD. The CD belongs to the extent of supply of your printer.

** The network settings can be changed.
(See section 8.3.26 Configuration of Network Parameters).

7. Operating the Printer via the integrated Website (WebPanel)

The print system settings can only be changed if the **printer** is turned **OFF LINE**.

7.1. Overview Page

On the Overview page the printer status is displayed, as well as information on the controller and firmware version of your device.

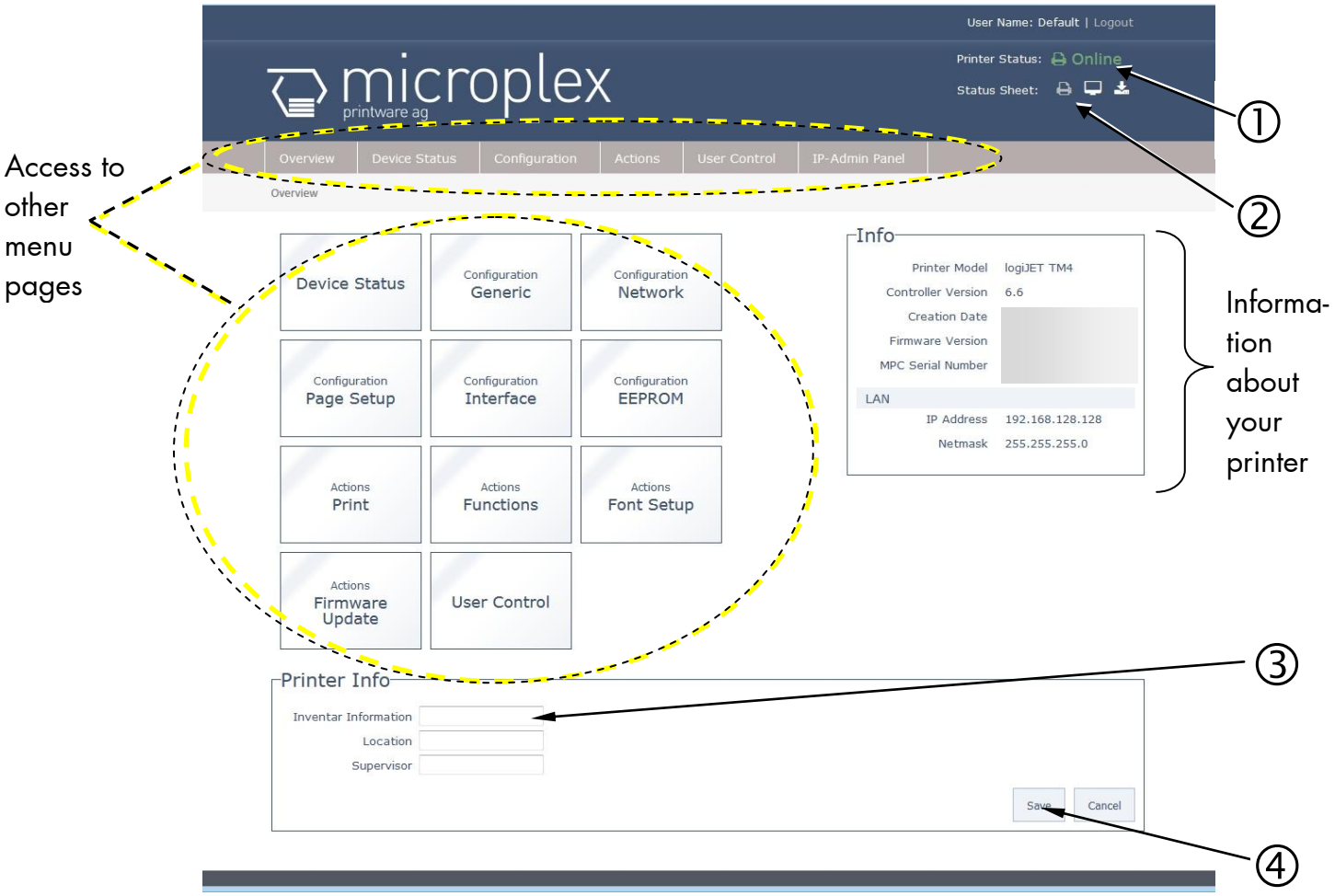


Fig. 7.1.a logiJET TM4: Overview page of the MICROPLEX WebPanel

① The printer status messages are displayed here (Offline/Online. Error messages are displayed in this area, too).

② Here you can release the printing of the printer status sheet, view it and save it to a file.

③ To change a parameter, „click“ on this specific parameter:
Select for example the input field „Inventar Information“ and then enter a new inventory number for this printer.

④ Complete the input of the function value with the Save key.

The print system confirms the acceptance of the new setting value. (An improper setting value leads to an error message.)

The following descriptions of panel functions are written assuming the printer is turned **OFFLINE**.

7.2. Configuration Page

On the Configuration page a number of print system configuration parameters can be changed.

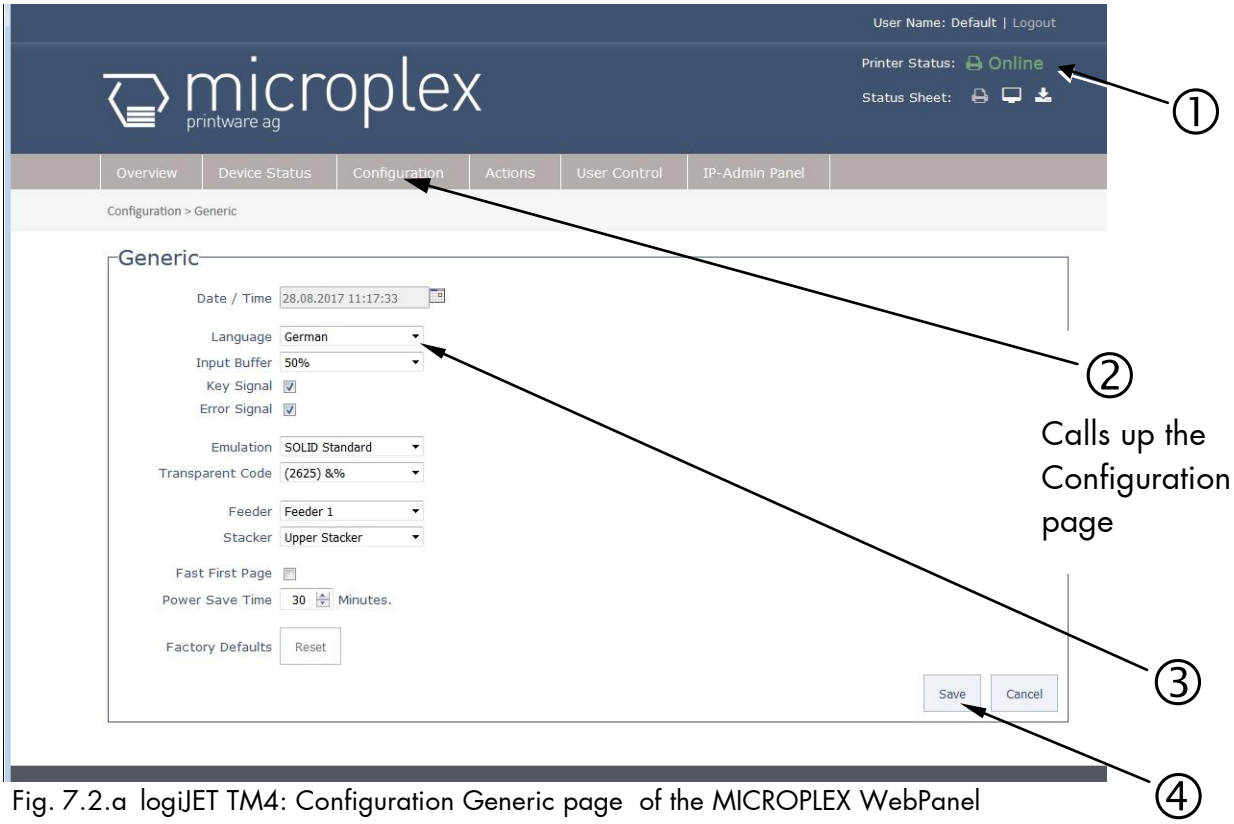


Fig. 7.2.a logiJET TM4: Configuration Generic page of the MICROPLEX WebPanel

Abstract:

Please „click“ on the parameter you wish to change:

① Click on the „online“ status message to turn the printer offline.
(Clicking on the „offline“ message turns the printer online again).

② Click on „Configuration“ and select the menu item „Generic“, to get to the Configuration page, that is shown above.
(or click on the button „Configuration Generic“ on the Overview page of the MICROPLEX WebPanel, compare Fig. 7.1.a)

③ Click the input field for the Language to change the language of the display messages, the status sheet...

④ Complete the input of the function value with the Save key.

7.3. Page Setup Page

On the Page Setup page you can for example set the paper size and the margins for the printouts.

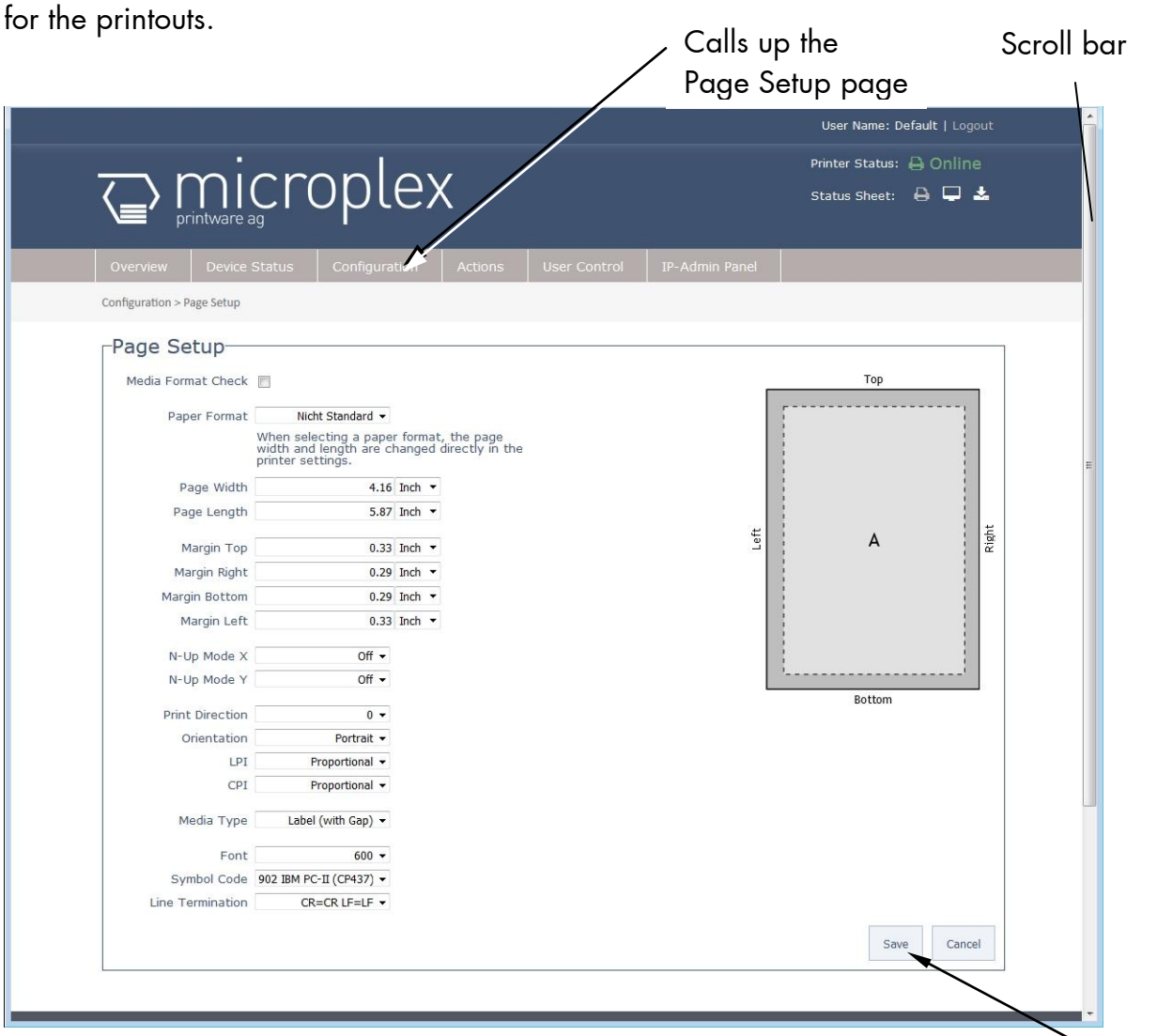


Fig. 7.3.a logiJET TM4: Page Setup page of the MICROPLEX WebPanel

Please use the scroll bar at the right side of the screen to make the lower part of the menu page visible.

② Click on „Configuration“ and select the menu item „Page Setup“, to get to the Page Setup page, that is shown above.
(or click on the button „Configuration Page Setup“ on the Overview page of the MICROPLEX WebPanel, compare Fig. 7.1.a)

③ Click on the adjustable values, use the input fields.

④ Click the Save button to finalize your settings.

7.4. Network Page

On the Network page you can configure the parameters for a network connection of the printer.

