SOLID 166E

Operator's Manual

Edition 1.1M

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1. Introduction

1.1. General Description

The SOLID 166E is a high speed continuous-form printer. The print system works on an electrophotographical base employing an LED array as exposure unit.

The print speed is up to 166 A4 pages per minute in the Two-Up mode. The printing resolution is 600 dots per inch corresponding to about 24 dots per mm.

The material to be printed on has to be provided with sprocket holes for the tractor to guide it. The maximum material width is 18 inches, the printable width is 17 inches. The SOLID 166E has two paper outputs, one of them is equipped with a stacker (capacity 2000 pages). The non-contact Xenon flash fusing system in combination with the straight paper flow enables you to use the most different paper types and label materials with a weight from 64 - 209 g/m^2 (wood-free paper) respectively 64 - 105 g/m^2 (wood-free labels).

With the SOLID 166E, all kinds of information – e.g. bar codes, alphanumerical characters and vector graphics – can be printed. The MICROPLEX printer controller's high functionality with the SOLID 166E makes form printing simple. In addition this printer is equipped with a touch panel frontend for comfortable handling.

The printer is capable of using most of the page description languages used in the industrial field and also the business standards known in connection with laser printers can be used.

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).

Data can be sent from almost any software platform, because printer drivers are already available for this.

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

Consequently there is a multitude of scopes for this print system. It is suitable for high-speed printing with excellent print quality using different types of materials.

Printing Basics

The MICROPLEX printer controller enables the connection of this print system to EDP systems whereby several interfaces, emulations and fonts are available.
The digital information (e.g. a text file) is transferred from the computer into the printer memory. The printer's electronic component (the controller) combined with the page description language, defines the letters, numbers, graphics, etc. into bit patterns and posts them into the controller's frame store.
In this way, a "pattern" of the future print page (generated by dots) is created.
The electronically controlled LED (Light Emitting Diode Array) plots the dot pattern in rows onto the light-sensitive surface of a rotating pre-charged drum. Toner is caused to adhere to the electrostatic latent image formed on the drum surface. This image consisting of toner particles is electrically transferred onto the paper, that is guided past the drum.
When transported further, the toner particles, which are affected by the Xenon flash fusing, are combined resistantly with the paper. The drum is discharged and cleaned.

1.2. Conventions

The following conventions should help you to find information and to understand instructions more easily:

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 touch panel. Such symbols will be used in this manual whenever keys have to be pressed in order to activate certain functions.

blue colored text

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

[Menu Level 1]

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

1.3. CE Conformity

EC DECLARATION OF CONFORMITY

Manufacturer:	**MICROPLEX Printware AG** Panzerstrasse 5 D-26316 Varel Germany	
Product:	Printer (LED array)	
Type:	SOLID 166E	
Conforms with the following EC directives:	EN 60950-1	(Low voltage directive)
	EN 55022/Class A	(Information technology equipment – Radio disturbance characteristics – Limits and methods of measurement)
	EN 55024, EN 61000-6-2	
	EN 61000-3-2	(Immunity for industrial environments)
	EN 61000-3-3	(Limitation of voltage changes, voltage fluctuations and flicker in public low-voltage supply systems)

Varel, 28.9.2011

General Manager
Jürgen Schmitt

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

1.4. General Safety Instructions

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

All handling or procedures that differ from the ones being described in this manual are to be omitted.

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

By heeding the following instructions, the user is ensured safe operations:

- Please make sure your electricity source is properly 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 improper consumables may cause a reduction of output quality or damage 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 bridge a 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. These operations should only be done by MICROPLEX authorized service personnel.

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

- For printers connected by a plug, 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.

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

- To ensure optimum printer performance, only use MICROPLEX consumables.

2. Installation

2.1. Check List

Please make sure that there are no transport damages and that everything is included. Damages should be reported to the supplier immediately.

Carefully open the cardboard boxes to make sure the following contents are included:

1. MICROPLEX SOLID 166E printer
2. Developer Unit
3. Developer mix (powder)
4. Toner
5. Photoreceptor Drum

6. Stacker

7. CD containing:
   - Operator's Manual SOLID 166E
   - Print drivers
   - IDOL Programming Manual

The printer's first installation has to be done by a trained service engineer.

Please retain the original packing materials in case the printer has to be transported in the future.
Use the original packing materials and adhesive fasteners to avoid damage to the internal components.
(See chapter 8 Measures for Transport and Shipping (Repacking)).

2.2. Printer View

External Views:

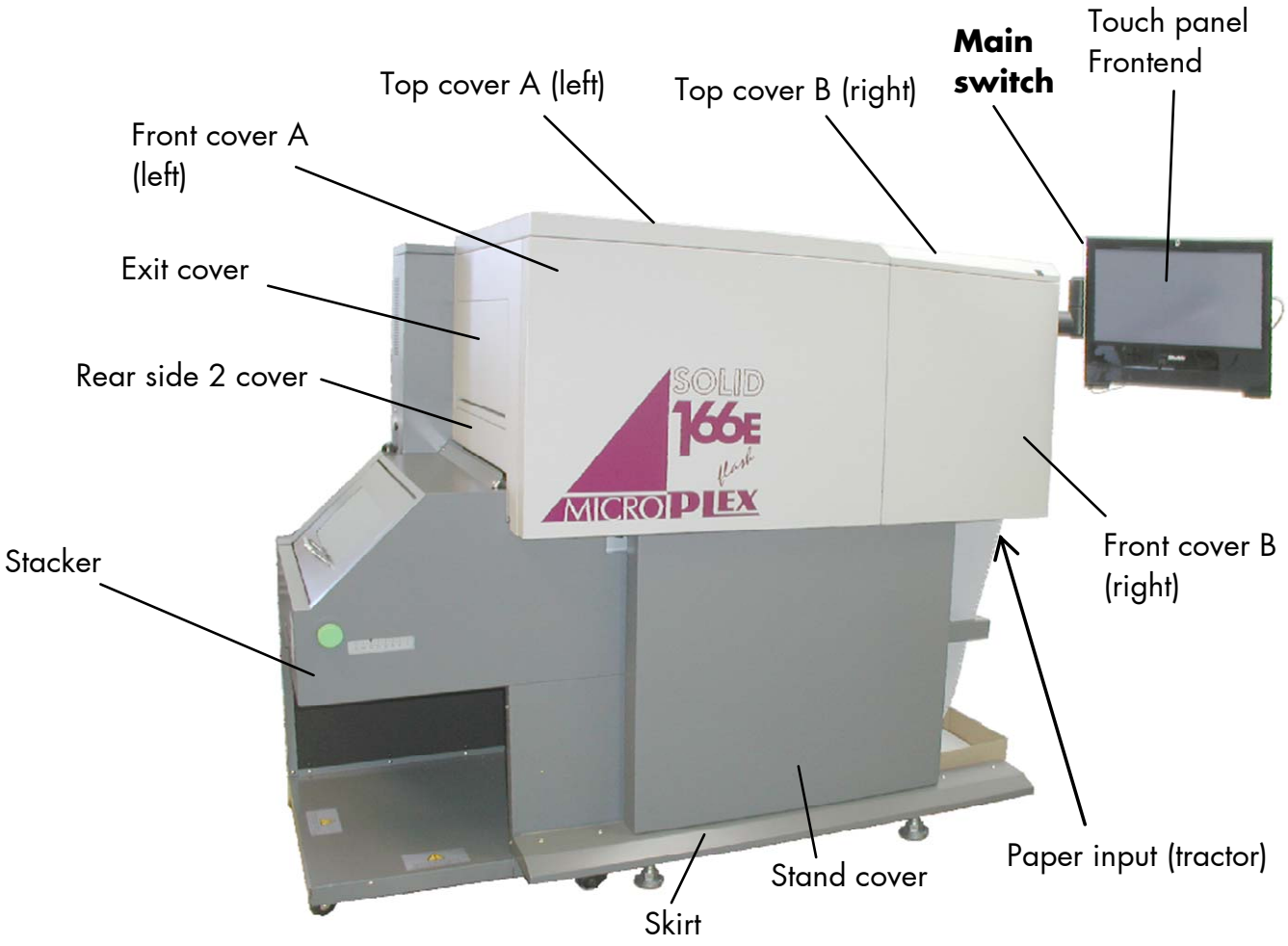


Fig. 2.2.a Main view of the SOLID 166E

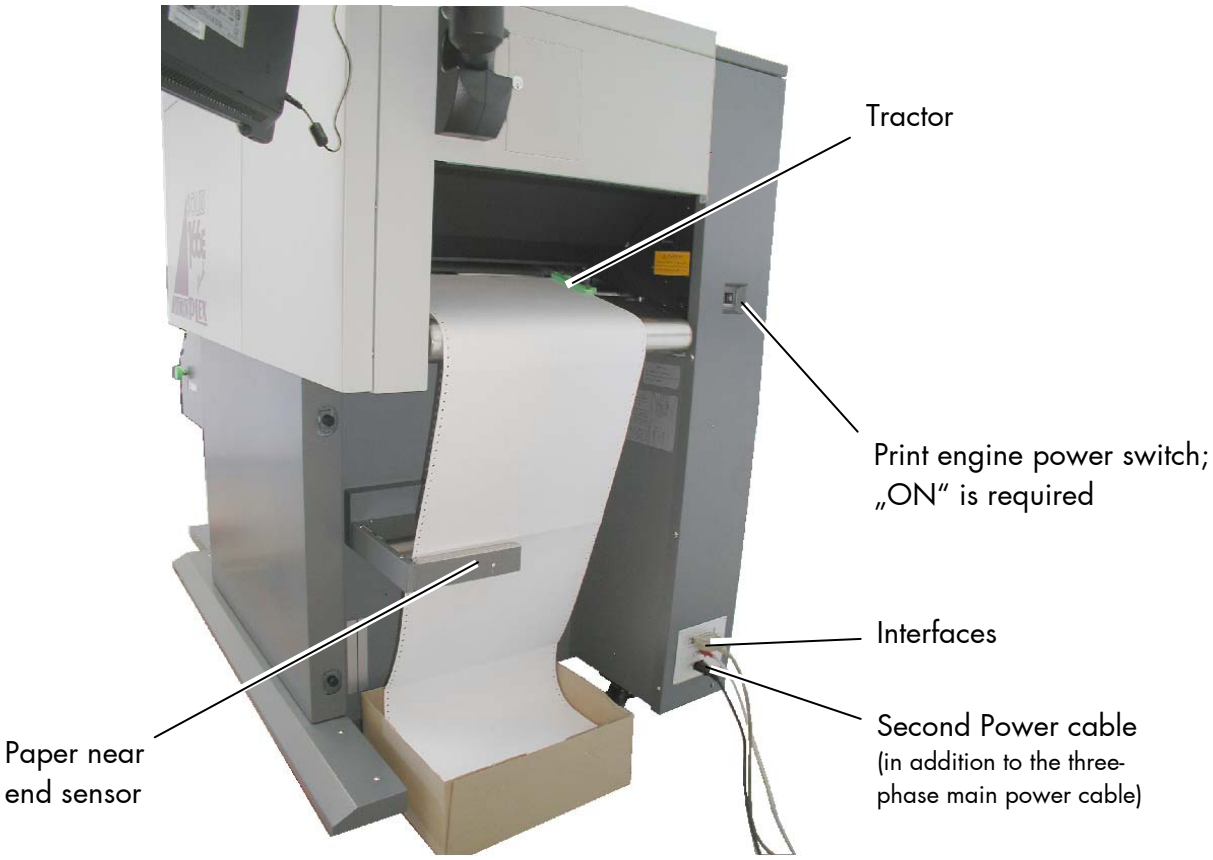


Fig. 2.2.b View from the paper input side of the printer

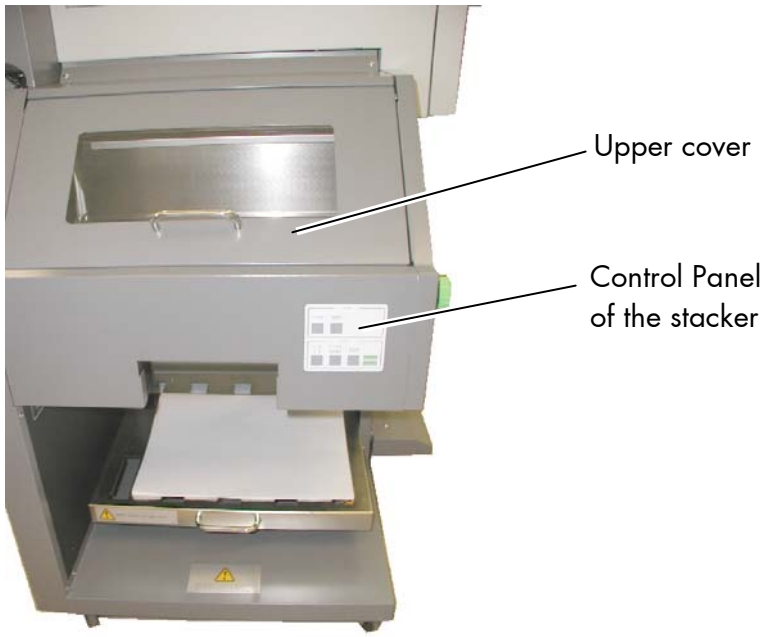


Fig. 2.2.c Stacker (paper output side of the printer)

Interior of Front Cover Section:

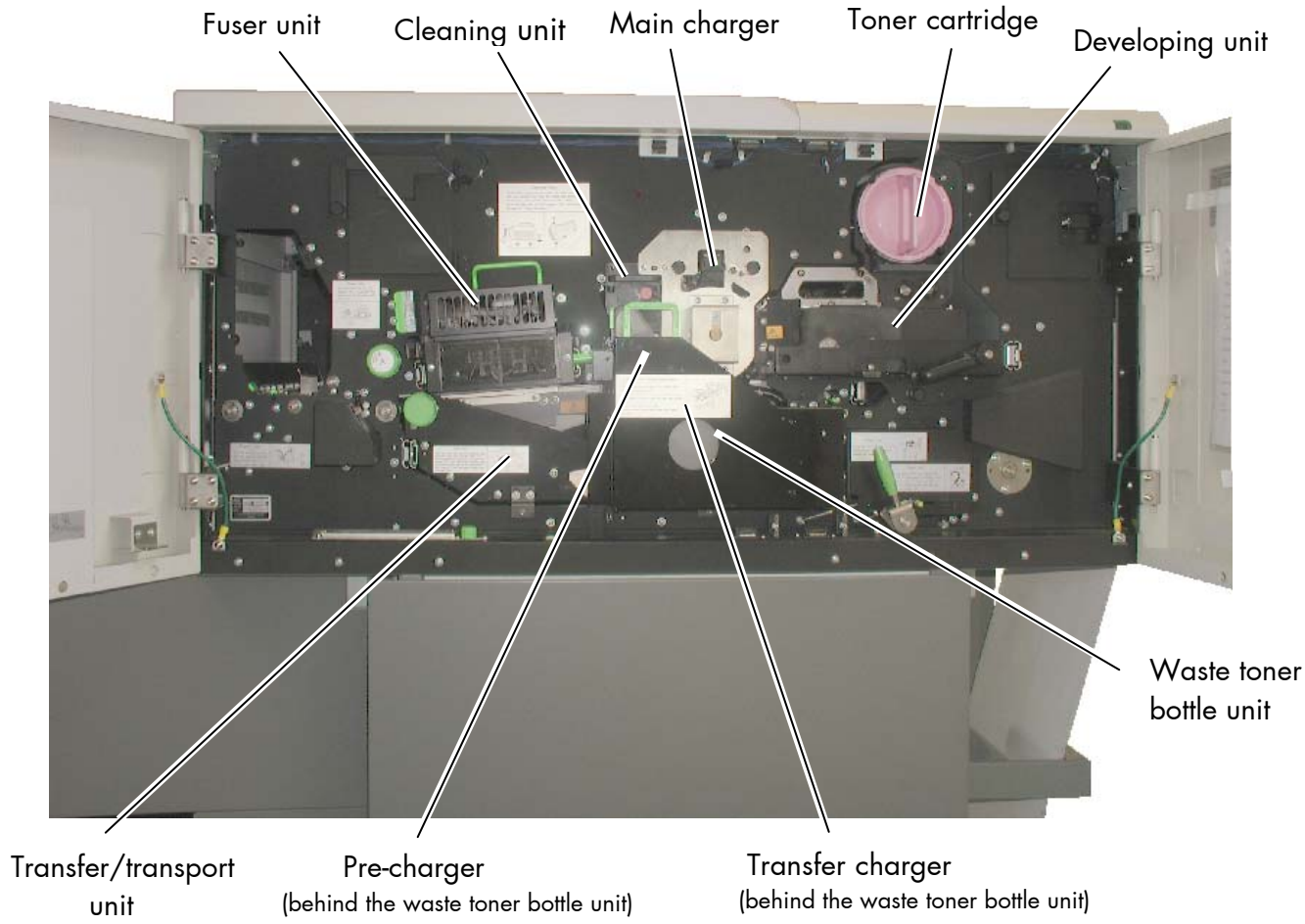


Fig. 2.2.d Components inside the printer (front side)

Interior of Rear Cover Section:

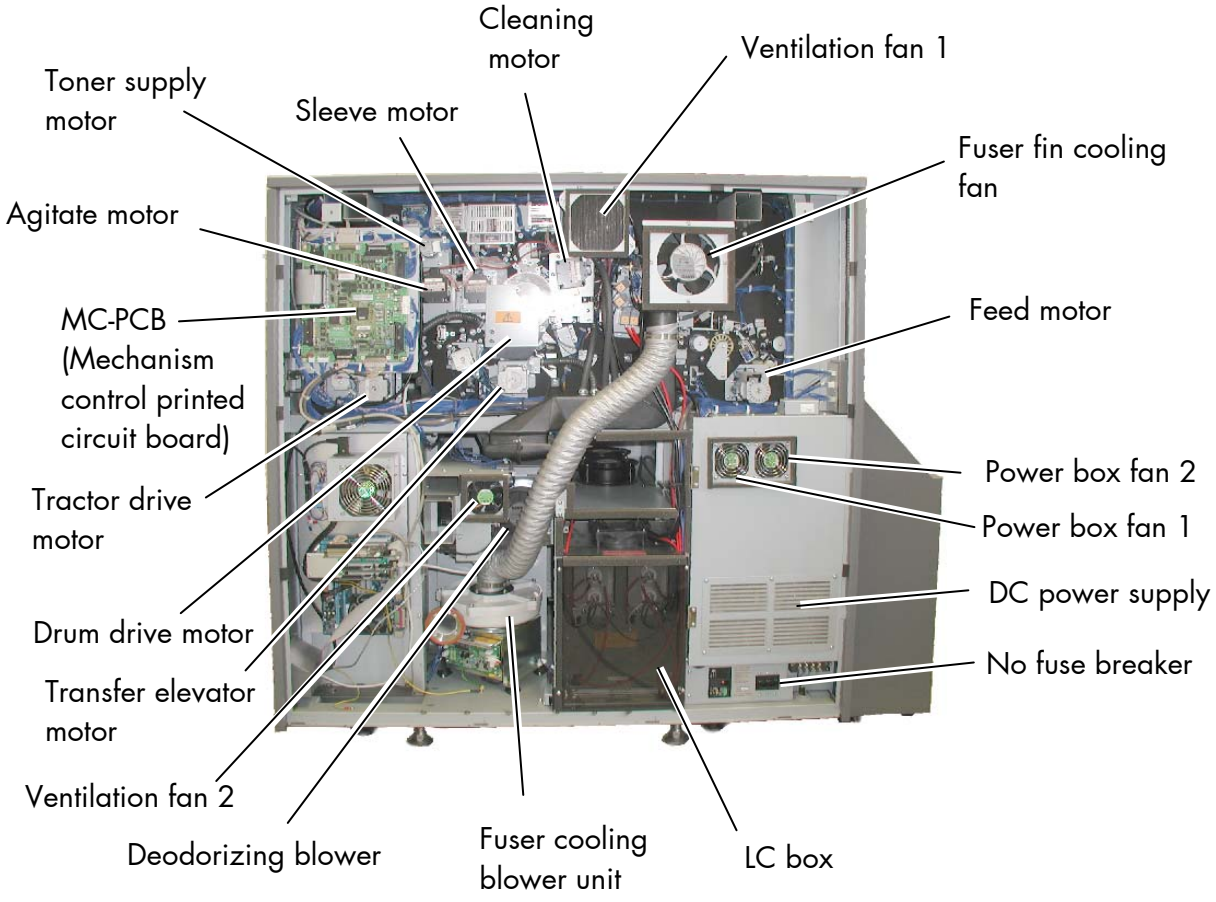


Fig. 2.2.e Components inside the printer (rear side)

2.3. Environment and Power Standards

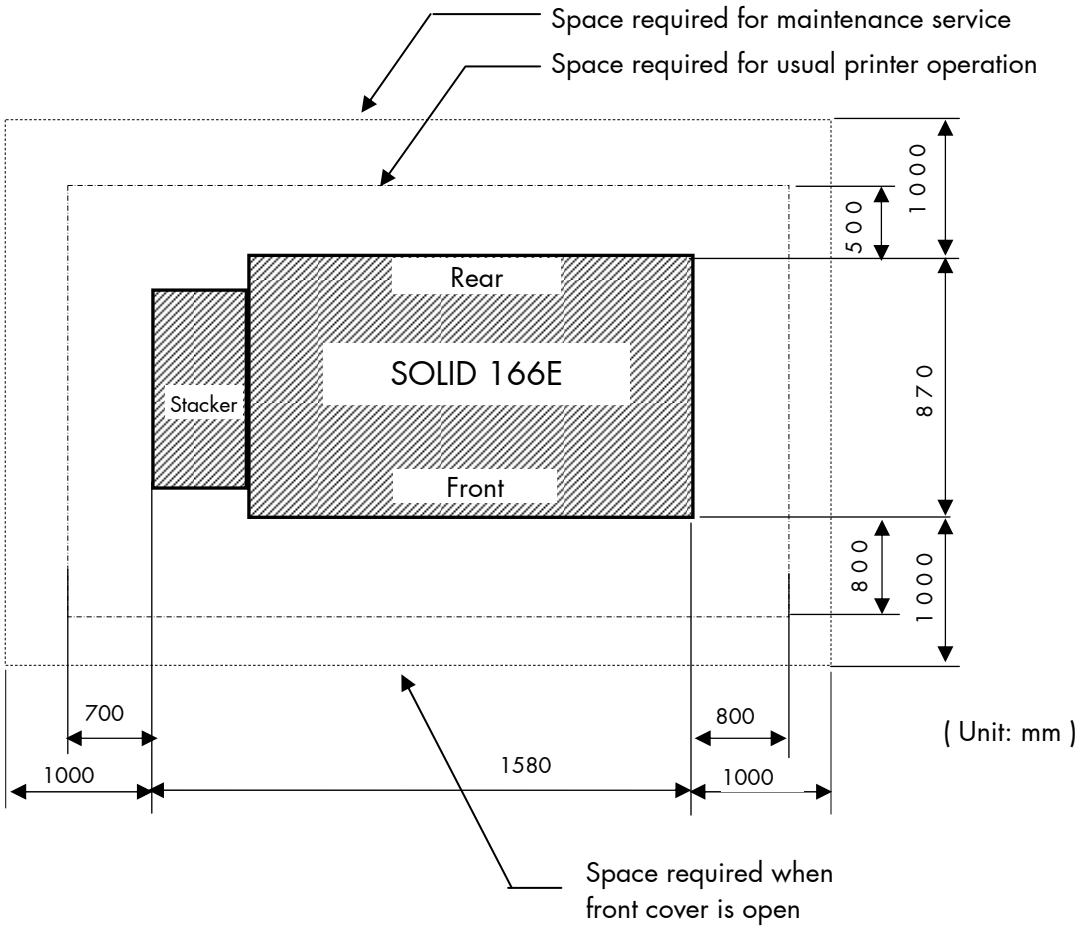


Fig. 2.3.a SOLID 166E: Required space (plan view)

The printer's first installation has to be done by a trained service engineer.

