SOLID T11 DT

SOLID T11 TT

Operator's Manual

Edition 1.1M

Table of Contents

Chapter Page

1. Introduction

1.1. General Description

The SOLID T11 is a multifunctional non-impact printer based on thermal print technology. Two versions of this printer are available.
The SOLID T11 DT can be used for direct thermal printing only.
The SOLID T11 TT can be used for thermal transfer printing as well as for direct thermal printing (this printer version is shown in most of the pictures of this manual).
Because of their wide range of application, you can use the SOLID T11 printers to print all kind of information as barcodes, alphanumerical characters and vector graphics e.g. .
This printers not only know 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.

The SOLID T11 printers are 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 50 up to 150 mm/second (up to 6 inch/second).
Roll-fed media as well as continuous-media can be printed on.
The maximum processable width of media for the SOLID T11 printers is 300 mm. 266 mm 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 (direct thermal 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 direct thermal 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 SOLID T11 DT can only be used for direct thermal printing. The SOLID T11 TT printer can be used for both methods of thermal 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. CE – Conformity

MICROPLEX

EC DECLARATION OF CONFORMITY

Manufacturer:	**MICROPLEX Printware AG** Panzerstrasse 5 D-26316 Varel Germany	
Product:	Thermal Printer	
Type:	SOLID T11	
Conforms with the following EC directives:	EN 60950-1	(Low voltage directive)
	EN 55022/Class B	(Information technology equipment – Radio disturbance characteristics – Limits and methods of measurement)
	EN 55024, EN 61000-6-2 EN 61000-3-2 EN 61000-3-3	(Immunity for industrial environments) (Limitation of voltage changes, voltage fluctuations and flicker in public low-voltage supply systems)

Varel, 3.2.2011

Managing Director
Jürgen Schmitt

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

1.5. General Safety Regulations

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

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

Heeding the following instructions ensures secure operation:

- Please make sure your electricity source is appropriately grounded.

- Install the device on solid and level ground.

- Only trained staff are authorized to transport the equipment.

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

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

- Ensure no liquids get on or into the device.

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

- Do not remove or bridge over any safety device.

- 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 (option) 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:

- For connected printers with plugs, the power-outlet should be installed near the printer and easily within reach.
- For permanently connected printers, an easily accessible emergency power-off switch should be installed close to the printer.
- Please do not conceal any disconnect devices with the printer or other objects.
- After switching off the device, wait at least 15 seconds before the device is switched on again.

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

2. Installation

2.1. Printer Unpacking

1. Open the box and remove the accessory parts.

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

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 SOLID T11
2. Power cord
3. Data cable (USB)
4. CD containing:
    - Operator's Manual for SOLID T11
    - Print drivers
    - IDOL Programming Manual

Fig. 2.2.a Accessories

2.3. Printer Installation

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

- The printer must be connected to an appropriate AC power source 120V AC/60 Hz (North America) or 230V/50 Hz (Europe, United Kingdom e.g.). The power source must be properly grounded. The socket and power cords must not be damaged.
- Use the printer only within the allowed fluctuation range of ±10%.
- The voltage support must not be impaired by interference.

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

  Temperature: +5°C to +40°C (operating)
  - 5°C to +60°C (storage temperature)
  Relative atmospheric humidity: 30% to 80% (without condensation)

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

2.4. Printer Components

Main view:

Fig. 2.4.a Main view of the printer **SOLID T11 TT**

Fig. 2.4.b Main view of the printer **SOLID T11 TT**

Rear view:

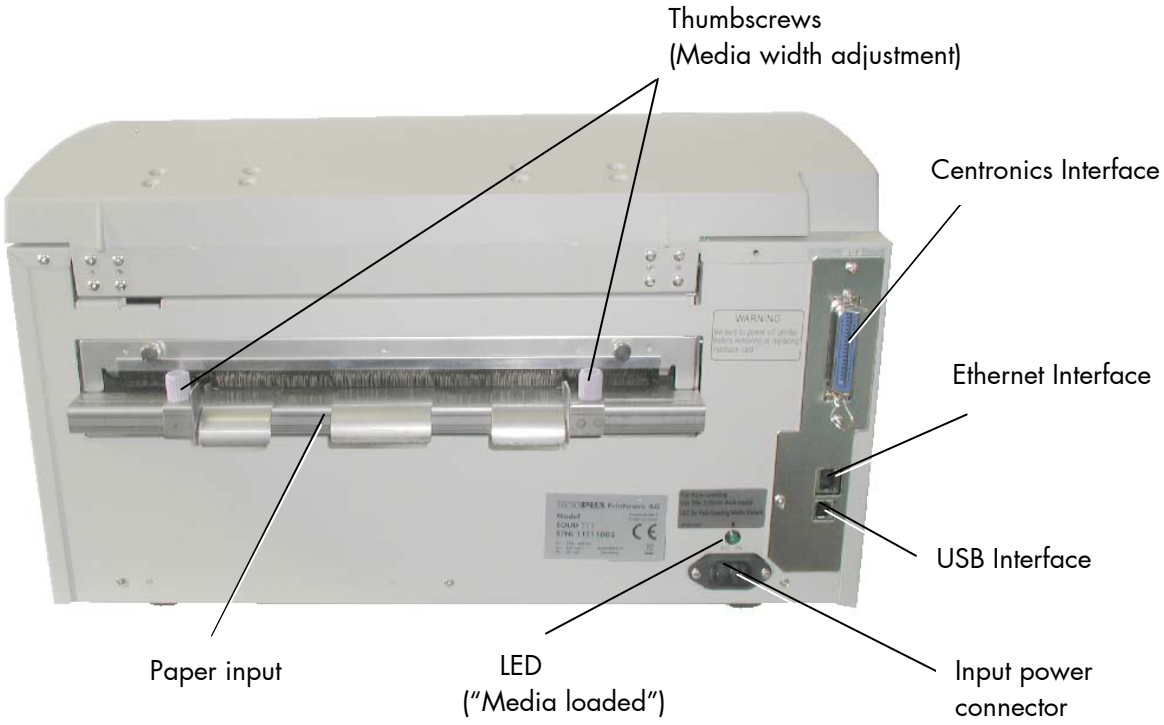


Fig. 2.4.c Rear view of the printer

View into the printer:

Fig. 2.4.d Printer **SOLID T11 TT** opened

3. Media and Ribbon Requirements

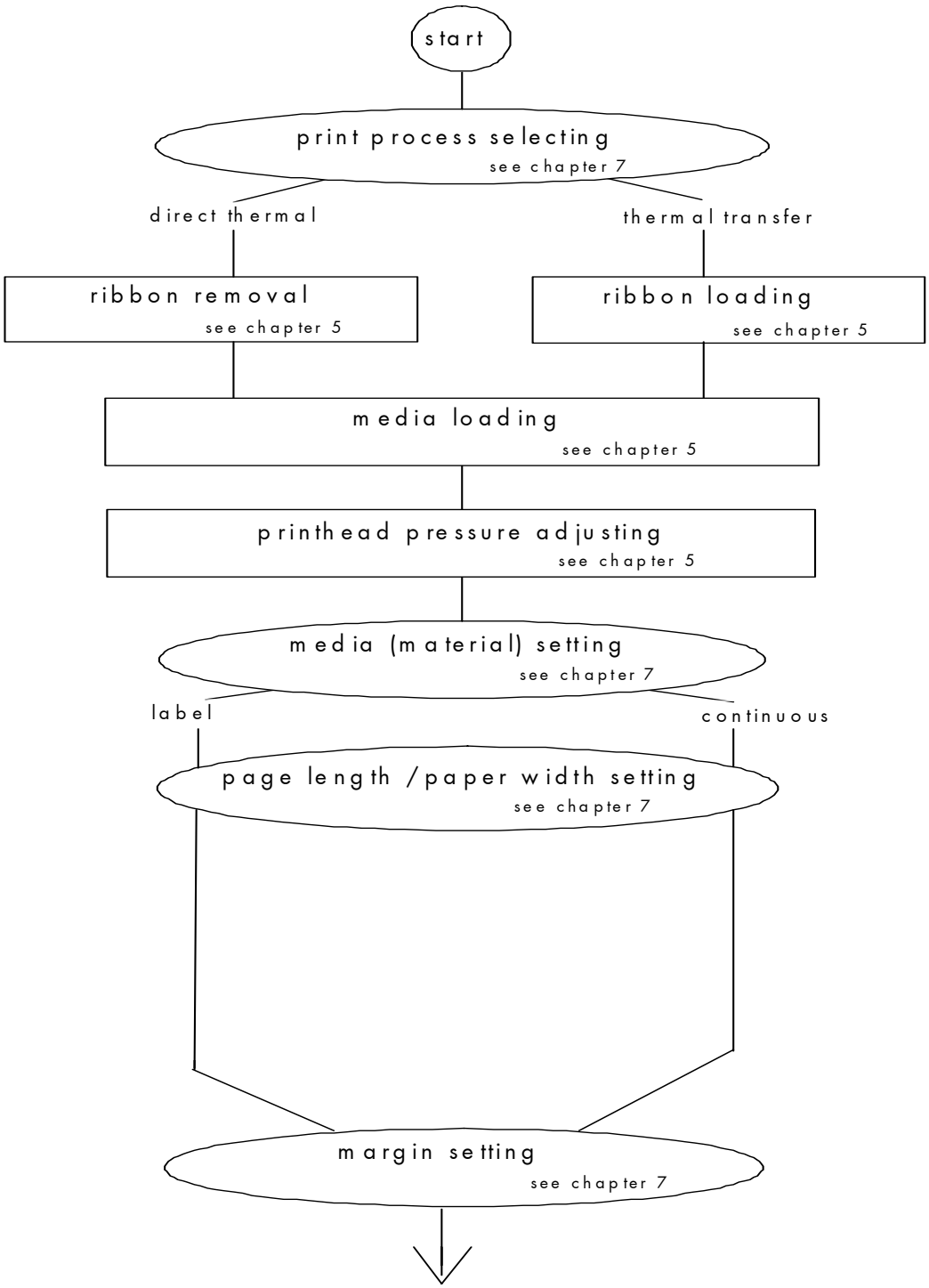
Since print quality is affected by media and ribbon, printing speeds, and printer operation modes, it is very important to run tests for your applications.

Please note:
Printing without media under the print head is not allowed.
A Paper End sensor detects when the media supply has been depleted.

Please keep this sensor clean, because printing without media under the head can result in damage to the Print Head. See section 8.1.4 Sensor Cleaning.

4. Basic Operation Sequences

4.1. Overview



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

An output of the current setting values can be generated using the "Printing the Status Sheet" panel function (see section 7.6).

Detailed information on the operations above and to further functions of the printer SOLID T11 can be found in the following chapters.

5. Handling of Consumables

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

Safety instructions:

- 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 direct thermal printing it is not allowed to load a ribbon to avoid damaging the printhead. Make sure your settings using the control panel and display respectively via interface (see chapter 6 and 7) fit to the printer implementation (ribbon inserted /not inserted).

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

5.1. Winding Diagram

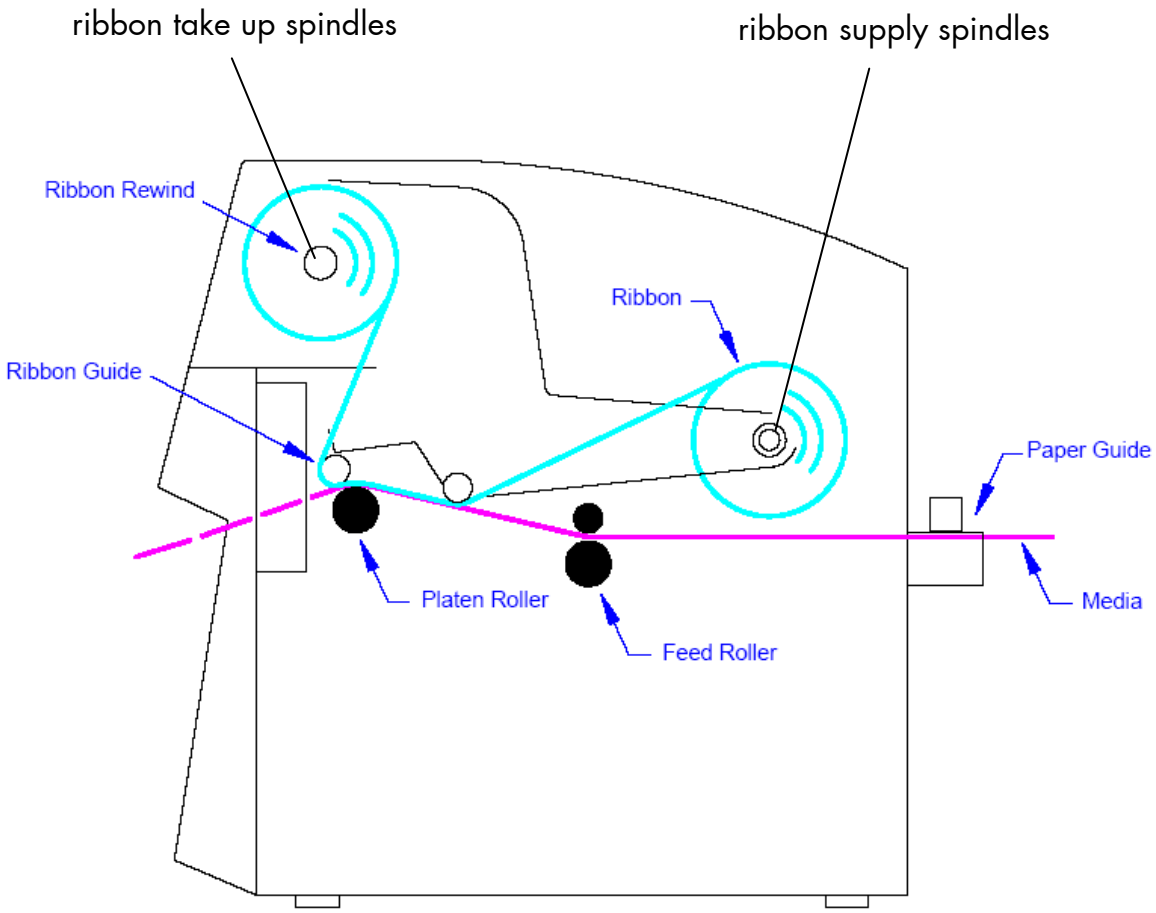


Fig. 5.1.a Winding directions of material and ribbon (ink inside the roll)

The diagram above shows the usual winding directions of material and ribbon for the SOLID T11 TT, the **thermal transfer version** of the SOLID T11.

SOLID T11 DT printers have a similar paper path (just as shown in the figure above) – but all the ribbon spindles and so on are not existing in that device.

Pay attention to the diagram located on the inside of the printer's top cover, too.

5.2. Print Media Handling

5.2.1. Media Loading

The SOLID T11 printers have an automatic media loading feature. Therefore print media loading becomes very easy.

To load roll-fed media or fanfold media go on like this:

1. Turn the printer on.

2. Open the top cover of the printer.

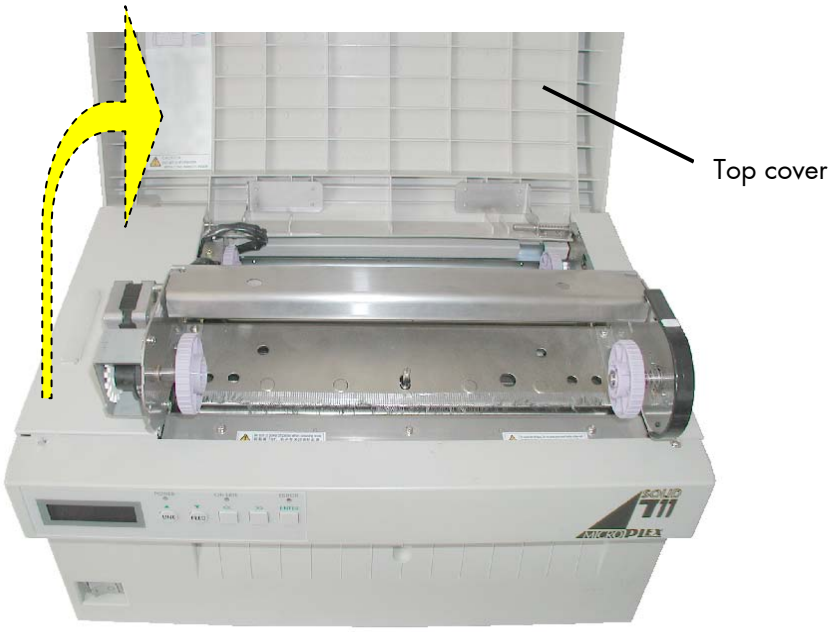


Fig. 5.2.1.a Top cover opened

3. Release the print head by pulling the head latch lever (located at the right side of the print head mechanism).

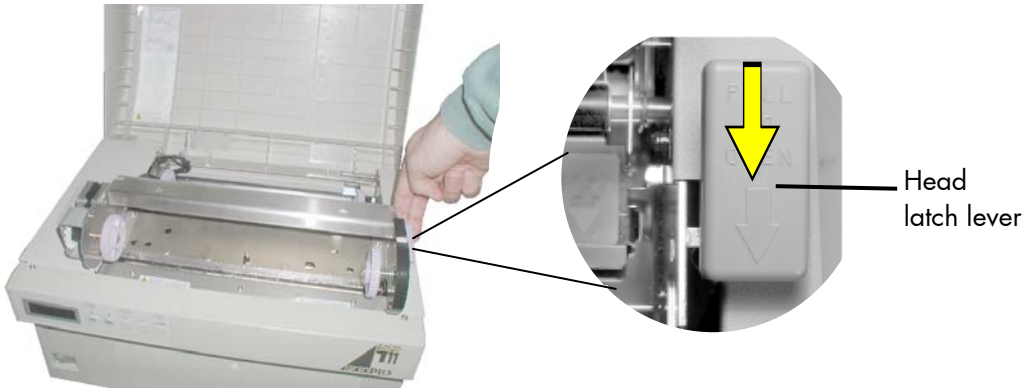


Fig. 5.2.1.b Pull the purple head latch lever

4. Lift the print head by rotating it upward and to the rear.

5. Check to make sure that nothing is in the media path. Remove any media that may have been left in the printer.

6. Close the print head by rotating it forward and down. Press firmly on each end of the print head mechanism (SOLID T11 DT: at the points labeled "PUSH") until the print head latches firmly in place.