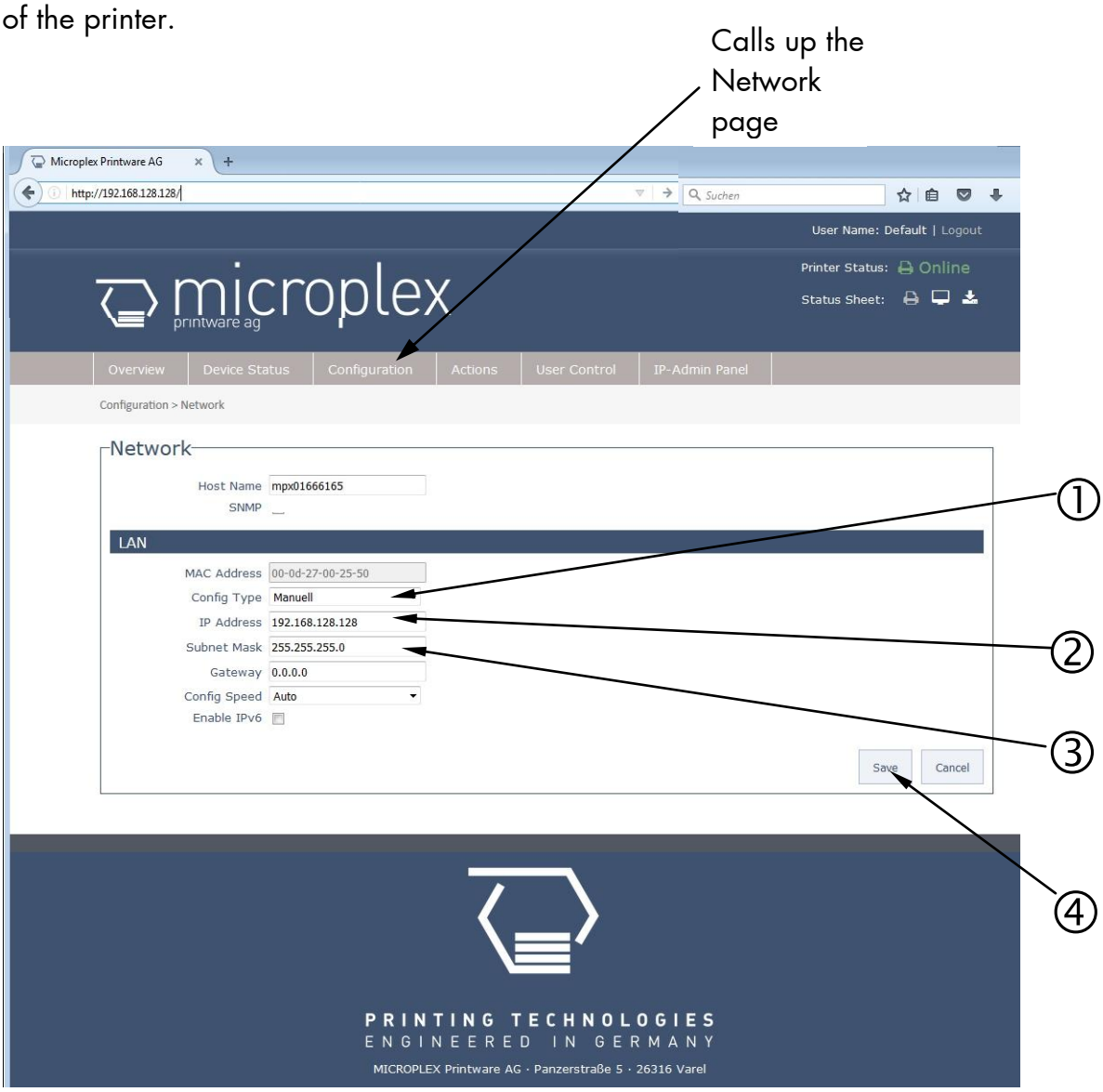


Fig. 7.4.a logiJET TM4: Network page of the MICROPLEX WebPanel

Abstract:

Please „click" on the parameter you wish to change:

① Click for example on ConfigType and select Manual.

② Click on the input field for the IPAddress and then enter a new IPAddress.

Hint: The best way is to write the new IPAddress for example on a label and put it onto the device.

③ Click on the input field for the Subnet Mask and enter the subnet mask.

④ Click the Save button to finalize your settings.

More details on the network parameters can be found in chapter 5 up to 8.

7.5. Device Status Page

The Device Status page is not only accessible via the menu, but also appears if you click on the error message (in the event of a fault).

(or you are on the Overview page of the MICROPLEX WebPanel, then you can click on the button „Device Status“, compare Fig. 7.1.a)

Fig. 7.5.a logiJET TM4: Device Status page of the MICROPLEX WebPanel

Abstract:

① The printer status messages are displayed here (Offline/Online). Error messages (short form) are displayed in this area, too.

② The (Error)Messages of the printer are listed here.

③ Here you can show the printer status sheet, save it to a file, and release its printing.

7.6. EEPROM Page

Attention:
You have to be **very careful** when changing parameters via the EEPROM page. If you use wrong parameters, the printer could hang up!

Before you change EEPROM parameters of the print system it is recommended to generate a **Status Sheet**! This facilitates a reset of the printer (resetting the parameters to the former settings).

The parameters must be written in hexadecimal numbers (0000 to FFFF). These EEPROM values are printed out in the first to third line of the Status Sheet.

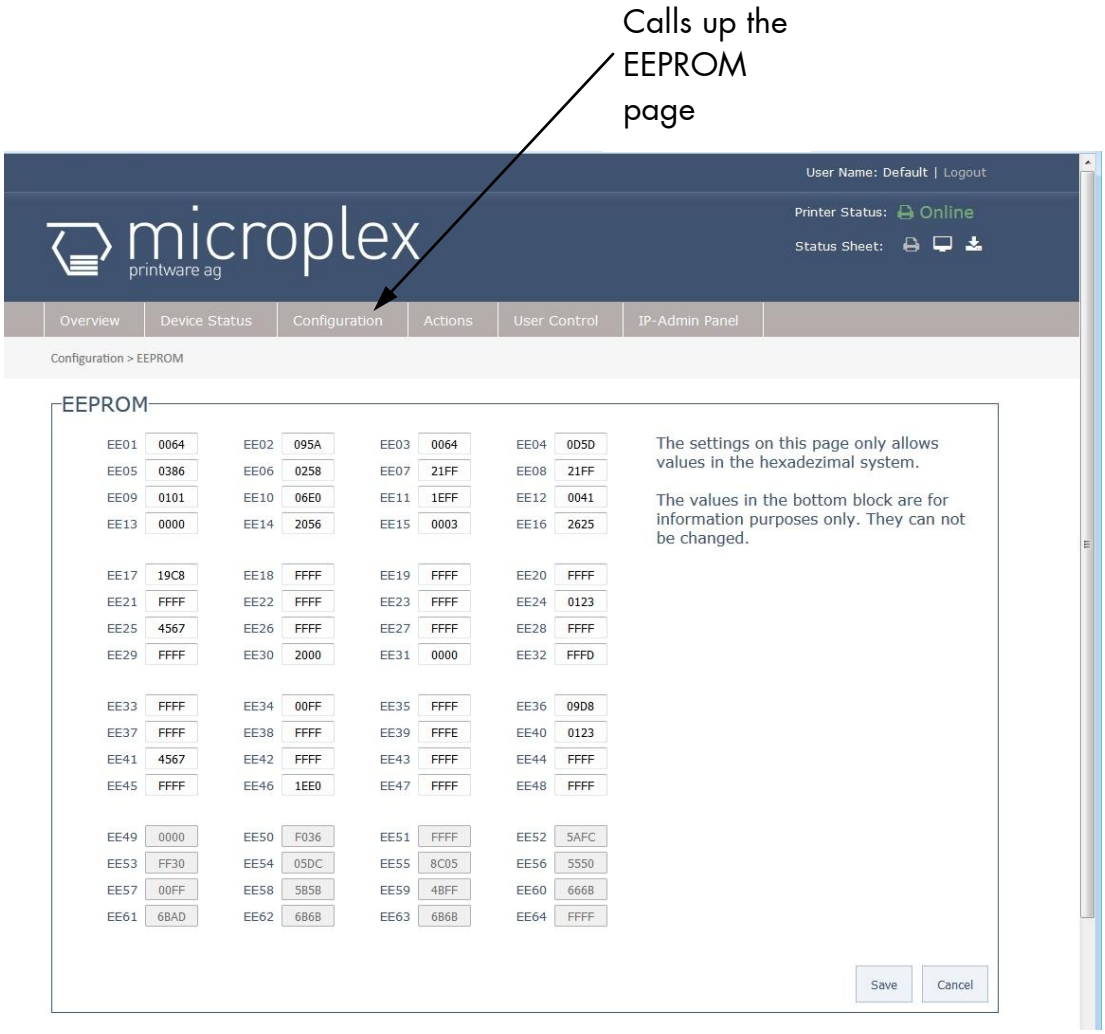


Fig. 7.6.a logiJET TM4: EEPROM page of the MICROPLEX WebPanel

The fourth line (Word 49 to Word 64) cannot be changed by the user.

Hint:
For more details refer to our offer of MICROPLEX Training Courses and the corresponding documentation: “The EEPROM-Sequence”.

7.7. User Control Page

On the User Control page you can register all users with user name and password.

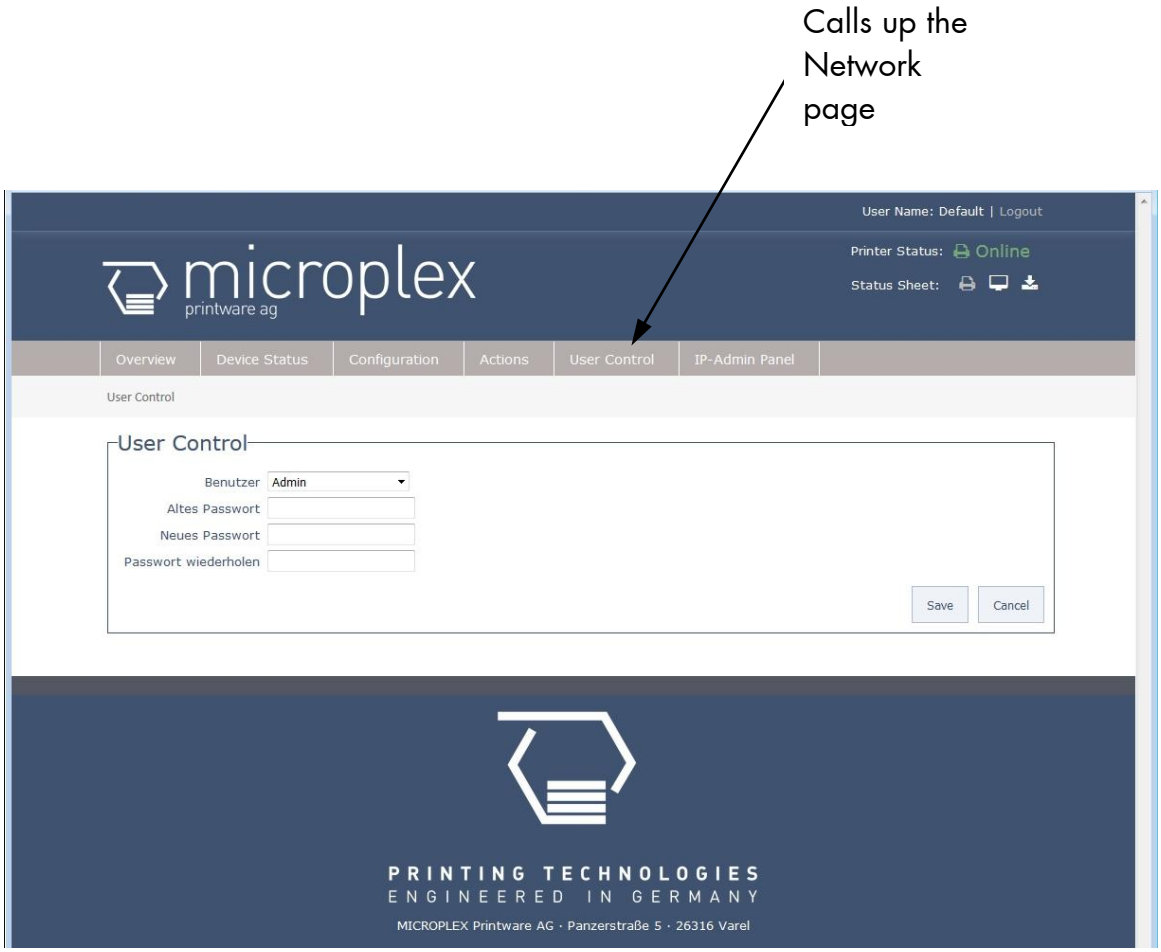


Fig. 7.7.a logiJET TM4: User Control page of the MICROPLEX WebPanel

Choose the User/Group and enter the passwords.

Click the Save button to finalize your settings.

8. Operating the Printer via the IP-Admin Panel User Interface

If you are already familiar with the panel functions of MICROPLEX printers the IP Panel enables you to do the well-known operating steps.

1. Type the IP address of the printer in the address bar of your Web browser: (compare the previous section, example: http://192.168.128.128/).