- The chosen location should be well ventilated.
- Damaging environmental factors such as metal vapors, oil mist, corrosive leaches or the like must not affect the printer.
- Place the printer on horizontal, firm and solid ground.

- The horizontal position of the printer has to be adjusted accurately.
- At the side of the paper outlet there should be room enough so that the paper can flow out of the printer without hindrance.

- Do not expose the printer to shocks or vibrations.
- There must be enough room on all sides of the printer to guarantee necessary ventilation.

- Do not expose the printer to abrupt temperature changes.
- The printer should not be located near volatile or combustible materials (e.g. a curtain).
- Avoid locating the printer close to an air current (e.g. ventilators).

- The printer should not be exposed to direct sunlight.
- Do not touch the drum surface because the material is easy to damage.
- In order to run the printer reliably, please maintain the following environmental conditions:

  Temperature: + 10°C to +30°C (50°F to 86°F) operating
  - 10°C to +35°C (14°F to 95°F) non-operating
  Relative atmospheric humidity: 30% to 80% operating
  10% to 80% non-operating

Power standards:

- Please connect the printer engine to

400 V, 50Hz/60Hz three-phase alternating current
(Europe, United Kingdom e.g.)

220 V ±10%
50 to 60 Hz three–phase alternating current
(North America)

- The max. apparent power is 9.0 kVA.
- Use 32A fuses (40A, if necessary) for the mains connection to enable the higher starting currents.
- The power source must be free of noise, and not subjected to surges or noise (e.g. generated by big machines).
- Use the printer only within the allowed fluctuation range of ±10% for the power voltage.

Conditional connection for the SOLID 166E:
Data about the maximum permissible system impedance Z_{max} of this device can be found in chapter 9 Specifications.
The user of this device has to determine in consultation with the supply authority, if necessary, that the equipment is connected only to a supply of that impedance Z_{max} or less!

- The SOLID 166E print system comes with a second power cable (separate power supply for the touch panel).
This cable has to be connected to 230 V (Europe), see figure 2.2.b.

To avoid damage, the devices must be switched off (i.e. cut off from the power supply) before the user begins connecting the interface lines.

3. Paper Handling

3.1. Printer Engine

The printer processes continuous paper from 7 to 18 inches (incl. sprocket holes; 17 inches printable).
You can check the printer configuration (inclusive the settings regarding paper length etc.) by printing a status sheet (see section 5.1).

The tractor is located at the right side of the printer (compare figure 2.2.a).

If a large quantity of paper with a paper width smaller than 18 inch has been processed, the printer has to be cleaned first before you start to process paper with a larger paper width.
See chapter 6 Operator Maintenance.

1. Place the box containing the fanfold paper below the tractor unit.

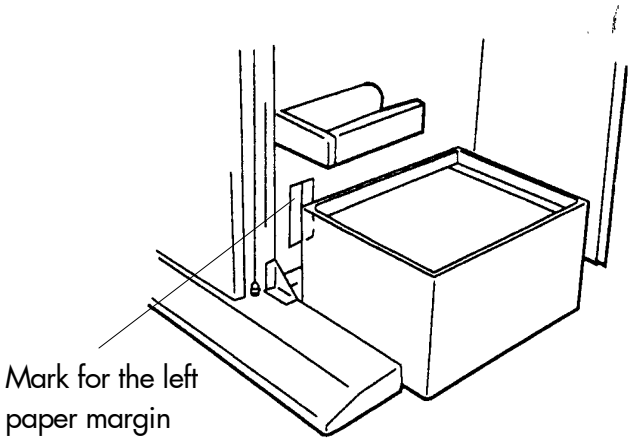


Fig. 3.1.a Placing the fanfold paper

2. Pass the fanfold paper through the sensor guide (Paper Near End Sensor PNES).

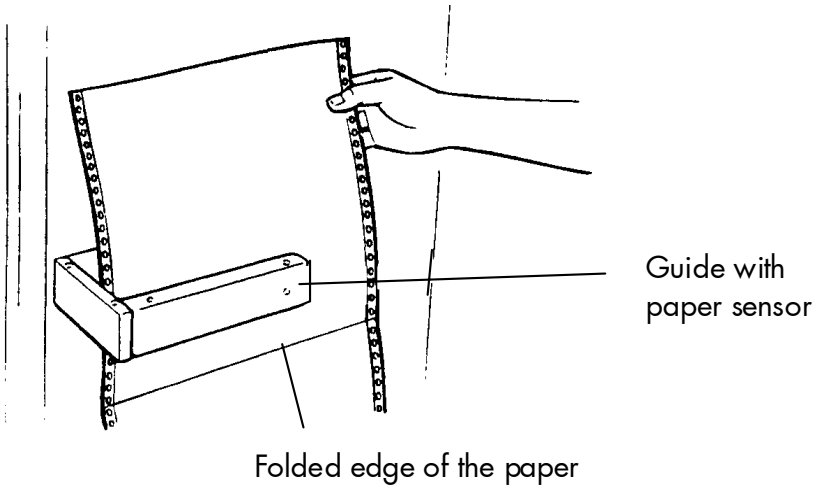


Fig. 3.1.b Passing the paper through the PNES

To avoid paper jams the folded edge should point in the direction of the printer. Do not stretch the paper excessively and do not allow any slack to avoid incorrect filing.
By this you can secure that the paper will be positioned right in the optional stacker.

3. Release the right tractor bar by pushing it toward the inside of the printer. The tractor bar (black lever) is located next to the tractor cover plate (green) and it is used to unlock the tractor.