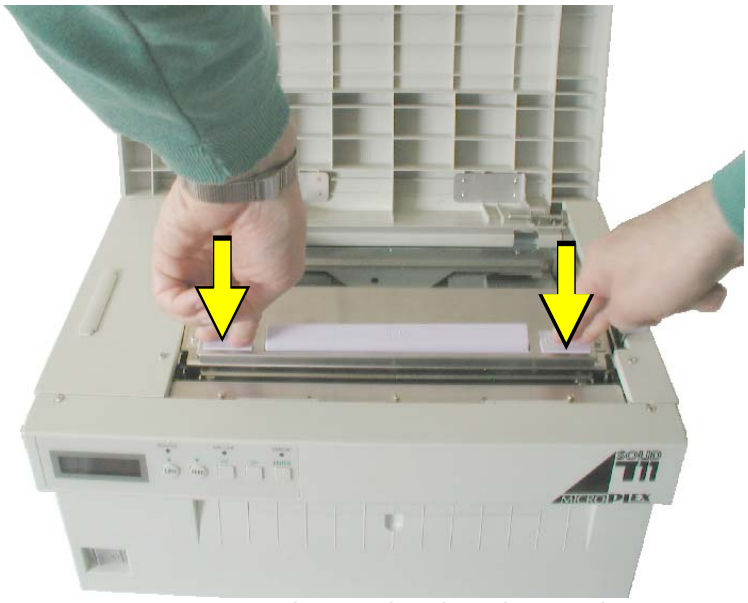


Fig. 5.2.1.c Pressing on the print head mechanism (here: SOLID T11 DT)

7. Loosen the two thumbscrews at the rear side of the printer (near the paper input opening; see the following figure).

8. Adjust the material guides (label width guides) to the new media with.

   Please note: The guides are interlocked to maintain a center justified label path.

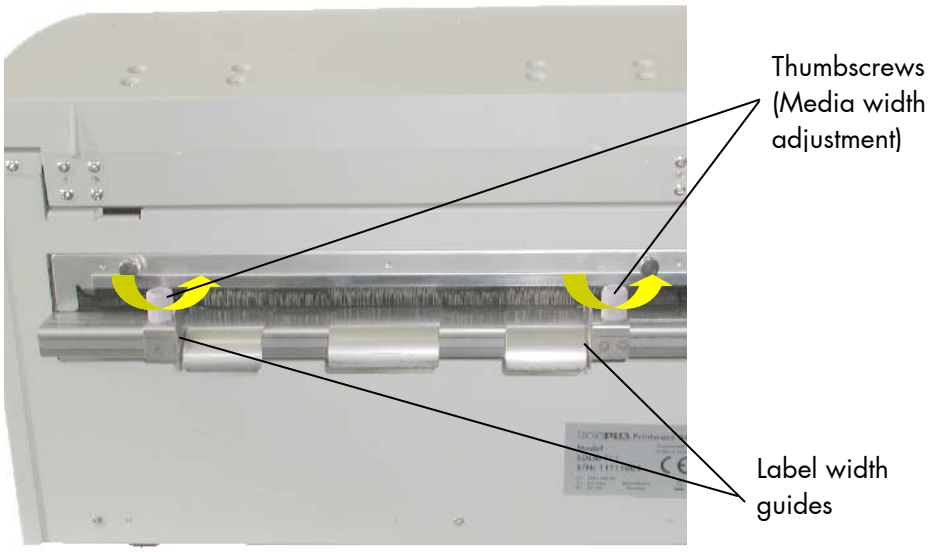


Fig. 5.2.1.d Loosen the two thumbscrews to adjust the label width guides

9. Tighten the two thumbscrews.

10. Check to make sure the green "Media loaded" LED on the back panel is off (if not go back to step 5, if need be).

11. Thread the media into the back of the printer between the material guides (label width guides). As soon as it is correctly positioned, the green "Media loaded" LED will be on.

Fig. 5.2.1.e Watch the "Media loaded" LED

12. Close the top cover of the printer.

13. Switch the printer to ON LINE mode.

14. The printer will automatically feed the media into the printer until it is correctly positioned for printing.

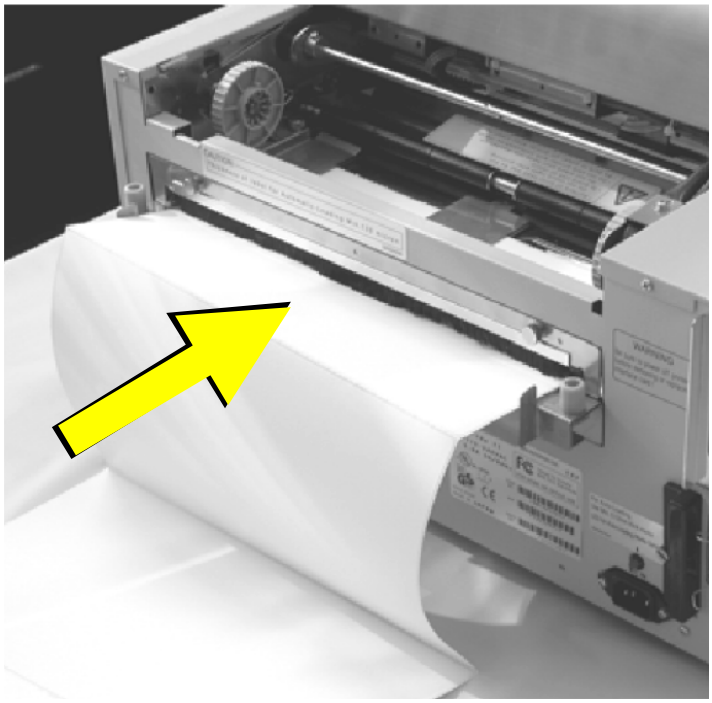


Fig. 5.2.1.f Feeding material into the printer

15. If you want to print using the direct thermal process, the printer is now already ready for this.
    To print using the thermal transfer process, you still need to insert ribbon.

5.2.2. Media Removal

1. Switch the printer to OFF LINE mode.
2. Open the top cover of the printer.
3. Release the print head by pulling the head latch lever (located at the right side of the print head mechanism).
4. Lift the print head by rotating it upward and to the rear.
5. Remove the media from the printer (pull the material out of the label path from the rear side of the printer).
6. Close the print head by rotating it forward and down. Press firmly on each end of the print head mechanism (SOLID T11 DT: at the points labeled “PUSH”) until the print head latches firmly in place.
7. Close the top cover of the printer.

5.3. Handling of Ribbon (SOLID T11 TT)

5.3.1. 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.

For direct thermal printing it is not allowed to insert a ribbon to avoid damaging the printhead.
Make sure your Print Process settings (see chapter 7 Panel Functions) match to the printer implementation (ribbon inserted/not inserted).

To set the ribbon go on like this:

1. Switch the printer to OFF LINE mode.
2. Open the top cover of the printer.
3. Release the print head by pulling the head latch lever (located at the right side of the print head mechanism).

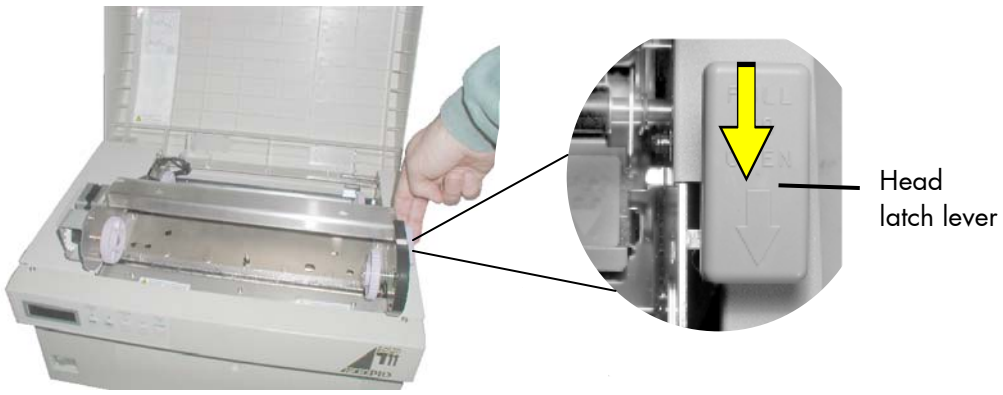


Fig. 5.3.1.a Pull the purple head latch lever

4. Lift the print head by rotating it upward and to the rear.

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

6. Look at the Winding diagram shown in section 5.1 (and inside the printer's top cover, too) to locate the ribbon supply spindles inside the printer and to find the right unwinding direction for the ribbon roll.

7. Press outward on the right ribbon supply spindle (spring loaded) to make room for the installation of the ribbon.

8. At first, place the new ribbon roll on the left spindle.
Please note: the notches in the core have to line up with the tangs on the spindle.

9. Place the ribbon on the right ribbon supply spindle, too (again making sure the notches in the core line up with the tangs on the spindle before releasing the spring loaded spindle).

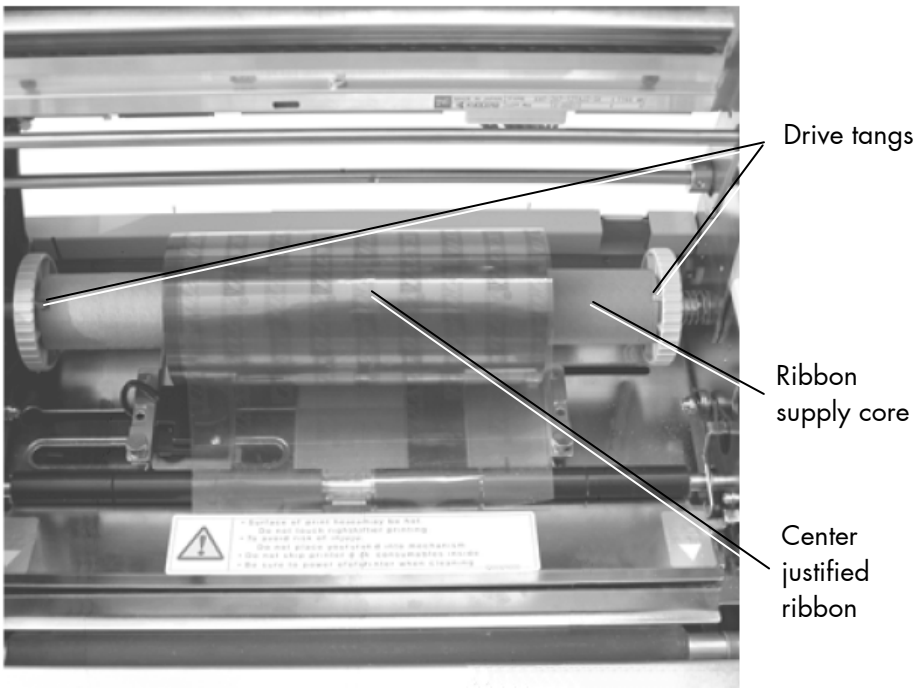


Fig. 5.3.1.b Ribbon roll placed on both ribbon supply spindles

10. Place an empty ribbon core on the ribbon take up spindles (Press outward on the right spring loaded ribbon supply spindle to make room for the installation of the ribbon core; compare steps 7 to 9 and see figure 5.3.1.c).

    Please note: The ribbon leader is attached to the ribbon by an adhesive strip.

11. Carefully pull the leader free and pull about 18 inches of ribbon from the roll.
    The ribbon should come off the top of the roll, ink side (dull side) down.

12. Route the ribbon from the ribbon supply spindle around the print head and up to the take up core as shown in the ribbon loading diagram (see section 5.1 Winding diagram).

13. Route the ribbon around the printhead without folds.

14. Attach the leader to the take up core by pressing the leader's adhesive strip onto the core (in addition use a small piece of tape, if need be).

15. Manually wind approximately three turns of ribbon on the take up core.

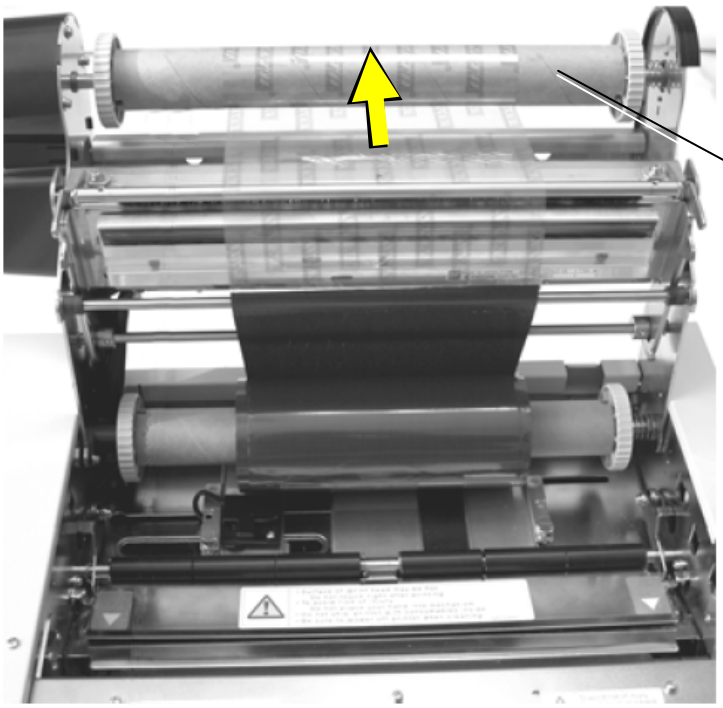


Fig. 5.3.1.c Leader attached to the empty ribbon take up core

16. Check that the ribbon has no folds and is running straight.

    If necessary, tauten the ribbon by turning the take up core.

17. Close the print head by rotating it forward and down. Press firmly on each end of the print head mechanism at the points labeled “PUSH” until the print head latches firmly in place.

18. Close the top cover of the printer.

5.3.2. Ribbon Removal

The following steps are necessary if you want to switch from printing in the thermal transfer mode to printing in the direct thermal mode.

1. Switch the printer to OFF LINE mode.

2. Open the top cover of the printer.

3. Open the print head by pulling the head latch lever (located at the right side of the print head mechanism).

4. Lift the print head by rotating it upward and to the rear.

5. Look at the Winding diagram shown in section 5.1 (and inside the printer's top cover, too) to locate the ribbon supply spindles and the ribbon take up spindles.

6. Press outward on the right ribbon supply spindle (spring loaded) and then remove the ribbon roll from the left spindle.

7. Remove the second ribbon roll from the ribbon take up spindles in the same way (the right spindle is spring loaded) and then completely remove both ribbon rolls from the printer.

8. Manually wind some additional turns of ribbon on the take up core to minimize the free end of ribbon between the rolls and then lay the rolls aside for future use.

Please protect the ribbon against damages and unintentional unwinding until it is needed for the next thermal transfer print operation.
The ribbon has to be loaded as described in section 5.3.1.

9. Close the print head by rotating it forward and down. Press firmly on each end of the print head mechanism at the points labeled "PUSH" until the print head latches firmly in place.

10. Close the top cover of the printer.

The media for direct thermal printing has to be loaded as described in section 5.2.1.

6. Operation and Menu Structure

6.1. Attaching the Printer to a Computer

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

2. Use a proper interface line to connect the printer to the computer or to attach the printer to the network.
   The printers SOLID T11 DT and SOLID T11 TT are provided with several interfaces; see figure 2.4.b and chapter 11 Specifications for more information.

6.2. Turning on the Printer

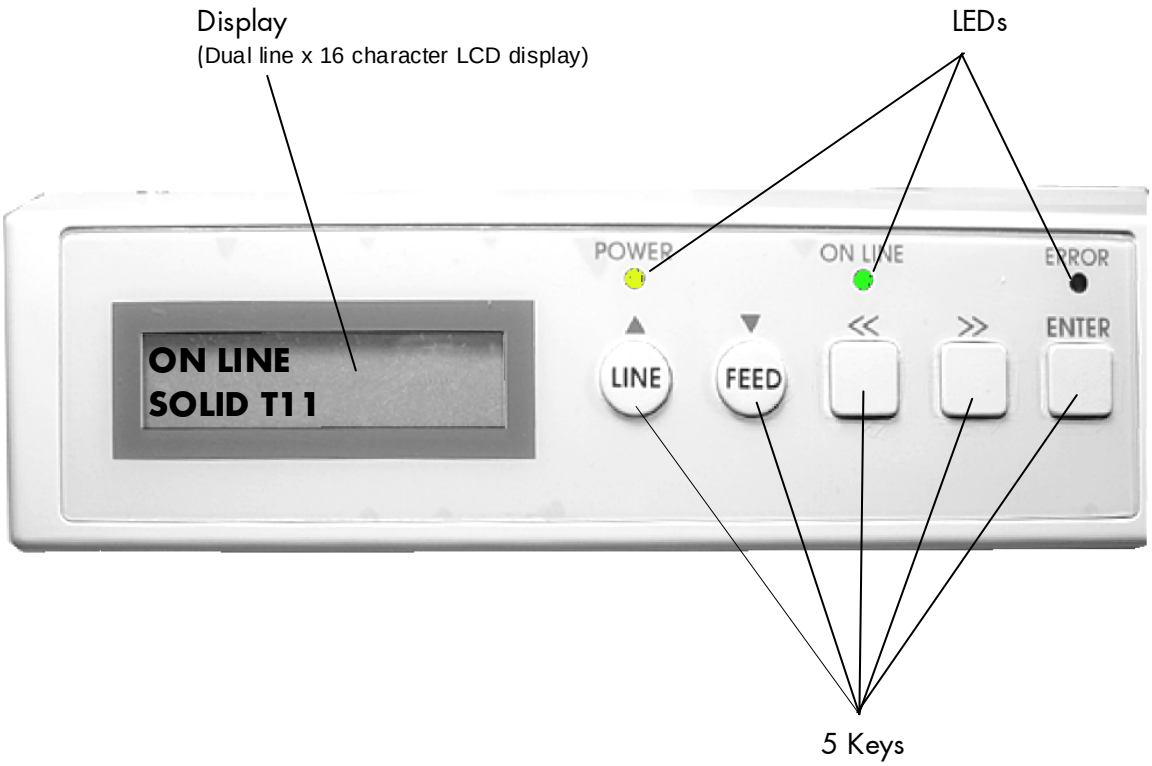
First, please notice the instructions given in chapter 5 Handling of Consumables.

1. Plug one end of the printer power cord into the socket at the back of the printer and the other end into a properly grounded outlet.

2. Turn on the printer. The power switch is located at the front side of the printer (below the LCD display, see section 2.4 Printer Components).

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

6.3. Control Panel View

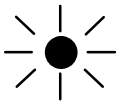


6.4. Function of the Control Panel Elements

Display

The display (LCD-panel) serves to show the printer's status messages.

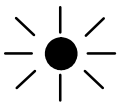
POWER LED (Green)



The printer is on.

○ The printer is off.