   The browser shows the Overview page of the MICROPLEX WebPanel:

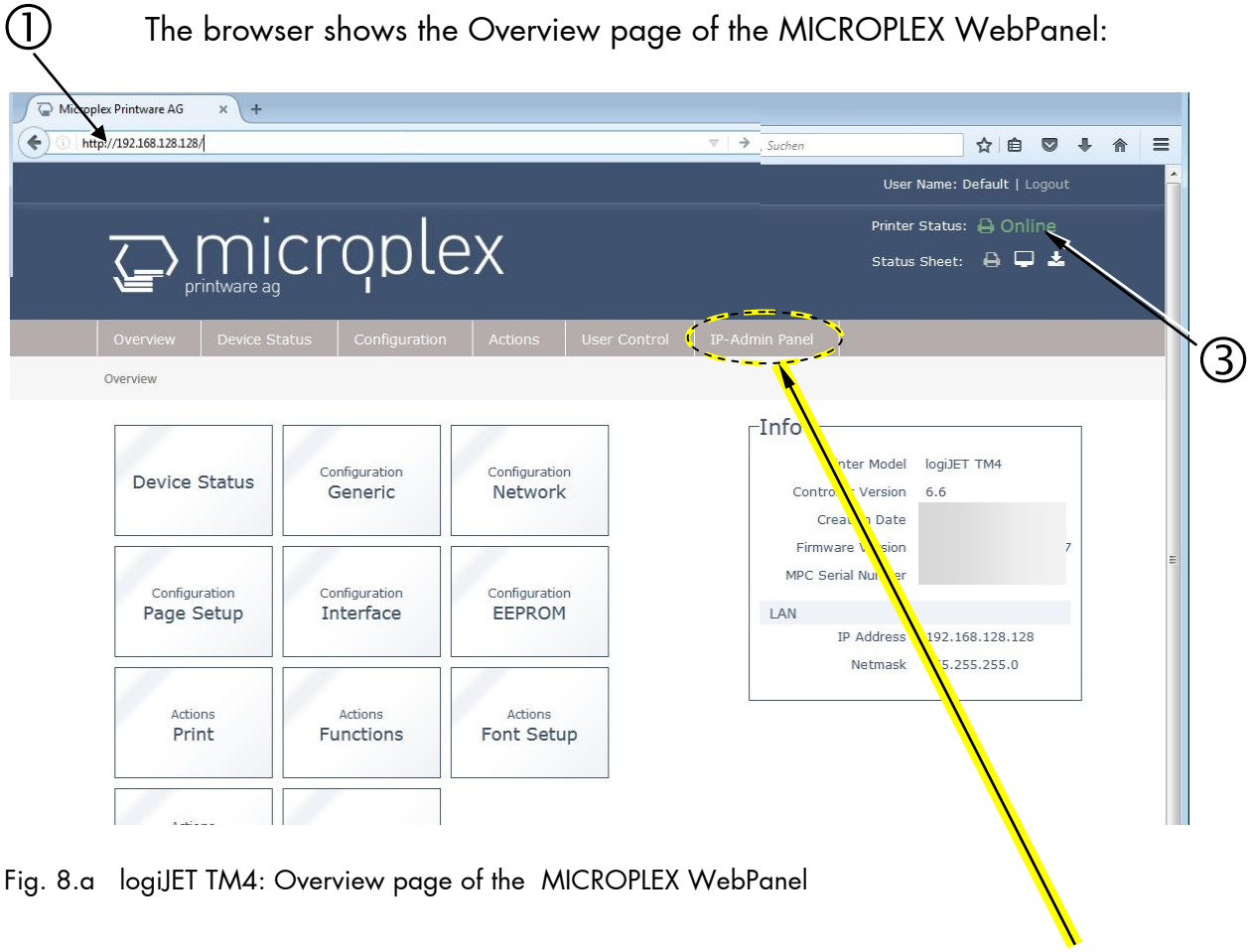


Fig. 8.a logiJET TM4: Overview page of the MICROPLEX WebPanel

2. By „touching" the IP-AdminPanel button you can switch to the **IP-Admin Panel** user interface directly („panel" as you know it from other MICROPLEX printers, see the following sections).

3. „Click" on the „Online" status message to switch the printer to Offline. („single click" on the status message, compare ③ in the figure above).

8.1. IP-Admin Panel

The **virtual control panel** (internal web page of the printer) of the logiJET TM4 pops up:

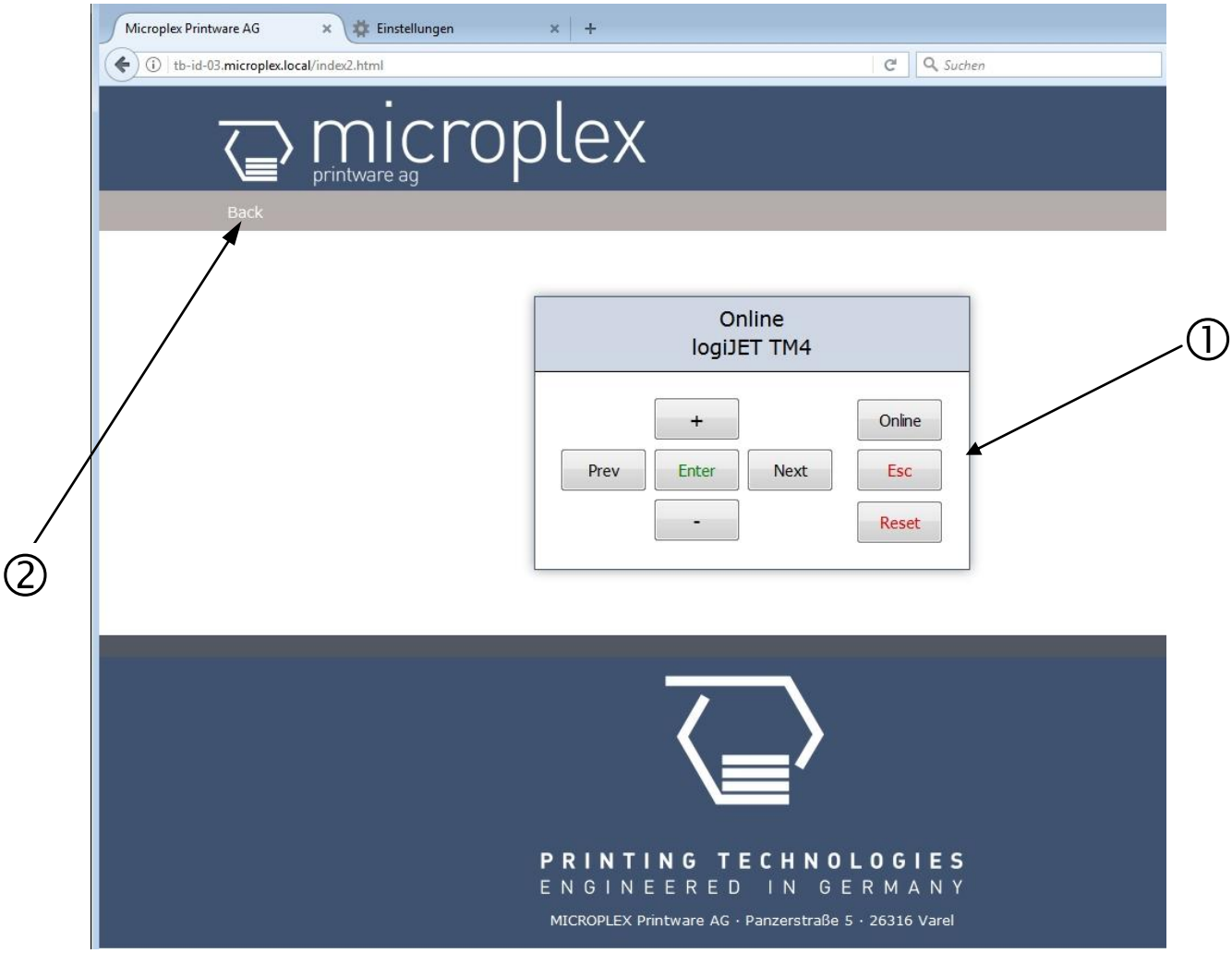


Fig. 8.1.a The MICROPLEX IP-Admin Panel is the virtual control panel of the logiJET TM4

① This virtual control panel enables you to get access to the printer's menu structure.

Details about the panel functions can be found in the following sections.

② A „click" on the Back button brings you back to the Overview page of the MICROPLEX WebPanel.

8.1.1. Details of the IP-Admin Panel Elements

Buttons („Panel keys“)

The Online key turns the printer ON / OFF LINE.

These keys are used for working within the different levels of the menu structure.
This structure and the panel functions are described in the following.

Using this key a Restart is released in the OFF LINE mode.

8.1.2. 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.

In chapter 6 to 8 you'll find descriptions how to reach the particular printer functions.

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 panel function "Printing the Status Sheet " (see section 8.3.9).

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.

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 TM4] Printer messages are displayed on the control panel display.

This symbol shows the MENU key. This key is used to turn the printer OFF LINE
If the printer is turned OFF LINE with this key you get automatically into the first menu level.

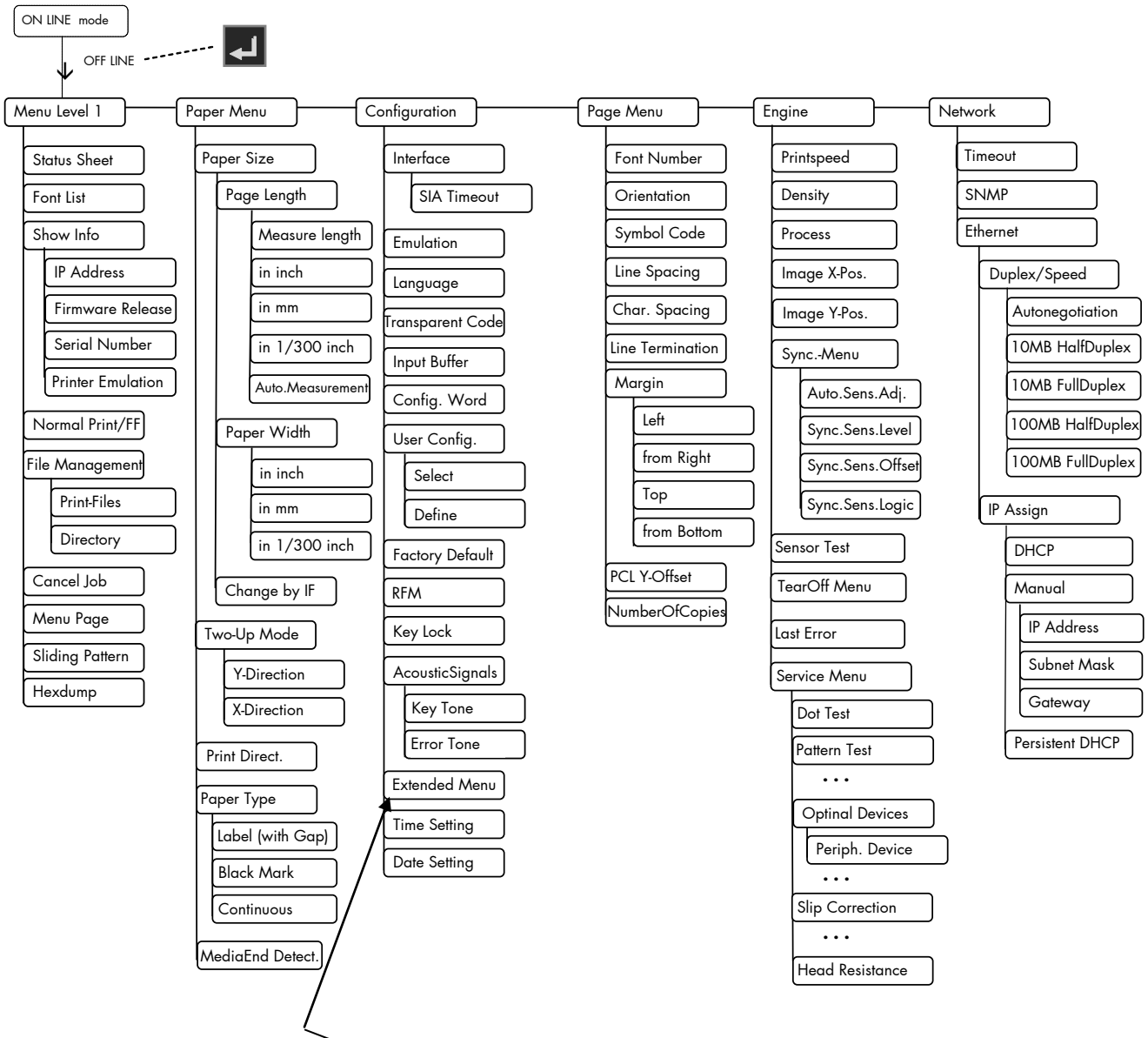
[Menu Level 1] Now this message is displayed on the display.

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

8.2. Menu Structure

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

The menu structure of the logiJET TM4 is arranged in different levels:



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

Selecting positions in the menu structure:

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

By pressing the Next key or the Prev key you can move within the menu levels.

["Menu Level"]

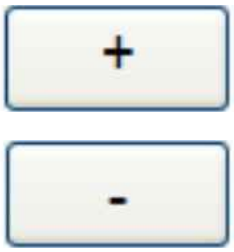
Each menu item/subitem within a menu level is shown in the display.

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:

In case of a multi-digit function value the keys Next and Prev select the digit of the function value.



The buttons + und - change the value of the selected digit of the function value.

By pressing the Enter key the selected function is activated respectively the function values currently displayed are confirmed.