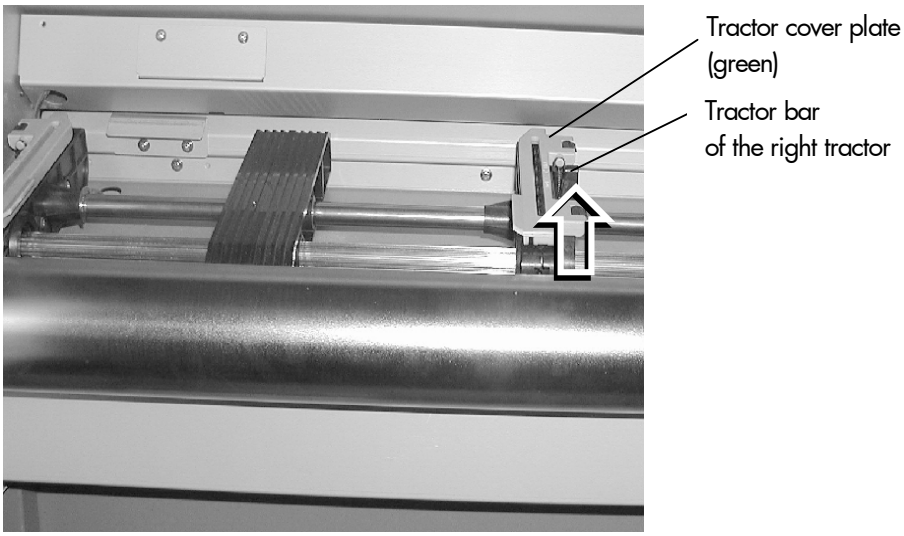


Fig. 3.1.c Unlocking the tractor

4. Open the two green tractor cover plates (by positioning them into the upright position; see figure 3.1.d).

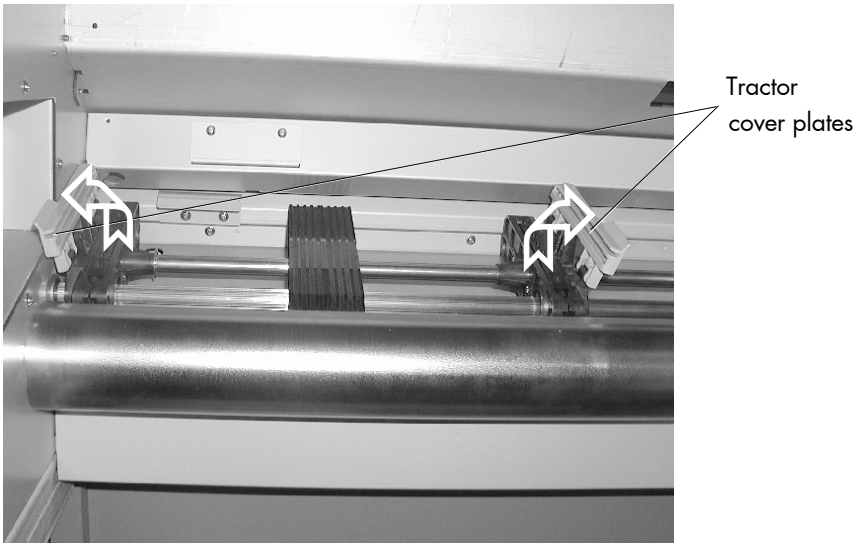


Fig. 3.1.d Opening the tractor cover plates

5. Place the paper on the tractor pins of the left tractor.
   The paper perforation should be aligned over 4 or 5 tractor pins.
   Now close the green tractor cover plate of this tractor.

6. Spread out the tractor so that the sprocket holes on the right side of the continuous paper can be placed easily onto the tractor pins.

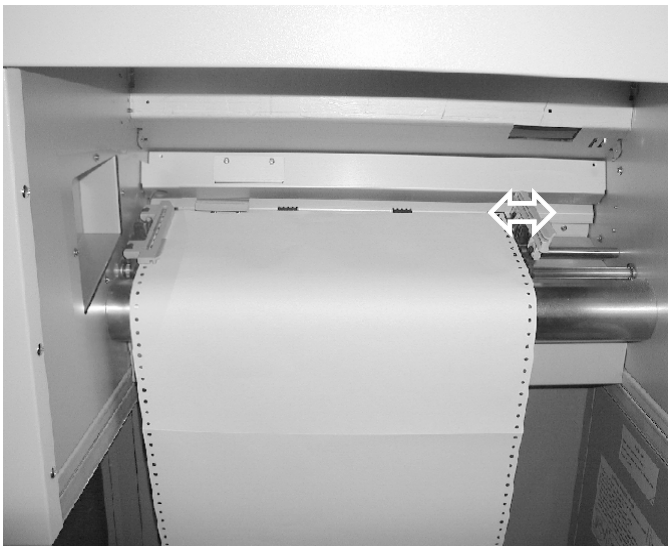


Fig. 3.1.e Inserting paper and adjusting the right tractor to the paper width.

Please make sure that the paper does not reach into the printer too far. Only the paper sensor has to be covered by the paper.

7. Close the right green tractor cover plate and tighten the paper **gently** by adjusting the width of the tractors.

To avoid paper jams the paper must not be inserted too lose or too tight.

8. Lock the right tractor by using the black tractor bar.

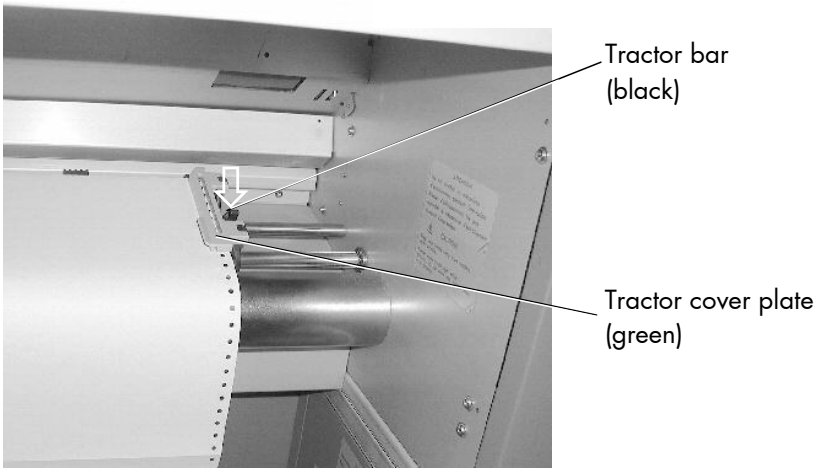


Fig. 3.1.f Locking the tractor

9. Now please touch the FORM FEED key on the touch panel.
   If the printer is off, you have to turn on the printer first.
   (See section 4.2 Turning on the Printer).

   The paper is conveyed to the top of form position.

3.2. Stacker

3.2.1. Stacker Installation

The stacker's first Installation has to be done by a trained service engineer. The horizontal position of the printer and stacker has to be adjusted accurately. The engine height adjuster (extent of supply) serves to check and adjust the printer feet.

CAUTION

Before installing or removing the power paper stacker, the printer must be adjusted to the proper height and be levelled. Failure to do this will damage both the printer and the stacker, and will prevent installation or removal of the stacker.

3.2.2. Attaching the Stacker to the Printer

Summary:
First Installation has to be done by a trained service engineer. This includes the installation of the interface cable between stacker and printer.
If the stacker was removed from the printer (i.e. to solve a paper jam), reinstall the power paper stacker by pushing it into the lower part of the printer until the stacker's hooks attach onto the studs of the printer.

Steps to attach the stacker to the printer:

1. First locate the position of the stacker's hooks, see the following figure.

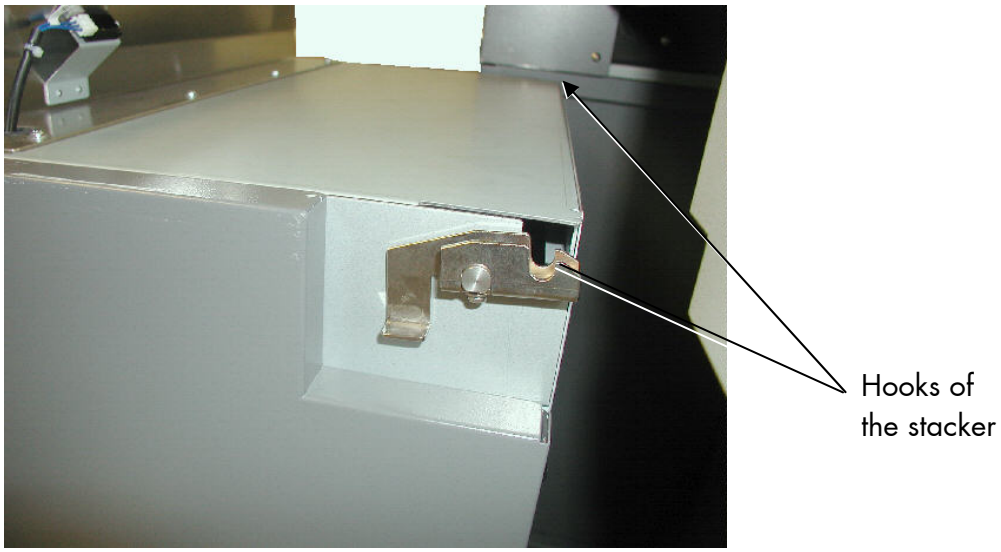
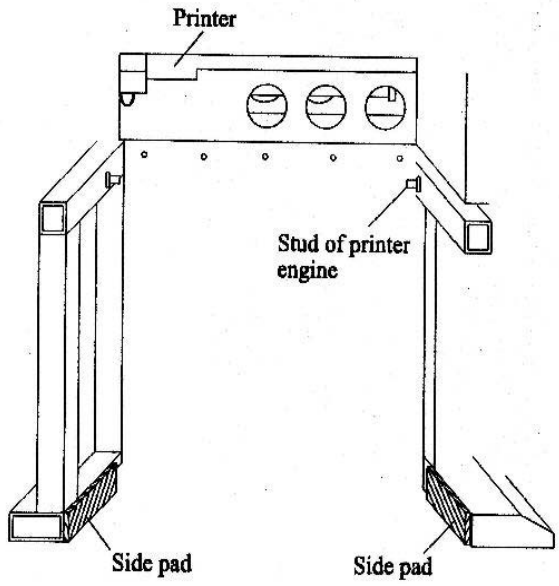