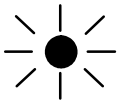
ON LINE LED (Green)



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

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

ERROR LED (Red)



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

○ No error occurring.

Control Panel Keys

Printer ON LINE:

Use the **LINE key** to turn the printer OFF LINE.

Printer OFF LINE:

After activating the **FEED key** in the OFF LINE mode the paper will be moved one form length ahead.

In the OFF LINE mode the **PREVIOUS key** initiates cutting (Cutter = option).

Use the ENTER key to get into the menu structure:

ENTER key

NEXT key

PREVIOUS key

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.

FEED key

6.5. Configuration via the Control Panel

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

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

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

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

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

An output of the current printer values can be generated using the "Printing the Status Sheet" panel function (see section 7.6).

Please note:

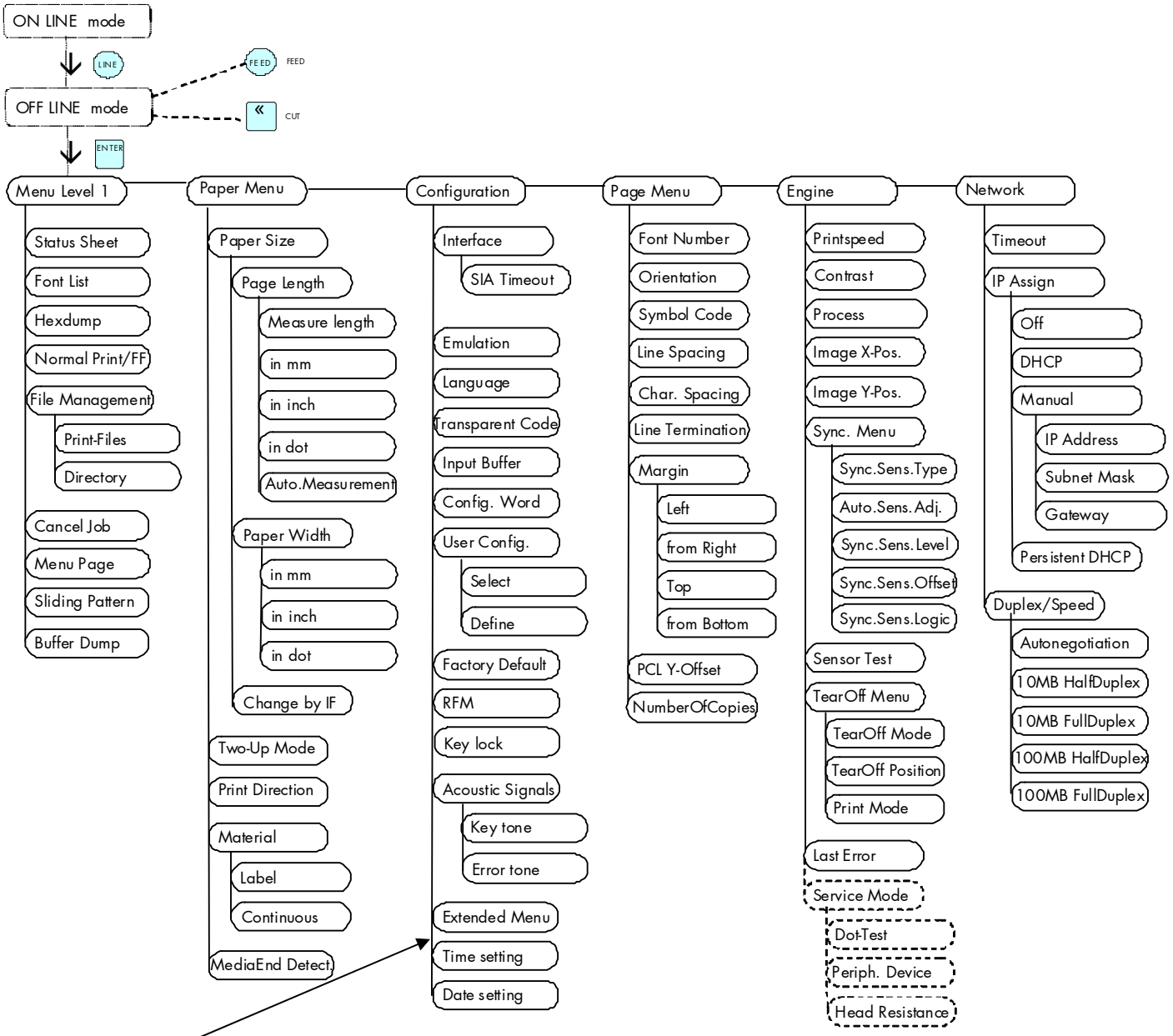
- User default settings remain in effect until you save new settings or restore the factory defaults.

- 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.

6.6. Menu Structure

Access to the menu structure is possible as soon as the printer is turned OFF LINE and the ENTER key was pressed.

The menu structure of the printers SOLID T11 DT and SOLID T11 TT 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 LINE key.
The printer is turned OFF LINE with this key.

With this ENTER key you get into the first menu level of the menu structure.

The NEXT key is used to move forward within a menu level.

The PREVIOUS keys is used to move one or more steps back.

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

["Menu Level "]

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

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:

Within one function the value can be changed by pressing the key NEXT or PREVIOUS.
In case of a multi-digit function value the value of the currently chosen digit will be changed.

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

Please note: If you press the FEED 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 of the function value is still arrived, the currently displayed function value is stored.

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

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

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

Return to the ON LINE mode:

Press the LINE key.

6.7. Syntax of Diagrams

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

First the elements of the diagram are explained:

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

In this example the LINE key has to be pressed first. Then the LINE key is released and the ENTER key has to be pressed. Then the ENTER key has to be released and the NEXT key has to be pressed.

["Message"]

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

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

7. Panel Functions

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

7.1. Print Process Selecting

This function allows to select the print process.
While direct thermal 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 5 Handling of Consumables, too).

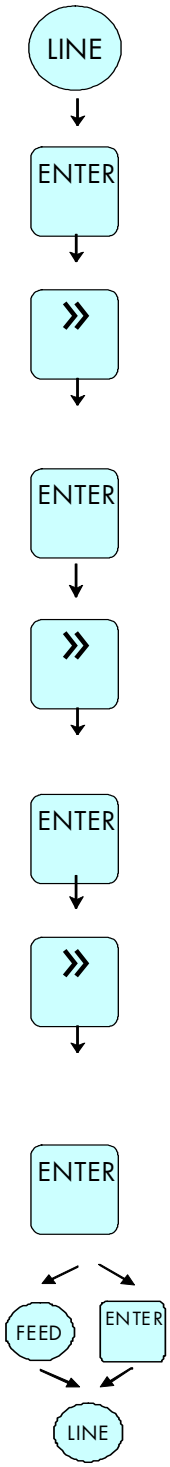
The printer SOLID T11 DT only supports direct thermal printing.
The SOLID T11 TT can be used for thermal transfer printing and direct thermal printing.

For direct thermal 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).

Please note:
The printer is equipped with a paper end sensor to detect when the media supply has been depleted.
It is very important that this sensor be kept operating properly since the printhead depends upon the presence of the media as a heat sink. See section 8.1.4 Sensor cleaning.

Printing without media under the head can result in damage to the printhead!

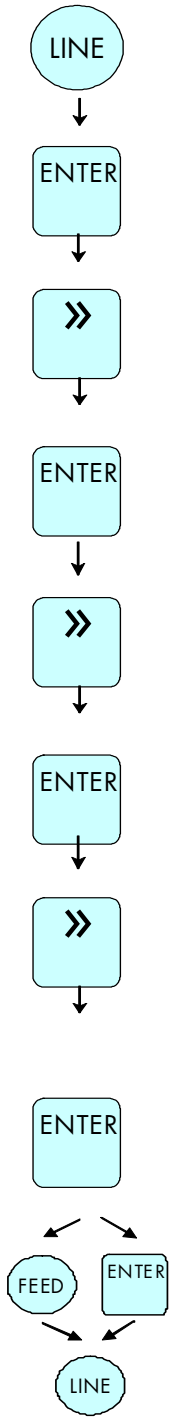
Description of this control panel function continues on the next page.



Panel display	Notes
[ON LINE]	Turn the printer OFF LINE with this key.
[OFF LINE]	
[Menu Level 1]	The ENTER key gives the user access to the menu structure.
• • •	Press the NEXT or PREVIOUS key until [Engine] is displayed.
[Engine]	
[Printspeed]	The menu item Engine is selected.
• • •	Press the NEXT or PREVIOUS key until [Process] is displayed.
[Process]	
[Thermo direct]	The menu item Process is selected.
• • •	Press the NEXT or PREVIOUS key until the display message is corresponding with the printer implementation (ribbon inserted = Thermo transfer e.g.).
[Thermo transfer]	
[Save as Setup?]	The thermal transfer print process is selected (only SOLID T11 TT). In addition this new value can be saved as setup value (using the ENTER key). After this decision turn the printer ON LINE again: Press the LINE key.

7.2. Media Setting (Material; Label or Continuous)

This function allows to adjust the printer to the actual used material (distinction between formatted media (label) and continuous media).

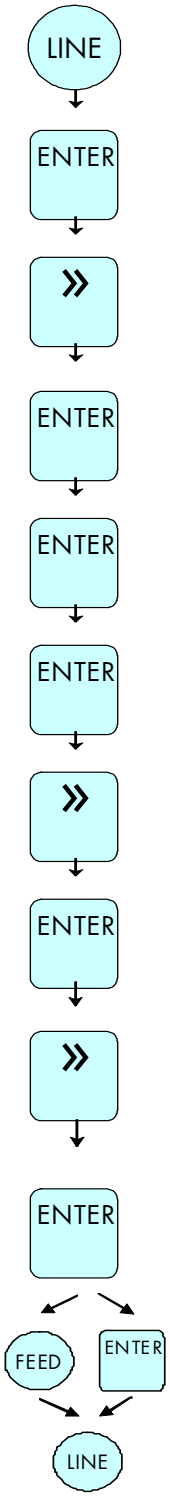


Panel display	Notes
[ON LINE]	Turn the printer OFF LINE with this key.
[OFF LINE]	
	The ENTER key gives the user access to the menu structure.
[Menu Level 1]	
• • •	Press the NEXT or PREVIOUS key until [Paper Menu] is displayed.
[Paper Menu]	
[Paper Size]	
• • •	Press the NEXT or PREVIOUS key until [Material] is displayed.
[Material]	
	Select sub-menu Material.
[Label]	
• • •	Press the NEXT or PREVIOUS key until the statement shown by the display corresponds to the inserted media (Continuous e.g.).
[Continuous]	
	The printer is adjusted to continuous material.
[Save as Setup?]	In addition this new value can be saved as setup value (using the ENTER key). After this decision turn the printer ON LINE again: Press the LINE key.

7.3. 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
[ON LINE]	Turn the printer OFF LINE with this key.
[OFF LINE]	The ENTER key gives the user access to the menu structure.
[Menu Level 1]	Press the NEXT or PREVIOUS key until [Paper Menu] is displayed.
• • •	
[Paper Menu]	Press the ENTER key to select the paper menu.
[Paper Size]	Press the ENTER key to select the paper size menu.
[Page Length]	Press the ENTER key to adjust the page length.
[Measure Length]	Press the NEXT or PREVIOUS key if you want to **adjust the page length manually**:
• • •	
[in mm]	mm = currently selected measuring unit. (Alternative the units inch or dot can be chosen with NEXT or PREVIOUS).
• • •	
[Digit4 1̲49.9]	Pressing the NEXT or PREVIOUS key changes the value of the current digit (Digit4 = left position, in this example: 1). Pressing the ENTER key moves you to the next digit (the FEED key moves you back, if need be).
• • •	
[Digit1 149.5̲]	The page length is changed to 149.5 mm.
[Save as Setup?]	In addition this new value can be saved as setup value (using the ENTER key). After this decision turn the printer ON LINE again: Press the LINE key.

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

Use the panel function

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).

7.3.2. Configuration of Semiautomatic Label Length Measurement

The panel function

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).

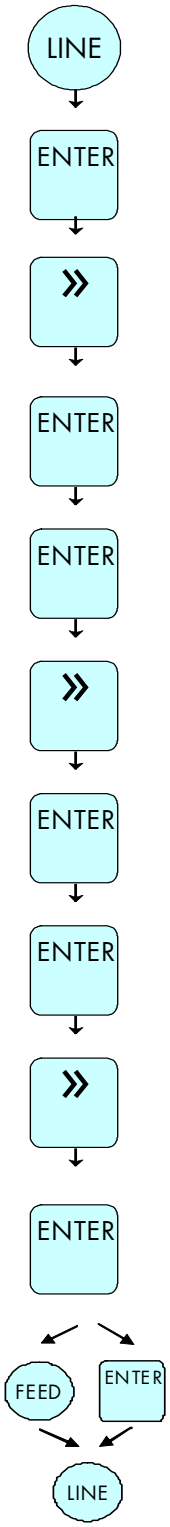
If the semiautomatic label length measurement function is chosen, the printer **automatically offers** you the **measurement of the label length** after every printer power on and **after every closing of the printhead** (for example after the inserting of a new label roll):

Panel display [Measure length]

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

7.4. Material Width Adjustment (Paper Width)

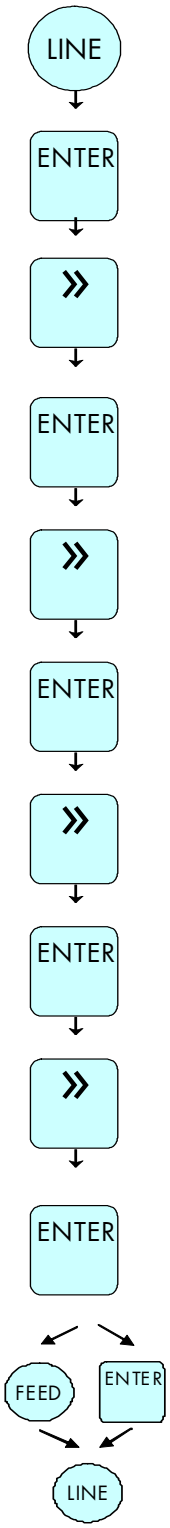
The paper width (print width) has to be adjusted with this function according to the currently used format.



Panel display	Notes
[ON LINE]	Turn the printer OFF LINE with this key.
[OFF LINE]	The ENTER key gives the user access to the menu structure.
[Menu Level 1]	Press the NEXT or PREVIOUS key until [Paper Menu] is displayed.
• • •	
[Paper Menu]	Press the ENTER key to select the paper menu.
[Paper Size]	Press the ENTER key to select the paper size menu.
[Page Length]	Press the NEXT or PREVIOUS key until [Paper Width] is displayed.
• • •	
[Paper Width]	Press the ENTER key to adjust the format width to the paper width.
[in mm]	mm = currently selected measuring unit. (Alternative the units inch or dot can be chosen with NEXT or PREVIOUS).
• • •	
[Digit4 1̲08.4]	Pressing the NEXT or PREVIOUS key changes the value of the current digit (Digit4 = left position, in this example: 1). Pressing the ENTER key moves you to the next digit (the FEED key moves you back, if need be).
• • •	
[Digit1 108.0̲]	The format width (paper width) is changed to 108.0 mm.
[Save as Setup?]	In addition this new value can be saved as setup value (using the ENTER key). After this decision turn the printer ON LINE again: Press the LINE key.

7.5. Configuration of Text Margins

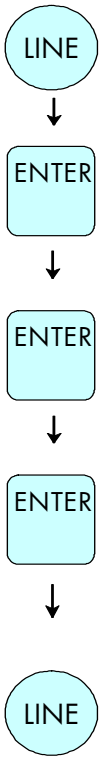
This function sets text margins. Margins are expressed in dots at the concerning edge of the paper.



Panel display	Notes
[ON LINE]	Turn the printer OFF LINE with this key.
[OFF LINE]	The ENTER key gives the user access to the menu structure.
[Menu Level 1]	
• • •	Press the NEXT or PREVIOUS key until [Page Menu] is displayed.
[Page Menu]	
[Font Number]	
• • •	Press the NEXT or PREVIOUS key until [Margin] is displayed.
[Margin]	
[Left]	
• • •	Press the NEXT or PREVIOUS key until the desired margin is displayed.
[from Right]	
[Digit4 0081]	Pressing the NEXT or PREVIOUS key changes the value of the current digit (Digit4 = left position, in this example: 0). Pressing the ENTER key moves you to the next digit (the FEED key moves you back, if need be).
• • •	
[Digit1 008Z]	The right margin is changed into 87 dot.
[Save as Setup?]	In addition this new value can be saved as setup value (using the ENTER key). After this decision turn the printer ON LINE again: Press the LINE key.

7.6. Printing the Status Sheet

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



Panel display	Notes
[ON LINE]	Turn the printer OFF LINE with this key.
[OFF LINE]	The ENTER key gives the user access to the menu structure.
[Menu Level 1]	Press the ENTER key. Menu level 1 is selected.
[Status Sheet]	Press the ENTER key again. A status sheet is printed.
[Status Sheet]	Turn the printer ON LINE again: Press the LINE key.

Status sheet contents:

The first lines, entitled SERVICE INFORMATION, contain hexadecimal coded configuration parameters.

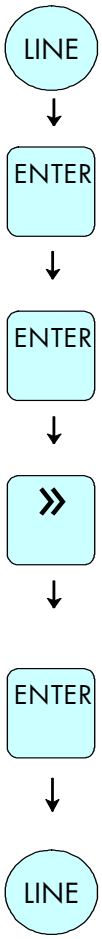
Printed in plain text:

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

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

7.7. Printing the Font List

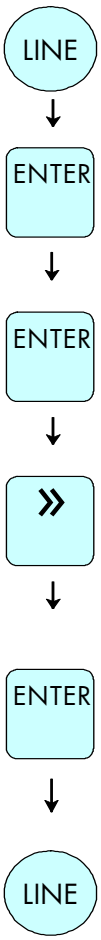
This function generates a list of all fonts installed to the printer. The font list shows demo prints of all fonts and, in addition, the concerning PCL selection commands. These commands contain information on font width and font height (see section 7.19 Font Selection, too).



Panel display	Notes
[[ON LINE]	
	Turn the printer OFF LINE with this key.
[OFF LINE]	
	The ENTER key gives the user access to the menu structure.
[Menu Level 1]	
	Menu Level 1 is selected.
[Status Sheet]	
	Press the NEXT or PREVIOUS key until [Font List] is displayed.
• • •	
[Font List]	
	The font list is printed.
[Font List]	
	Turn the printer ON LINE again: Press the LINE key.