In case of a multi-digit function value the Enter key is used to switch to the next position of the function value (DIGIT).

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.

Pressing the Enter key the displayed function value is confirmed respectively the displayed function is activated.
The changes are saved temporary. (This means, the changes are saved only until the next printer power off).

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

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.

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 menu level above:

Pressing the Esc key takes the user back to the respective menu level above.

Return to the ON LINE mode:

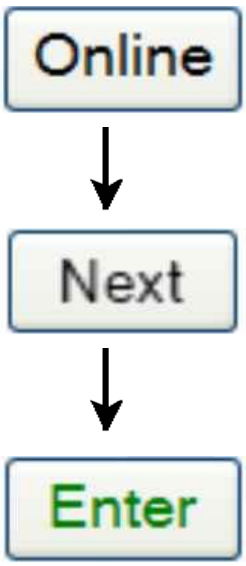
Pressing the Online key switches the user directly to "ON LINE" from any menu position.

8.2.1. 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 diagrams are explained:

The sequence on the left describes which keys have to be pressed briefly in succession.



In this example the Online key has to be pressed first. Then the Online key has to be 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.

8.3. Panel Functions

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

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

For labels with transparent or register gaps please select the menu sub-point “Label (with Gap)” (The printer uses the Gap Sensor = Transparent Photoelectric Switch.)
For materials with markings / Black Marks please select the menu sub-point “Reflex”. (The Reflex Sensor is used.) For continuous media please select the menu sub-point “Continuous”.

Panel display		Notes
[Online]	Online	Turn the printer OFF LINE with this key.
[Menu Level 1]	↓	
. . .	Next	Press the Next or Prev key until [Paper Menu] is displayed.
[Paper Menu]	↓	
	Enter	Press this key. This selects the Paper menu.
[Paper Size]	↓	
. . .	Next	Press the Next or Prev key until [Paper Type] is displayed.
[Paper Type]	↓	
	Enter	Press this key. This selects the Paper Type menu.
[Label (with Gap)]	↓	The currently set value is displayed.
. . .	Next	Press the Next or Prev key until the statement shown by the display corresponds to the inserted media (Black Mark e.g.).
[Black Mark]	↓	
	Enter	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), before the printer is turned ON LINE again. After this decision turn the printer ON LINE again: Press the Online key longer than 2 seconds.
	Esc Enter	
	↘ ↙	
	Online	
[Online]		

8.3.2. Adjusting the Sync Sensors

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

8.3.2.1. Checking and Adjusting the Sensors

The device is provided with sensors to enable controlling of consumable movements (Synchronization).
The Black mark sensor (Reflex sensor) is located “below” the printhead mounting, the Gap sensor (Transparent sensor) is additionally located in the printhead holder, too (fixed position, centric).

Adjust the sensors to your consumables:

Please note: The sensors are located under the print unit.
Always adjust all sensors to your current consumables (levels and currents as well as sensor position).

1. Open the printer cover completely.

2. Push the both printhead release levers to open the printhead mechanism.

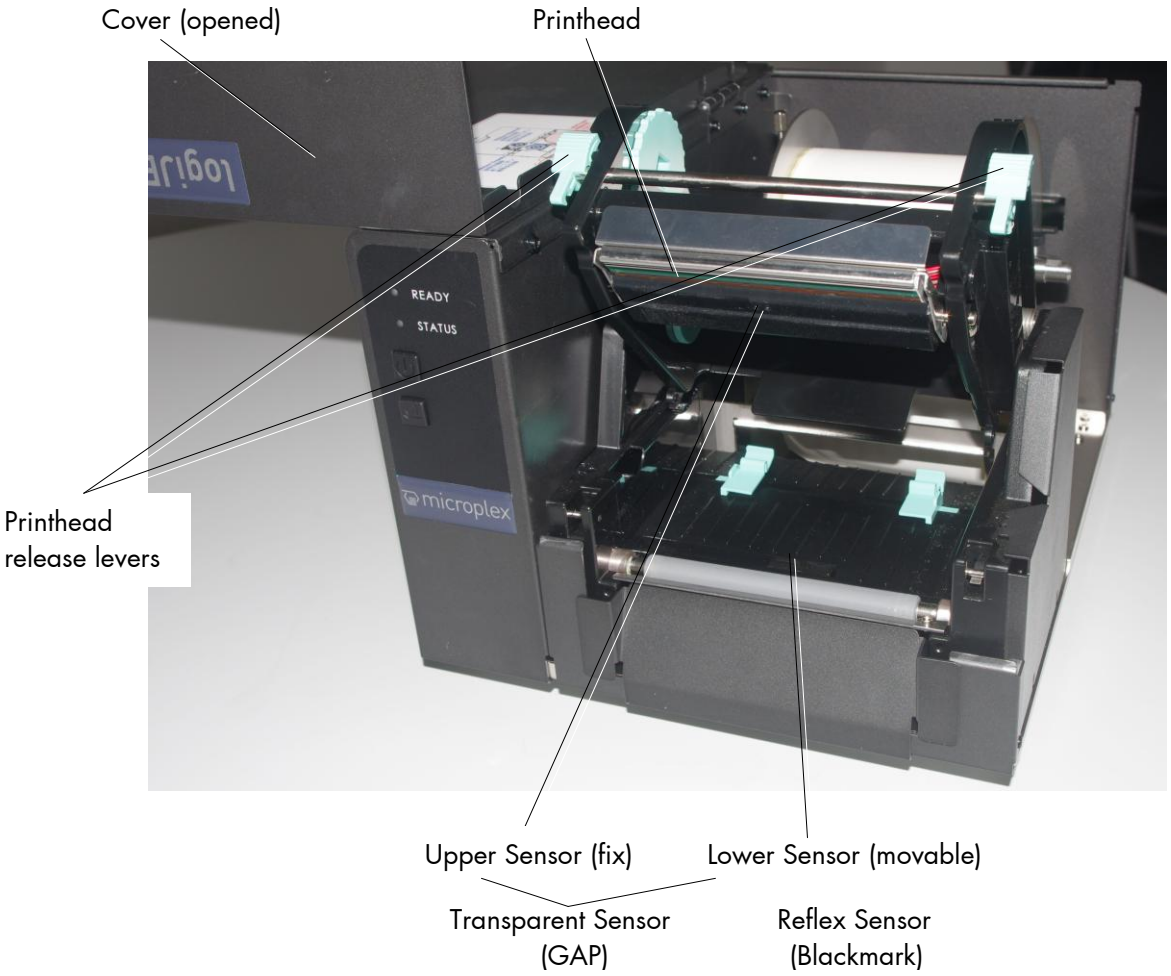


Fig. 8.3.2.1.a Printhead mechanism opened

3. Insert the consumable and set the paper guides to the paper width (details can be found in section 4).
4. Determine the position of the gaps/marks of your material.
5. The following table gives you an **overview of media and sensor target positions**:

Media	Sensors required	Position mark of the lower sensor
Media with Black marks	Reflex sensor (Black mark) (+ transparent sensor for paper end detection)	Directly under the black mark
Die-cut label (When using labels with recesses/ Notched tag the die-cuts have to be centric under the upper sensor)	Upper and lower sensor as transparent sensor (Gap)	Directly under upper sensor

Adjustment for Media with GAPs (Transparent Sensor):

Set the lower Sensor (the movable sensor unit) to the center position, compare the yellow arrows in the following figure. The **target position is „exactly under" the upper Sensors** (the upper sensor is located in the printhead unit).

Adjustment for Media with Black Marks (Reflex Sensor):

Set the lower Sensor (Reflex sensor) **to the lateral position of the marks** (Black Marks) of your material. (Compare the yellow arrows in the following figure.)

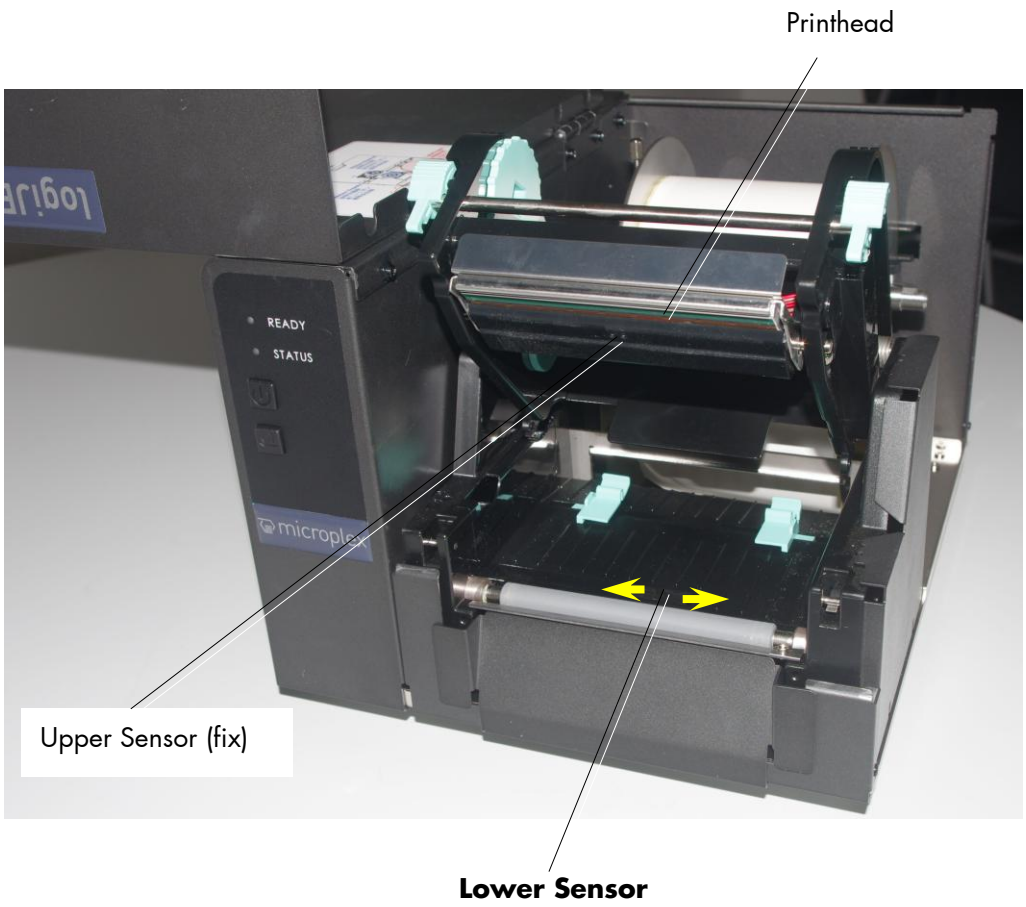


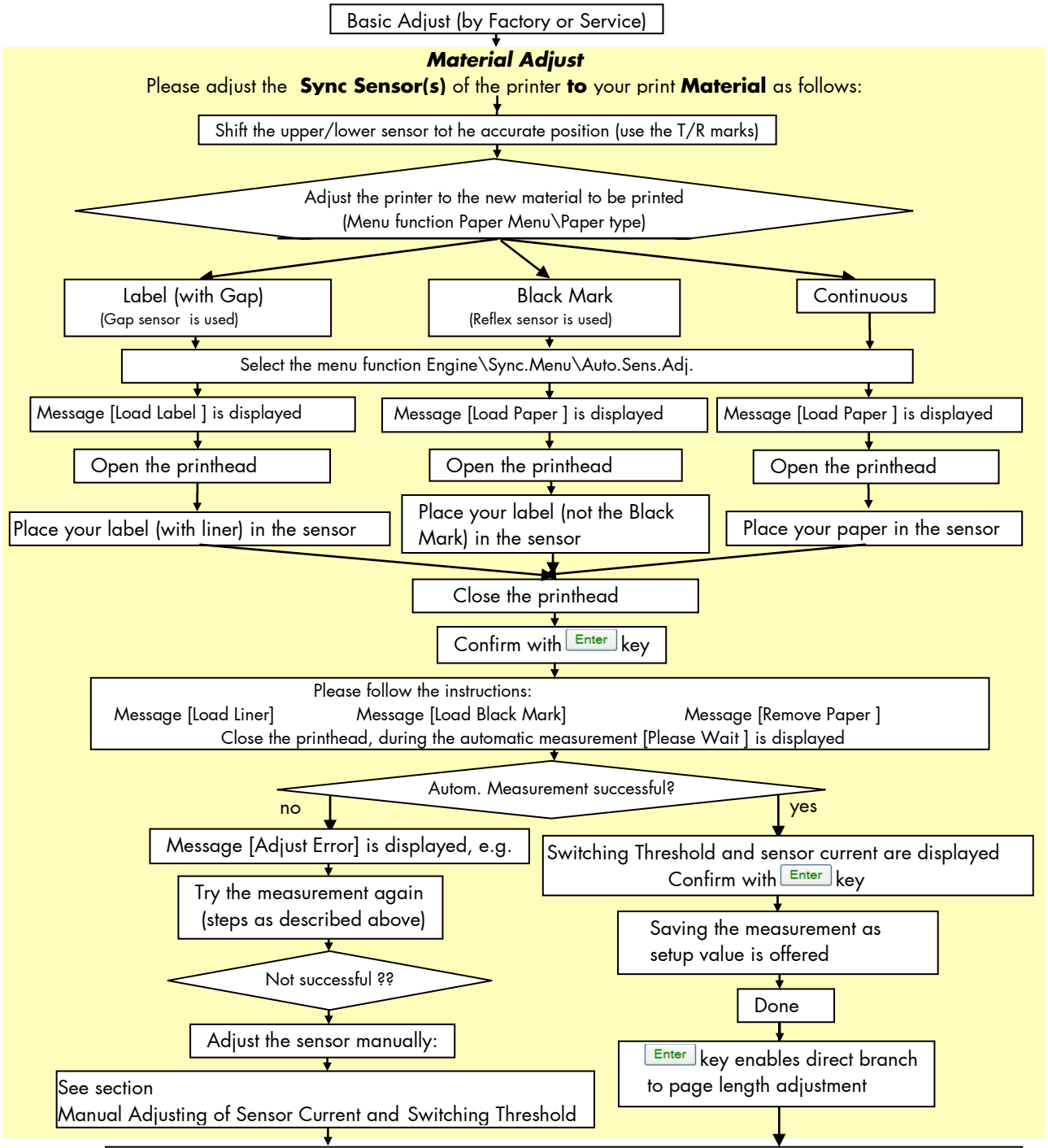
Fig. 8.3.2.1.b Sliding the sensor to the accurate position

8.3.2.2. Automatic Adjust of Sensor Current and Switching Threshold

This function serves to adjust the printer's Sync Sensors to the material in use.