Figure 3.2.2.a Hooks of the stacker

2. Move the stacker along the side pads (see following figure) into the lower part of the printer engine.



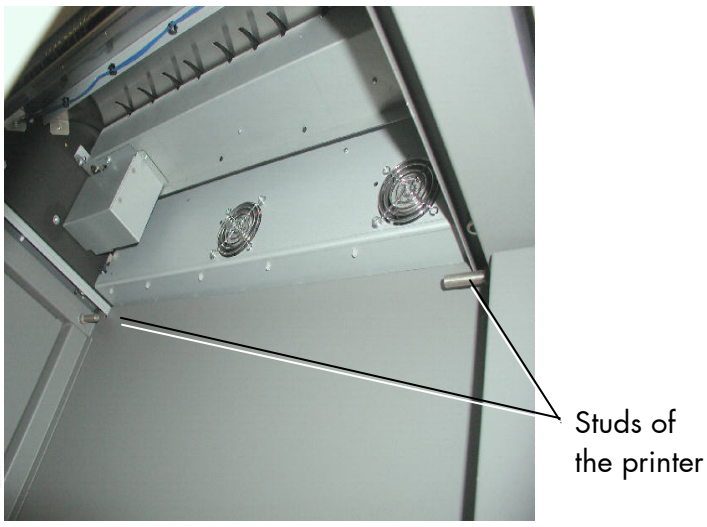


Figure 3.2.2.b Schematic drawing and picture of the lower part of the printer

3. Hook the two hooks of the stacker to the two corresponding studs of the printer to secure the position of the stacker.

Figure 3.2.2.c Moving the stacker into the lower part of the printer engine

3.2.3. Stacker Settings

The stacker has to be adjusted to the right page length. (According to the paper size loaded to the printer. The setting range is 7 up to 14 inches.)

Figure 3.2.3.a Setting the page length

1. Use the green knob to set the page length.

At the stacker paper width setting is not necessary.
Just like the printer the stacker processes continuous paper with a paper width from 7 to 18 inches (incl. sprocket holes).

2. Raise the elevator table by hand, until it stops.

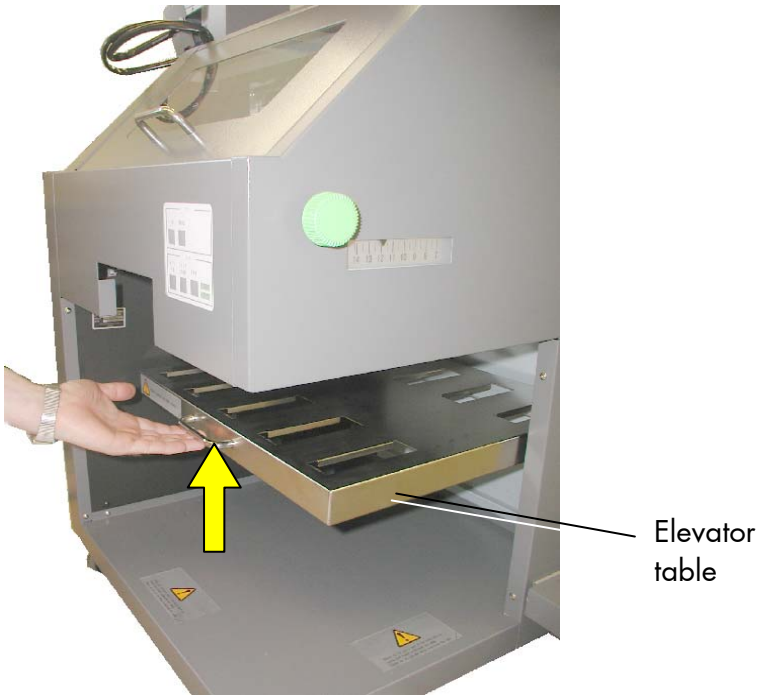


Figure 3.2.3.b Raising the elevator table of the stacker

3.2.4. Stacker Panel Functions

The control panel of the stacker offers the following keys:

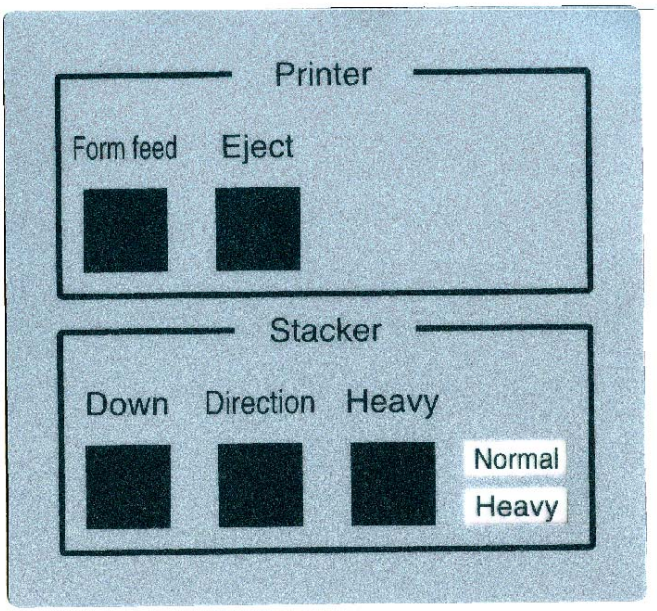


Figure 3.2.4.a Control panel of the stacker

- FORM FEED: Sends a form feed command to the printer
- EJECT: Sends a cut command to the printer
  Use the EJECT Button to cut the job
- DOWN: Lowers the elevator until it reaches its maximum lower position, or until the key is released.
  (The elevator table is moved UP by hand.)
- DIRECTION: To change the direction of stacking (swinger)
- HEAVY: ON = "Heavy Mode" for thicker paper (the LED shines);
  OFF = "Normal Mode" for thinner paper (the LED is not shining).

3.2.5. Printer Settings: Stacker Selection

1. Use this touch panel key to select the stacker.
   (This leads to a jump into the menu, the complete panel function is described in section 5.11).

2. Load the printer with the media to be printed (see section 3.1).

3.2.6. Printing and Stacking

1. Turn the printer to ONLINE and send your print job(s) to the printer.

   The printer will transport the media into the stacker automatically.

   The feed rollers of the power stacker transport fan fold paper that is delivered from the printer. After the paper moves between the feed rollers, it is stacked on the elevator table by the action of the swinger swinging back and forth.

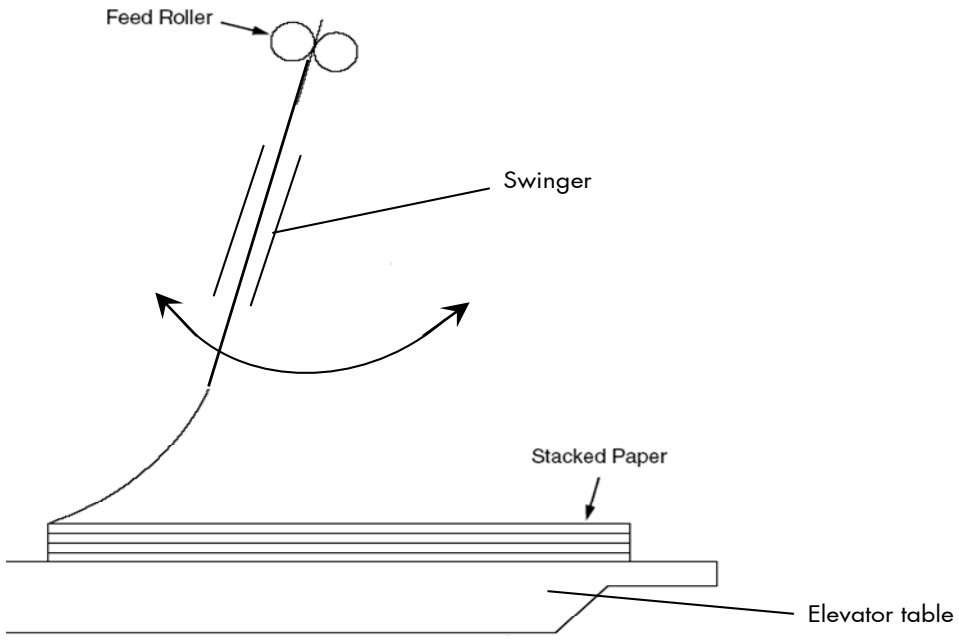


Figure 3.2.6.a Schematic drawing

The power stacker folds output paper at the perforation and accumulates it on the elevator table.