7.8. Hexdump-Mode Activation

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

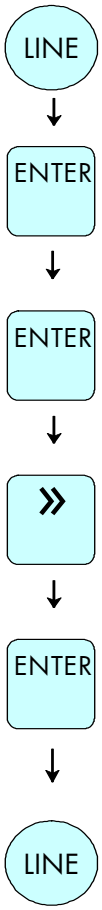


Panel display	Notes
[ON LINE]	Turn the printer OFF LINE with this key.
[OFF LINE]	The ENTER key gives the user access to the menu structure.
[Menu Level 1]	Menu level 1 is selected.
[Status Sheet]	Press the NEXT or PREVIOUS key until [Hexdump] is displayed.
• • •	
[Hexdump]	The Hexdump-Mode is activated.
[Hexdump]	Turn the printer ON LINE again: Press the LINE key.

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

7.9. Normal Print Mode Activation (incl. FORM FEED)

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

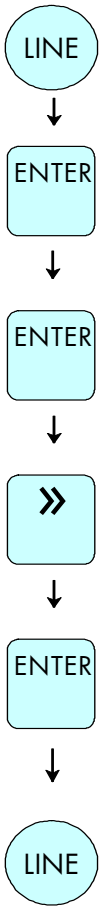


Panel display	Notes
[ON LINE]	
[OFF LINE]	Turn the printer OFF LINE with this key.
[Menu Level 1]	The ENTER key gives the user access to the menu structure.
[Status Sheet]	
• • •	Press the NEXT or PREVIOUS key until [Normal Print/FF] is displayed.
[Normal Print/FF]	
[Normal Print/FF]	The normal print mode is activated.
	Turn the printer ON LINE again: Press the LINE key.

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

7.10. Clearing the Input Buffer (Cancel Job)

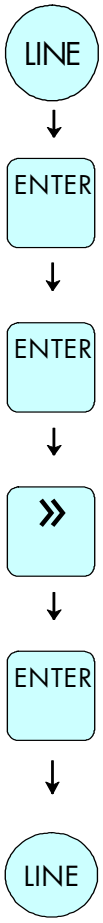
This function permits the resumption of a print job at a particular page after a print interruption (e.g. paper jam). The data contained in the input buffer before the interruption are cleared.



Panel display	Notes
[ON LINE]	Turn the printer OFF LINE with this key.
[OFF LINE]	The ENTER key gives the user access to the menu structure.
[Menu Level 1]	Menu level 1 is selected.
[Status Sheet]	Press the NEXT or PREVIOUS key until [Cancel Job] is displayed.
• • •	
[Cancel Job]	All data contained in the input buffer will be cleared.
[Cancel Job]	Turn the printer ON LINE again: Press the LINE key.

7.11. Printing the Menu Page

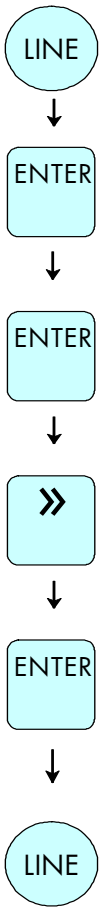
This function prints a survey of the available panel functions.
Note: When printing the menu page please use a large paper.



Panel display	Notes
[ON LINE]	Turn the printer OFF LINE with this key.
[OFF LINE]	The ENTER key gives the user access to the menu structure.
[Menu Level 1]	Menu level 1 is activated.
[Status Sheet]	Press the NEXT or PREVIOUS key until [Menu Page] is displayed.
• • •	
[Menu Page]	A menu structure presentation of the SOLID T11 is printed out (compare section 6.6).
[Menu Page]	Turn the printer ON LINE again: Press the LINE key.

7.12. Generating Test Prints (Sliding Pattern)

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

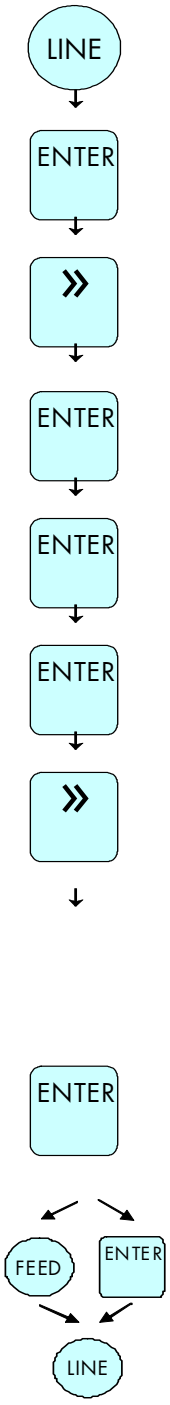


Panel display	Notes
[ON LINE]	Turn the printer OFF LINE with this key.
[OFF LINE]	The ENTER key gives the user access to the menu structure.
[Menu Level 1]	Menu level 1 is selected.
[Status Sheet]	Press the NEXT or PREVIOUS key until [Sliding Pattern] is displayed.
• • •	
[Sliding Pattern]	A series of test prints is generated.
[Sliding Pattern]	Turn the printer ON LINE again: Press the LINE key.

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

7.13. Data Interface Configuration

This function is used to set the interface parameters.

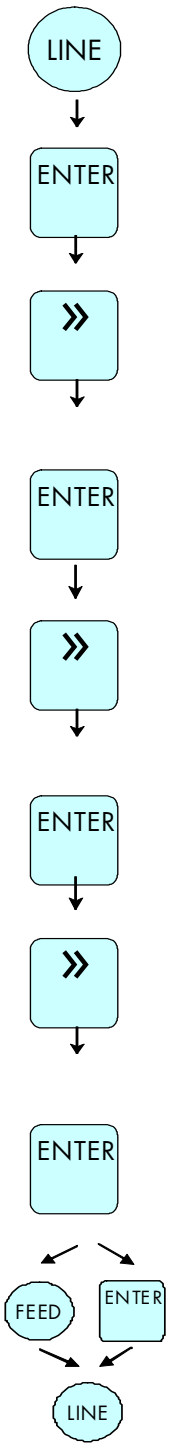


Panel display	Notes
[ON LINE]	Turn the printer OFF LINE with this key.
[OFF LINE]	
	The ENTER key gives the user access to the menu structure.
[Menu Level 1]	
• • •	Press the NEXT or PREVIOUS key until [Configuration] is displayed.
[Configuration]	
[Interface]	
[SIA Timeout]	
[30 s]	The currently set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

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

7.14. Emulation Selection

With this function you can change the active emulation.



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

Available Emulations:

Standard:

MICROPLEX IDOL,
HP LaserJet (PCL 5),
Epson FX,
IBM Proprinter,
Datamax (FGL),
Eltron EPL2,
ZPL II (Zebra Programming Language)

Optional:

TIFF (CCITT group 4),
Kyocera Prescribe,
Printronix IGP/PGL,
µPostscript

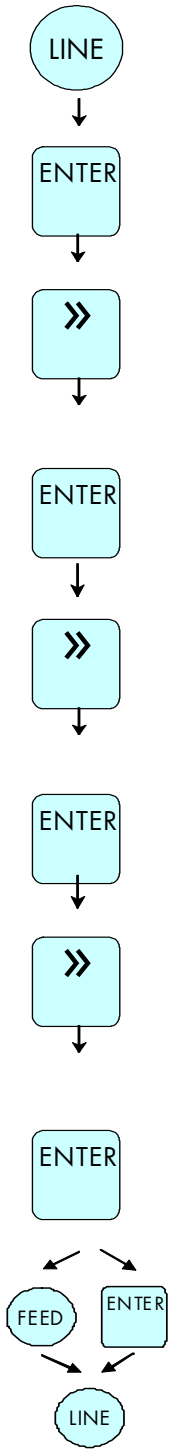
(More emulations on request)

Notice:

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

7.15. Display Language Selection

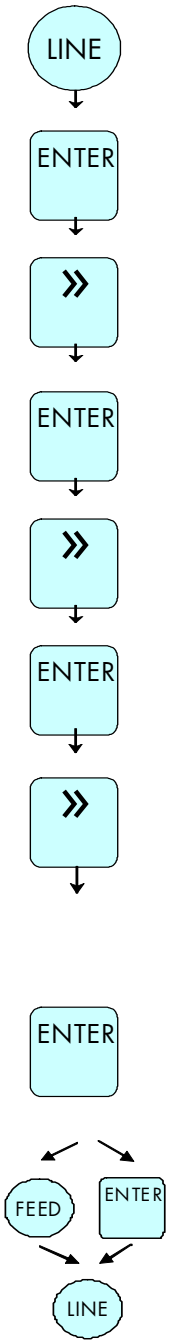
This function enables the user to determine the language for the display messages, the status sheet and the font list.



Panel display	Notes
[ON LINE]	Turn the printer OFF LINE with this key.
[OFF LINE]	The ENTER key gives the user access to the menu structure.
[Menu Level 1]	Press the NEXT or PREVIOUS key until [Configuration] is displayed.
• • •	
[Configuration]	
[Interface]	Press the NEXT or PREVIOUS key until [Language] is displayed.
• • •	
[Language]	
[German]	Press the NEXT or PREVIOUS key until the desired language (e.g. English) is displayed.
• • •	
[English]	The display language English is selected.
[Save as Setup?]	In addition this new value can be saved as setup value (using the ENTER key). After this decision turn the printer ON LINE again: Press the LINE key.

7.16. Transparent Code Adjustment

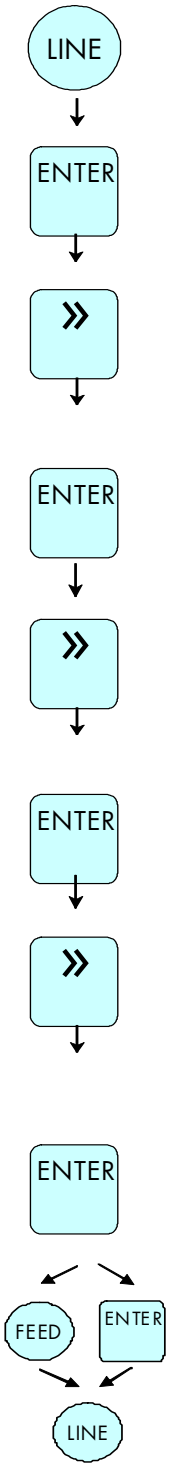
This function configures the transparent code. Using the transparent code enables you to initiate the commands of the page description language IDOL by **printable** characters. The transparent code pre-setting is 2625. These are the ASCII character codes (hexadecimal) for the characters &% (ref. IDOL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



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

7.17. Selection of Memory Distribution (Input Buffer)

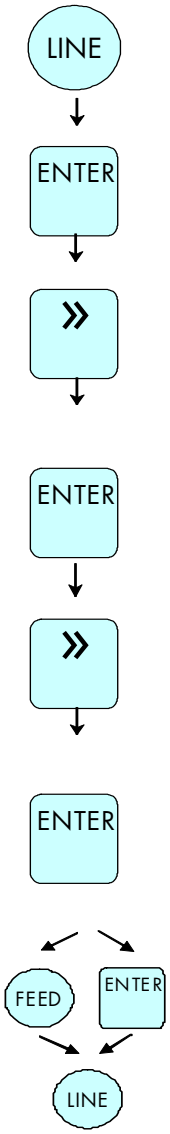
This function enables the user to choose the distribution of the available RAM memory between input buffer and macro/download memory.



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

7.18. Setting to Factory Default

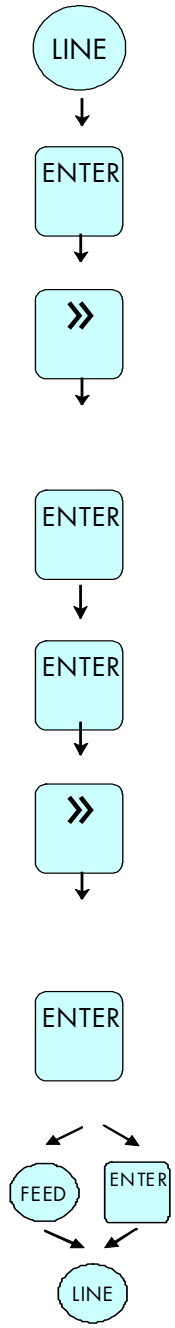
This function back-outs all configurations to factory defaults.



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

7.19. Font Selection

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



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

The **SOLID T11 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.

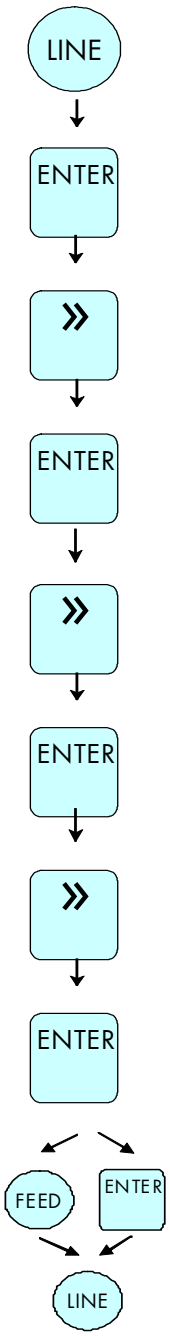
	Font no.	Font width	Font height	Font name
	0050	SC		Plakatschrift
	0590	SC		OCR /B
	0591	SC		OCR /A
	6600	SC		Juist Monospaced
PCL 5 compatible	0699	SC		Kurilen
	1700	SC		Kurilen Italic
	1800	SC		Kurilen Bold
	1900	SC		Kurilen Bold Italic
	5500	SC		Langeoog
	5600	SC		Langeoog Bold
	5700	SC		Langeoog 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 7.7) to generate a list of all fonts installed to the printer.

7.20. Text Orientation Selection

This function selects the active text orientation.



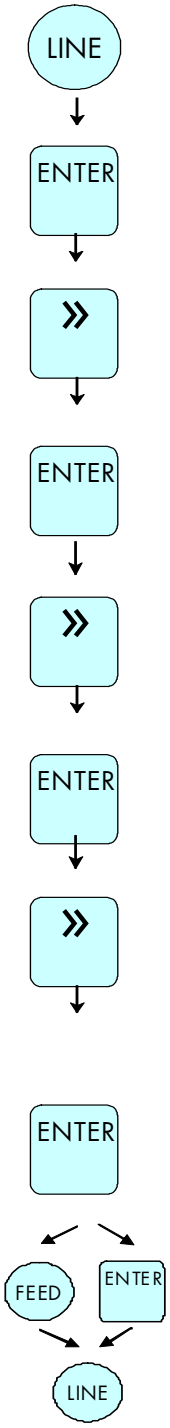
Panel display	Notes
[ON LINE]	Turn the printer OFF LINE with this key.
[OFF LINE]	
	The ENTER key gives the user access to the menu structure.
[Menu Level 1]	
• • •	Press the NEXT or PREVIOUS key until [Page Menu] is displayed.
[Page Menu]	
[Font Number]	
• • •	Press the NEXT or PREVIOUS key until [Orientation] is displayed.
[Orientation]	
[Orientation 0]	
• • •	Press the NEXT or PREVIOUS key until the desired orientation is displayed.
[Orientation 1]	The orientation 1 = landscape is selected.
[Save as Setup?]	In addition this new value can be saved as setup value (using the ENTER key). After this decision turn the printer ON LINE again: Press the LINE key.

Text orientation assignment:

Orientation 0 = Portrait (upright format)
Orientation 1 = Landscape (horizontal format)
Orientation 2 = Portrait upside down
Orientation 3 = Landscape upside down

7.21. Symbol Code Selection

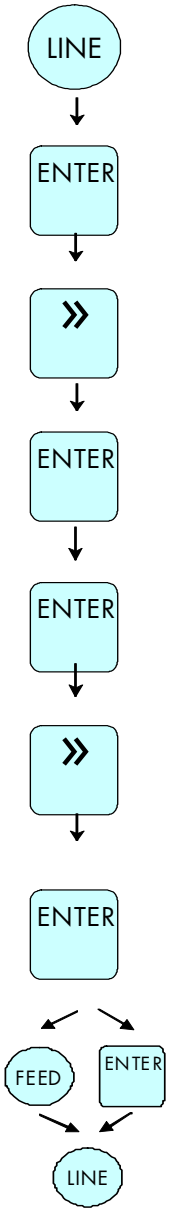
This function selects the active symbol code.



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

7.22. Print Speed Adjustment

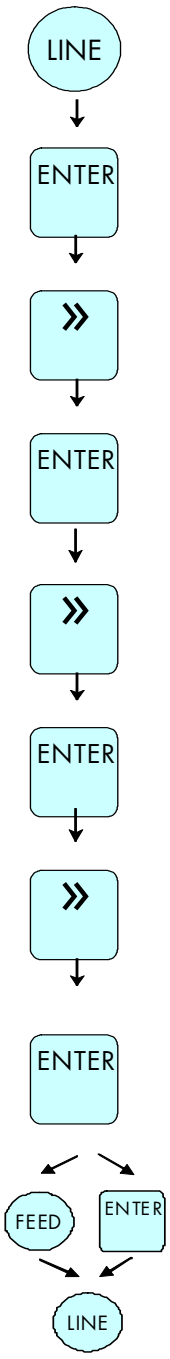
This function is used to change the print speed (adaptation to the actual used materials, e.g. to optimize the contrast of the printout). The setting range for the print speed is 2 inch/s to 6 inch/s.



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

7.23. Contrast (Density) Setting

Using this function the print density (contrast) of the printed characters can be changed.

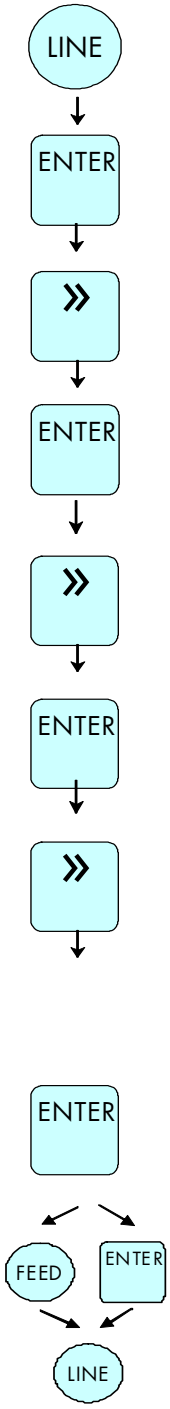


Panel display	Notes
[ON LINE]	Turn the printer OFF LINE with this key.
[OFF LINE]	The ENTER key gives the user access to the menu structure.
[Menu Level 1]	Press the NEXT or PREVIOUS key until [Engine] is displayed.
• • •	
[Engine]	
[Printspeed]	Press the NEXT or PREVIOUS key until [Contrast] is displayed.
• • •	
[Contrast]	
[Contrast: 85 %]	The currently set value is displayed.
• • •	Press the NEXT or PREVIOUS key to change the contrast. Values from 10% to 120% are settable *.
[Contrast: 60 %]	The contrast is reduced to 60 % (the density is decreased).
[Save as Setup?]	In addition this new value can be saved as setup value (using the ENTER key). After this decision turn the printer ON LINE again: Press the LINE key.