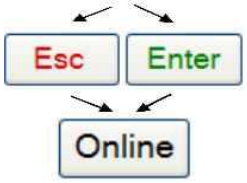
If this automatic function does not work with your specific print material, please perform the steps described in section 8.3.2.3 Manual Adjusting of Sensor Current and Switching Threshold.

8.3.2.2.1. Overview



8.3.2.2.2. Example

Adjusting the printer to the actual used media (Paper Type is described in section 8.3.1. The following example describes the steps of the **automatic sensor adjust** of the Gap Sensor (transparent sensor).

Panel display		Notes
[Online]		Turn the printer OFF LINE with this key.
[Menu Level 1]	↓	
. . .		Press the Next or Prev key until [Engine] is displayed.
[Engine]	↓	
		Press this key. This selects the Engine menu.
[Printspeed]	↓	
. . .		Press the Next or Prev key until [Sync.Menu] is displayed.
[Sync.Menu]	↓	
		Press this key. This selects the Sync menu.
[Auto.Sens.Adj.]	↓	
		Press this key to start the automatic sensor adjusting.
	↓	Open the printhead and place label (with liner) in the sensor area.
[Load Label]		Close the printhead.
		Press the Enter key: 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), before the printer is turned ON LINE again. After this decision turn the printer ON LINE again: Press the Online key longer than 2 seconds.
[Online]		

8.3.2.3. 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. *)

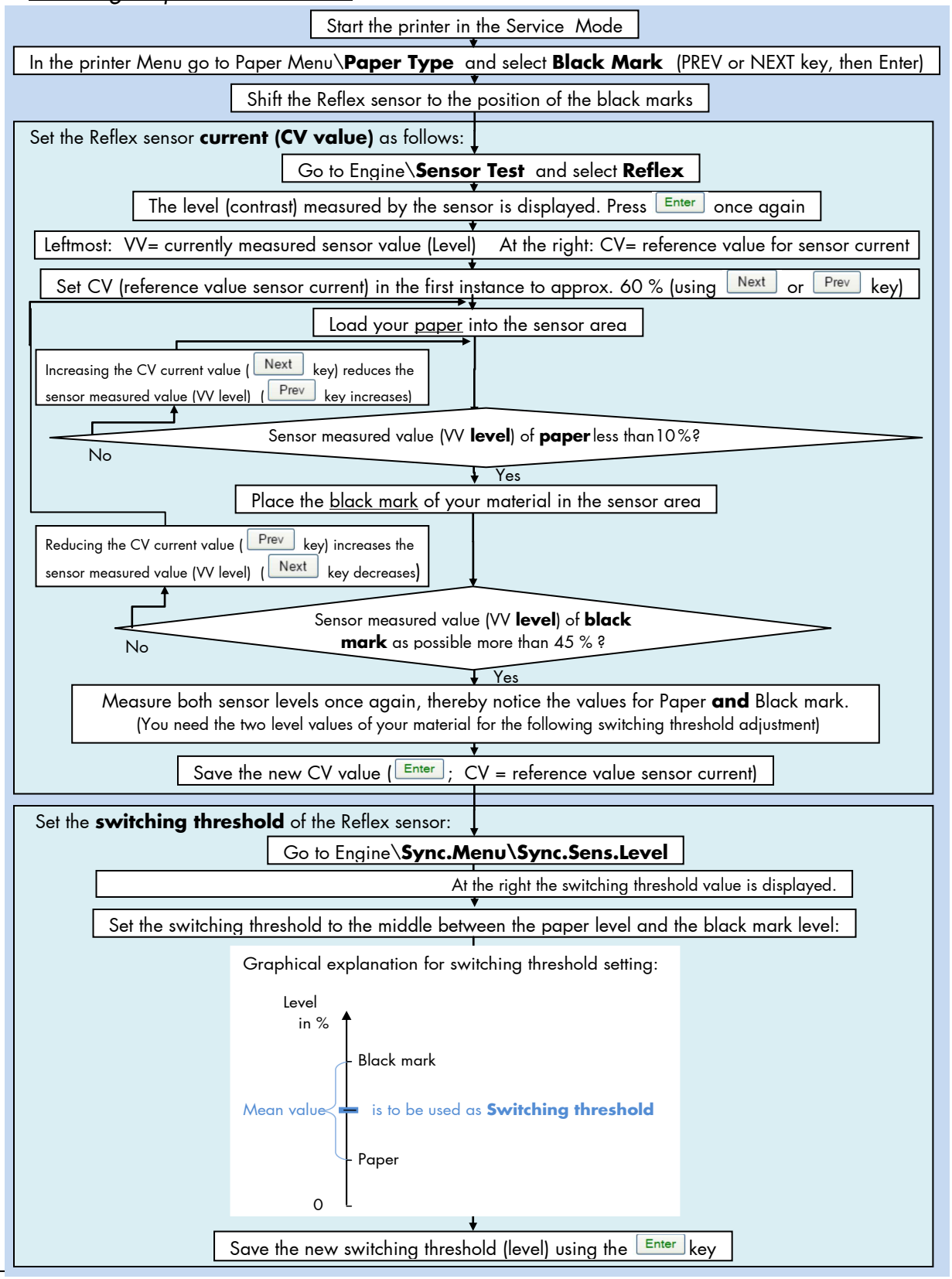
The panel functions Sensor Test and Sync Sens Level serve to adjust the Sync sensors (Reflex sensor and Gap sensor) to special media (material to print on).

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 fails 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.)

8.3.2.3.1. Reflex Sensor (Black Mark Sensor)

Working Steps as Flow Chart:



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

A) Start the printer in the Service Mode, compare section 8.3.2.3 (necessary for steps in section D).

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

Please go to [**Paper Type**] in the printer menu structure:
Paper Menu\Paper Type\ select **Black Mark**

C) Shift the **Reflex sensor** to the **position** of your **black marks**
See section 8.3.2 Checking and Adjusting 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 and Prev keys 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.

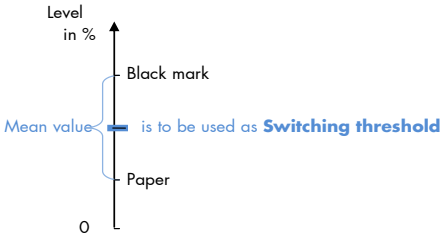
Measure both sensor levels once again for Paper **and** Black mark.
(You need the two level values of your material for the following switching threshold adjustment)
Save the new current value (CV) using the Enter key.

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:

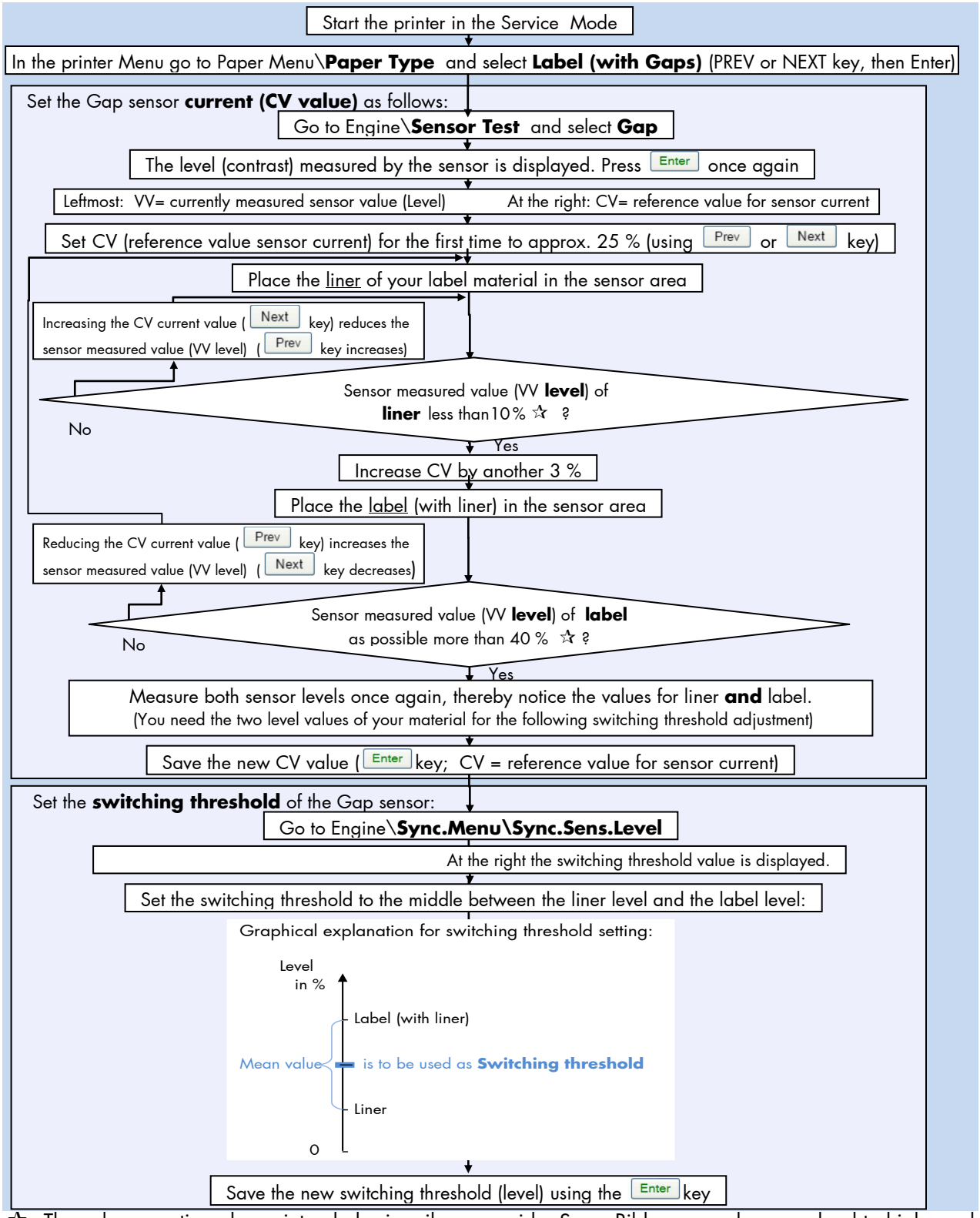
Graphical explanation for switching threshold setting:



Save the new switching threshold (Enter key).

8.3.2.3.2. Gap Sensor (Transparent Sensor)

Working Steps as Flow Chart:



☆ The values mentioned are intended primarily as a guide. Some Ribbons may however lead to higher values. Highly opaque ribbons are not suitable for the Transparent Sensor.

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

A) Start the printer in the Service Mode, compare section 8.2 (necessary for steps in section D).

B) Select the **Paper Type** Label, Punched

Please go to [**Sync.Sens.Type**] in the printers menu structure:
Paper Menu\Paper Type and select **Label (with Gaps)**
(Use PREV or NEXT, then ENTER)

C) Shift the **lower sensor** to the accurate **position** (facing the upper sensor)
See section 8.3.2 Checking and Adjusting 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. Approx. CV value: 25 %☆
Put the **liner** (not the label) of your material into the **sensor**.
Increase CV (current) until the sensor measured value (VV **level)** of the **liner** is **under 10 %** ☆ .
After that increase CV (sensor current) by another 3 %. + 3 %
Load label (with liner) **into the sensor**.
The measured sensor level (VV **level)** of **label** should count **as possible more than 40 %** ☆.

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.

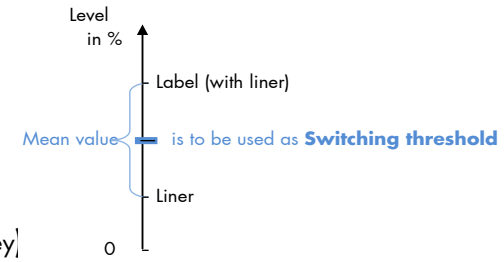
E) **Sensor Switching Threshold** adjusting

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 middle between the liner level and the label level:

Save the new switching threshold (Enter key)

Graphical explanation for switching threshold setting:



☆ The values mentioned are intended primarily as a guide. Some Ribbons may however lead to higher values. Highly opaque ribbons are not suitable for the Transparent Sensor.