Figure 3.2.6.b Stacking

The more the printer is transporting paper into the stacker, the more the elevator table descends. (I.e. the table of the stacker is moving down little by little in correlation to the growth of the paper stack automatically).

As the paper stack on the elevator table increases, the paper edges may swell out (see next figure). In this case, press down the paper stack edges.

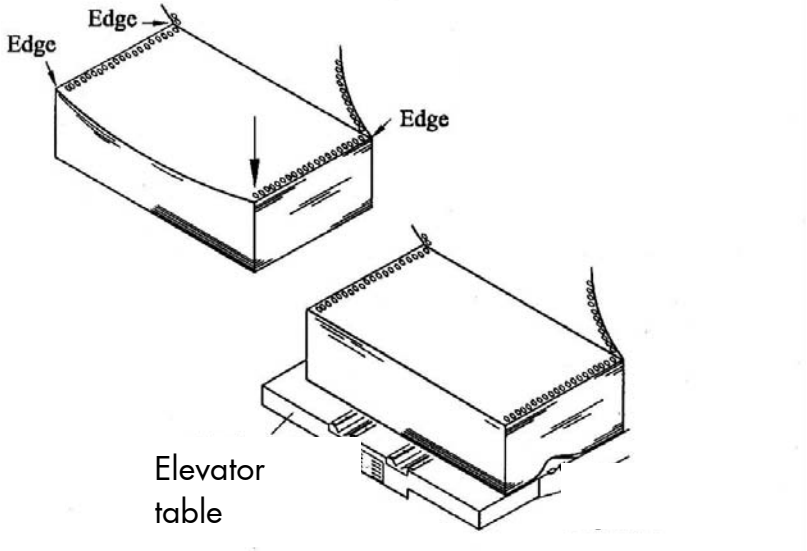


Figure 3.2.6.c Aligning the Paper Stack Edges

3.2.7. Removing the Paper Stack

1. Press the EJECT key to cut the paper (or use the FORM FEED key and detach the fanfold paper at its perforation).

2. Press the DOWN key to lower the elevator table.

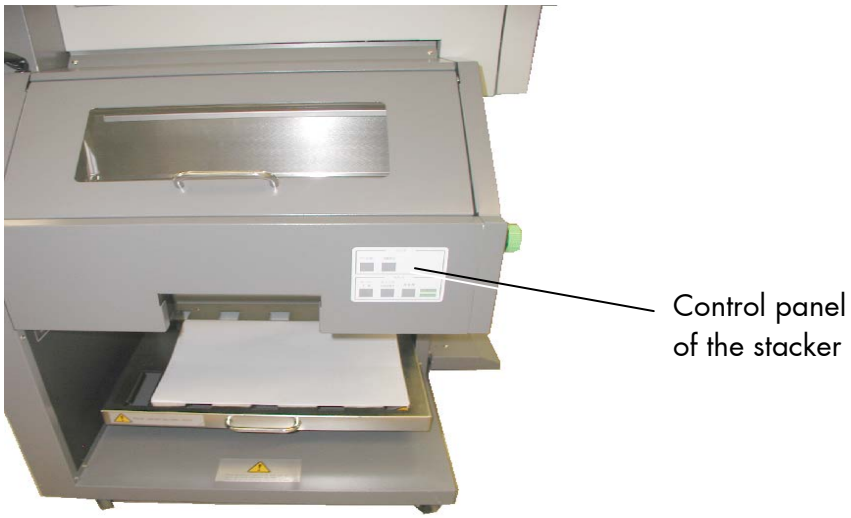


Figure 3.2.7.a End of stacking

3. Remove the paper stack.

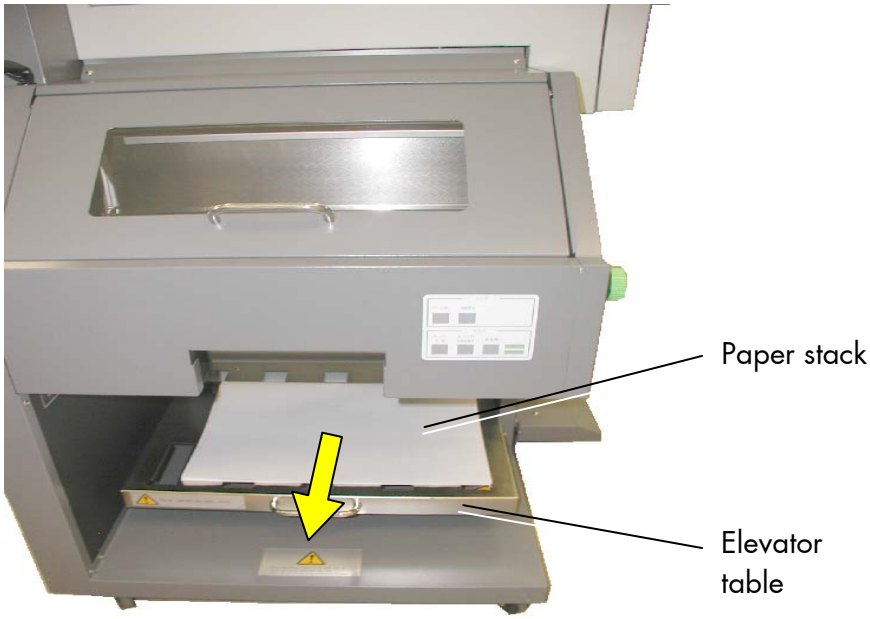


Figure 3.2.7.b Removing the paper stack

4. Raise the elevator table by hand, until it stops.

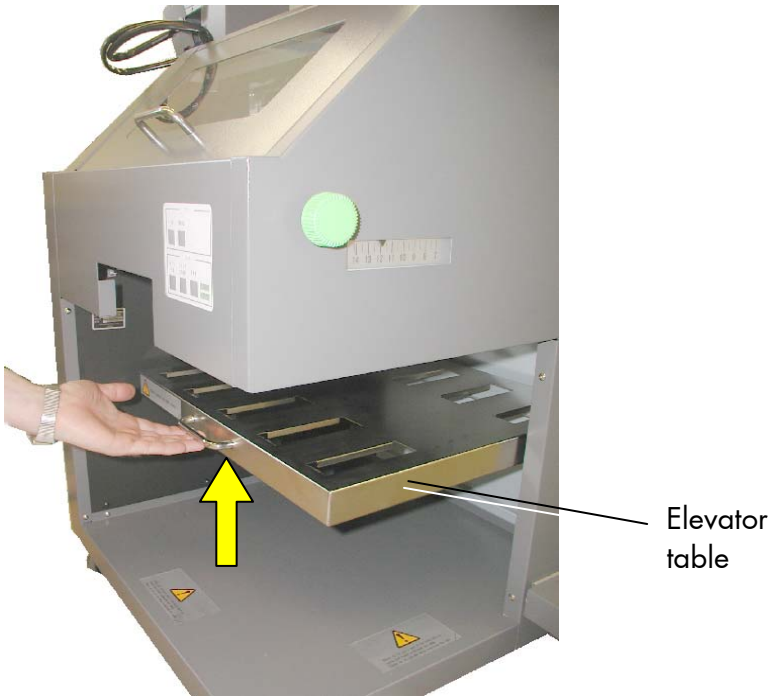


Figure 3.2.7.c Raising the elevator table of the stacker

3.2.8. Troubleshooting (Stacker)

To ensure proper stacking, please note the following:

- As the media exits the printer, it has to pass through the two paper guide rollers located at the top rear side of the stacker.
  This may occasionally require you to guide the media into the rollers.
- As the media enters the paper output tray of the stacker, the media has to fold in the natural way.
  Make sure the first fold of the media is performed in the same way, as it came out of the media box. By this the media should continue to fold and lay naturally. (Compare section 3.2.4 Stacker Panel Functions: DIRECTION key.)