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

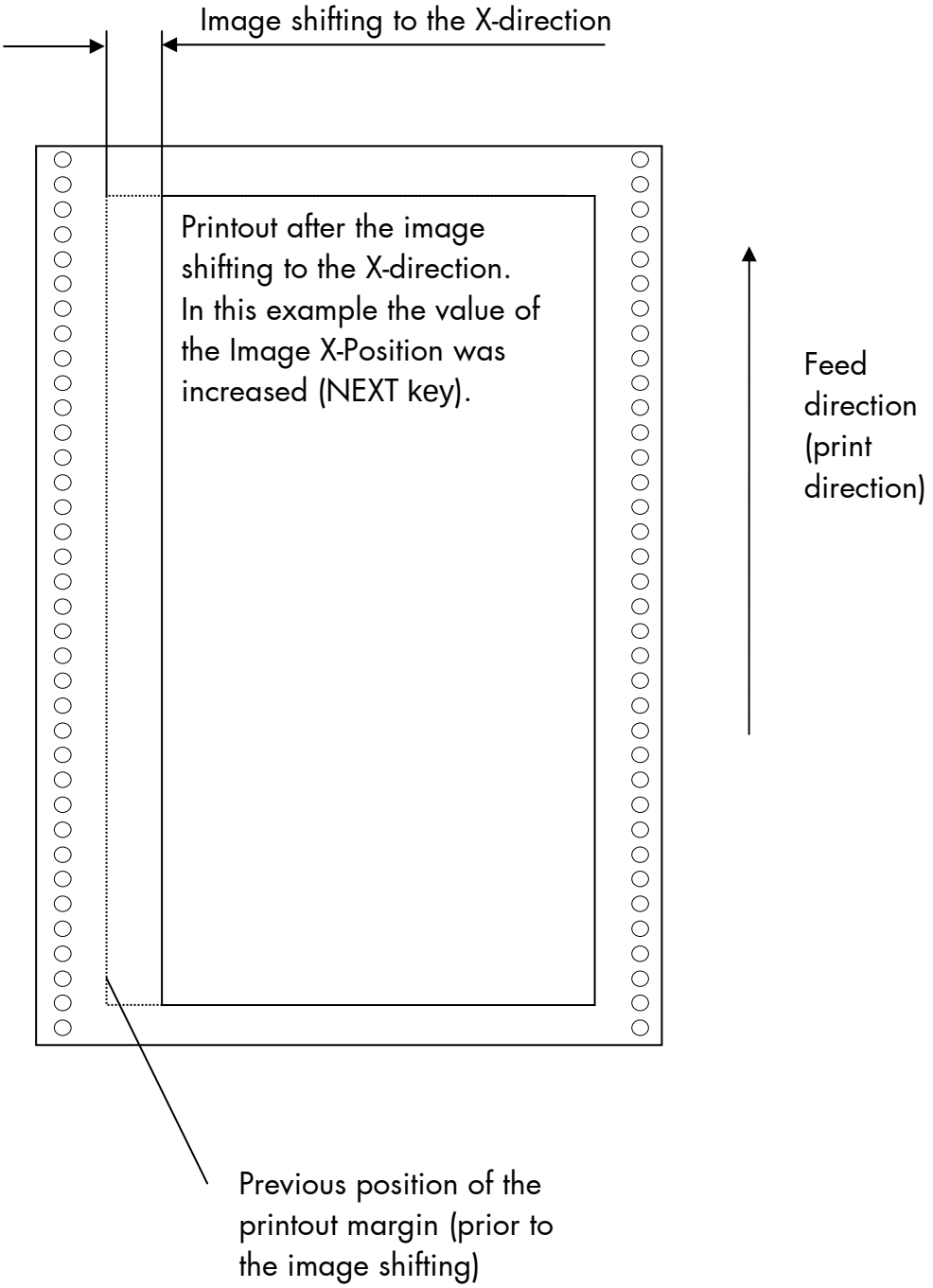
7.24. Image Shifting to the X-Direction

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



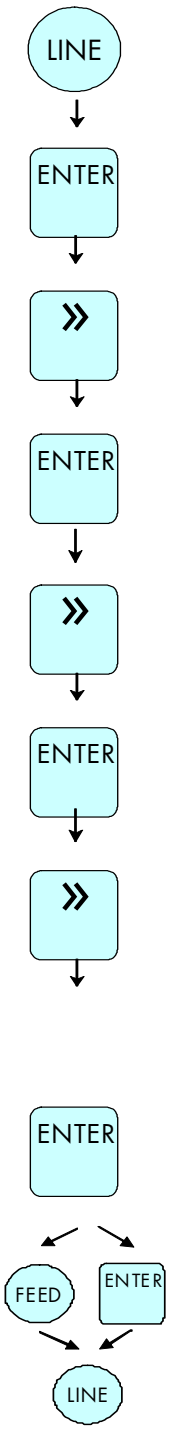
Panel display	Notes
[ON LINE]	Turn the printer OFF LINE with this key.
[OFF LINE]	The ENTER key gives the user access to the menu structure.
[Menu Level 1]	
• • •	Press the NEXT or PREVIOUS key until [Engine] is displayed.
[Engine]	
[Printspeed]	
• • •	Press the NEXT or PREVIOUS key until [Image X-Pos.]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

Example for shifting the image to the X-direction:



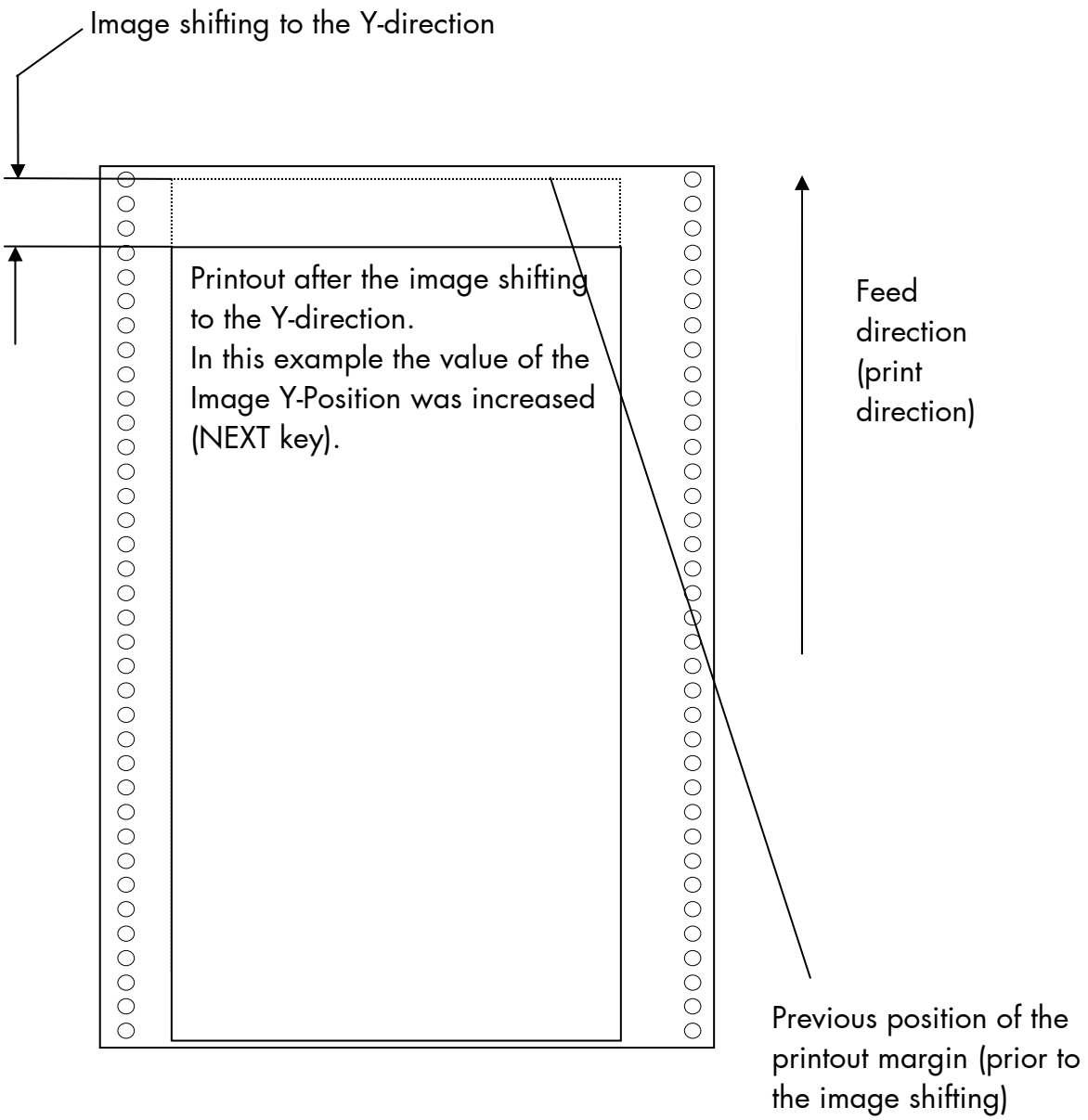
7.25. Image Shifting to the Y-Direction

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



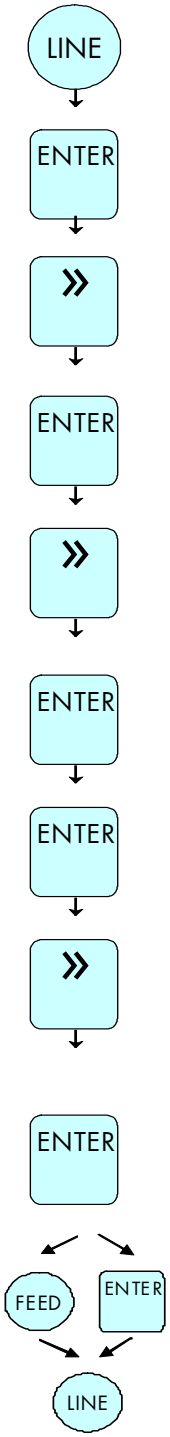
Panel display	Notes
[ON LINE]	Turn the printer OFF LINE with this key.
[OFF LINE]	The ENTER key gives the user access to the menu structure.
[Menu Level 1]	Press the NEXT or PREVIOUS key until [Engine] is displayed.
• • •	
[Engine]	
[Printspeed]	Press the NEXT or PREVIOUS key until [Image Y-Pos.] is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

Example for shifting the image to the Y-direction:



7.26. Selecting the Light Sensor Type

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



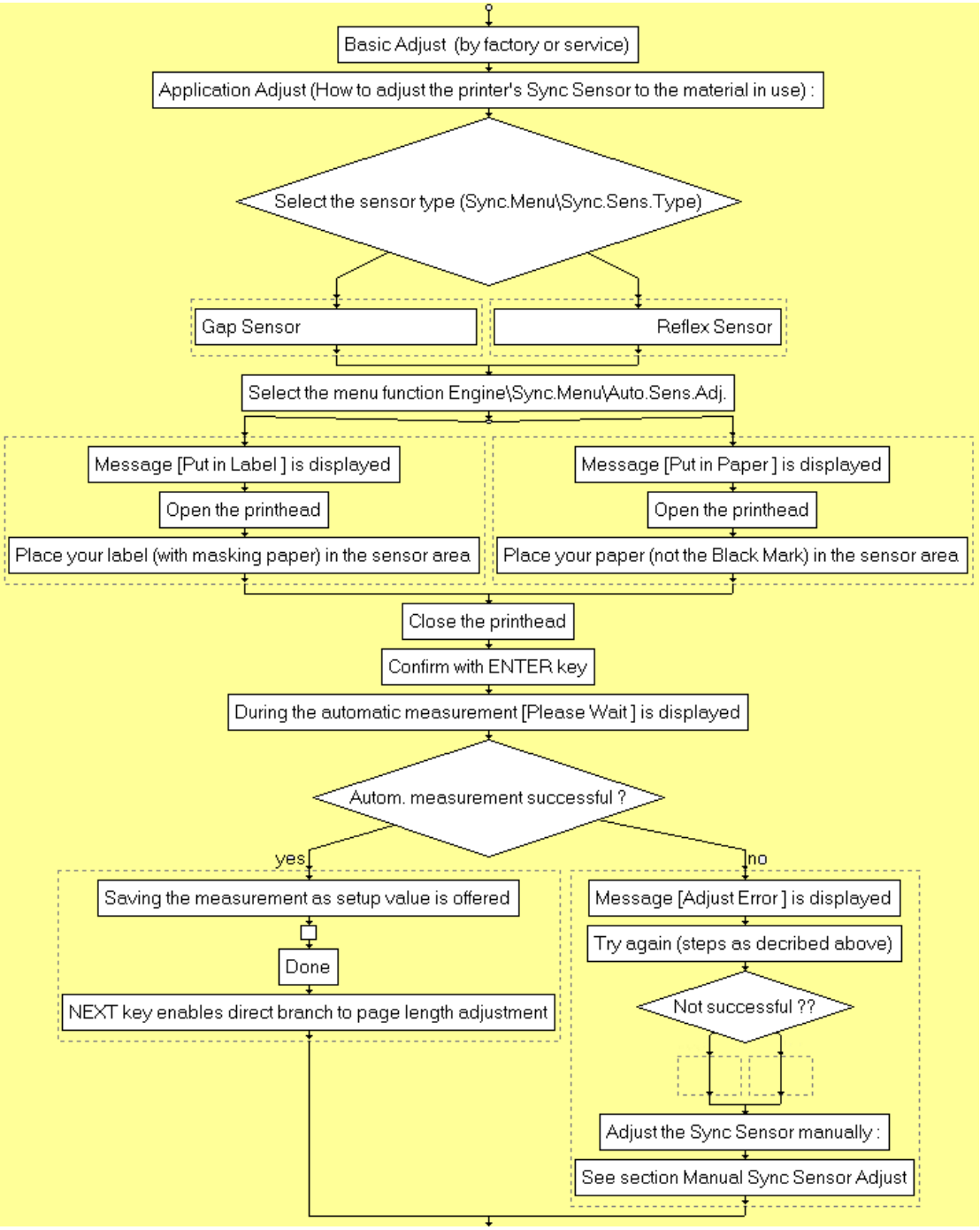
Panel display	Notes
[ON LINE]	Turn the printer OFF LINE with this key.
[OFF LINE]	The ENTER key gives the user access to the menu structure.
[Menu Level 1]	Press the NEXT or PREVIOUS key until [Engine] is displayed.
• • •	
[Engine]	
[Printspeed]	Press the NEXT or PREVIOUS key until [Sync. Menu] is displayed.
• • •	
[Sync. Menu]	
[Sync.Sens.Type]	
[Punched]	The currently set value is displayed.
• • •	Press the NEXT or PREVIOUS key until the desired sensor type is displayed.
[Reflex]	The reflex sensor is selected.
[Save as Setup?]	In addition this new value can be saved as setup value (using the ENTER key). After this decision turn the printer ON LINE again: Press the LINE key.

7.27. Automatic Sync Sensor Adjust

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

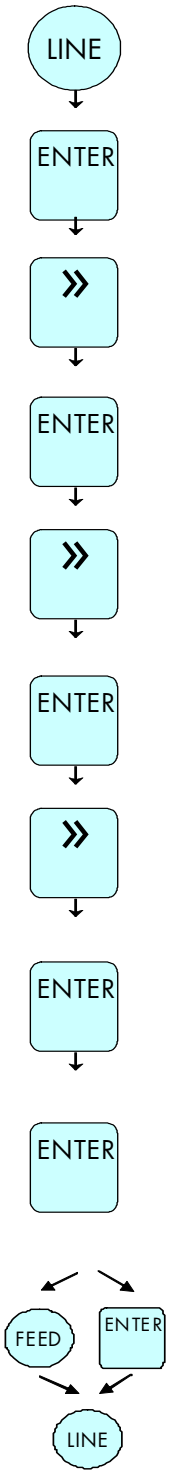
If this automatic function does not work with your specific print material, please read the following section: Manual Sync Sensor Adjust.

7.27.1. Overview



7.27.2. Example

In this example the steps to adjust the Gap Sensor are described.



Panel display	Notes
[ON LINE]	Turn the printer OFF LINE with this key.
[OFF LINE]	The ENTER key gives the user access to the menu structure.
[Menu Level 1]	Press the NEXT or PREVIOUS key until [Engine] is displayed.
• • •	
[Engine]	
[Printspeed]	Press the NEXT or PREVIOUS key until [Sync. Menu] is displayed.
• • •	
[Sync. Menu]	
[Sync.Sens.Type]	Press the NEXT or PREVIOUS key until [Auto.Sens.Adj.] is displayed.
• • •	
[Auto.Sens.Adj.]	
[Put in Label]	Open the printhead and place label (with masking paper) in the sensor area. Close the printhead. Press ENTER: the printer automatically measures the contrast value.
[Save as Setup?]	In addition this new value can be saved as setup value (using the ENTER key). After this decision turn the printer ON LINE again: Press the LINE key.