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

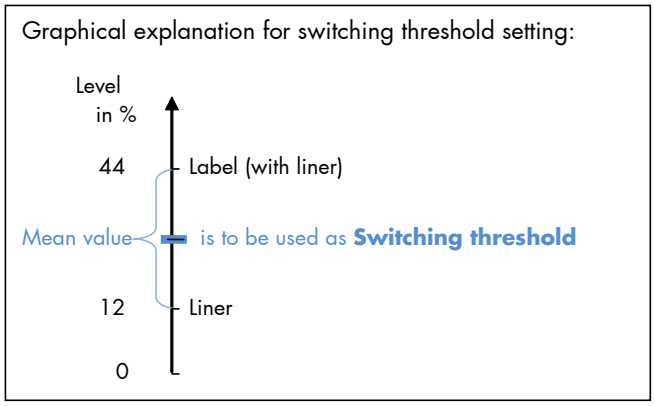
After selecting the **panel function Sync.Sens.Level** the contrast of the inserted material (placed in the photoelectric sensor area) is shown on the printer display.
The **left level value** is the **currently measured sensor value** (You'll find more details in the previous sections.)

For **all** different **contrast zones** of the current **material** sensor values (level values in %) have to be measured now. **Place** 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



The **middle between the label level** (incl. liner) **and 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 %.
(The steps to set the Sync sensor level at the printer panel can be found on the following page.)

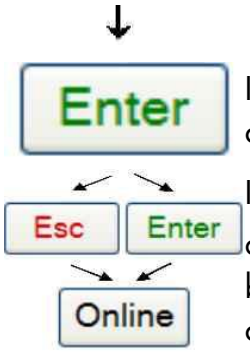
Steps to **set the Switching Threshold (Sync.Sens.Level)** at the printer panel:

Panel display		Notes
[Online]	Online	Turn the printer OFF LINE with this key.
[Menu Level 1]	↓	
. . .	Next	Press the Next or Prev key until [Engine] is displayed.
[Engine]	↓	
	Enter	Press this key. This selects the Engine menu.
[Printspeed]	↓	
. . .	Next	Press the Next or Prev key until [Sync.Menu] is displayed.
[Sync.Menu]	↓	
	Enter	Press this key. This selects the Sync menu.
[Sync.Sens.Type]	↓	
	Next	Press the Next or Prev key until [Sync.Sens.Level] is displayed.
[Sync.Sens.Level]	↓	
	Enter	Press this key to adjust the Sync Sensor level.
[Level: 44% 40.0%]	↓	At the right the currently set level switching threshold is displayed. (At the left the sensor measured contrast value is displayed.)
. . .	Next	Press the Next or Prev key until the desired switching threshold is displayed.

Sensor measured value

Switching Threshold

```
[Level:44%  28.0%]
```



In this example the switching threshold is adjusted to 28%.

In addition this new value can be saved as setup value (using the Enter key), before the printer is turned ON LINE again. After this decision turn the printer ON LINE again: Press the Online key longer than 2 seconds.

```
[Save as Setup?  ]

[Online          ]
```

8.3.3. Print Process Selecting

This function allows to select the print process.
While thermal direct printing the device operates without ribbon, direct thermal media is required.
While thermal transfer printing a ribbon is needed to transfer the print contents onto the media (see chapter 4 Handling of Consumables, too).

For thermal direct printing it is not allowed to insert a ribbon to avoid damaging the printhead.
Make sure your settings match to the printer implementation (ribbon inserted/not inserted).

Description of this control panel function continues on the next page.

Panel display		Notes
[Online]	Online	Turn the printer OFF LINE with this key.
[Menu Level 1]	↓	
. . .	Next	Press the Next or Prev key until [Engine] is displayed.
[Engine]	↓	
	Enter	Press this key. This selects the Engine menu.
[Printspeed]	↓	
. . .	Next	Press the Next or Prev key until [Process] is displayed.
[Process]	↓	
	Enter	Press this key to select the process.
[Thermo direct]	↓	
. . .	Next	Press the Next or Prev key until the display message is corresponding with the printer implementation (ribbon inserted = Thermo transfer e.g.).
[Thermo transfer]	↓	
	Enter	The thermal transfer print process is selected.
[Save as Setup?]	Esc Enter	In addition this new value can be saved as setup value (using the Enter key), before the printer is turned ON LINE again. After this decision turn the printer ON LINE again: Press the Online key longer than 2 seconds.
	Online	
[Online]		

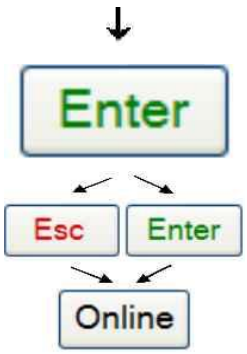
8.3.4. Adjusting the Zero Position of the Material Transport (Sync.Sens.Offset)

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 ± 20 mm.

Note: You should execute this offset adjusting after having adjusted the Sync sensors successfully (see previous sections).

Panel display		Notes
`[Online ]`	Online	Turn the printer OFF LINE with this key.
`[Menu Level 1 ]`	↓	
`. . .`	Next	Press the Next or Prev key until [Engine] is displayed.
`[Engine ]`	↓	
	Enter	Press this key. This selects the Engine menu.
`[Printspeed ]`	↓	
`. . .`	Next	Press the Next or Prev key until [Sync.Menu] is displayed.
`[Sync.Menu ]`	↓	
	Enter	Press this key. This selects the Sync menu.
`[Sync.Sens.Type ]`	↓	
`. . .`	Next	Press the Next or Prev key until [Sync.Sens.Offset] is displayed.
`[Sync.Sens.Offset]`	↓	
	Enter	
`[Offset: +0.0 mm ]`	↓	The currently set offset value is displayed.
`. . .`	Next	Press the Next or Prev key until the desired offset is displayed.

```
[Offset: +1.0 mm ]
```



The gap position is shifted 1 mm against the feed direction .

```
[Save as Setup?  ]
```

In addition this new value can be saved as setup value (using the Enter key), before the printer is turned ON LINE again. After this decision turn the printer ON LINE again: Press the Online key longer than 2 seconds.

```
[Online          ]
```

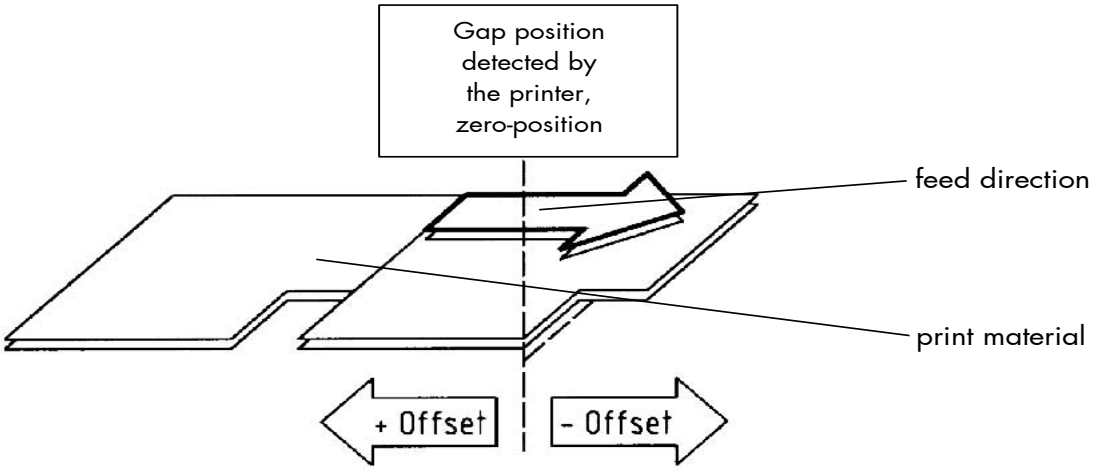


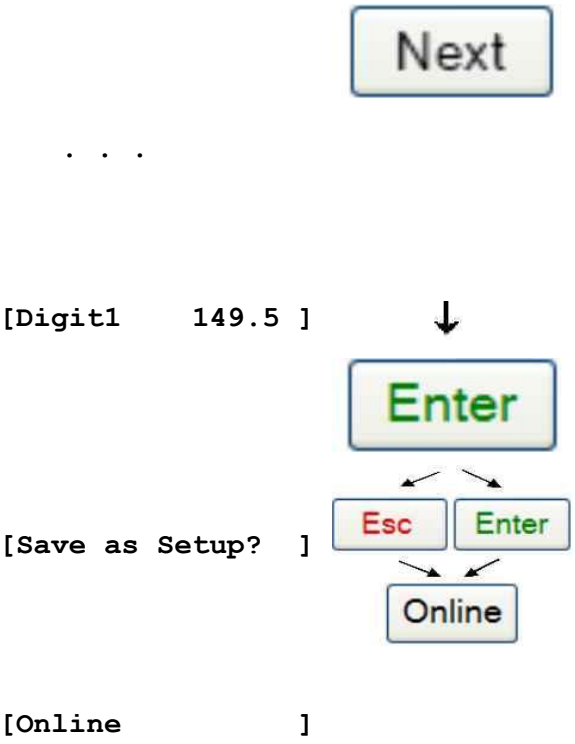
Fig. 8.3.4.a Setting the zero position of the material feed

8.3.5. Page Length Adjustment

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

Hint: Alternatively, the printer itself is able to measure the label length. See next sections.

Panel display		Notes
[Online]	Online	Turn the printer OFF LINE with this key.
[Menu Level 1]	↓	
. . .	Next	Press the Next or Prev key until [Paper Menu] is displayed.
[Paper Menu]	↓	
	Enter	Press this key. This selects the Paper menu.
[Paper Size]	↓	
	Enter	Press this key. This selects the Paper Size menu.
[Page Length]	↓	
	Enter	Press the Enter key to adjust the page length.
[Measure Length]	↓	
. . .	Next	Press the Next or Prev key if you want to **adjust the page length manually**:
[in mm]	↓	mm = currently selected measuring unit.
	Enter	(Alternative the units inch or 1/300 inch can be chosen with the Next or Prev key).
[Digit4 149.9]	↓	The currently set page length is displayed.



Pressing the Next or Prev 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).

The page length is changed to 149.5 mm.

In addition this new value can be saved as setup value (using the Enter key), before the printer is turned ON LINE again. After this decision turn the printer ON LINE again: Press the Online key longer than 2 seconds.

8.3.5.1. Starting the (Printer's) Measurement of Label Length

Use the panel function
logiJET TM4 \ Paper Menu \ Paper Size \ Page 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).

8.3.5.2. Configuration of Semiautomatic Label Length Measurement

The panel function
logiJET TM4\Paper Menu\Paper Size\Page 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]

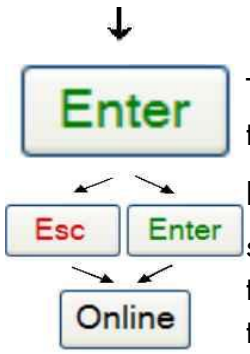
Use the Enter key to start the measurement of label length, use the Esc key to suppress this function.
The printer saves the measured label length temporal (as long as the printer stays turned on).

8.3.6. Material Width Adjustment (Paper Width)

The paper width (print width) has to be adjusted with this function according to the currently used format.

Panel display		Notes
[Online]	Online	Turn the printer OFF LINE with this key.
[Menu Level 1]	↓	
. . .	Next	Press the Next or Prev key until [Paper Menu] is displayed.
[Paper Menu]	↓	
	Enter	Press this key. This selects the Paper menu.
[Paper Size]	↓	
	Enter	Press this key. This selects the Paper Size menu.
[Page Length]	↓	
. . .	Next	Press the Next or Prev key until [Paper Width] is displayed.
[Paper Width]	↓	
. . .	Enter	Press the Enter key to adjust the format width to the paper width.
[in mm]	↓	mm = currently selected measuring unit.
	Enter	(Alternative the units inch or 1/300 inch can be chosen with the Next or Prev key).
[Digit4 108.4]	↓	The currently set paper width is displayed.
	Next	Pressing the Next or Prev 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.

In addition this new value can be saved as setup value (using the Enter key), before the printer is turned ON LINE again. After this decision turn the printer ON LINE again: Press the Online key longer than 2 seconds.

```
[Save as Setup?  ]

[Online          ]
```

8.3.7. Configuration of Text Margins

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

Panel display		Notes
[Online]	Online	Turn the printer OFF LINE with this key.
[Menu Level 1]	↓	
...	Next	Press the Next or Prev key until [Page Menu] is displayed.
[Page Menu]	↓	
	Enter	Press this key. This selects the page menu.
[Font Number]	↓	
...	Next	Press the Next or Prev key until [Margin] is displayed.
[Margin]	↓	
	Enter	Press this key. This selects the Margin configuration menu.
[Left]	↓	
...	Next	Press the Next or Prev key until the desired margin is displayed.
[from Right]	↓	
	Enter	Press this key if you want to configure the right margin.
[Digit4 0081]	↓	The currently set value is displayed.
...	Next	Pressing the Next or Prev key changes the value of the current digit. (Digit 4 = left position, in this example: 0). Pressing the Enter key moves you to the next position (the Online key moves you back, if need be).
[Digit1 0087]	↓	
	Enter	The right margin is changed to 87 dot.
[Save as Setup?]	↙ ↘	
	Esc Enter	In addition this new value can be saved as setup value (using the Enter key), before the printer is turned ON LINE again. After this decision turn the printer ON LINE again: Press the Online key longer than 2 seconds.
[Online]	↘ ↙ Online	

8.3.8. 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
[Online]		Turn the printer OFF LINE with this key.
[Menu Level 1]	↓	
		Press this key. Menu Level 1 is selected.
[Status Sheet]	↓	
. . .		Press the Next or Prev key until [Show Info] is displayed.
[Show Info]	↓	
		Press this key. The Show Info menu is selected.
[IP Address]	↓	
		Press this key again to show the IP Address of your printer.
		Alternative: Use the Next or Prev 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 Configuration of Network Parameters.
		Turn the printer ON LINE again: Press the Online key longer than 2 seconds. After this the printer is ready to print again.
[Online]		

8.3.9. Printing the Status Sheet

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

Panel display		Notes
[Online]		Turn the printer OFF LINE with this key.
[Menu Level 1]	↓	
		Press this key. Menu Level 1 is selected.
[Status Sheet]	↓	
		Press this key again.
[Status Sheet]	↓	A status sheet is printed.
		Turn the printer ON LINE again: Press the Online key longer than 2 seconds. After this the printer is ready to print again.
[Online]		

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, 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).