7.28. Manual Sync Sensor Adjust

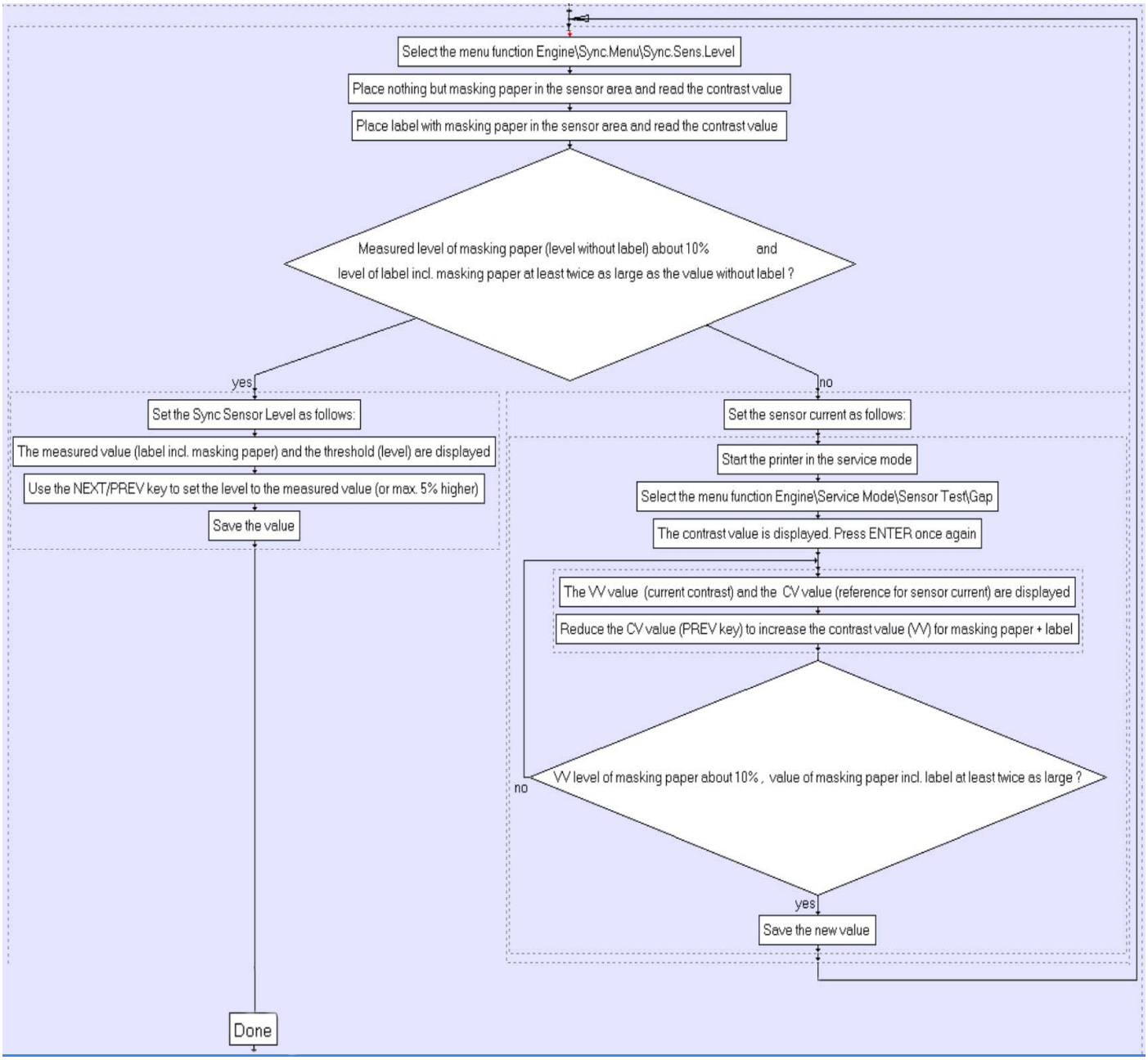
Manual adjusting of the Sync sensor level allows the processing of materials with high contrast proof points within the label, which would otherwise be falsely measured by the system.
The panel functions Sync Sens Level and Sensor Test \Gap serve to adjust the contrast value measured by the Sync sensor specifically for the label material in use.

The following describes the adjusting of a Gap sensor.
The steps to adjust a Reflex sensor are mostly comparable.

A **contrast value** of about **10% is appropriate for the masking paper** (level without label).
The measured **level of label incl. masking paper has to be at least twice** as large as the value without label.
Higher contrast values are more advantageous so long as there is no rising of the masking paper level.

If this conditions are not satisfied, you have to adjust the Sync sensor current as well.

7.28.1. Overview: Level and Current Adjusting



7.28.2. Description of Level and Current Adjusting

A) Sensor level adjusting

Please go to [Sync.Sens.Level] in the printers menu structure.
Place nothing but masking paper in the sensor area and read the contrast value.
The measured value of the masking paper (level without label) should count about 10%.
After this place label with masking paper in the sensor area.
The contrast value of masking paper incl. label should count at least twice as large as the value without label. If this condition is not satisfied, you have to alter the sensor sensitivity by adjusting the Sync sensor current. (See section B.)
If the values are OK, set the Sync sensor level to about the measured value (identical to or max. 5% higher than the value of masking paper incl. label).
Save the value.

B) Sensor current adjusting

Within the Engine menu go to Sensor test and select the submenu Gap.
The currently measured contrast value is displayed (as under Sync.Sens.Level).
Press the ENTER key again, after this 2 values are displayed.
The VV value corresponds to the current contrast value.
The CV value serves as reference for the sensor current and is modifiable. (Consequently modifications have an effect on the VV value.)
If the contrast value (VV) of label incl. masking paper is too low, decrease the CV value.
The contrast value of the masking paper should count about 10%.
The contrast value of masking paper incl. label should count at least twice as large as the value without label (therefore more than 20%). Higher contrast values are more advantageous so long as there is no rising of the masking paper level.

Finally save the values.
If you modified the values, go to [Sync.Sens.Level] in the printers menu structure again and adjust the sensor level. (Follow the directions in section A.)

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

7.28.3. Example

After selecting the panel function Sync.Sens.Level the contrast of the inserted material (placed in the photoelectric sensor area) is shown on the display of the operating panel.
For all different contrast zones of the current material contrast results have to be measured now (place the material in the photoelectric sensor area and read the contrast values).

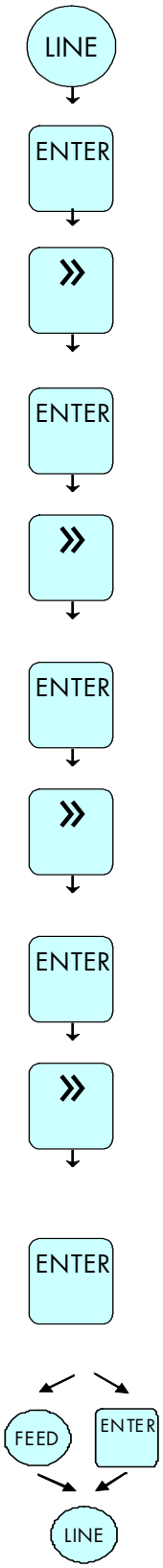
Example: Self-adhesive material with black bars lengthways across the label

Zone of the inserted material:	Measured contrast value:
Masking paper (carrier)	12 %
Masking paper + label	24 %
Masking paper + label + black bar	75 %

In this example the value 24 % has to be used as Sync sensor level (threshold).

A Sync sensor level of 24 % means that – after this adjustment – the device ignores all readings over 24 %. So the reading 75 % at the black bar will be ignored.

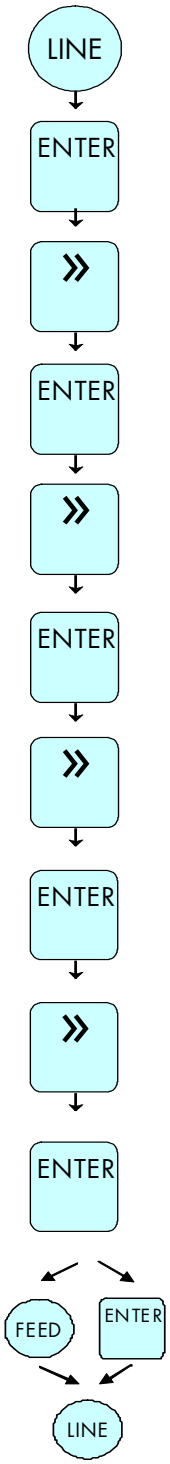
The steps to adjust the Sync sensor level can be found on the following page.



Panel display	Notes
[ON LINE]	Turn the printer OFF LINE with this key.
[OFF LINE]	
	The ENTER key gives the user access to the menu structure.
[Menu Level 1]	
• • •	Press the NEXT or PREVIOUS key until [Engine] is displayed.
[Engine]	
[Printspeed]	
• • •	Press the NEXT or PREVIOUS key until [Sync. Menu] is displayed.
[Sync. Menu]	
[Sync.Sens.Type]	
• • •	Press the NEXT or PREVIOUS key until [Sync.Sens.Level] is displayed.
[Sync.Sens.Level]	
[Level: 24% 100%]	The measured contrast value is displayed at the left; the currently set level is displayed at the right side.
• • •	Press the NEXT or PREVIOUS key until the desired sensor level is displayed.
[Level: 24% 24%]	Confirm the new level value by pressing the ENTER key.
[Save as Setup?]	In addition this new value can be saved as setup value (using the ENTER key). After this decision turn the printer ON LINE again: Press the LINE key.

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

With this function the position of **printout and cut** on the material is adjusted. This is carried out by setting an offset from the printer-detected punch position (gap or start of the label, compare figure 7.29.a). The setting range for the offset is approximately ± 15 mm.



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

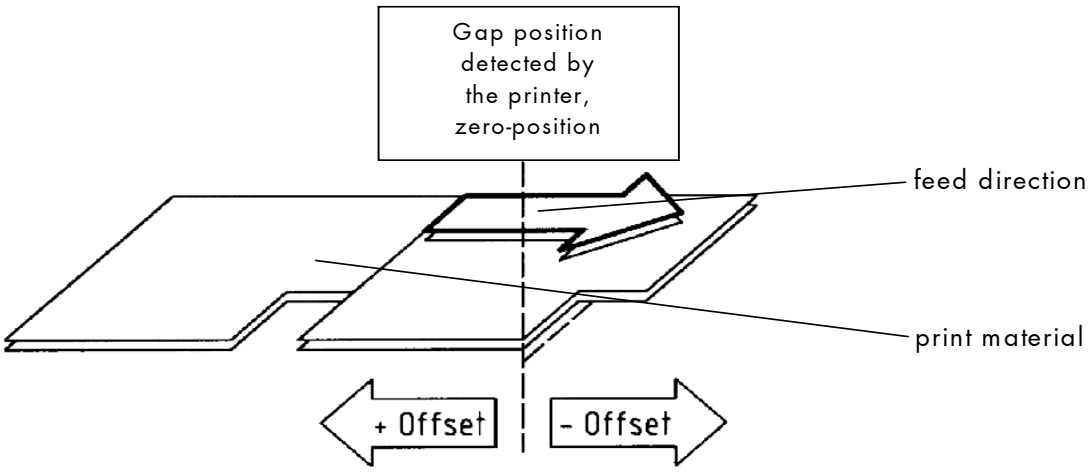
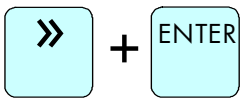


Fig. 7.29.a Adjusting the Zero Position of the Material Transport

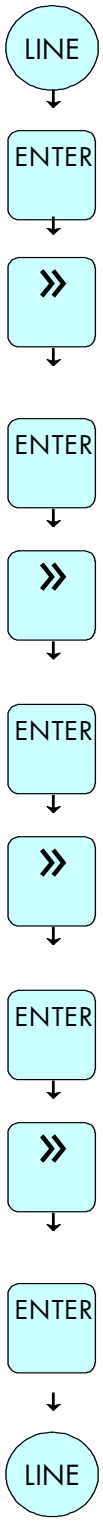
7.30. Peripheral Device Activation (Tear Off Edge, Cutter)

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

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

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

Peripheral device selection:

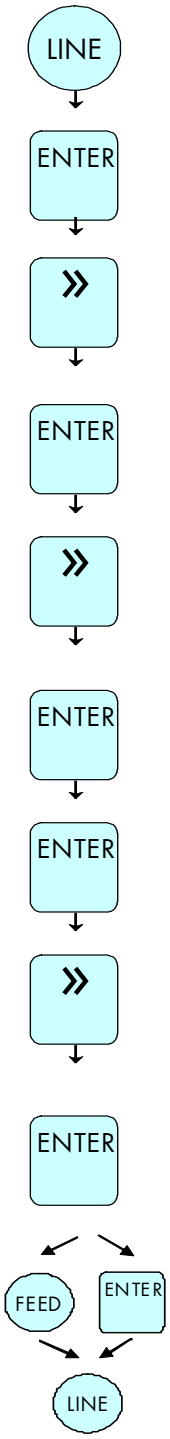


Panel display	Notes
[ON LINE]	Turn the printer OFF LINE with this key.
[OFF LINE]	
	The ENTER key gives the user access to the menu structure.
[Menu Level 1]	
	Press the NEXT or PREVIOUS key until [Engine] is displayed.
• • •	
[Engine]	
[Printspeed]	Press the NEXT or PREVIOUS key until [Service Menu] is displayed.
• • •	
[Service Menu]	
[Dot-Test]	Press the NEXT or PREVIOUS key until [Periph. Device] is displayed.
• • •	
[Periph. Device]	
[TearOff Edge]	Press the NEXT or PREVIOUS key until the desired peripheral device is displayed.
• • •	
[Cutter]	
	The cutter (option) is selected.
[Saved!]	
	Turn the printer ON LINE again: Press the LINE key.

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

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

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



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

Information on the Tear Off mode:

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

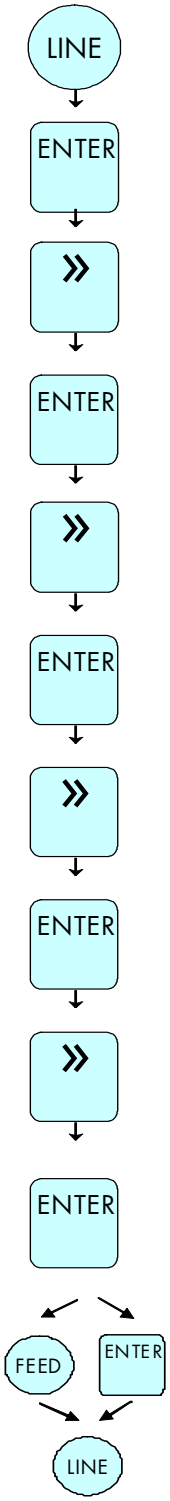
ON = The printer will feed the material (label) out to the tear edge, waiting for the user to tear it off before printing the next label. This additional media transport after printing enables to disjoin the material along/at the perforation. *)
The tear off mode is not carried out, if the next page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

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

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

7.32. Selecting the Print Mode

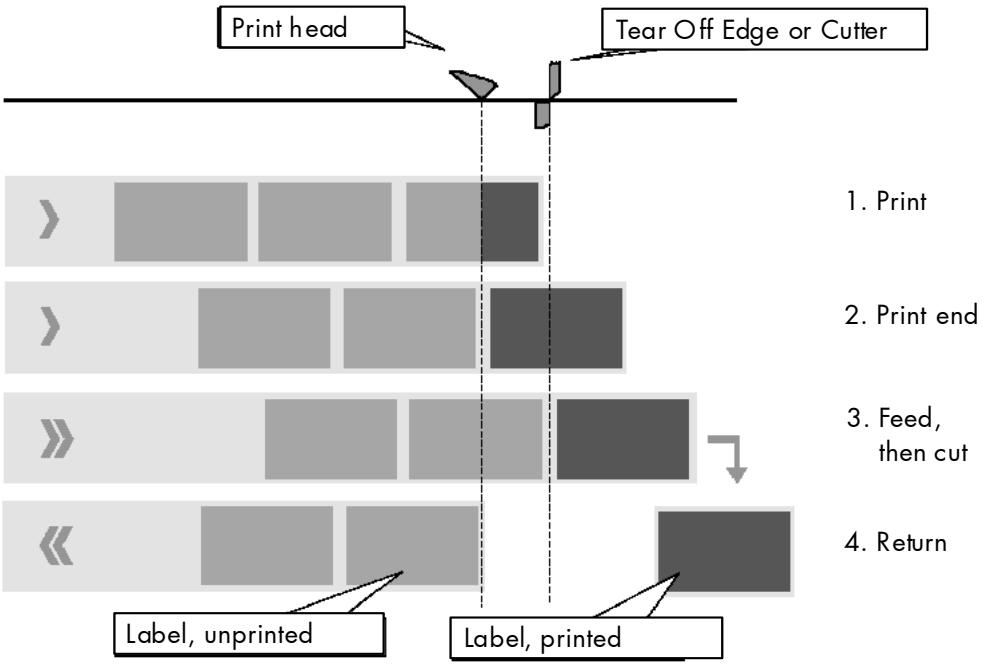
With this function the procedure for the label output and print is defined.
The different print modes are described on the following pages.



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

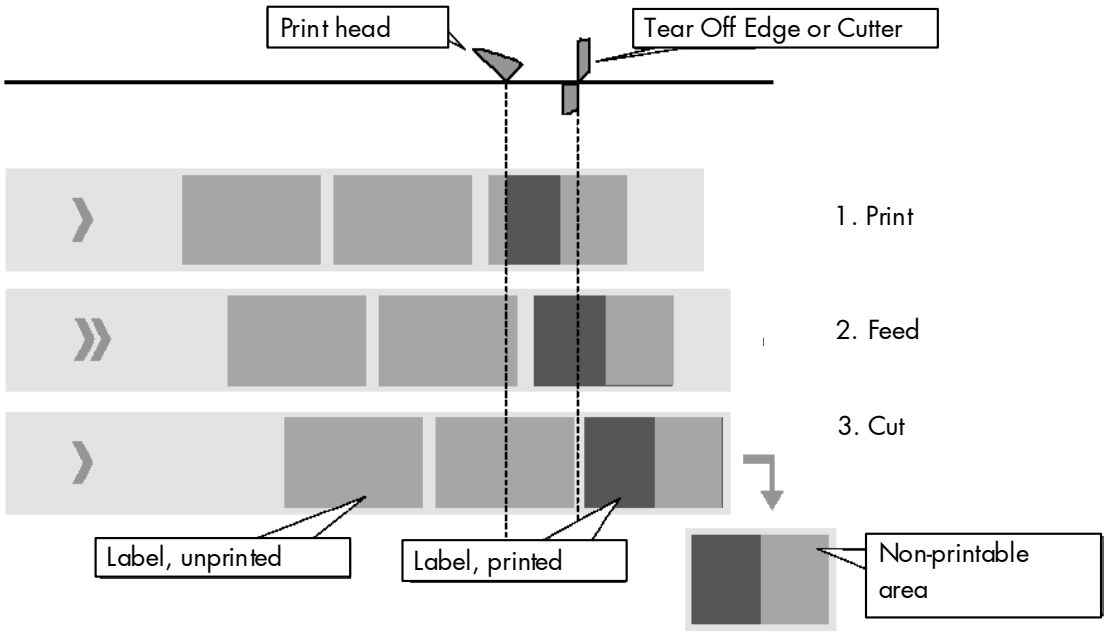
Real 1:1 Mode

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



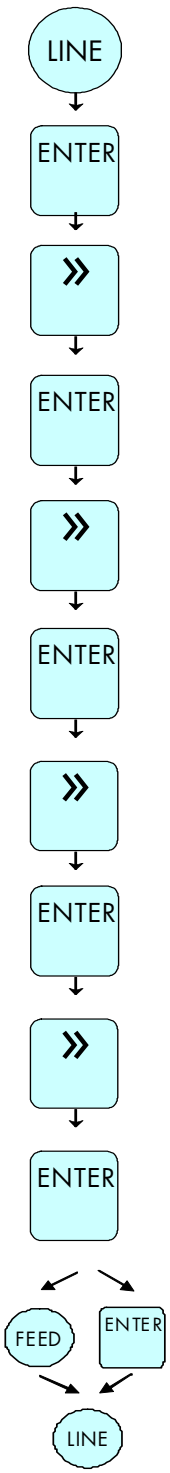
Normal 1:1 Mode

In this mode after tear off or cut no draw back of the unprinted material takes place. The output volume is at its maximum level. As a result the first 36 mm of the label are not printable. These measurements correspond to the distance between print head and tear off edge or cutter.



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

The tear off position② is identical to the detected gap position, i.e. with the perforation or the start of the label. With this function a fine setting of the tear off position is carried out. The setting range for the offset is from 0 to – 4.2 mm (approx.).

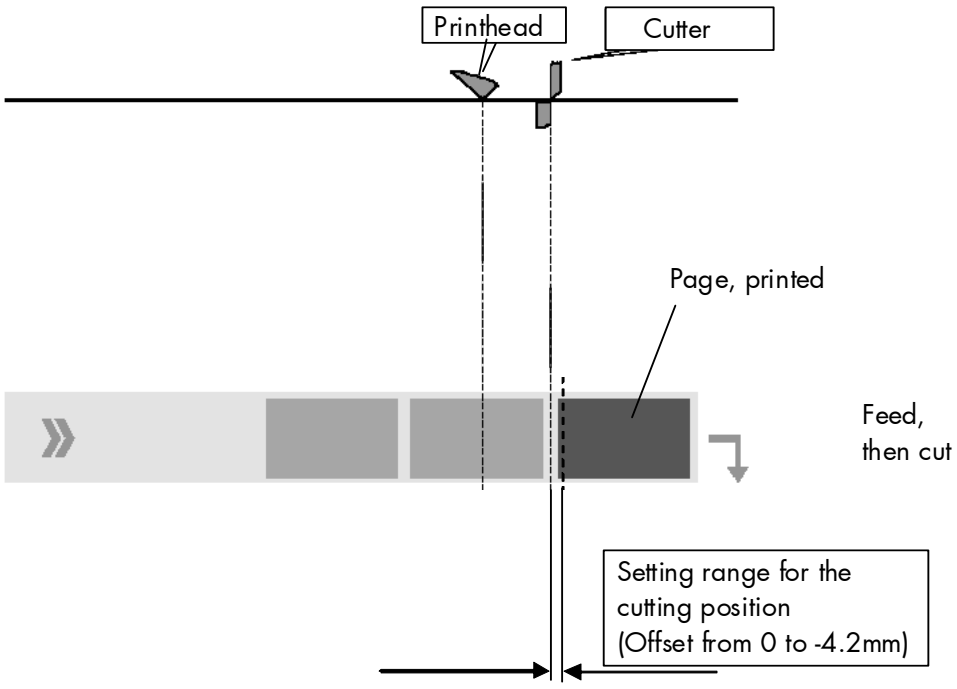


Panel display	Notes
[ON LINE]	Turn the printer OFF LINE with this key.
[OFF LINE]	The ENTER key gives the user access to the menu structure.
[Menu Level 1]	Press the NEXT or PREVIOUS key until [Engine] is displayed.
• • •	
[Engine]	
[Printspeed]	Press the NEXT or PREVIOUS key until [TearOff Menu] is displayed.
• • •	
[TearOff Menu]	
[TearOff Mode]	Press the NEXT or PREVIOUS key until [TearOff Position] is displayed.
• • •	
[TearOff Position]	
[Position: - 1.0 mm]	The currently set value is displayed. Press the NEXT or PREVIOUS key until the desired offset is displayed.
• • •	
[Position: - 1.5 mm]	The tear off position is shifted 0.5 mm in feed direction.
[Save as Setup?]	In addition this new value can be saved as setup value (using the ENTER key). After this decision turn the printer ON LINE again: Press the LINE key.

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

Hints on adjusting the position:

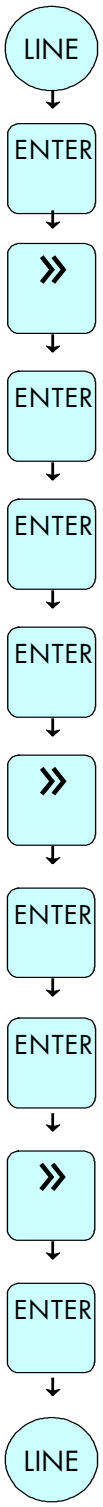
Using the optional cutter, you can set the cutting position (for Z-folded paper, e.g.) to the perforation line or in front of this line (offset in feed direction, see the following figure).



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

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

Setting the IP address manually:



Panel display	Notes
[ON LINE]	Turn the printer OFF LINE with this key.
[OFF LINE]	The ENTER key gives the user access to the menu structure.
[Menu Level 1]	
• • •	Press the NEXT or PREVIOUS key until [Network] is displayed.
[Network]	Press the ENTER key to select the Network menu.
[Timeout]	Press the NEXT or PREVIOUS key until [IP Assign] is displayed.
[IP Assign]	Press the ENTER key to select the IP Assign menu.
[Off]	The current setting value is displayed.
• • •	Press the NEXT or PREVIOUS key until [Manual] is displayed.
[Manual]	
[IP Address]	Press the ENTER key to set the IP address manually.
[192.168.002.002]	Pressing the NEXT or PREVIOUS key changes the value of the current position (left digit first, in this example: 1). Pressing the ENTER key moves you to the next digit (the FEED key moves you back, if need be).
• • •	
[192.168.010.123]	
	The new IP address is saved as setup value.
[Saved !]	Turn the printer ON LINE again: Press the LINE key.

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

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

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

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

Duplex/Speed Setting

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

The factory default value is Autonegotiation.

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

Hint: Autonegotiation is the recommended setting!

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

Explanations:

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

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

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

8. Operator Maintenance

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

8.1. Printer Cleaning

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

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

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

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

- ribbon removal (see section 5.3.2)

- media removal (see section 5.2.2)

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

8.1.1. Printer Cabinet Cleaning

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

8.1.2. 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).
The printhead should be cleaned more often in dusty environments.

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. Turn the printer off.

2. Open the top cover of the printer.

3. Open the printhead assembly by pulling the head latch toward the front of the printer.
   The print head assembly is spring-loaded and will automatically open as soon as the head latch is disengaged.

4. Rotate the printhead assembly up and to the rear to give access to the underside of the print head.

5. Take out the ribbon if one is loaded.

6. Clean the printhead:

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

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

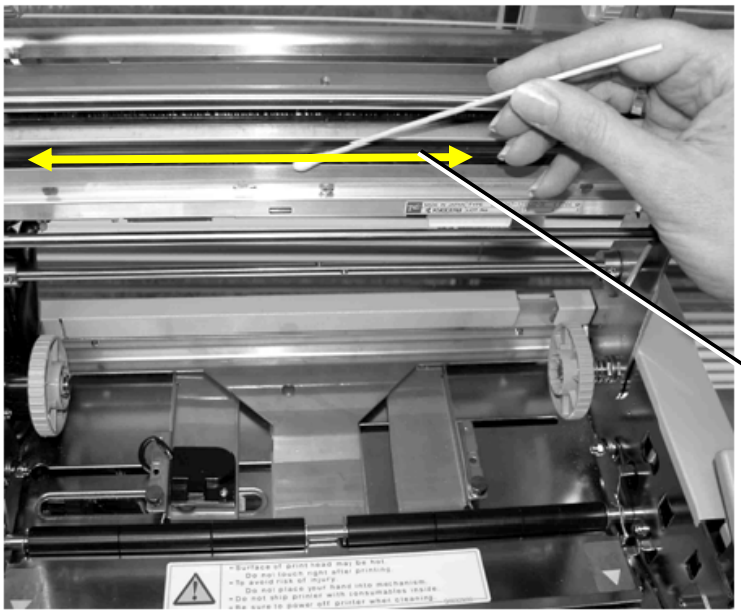


Fig. 8.1.2.a Cleaning the printhead

- Repeat if necessary until the swab is clean after it is passed over the print head.

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

Spirit (Ethanol) should only be used if no print head cleaner is available!

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 (compare figure 8.1.2.a).

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

7. Install a ribbon, if you want to operate the printer in the thermal transfer mode. (SOLID T11 TT only; compare section 5.3 Handling of Ribbon).

8. Close the printhead by rotating it forward and down.

9. Press firmly on each end of the printhead assembly at the points labeled “PUSH” until the printhead latches firmly in place.

10. Close the top cover of the printer.

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

11. Turn the printer on.

The printer is ready for printing again.

8.1.3. Platen and Roller Cleaning

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

For the following cleaning operations the hints of section 8.1.2 are valid, too !

1. Turn the printer off.

2. Open the top cover of the printer.

3. Open the printhead assembly by pulling the head latch toward the front of the printer.
   The print head assembly is spring-loaded and will automatically open as soon as the head latch is disengaged.

4. Rotate the printhead assembly up and to the rear to give access to the platen.

5. Lift up on both ends of the label cover plate at the points marked with the purple arrows until it releases.

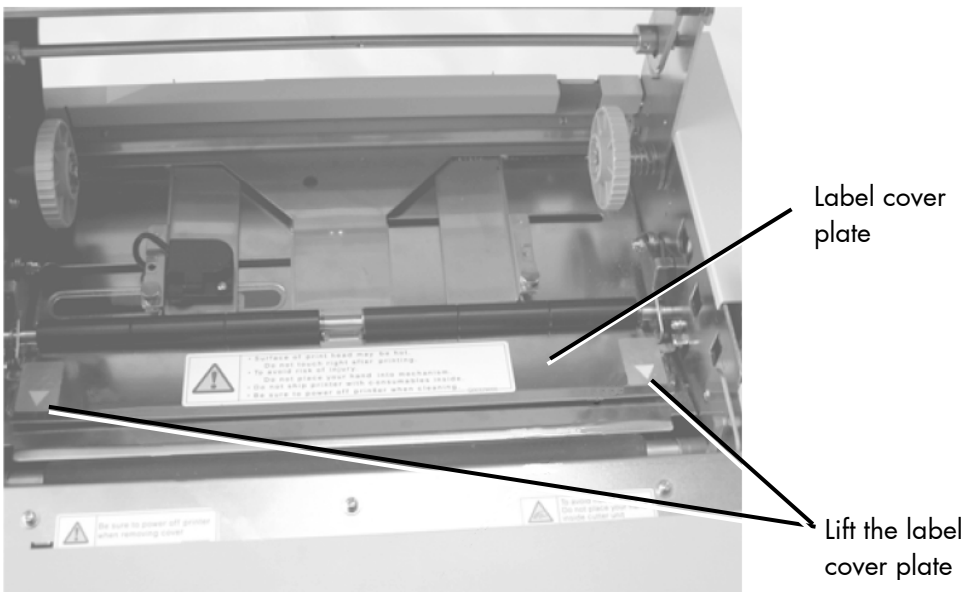


Fig. 8.1.3.a Lifting the label cover plate

6. Clean the platen and transport rollers:

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

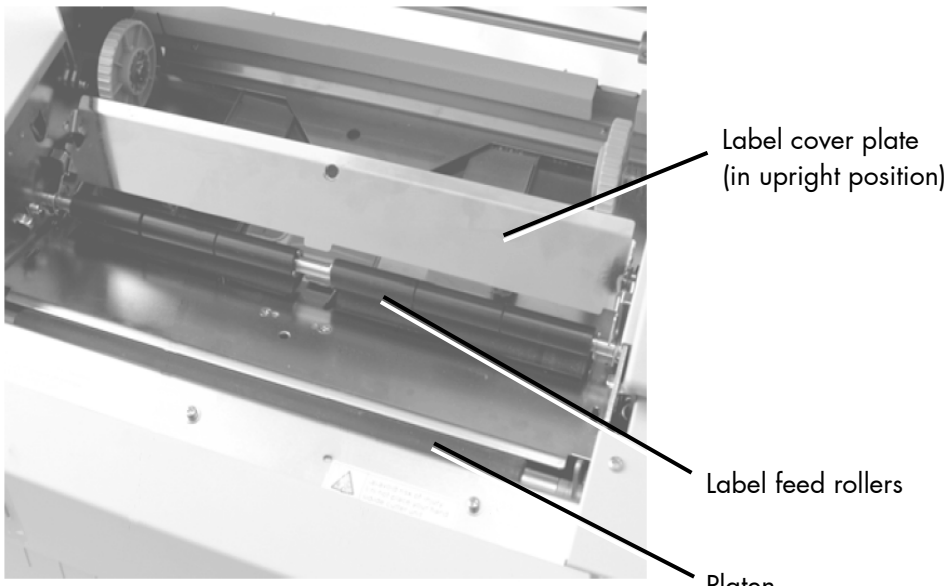


Fig. 8.1.3.b Position of platen and rollers

- Clean the platen.
  The platen is the rubber roller directly below the printhead.

- Clean the label feed rollers.
  The label feed rollers are located to the rear of the printhead assembly.

- Repeat if necessary until the cleaning tool is clean after it is passed over the rolls.

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

8. Allow the transport rollers to dry for at least 3 minutes.

9. Reposition the label cover plate and press down at the points marked with the purple arrows until it snaps in place.

10. Close the printhead by rotating it forward and down.

11. Press firmly on each end of the printhead assembly at the points labeled “PUSH” until the printhead latches firmly in place.

12. Close the top cover of the printer.

13. Turn the printer on.

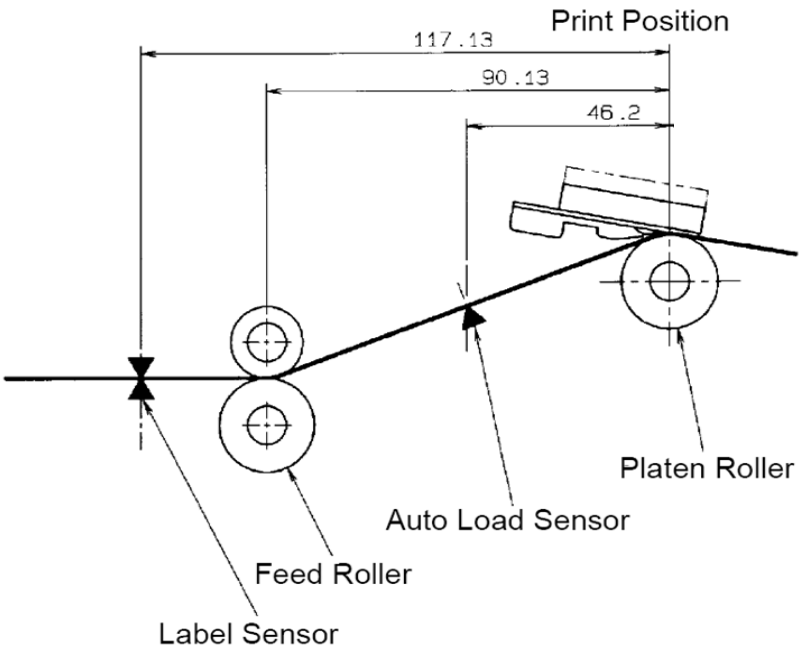
The printer is ready for printing again.

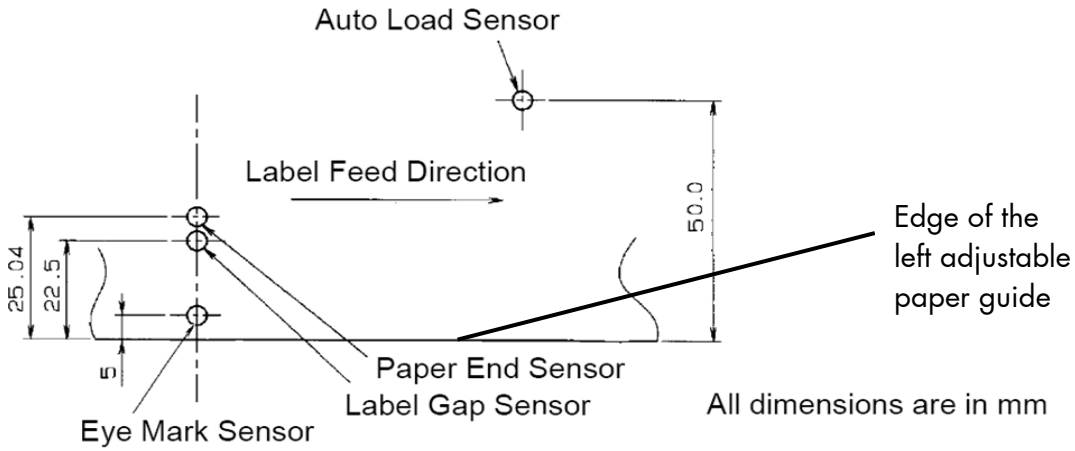
8.1.4. Sensor Cleaning

The device is provided with sensors to enable controlling of consumable movements. During the print process this sensors first of all may be soiled by paper dust. A large amount of dirt is able to cause problems with detection.

The sensor surfaces are very sensitive to scratches!
Do not use any sharp tools or detergents to clean the sensors!

8.1.4.1. Location of the Sensors





8.1.4.2. Cleaning 3 Sensors (Gap/Blackmark/Paper End)

There are two sensors that are used to control the positioning of the label. One is a transmissive see-thru sensor (Gap Sensor) that detects the edge of the label by looking through the backing paper which is translucent and detecting the presence of the opaque label. Another is a reflective sensor (Reflex Sensor) that detects the light reflected from the bottom of the label liner. When a printed black Eye-Mark passes through the beam, the light is no longer reflected back to the sensor detector, indicating to the printer that it should use this position as the start of a new label. When dust, dirt, adhesive or other foreign matter interferes with the light path of either of these sensors, the results is erratic label positioning and feeding.

In addition, a Paper End sensor is used to detect when the media supply has been depleted.

It is very important that this sensor be kept operating properly since the Print Head depends upon the presence of the media as a heat sink. Printing without media under the head can result in damage to the Print Head .

All sensors should be cleaned regularly, at least every two rolls of labels.

1. Power-off the printer.
2. Open top cover.
3. Release the print head by pulling the head latch lever toward the front of the printer.
4. Lift the print head by rotating it upward and to the rear.
5. Take out the consumables. (Please refer to section 5 for more details on material handling.)