8.3.10. 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 hight (see panel function Font Selection, too).

Panel display		Notes
[Online]		Turn the printer OFF LINE with this key.
[Menu Level 1]	↓	
		Press this key. Menu Level 1 is selected.
[Status Sheet]	↓	
. . .		Press the Next or Prev key until [Font List] is displayed.
[Font List]	↓	
		The font list is printed.
[Font List]	↓	
		Turn the printer ON LINE again: press the Online key longer than 2 seconds. After this the printer is ready to print again.
[Online]		

8.3.11. Hexdump Mode Activation

In 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
[Online]	Online	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 Prev key until [Hexdump] is displayed.
[Hexdump]	↓	
	Enter	The Hexdump Mode is activated.
[Hexdump]	↓	
	Online	Turn the printer ON LINE again: Press the Online key longer than 2 seconds. After this the printer is ready to print again.
[Online]		

Note: By activating the normal print mode (see next page) 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.

8.3.12. 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
[Online]		Turn the printer OFF LINE with this key.
[Menu Level 1]	↓	
		Press this key. Menu Level 1is selected.
[Status Sheet]	↓	
. . .		Press the Next or Prev 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.
[Online]		

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).

8.3.13. 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
[Online]		Turn the printer OFF LINE with this key.
[Menu Level 1]	↓	
		Press this key. Menu Level 1 is selected.
[Status Sheet]	↓	
. . .		Press the Next or Prev 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.
[Online]		

8.3.14. 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
[Online]		Turn the printer OFF LINE with this key.
[Menu Level 1]	↓	
		Press this key. This selects Menu Level 1.
[Status Sheet]	↓	
. . .		Press the Next or Prev key until [Menu Page] is displayed.
[Menu Page]	↓	
		A menu structure presentation of the printer is printed (compare diagram in section Menu Structure).
[Menu Page]	↓	
		Turn the printer ON LINE again: Press the Online key longer than 2 seconds.
[Online]		

8.3.15. Generating Testsheets (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
[Online]	Online	Turn the printer OFF LINE with this key.
[Menu Level 1]	↓	
	Enter	Press this key. This selects Menu Level 1.
[Status Sheet]	↓	
. . .	Next	Press the Next or Prev key until [Sliding Pattern] is displayed.
[Sliding Pattern]	↓	
	Enter	
		A series of test prints is generated.
[Sliding Pattern]	↓	
	Online	Turn the printer ON LINE again: Press the Online key longer than 2 seconds.
[Online]		

The printing out of test prints can be stopped by pressing the Esc key.

8.3.16. Print Direction Selection

This function selects the active print orientation (orientation of the whole printout including graphics, etc. on the paper).

Panel display		Notes
[Online]	Online	Turn the printer OFF LINE with this key.
[Menu Level 1]	↓	
...	Next	Press the Next or Prev key until [Paper Menu] is displayed.
[Paper Menu]	↓	
	Enter	Press this key. The Paper Menu is selected.
[Paper Size]	↓	
...	Next	Press the Next or Prev key until [Print Direct.] is displayed.
[Print Direct.]	↓	
	Enter	Press this key. The Print Direction menu is selected.
[Print Direct. 0]	↓	The currently set print direction is displayed.
...	Next	Press the Next or Prev key until the desired print direction is displayed.
[Print Direct. 1]	↓	
	Enter	The print direction 1 = landscape is selected.
[Save as Setup?]	Esc Enter Online	In addition this new value can be saved as setup value (using the Enter key), before the printer is turned ON LINE again. After this decision turn the printer ON LINE again: Press the Online key longer than 2 seconds.
[Online]		

Print direction assignment: Print direction 0 = Portrait (upright format)
Print direction 1 = Landscape (horizontal format)
Print direction 2 = Portrait upside down
Print direction 3 = Landscape upside down

8.3.17. Data Interface Configuration

This function is used to set the interface parameters.

Panel display		Notes
[Online]	Online	Turn the printer OFF LINE with this key.
[Menu Level 1]	↓	
. . .	Next	Press the Next or Prev key until [Configuration] is displayed.
[Configuration]	↓	
	Enter	Press this key. This selects the Configuration menu.
[Interface]	↓	
	Enter	Press this key. This selects the Interface menu.
[SIA Timeout]	↓	
	Enter	Press this key. This selects the Timeout menu.
[30 s]	↓	The currently set value for the timeout is displayed (here: 30 seconds).
. . .	Next	Pressing the Next or Prev key changes the timeout value.
[40 s]	↓	
	Enter	The timeout (the waiting period for SIA to switch to the next interface) is increased to 40 seconds.
[Save as Setup?]	Esc Enter	In addition this new value can be saved as setup value (using the Enter key), before the printer is turned ON LINE again. After this decision turn the printer ON LINE again: Press the Online key longer than 2 seconds.
[Online]	Online	

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

8.3.18. Emulation Selection

This function helps to determine which printer emulation will be activated.

Panel display		Notes
[Online]	Online	Turn the printer OFF LINE with this key.
[Menu Level 1]	↓	
. . .	Next	Press the Next or Prev key until [Configuration] is displayed.
[Configuration]	↓	
	Enter	Press this key. This selects the Configuration menu.
[Interface]	↓	
. . .	Next	Press the Next or Prev key until [Emulation] is displayed.
[Emulation]	↓	
	Enter	Press this key. This selects the Emulation menu.
[SOLID Standard]	↓	
. . .	Next	Press the Next or Prev key until the desired emulation (e.g. HP PCL 5) is displayed.
[HP PCL 5]	↓	
	Enter	The emulation HP PCL 5 is selected.
[Save as Setup?]	Esc Enter	In addition this new value can be saved as setup value (using the Enter key), before the printer is turned ON LINE again. After this decision turn the printer ON LINE again: Press the Online key longer than 2 seconds.
[Online]	Online	

Available emulations:

Standard:

SOLID Standard (MICROPLEX IDOL),
IBM Proprinter,
Epson FX,
Tally MT 6xx,
Datamax (FGL),
Eltron EPL2,
ZPL II (Zebra Programming Language)

Optional:

HP LaserJet (PCL 5) (Factory option only)
Printronix IGP/PGL,
TIFF (CCITT group 4),
µPostscript,
IPDS,
Kyocera Prescribe

(More emulations on request)

Notice:

The brand names mentioned are registered trademarks of the enterprises named above.

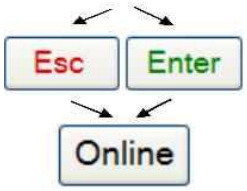
8.3.19. Menu Language Selection

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

Panel display		Notes
[Online]	Online	Turn the printer OFF LINE with this key.
[Menu Level 1]	↓	
. . .	Next	Press the Next or Prev key until [Configuration] is displayed.
[Configuration]	↓	
	Enter	Press this key. This selects the Configuration menu.
[Interface]	↓	
. . .	Next	Press the Next or Prev key until [Language] is displayed.
[Language]	↓	
	Enter	Press this key. This selects the Language menu.
[German]	↓	
. . .	Next	Press the Next or Prev key until the desired language (e.g. English) is displayed.
[English]	↓	
	Enter	The display language English is selected.
[Save as Setup?]	Esc Enter	In addition this new value can be saved as setup value (using the Enter key), before the printer is turned ON LINE again. After this decision turn the printer ON LINE again: Press the Online key longer than 2 seconds.
	Online	
[Online]		

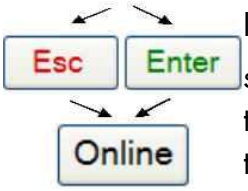
8.3.20. Transparent Code Adjustment

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
[Online]		Turn the printer OFF LINE with this key.
[Menu Level 1]	↓	
. . .		Press the Next or Prev key until [Configuration] is displayed.
[Configuration]	↓	
		Press this key. The Configuration menu is selected.
[Interface]	↓	
. . .		Press the Next or Prev key until [Transparent Code] is displayed.
[Transparent Code]	↓	
		Press this key. The Transparent Code menu is selected.
[Digit4 2625]	↓	The hexadecimal number for & % is preset.
. . .		Pressing the Next or Prev key changes the value of the current digit. (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), before the printer is turned ON LINE again. After this decision turn the printer ON LINE again: Press the Online key longer than 2 seconds.
[Online]		

8.3.21. 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
[Online]		Turn the printer OFF LINE with this key.
[Menu Level 1]	↓	
. . .		Press the Next or Prev key until [Configuration] is displayed.
[Configuration]	↓	
		Press this key. This selects the Configuration menu.
[Interface]	↓	
. . .		Press the Next or Prev key until [Input Buffer] is displayed.
[Input Buffer]	↓	
		Press this key. This selects the Input Buffer menu.
[32 kB]	↓	
. . .		Press the Next or Prev 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), before the printer is turned ON LINE again. After this decision turn the printer ON LINE again: Press the Online key longer than 2 seconds.
[Online]		

8.3.22. Setting to Factory Default

This function back-outs all configurations to factory defaults.

Panel display		Notes
[Online]	Online	Turn the printer OFF LINE with this key.
[Menu Level 1]	↓	
. . .	Next	Press the Next or Prev key until [Configuration] is displayed.
[Configuration]	↓	
	Enter	Press this key. This selects the Configuration menu.
[Interface]	↓	
. . .	Next	Press the Next or Prev key until [Factory Default] is displayed.
[Factory Default]	↓	
	Enter	Press this key.
[Save as Setup?]	Esc Enter	Only if you press the Enter key a second time the configuration will be back-outed to factory defaults.
[Saved !]	Online	Turn the printer ON LINE again: Press the Online key longer than 2 seconds.
[Online]		

8.3.23. Font Selection

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

Panel display		Notes
[Online]	Online	Turn the printer OFF LINE with this key.
[Menu Level 1]	↓	
. . .	Next	Press the Next or Prev key until [Page Menu] is displayed.
[Page Menu]	↓	
	Enter	Press this key. This selects the Page Menu.
[Font Number]	↓	
	Enter	Press this key. This selects the Font menu.
[Font 0600]	↓	
. . .	Next	Press the Next or Prev key until the desired font number (5507 Langeoog e.g.) is displayed.
[Font 5507]	↓	
	Enter	The font number 5507 Langeoog is selected.
[Save as Setup?]	Esc Enter	In addition this new value can be saved as setup value (using the Enter key), before the printer is turned ON LINE again. After this decision turn the printer ON LINE again: Press the Online key longer than 2 seconds.
[Online]	Online	

The **logiJET TM4 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
PCL 5 compatible	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

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 8.3.10) to generate a list of all fonts installed to the printer.

8.3.24. 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
[Online]	Online	Turn the printer OFF LINE with this key.
[Menu Level 1]	↓	
. . .	Next	Press the Next or Prev key until [Engine] is displayed.
[Engine]	↓	
	Enter	Press this key. The Engine Menu is selected.
[Print Speed]	↓	
	Enter	Press this key to adjust the print speed.
[6 inch/s]	↓	The currently set value is displayed.
. . .	Next	Press the Next or Prev key until the desired value is displayed.
[4 inch/s]	↓	
	Enter	Here the print speed is reduced to 4 inch/s.
[Save as Setup?]	Esc / Enter	In addition this new value can be saved as setup value (using the Enter key), before the printer is turned ON LINE again. After this decision turn the printer ON LINE again: Press the Online key longer than 2 seconds.
	Online	
[Online]		

8.3.25. Density (Contrast) Setting

Using this function the print density (contrast) of the printed characters can be changed. Values from 10% to 120% are settable *).