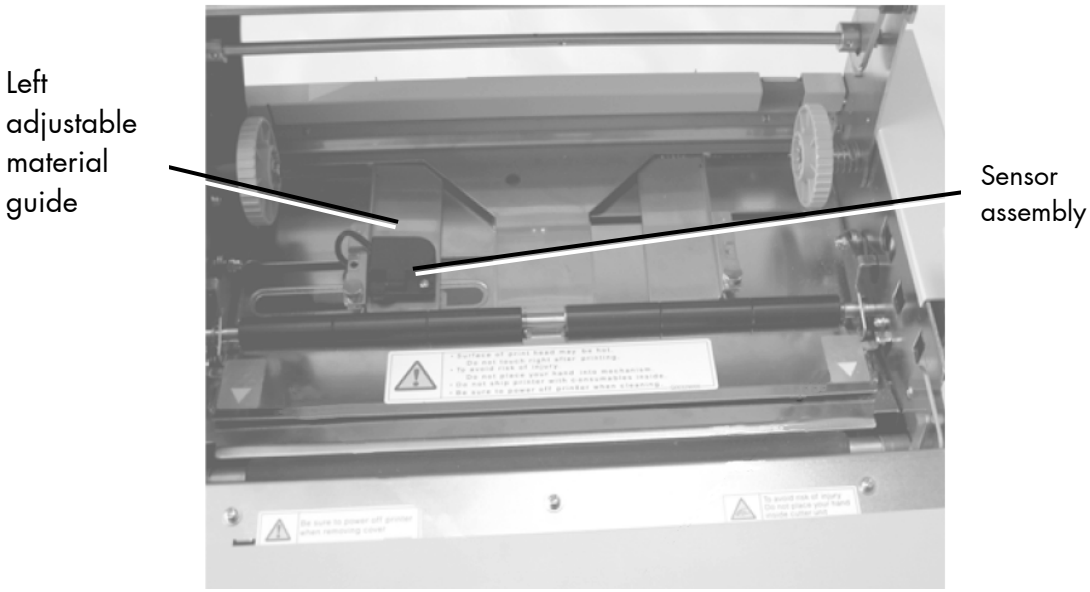


Fig. 8.1.4.2a Position of the group of 3 sensors

6. Loosen the thumbscrew on the left adjustable material guide (label width guide).
   Remove this thumbscrew and lay it aside.

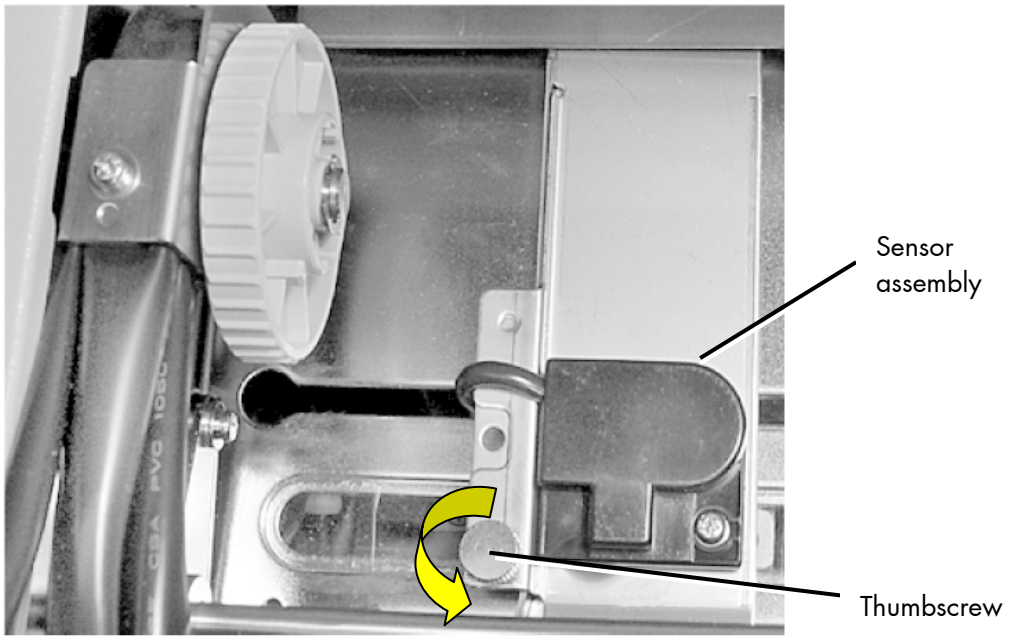


Fig. 8.1.4.2.b Removing the thumbscrew

7. Remove the upper part of the sensor assembly and lay it aside (turn over, as shown in the next figure).

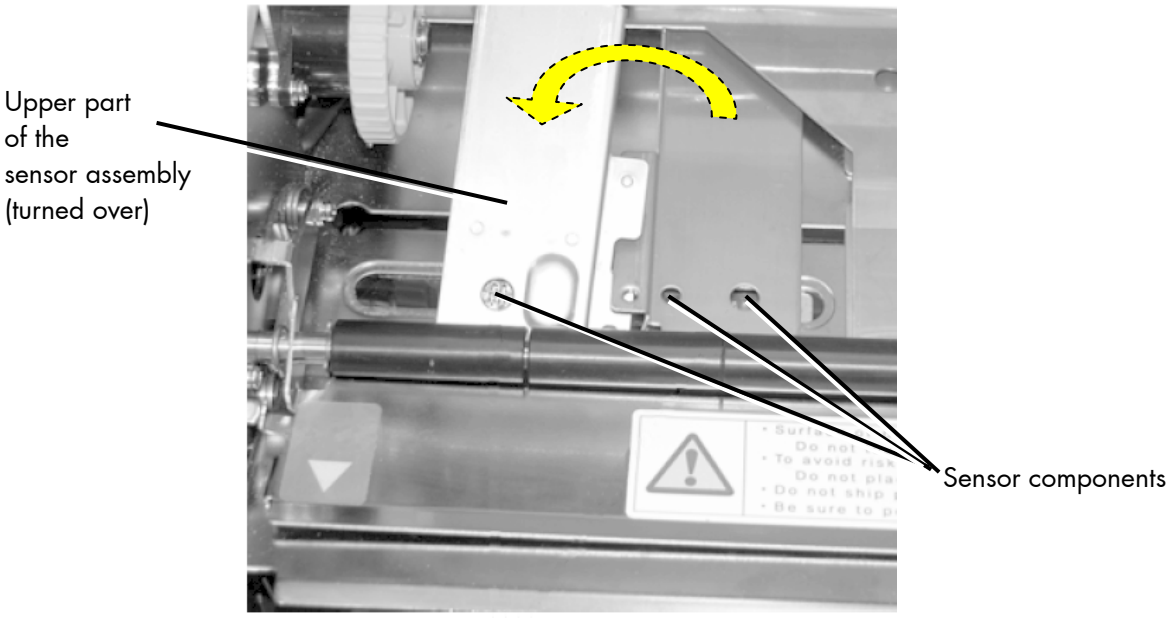


Fig. 8.1.4.2.c Position of the sensor components to clean

8. Gently clean the sensor components with compressed-air.

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

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

10. Reposition the upper part of the sensor assembly on adjustable paper guide.

11. Replace the thumbscrew and tighten it.

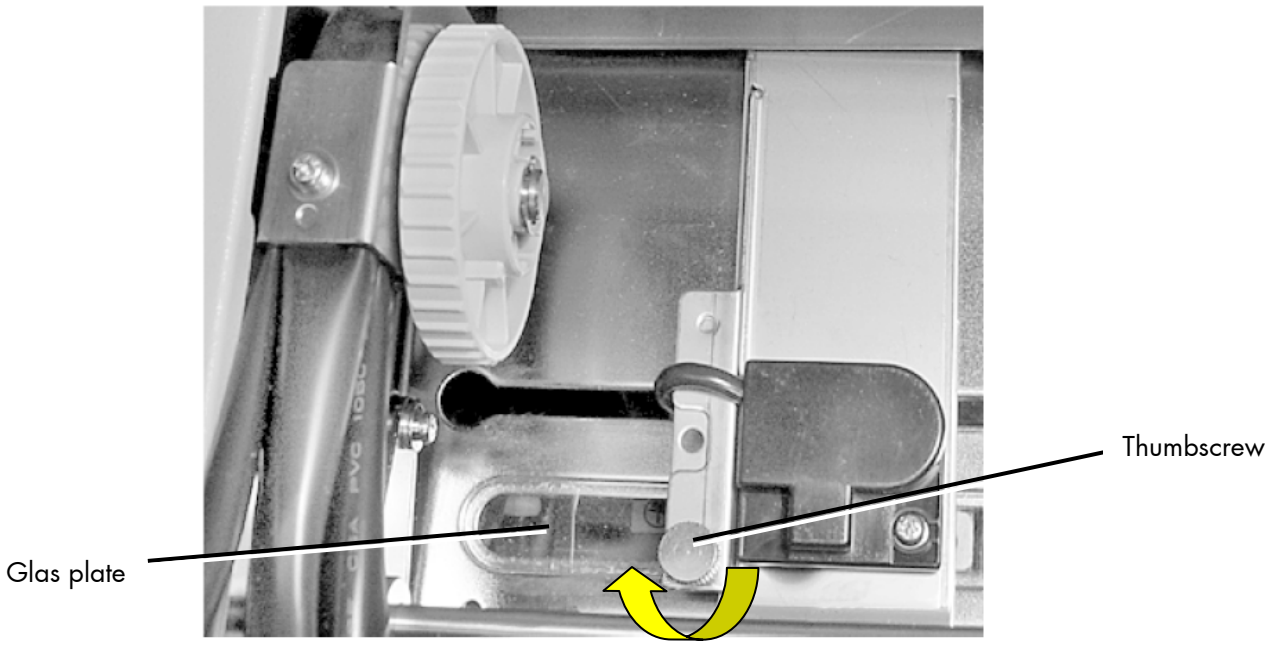


Fig. 8.1.4.2.d Replacing and tightening the thumbscrew of the sensor assembly

12. Clean the whole glas plate.

Do not use any sharp tools to clean the glas plate!

13. Loosen the two thumbscrews at the rear side of the printer (near the paper input opening, compare section 5.2.1) to move the material guides aside (this is helpful to get the access to the whole glas plate.

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

15. Reinstall the consumables. (Please refer to section 5 for more details on material handling.)

9. Troubleshooting

If an error occurs, a corresponding error message is displayed in the control panel (see section 9.1 and section 9.4).

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

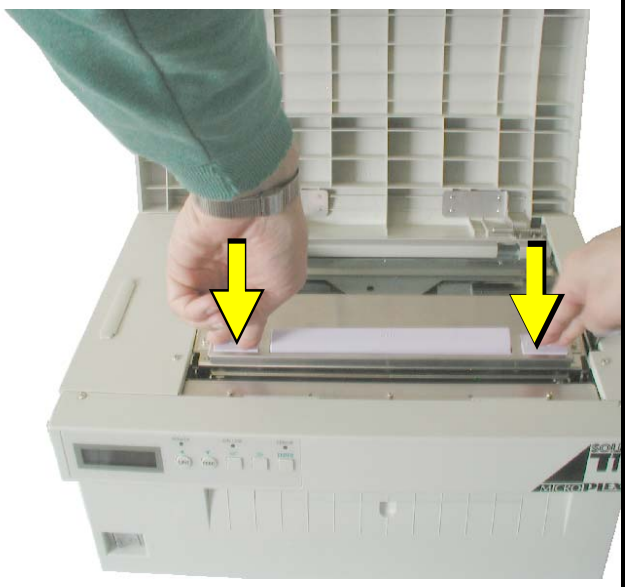
- While operating the printer components inside the device will heat up. Take care that you do not burn your fingers when removing a paper jam.

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

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

9.1. Printer Error Messages

Panel display	Remedies
[Load Paper] or [No Paper]	- insert a printmedia (paper) - make sure the media has been loaded correctly (compare section 5) - clean the sensors (compare section 8.1.4)
[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 5.3) - remove the jammed consumables (labels sticking together e.g.) - Correct the print process setting, if you don't want to use a ribbon. (compare section 7.1)

Panel display	Remedies
[Head open!]	The printhead assembly is not firmly in place. - Press firmly on each end of the print head mechanism (SOLID T11 DT: at the points labeled "PUSH") until the print head latches firmly in place. (Compare section 5.2.)  Fig. 9.1.a Locking the printhead (here: SOLID T11 DT)

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 5) - perform the basic operations (see chapter 4) - check the position of the label width guides. - set the label width guides positions in accordance to your consumables. (See section 5.2.1). - clean the sensors See section 8.1.4. Sensor Cleaning - make sure all material pieces are removed after a paper jam. - For further **information about the avoiding of paper jams** please take notice of section 9.3 Incorrect Media Transport

Panel display	Remedies
[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 5) - check the print process selecting and correct it, if necessary (see section 7.1)
[Head Life End!]	- a new printhead has to be installed

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

9.2. Reduced Print Quality

Defect	Remedies
Printout too light	- check the print process selecting and correct it, if necessary (see section 7.1) - check the ribbon transport (SOLID T11 TT, load the ribbon again, if necessary; see section 5.3) - increase the contrast (see section 7.23) - choose different consumables (adjust media to the ribbon resp. print process or vice versa, see chapter 3, 5 and 7) - check the environment conditions and correct them if necessary (admissible values for humidity, temperature etc., see chapter 2.3 and 11)
Printout too strong	- check the print process selecting and correct it, if necessary (see section 7.1) - reduce the contrast (see section 7.23)

Defect	Remedies
Printout blurred or incomplete	- clean the printhead (see section 8.1.2) - check the ribbon transport (SOLID T11 TT) (load the ribbon again, if necessary; see section 5.3) - also, see section 9.3: Incorrect Media Transport - the printhead has to be exchanged if, for example after a big printout performance the printout isn't correct any more

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

9.3. Incorrect Media Transport

Defect	Remedies
Incorrect media transport (no gap detection between labels e.g.)	- perform the basic operations (see chapter 4) - check if the Sync Sensor has been adjusted correctly (see section 7.26 up to 7.28) - check if the media has been loaded correctly (compare section 5.2) - check if the ribbon has been loaded correctly (SOLID T11 TT) (compare section 5.3) - clean the transport rollers (see section 8.1.3)
No straight transport of the consumables (torsion or folding of the ribbon, e.g.)	- check if the ribbon has been loaded correctly (SOLID T11 TT) (compare section 5.3) - check if the media has been loaded correctly (compare section 5.2) - clean the transport rollers (see section 8.1.3)
Paper Jam	in addition to the remedies above: - release the printhead to remove the paper (compare chapter 5) - check if the jammed consumables have been removed completely.

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

9.4. Cutter Error Messages

The following error messages are valid for the optional cutter.

Defect	Remedies
[CutterNotFound!]	The optional cutter is selected, but not connected or defective. - make sure the cutter is installed correctly. Also, see section 7.30 Peripheral Device Activation (Tear Off Edge, Cutter) - Unselect the cutter, if the cutter was deinstalled. See section 7.30
[Cutter Error!]	An error occured during cutter operation. - check for a paper jam. Remove the jammed material See section 9.3 Incorrect Media Transport - reload the consumables (paper)

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

9.5. Print Repetition after an Error

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

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

This automatic jam safety function can be switched off (by changing the EEPROM - configuration) if the user wants to resume the print job at a position he chooses himself.
In addition to this see panel function Clearing the Input Buffer (section 7.10).

10. Measures for Transport and Shipping (Repacking)

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

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

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

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

- Remove the printer's optional devices
  (for example: external rewinder...).
- 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.

11. Specifications

		SOLID T11 TD	SOLID T11 TT
Print technology:	non-impact	direct thermal printing	thermal transfer printing and direct thermal printing
Print speed:	2 up to 6 Inch/second (50 up to 150 mm/second)		
Resolution:	300 dpi (dots per inch, horizontal and vertical)		
Media width:	up to 11.8 Inch (300 mm), minimum width 5.16 Inch (131 mm)		
max. Print width:	10.5 Inch (266 mm)		
Media thickness:	up to 0.008 inches (0.21 mm)		
Interfaces:	parallel: IEEE 1284 (Centronics), (MP-BUS, SPS-Control, optional) serial: USB 1.1 LAN: Ethernet 10/100 Mbit (TCP-IP) Optional: LAN: Ethernet (SPX-IPX, LAT), Token Ring Host: IBM SCS / IPDS (Twinax/Coax), Siemens (BAM/SS-97)		
Dimensions:			
Width (W):	18.7 inches (475 mm)		
Depth (D):	12.3 inches (314 mm)		
Height (H):		10.8 inches (275 mm)	12.6 inches (320 mm)
Weight:		appr. 22 kg	appr. 23 kg
Environment:	temperature: +5°C to +40°C (operating) - 5°C to +60°C (storage temperature) relative atmospheric humidity: 30 to 80 % (without condensation)		
Mains connection:	100 - 240 V AC, 50/60 Hz		
Power input:	appr. 0.56 kVA (operating)		

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

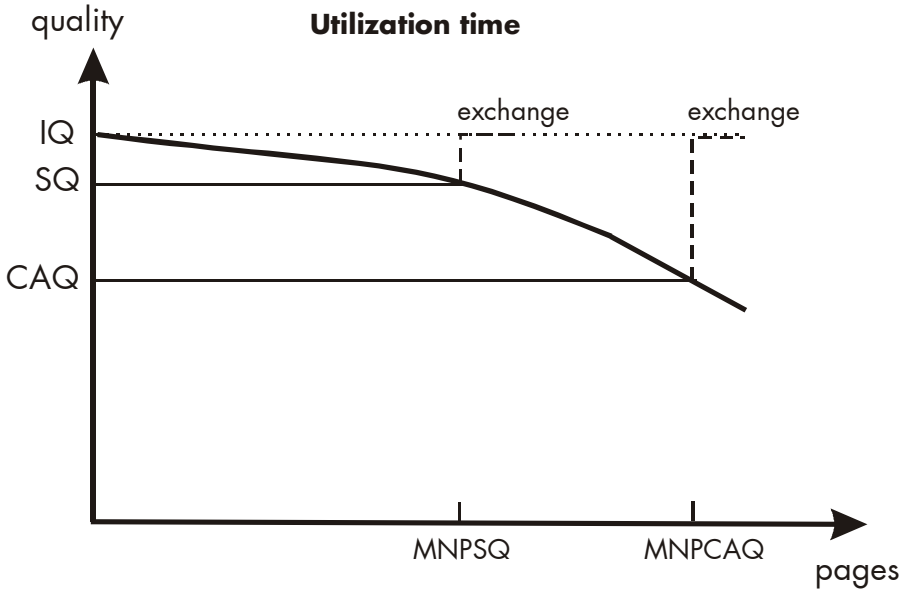
Spare parts are exchanged by the service engineer, when they fail.
Examples for spare parts are:
- couplings
- electronic assemblies
- rollers

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.



12. Index