Panel display		Notes
[Online]	Online	Turn the printer OFF LINE with this key.
[Menu Level 1]	↓	
. . .	Next	Press the Next or Prev key until [Engine] is displayed.
[Engine]	↓	
	Enter	Press this key. The Engine menu is selected.
[Printspeed]	↓	
. . .	Next	Press the Next or Prev key until [Density] is displayed.
[Density]	↓	
	Enter	Press this key. This selects the Density setting menu.
[Density: 90 %]	↓	The currently set value is displayed.
. . .	Next	Press the Next or Prev key until the desired value is displayed.
[Density: 60 %]	↓	
	Enter	Here the density is reduced to 60 % (the contrast is decreased).
[Save as Setup?]	Esc Enter	In addition this new value can be saved as setup value (using the Enter key), before the printer is turned ON LINE again. After this decision turn the printer ON LINE again: Press the Online key longer than 2 seconds.
[Online]	Online	

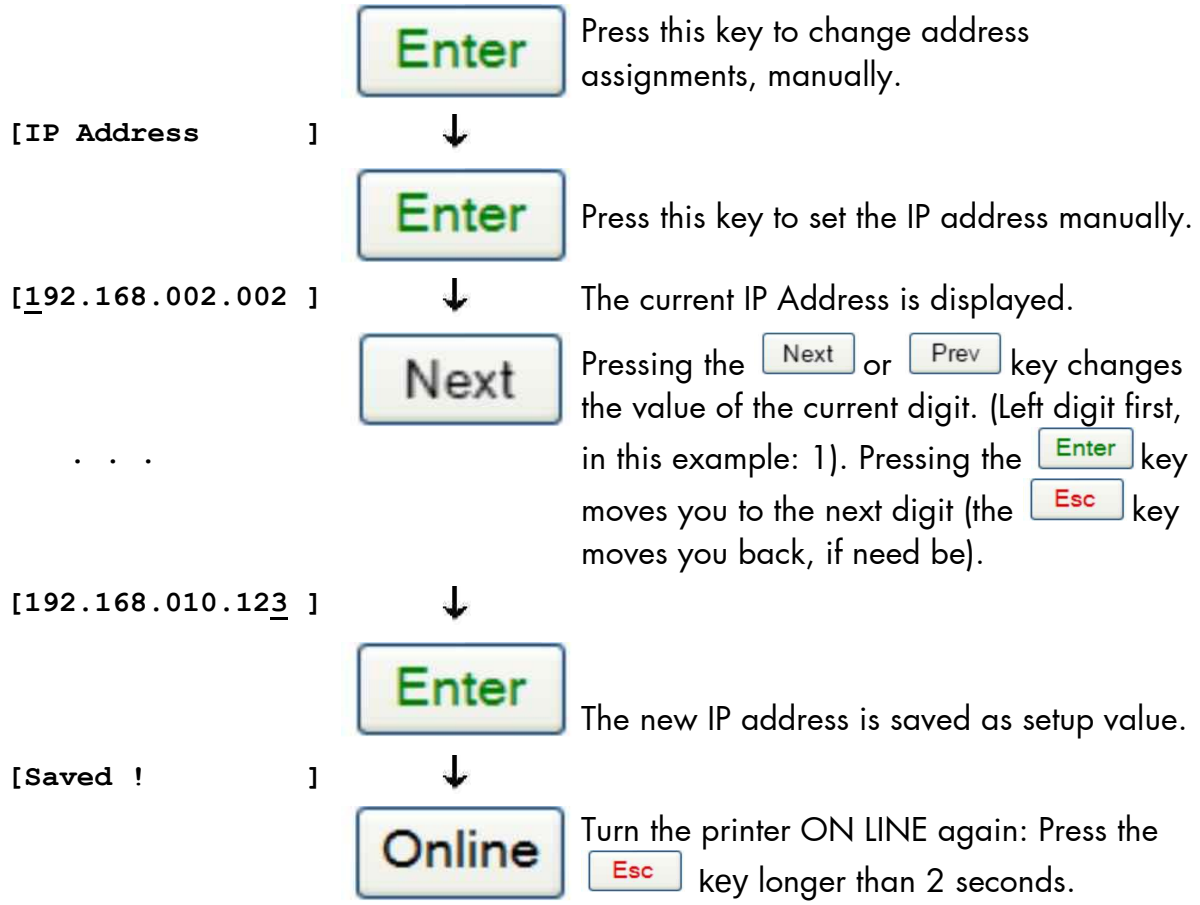
***) Note:** Please consider that using high density values (more than 100%) can result in a reduced lifetime of the printhead.

8.3.26. 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
[Online]	Online	Turn the printer OFF LINE with this key.
[Menu Level 1]	↓	
. . .	Next	Press the Next or Prev key until [Network] is displayed.
[Network]	↓	
	Enter	Press this key. The Network menu is selected.
[Timeout]	↓	
. . .	Next	Press the Next or Prev key until [Ethernet] is displayed.
[Ethernet]	↓	
	Enter	Press this key. The Ethernet menu is selected.
[Duplex/Speed]	↓	
. . .	Next	Press the Next or Prev key until [IP Assign] is displayed.
[IP Assign]	↓	
	Enter	Press this key. The IP Assign menu is selected.
[DHCP]	↓	The current configuration is displayed.
. . .	Next	Press the Next or Prev key until [Manual] is displayed.
[Manual]	↓	



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

Note: Please write down the new IPAddress. For example, write it on a label and affix it directly to the device.

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 8.2 Menu Structure).

If an error occurs during the assignment of the IP address:
You can back-out the printer to factory default values with a combination of keys. See section 8.3.22 Setting to Factory Default

[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.

9. 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.

9.1. 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 4.2.2)

- media removal (see section 4.3.2)

After the cleaning operations please load the wanted consumables (again), see chapter 4: Handling of Consumables.

9.1.1. 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.

9.1.2. Printhead Cleaning

This maintenance operation should be done after each ribbon exchange or not later than the print quality is reduced (unwanted "lines" or "gaps" in the printout).

Please pay attention to the following:

- For the printhead cleaning there is no need to disassemble or remove the printhead.
- The printhead can be damaged by electrostatic charges. Therefore first of all touch a properly grounded part of the printer (the base plate of the printer, e.g.).

1. First push the two printhead release levers (both together).
2. The printhead moves up.
3. Take out the ribbon if one is loaded.
4. Clean the printhead:

a) Using a **soft, lint-free cloth** or a **special cleaning pen**:

- Move the cloth or pen along the print area of the printhead. This working step requires light pressure and has to be repeated several times.

b) Using **Spirit** for the cleaning work:

Spirit (Ethanol) should only be used if the cleaning results achieved using the method described above are not good enough!

Spirit is an easily combustible liquid!
Take notice of the safety instructions for combustible liquids!
Don't smoke!

- Use a soft lint-free cloth, moisten it with spirit and then use it to wipe several times along the print area of the printhead.
- Allow the printhead to dry for 2-3 minutes.

5. Install a ribbon, if you want to operate the printer in the thermal transfer mode.

6. Swivel down the printhead unit until it clicks into.

7. The printer is ready for printing again.

To help keep the printhead clean and to avoid premature wear out of the printhead, the cover of the printer should always be closed. Moreover it is not allowed to use dusty or dirty print media.

9.1.3. Platen Roller Cleaning

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

For the following cleaning operations the hints of section 9.1.2 are valid, too !

Stickings can be removed best with a soft lint-free cloth saturated with isopropyl alcohol (99.9 %).
Make sure the platen roller has been cleaned on its whole extent so that there is no reason for irregular media transport after that.

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

10. Troubleshooting

For “mobile printing” (Option) you must set the DIPswitch:
Set the DIPswitch located on the DC/DC converter PCB to the nominal voltage supplied by the vehicle’s electric system and always use a suitabele fuse (details are described in chapter 5).

When an error occurs, a corresponding error message is displayed in the control panel (see section 10.1).

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.

10.1. Printer Error Messages

Panel display	Remedies
[Load Paper] or [Paper End]	- insert a printmedia (paper, roll-fed media e.g.) - make sure the media has been loaded correctly (compare section 4.3) - clean the sensors (compare section 8.3.2)
[Foil Error!]	The thermal transfer print mode is selected. A printer ribbon is needed. - insert a ribbon - make sure the ribbon has been loaded correctly (compare section 4.2) - Correct the print process setting, if you don't want to use a ribbon. (compare section 8.3.3)
[Head open!]	The printhead assembly is not firmly in place. Re-open the printhead assembly and make sure it closes tightly: - swivel the printhead mechanism downward and use both hands to push down gently to lock.

Panel display	Remedies
[Paper Jam !] or [Punch Error!] or [Sync.Mark Error!]	These error messages indicate a paper jam: - remove the jammed consumables (labels sticking together e.g.) - reload the consumables (paper) (see chapter 4) - perform the basic operations (see chapter 3) - For further **information about the avoiding of paper jams** please take notice of section 10.3 Incorrect Media Transport - check the position of the reflective sensor. - set the reflective sensor position in accordance to your consumables. See section 8.3.2 Adjusting the Sync Sensors. - clean the sensors - After a repeated paper jam please check first that all material pieces are removed.

[HeadNot Found!]	- the printhead 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 4.2 and 4.3)
[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.
[Cutter Error!]	An error occurred during cutter operation. - check for a paper jam. Remove the jammed paper. - reload the consumables (paper)

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

10.2. Reduced Print Quality

Defect	Remedies
Printout too light	- check the print process selecting and correct it, if necessary (see section 8.3.3) - check the printhead pressure - check the ribbon transport (load the ribbon again, if necessary; see section 4.2) - increase the contrast (Density Setting; see section 8.3.25) - choose different consumables (adjust media to the ribbon resp. print process or vice versa, see chapter 3, 4 and 8) - check the environment conditions and correct them if necessary (admissible values for humidity, temperature etc., see chapter 2.3 and 12)
Printout too strong	- check the print process selecting and correct it, if necessary (see section 8.3.3) - reduce the contrast (Density Setting; see section 8.3.25)

Defect	Remedies
Printout blurred or incomplete	- clean the printhead (see section 9.1.2) - check the ribbon transport (load the ribbon again, if necessary; see section 4.2) - also, see section 10.3: Incorrect Media Transport

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

10.3. Incorrect Media Transport

Defect	Remedies
Incorrect media transport (no gap detection between labels e.g.)	- perform the basic operations (see chapter 3) - check if the Sync Sensor has been adjusted correctly (see section 8.3.2) - adjust the position of the reflective sensor suitable to your consumables. - check if the media has been loaded correctly (compare section 4.3) - check if the ribbon has been loaded correctly (compare section 4.2) - clean the the sensors - 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 ribbon has been loaded correctly (compare section 4.2) - check if the media has been loaded correctly (compare section 4.3) - check if the printhead pressure was adjusted correctly - clean the platen roller (see section 9.1.3)
Paper Jam	In addition to the remedies above: - push the printhead release levers and remove the paper (compare chapter 4) - check if the jammed consumables have been removed completely.

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

10.4. 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 (section 8.3.13).

11. 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 optional peripheral devices (if present).
- Remove the paper.
- Remove the ribbon, if one 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.

12. Specifications

Print technology:	non-impact, thermal transfer printing / thermal direct printing
Print speed:	up to 6 inch / second (up to 150 mm / second)
Resolution:	300 dpi (dots per inch, horizontal and vertical)
Media width:	1 up to 4.64 inch (equivaltent to 25.4 up to 118 mm)
max. Print width:	4.16 inch (106 mm)
Media thickness:	0.06 up to 0.25 mm
Interfaces:	parallel: IEEE 1284 (Centronics) serial: USB LAN: Ethernet 10/100 Mbit (TCP-IP) Optional: parallel: SPS-Control GPIO serial: RS232, RS422

Dimensions:

Width (W):	275 mm
Depth (D):	320 mm
Height (H):	220 mm

Environment:	temperature: +5°C to +40°C (operating) -20°C to +50°C (storage temperature) relative atmospheric humidity: 30 to 85 % (without condensation)
Mains connection:	100 - 240 V AC (max. 1.6 A), 50 - 60 Hz Optional: Connection to 12V (8A), 24V (4A) or 48V (2A) (Adaption via DIPswitch and a suitable fuse. Refer to chapter 5 for details)

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.
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

3. Spare parts

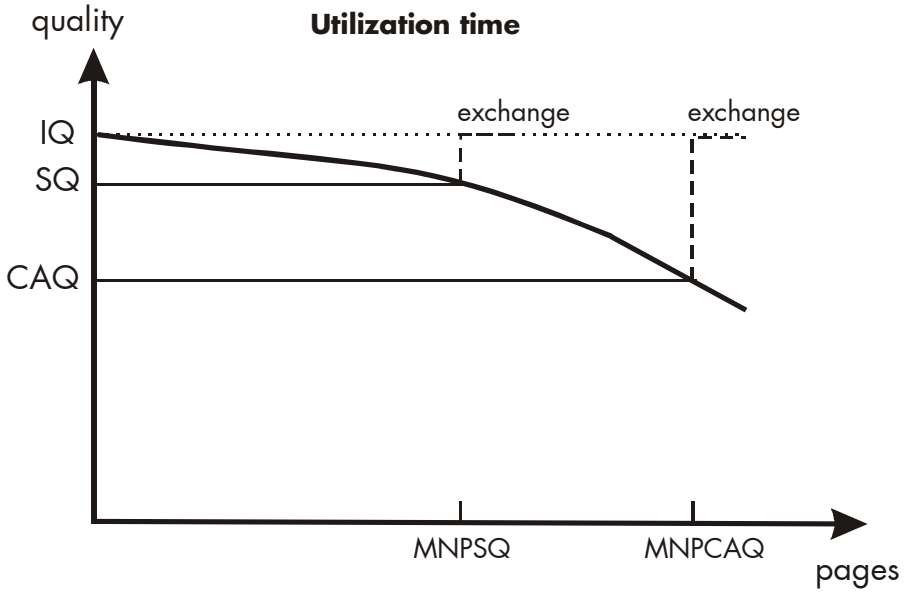
Spare parts are exchanged by the service engineer, when they fail.
Examples for spare parts are:
- couplings
- electronic assemblies
- rollers

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.



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