Clearing Paper Jam:

1. Use the handle to open the front cover until it stops. (Now the sustainer hinders the cover to fall down).

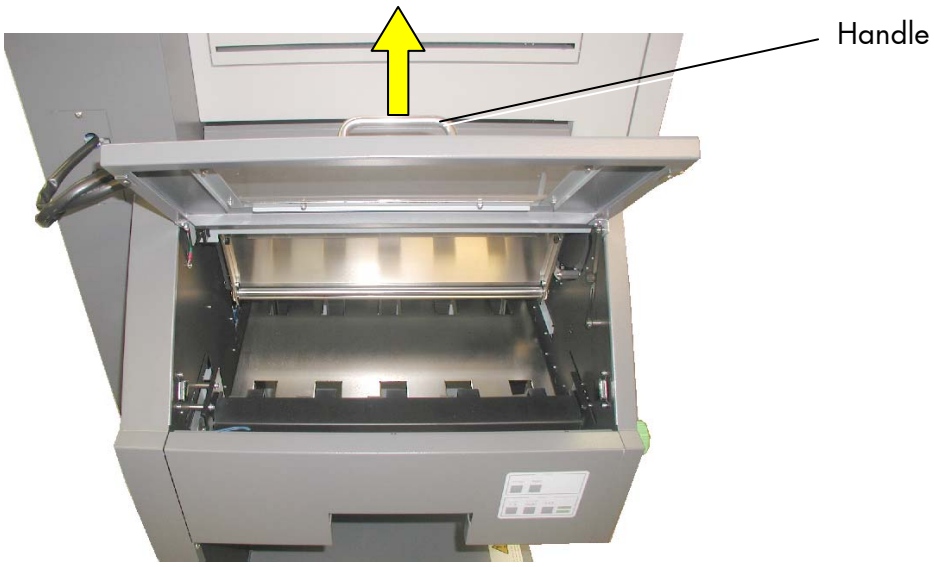


Figure 3.2.8.a Opening the front cover of the stacker

2. Remove any jammed paper.

3. Lift up the front cover a little bit and unlock the sustainer as shown in the following figure.

Figure 3.2.8.b Lifting the front cover and unlocking the sustainer

4. Close the front cover.

5. Check if there is any jammed paper inside the stacker (compare next figure) and remove it.

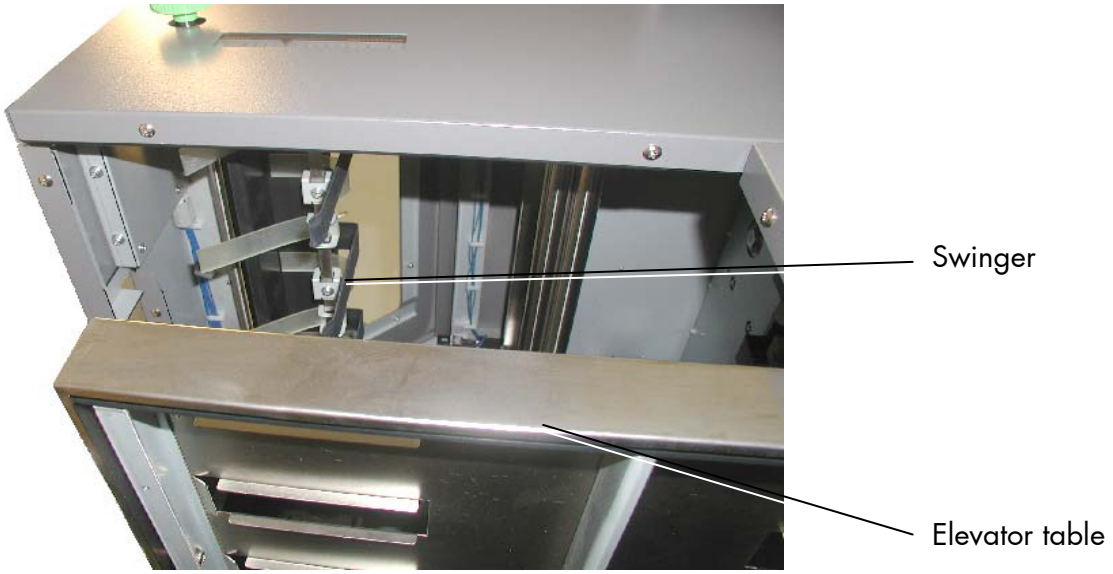


Figure 3.2.8.c Underside of the stacker

If the paper jam could not be solved by the steps above:

6. Check if there is a paper jam between printer and stacker:

7. Operate the release lever of the stacker (to release the stacker hooks from the printer studs; compare section 3.2.2).

Figure 3.2.8.d Operating the release lever of the stacker

Caution: Take care of the interface cable between stacker and printer!

Don't move the stacker too far away from the printer!

8. Remove any jammed paper.

9. Move the stacker back into the lower part of the printer.
   (Compare section 3.2.2).

10. Hook the two hooks of the stacker to the two corresponding studs of the printer to secure the position of the stacker.

Figure 3.2.8.e Moving the stacker into the lower part of the printer engine

4. Operation and Menu Structure

4.1. Attaching the Printer to a Computer

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

2. Use a proper interface line to connect the printer to the computer or to attach the printer to the network.
   The printer SOLID 166E is provided with several interfaces; compare figure 4.2.b and read chapter 9 Specifications for more information.

4.2. Turning on the Printer

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

The main switch of the printer is located at the left side of the touch panel.

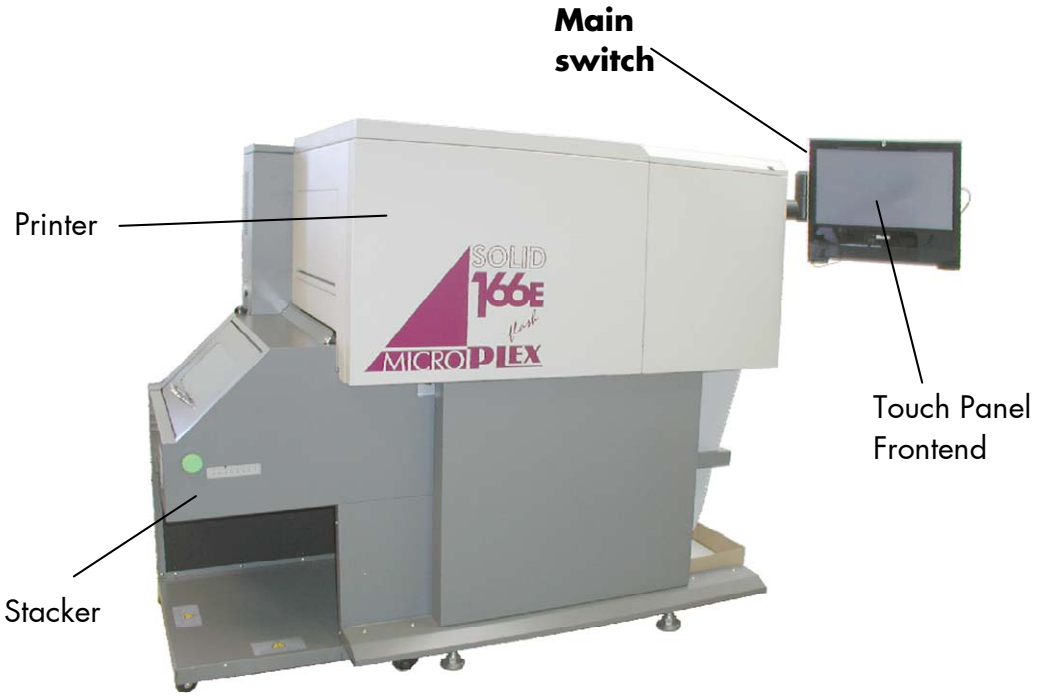


Fig. 4.2.a Main view of the SOLID 166E

In addition the print engine has a separate power switch, which is located at the right side of the printer.

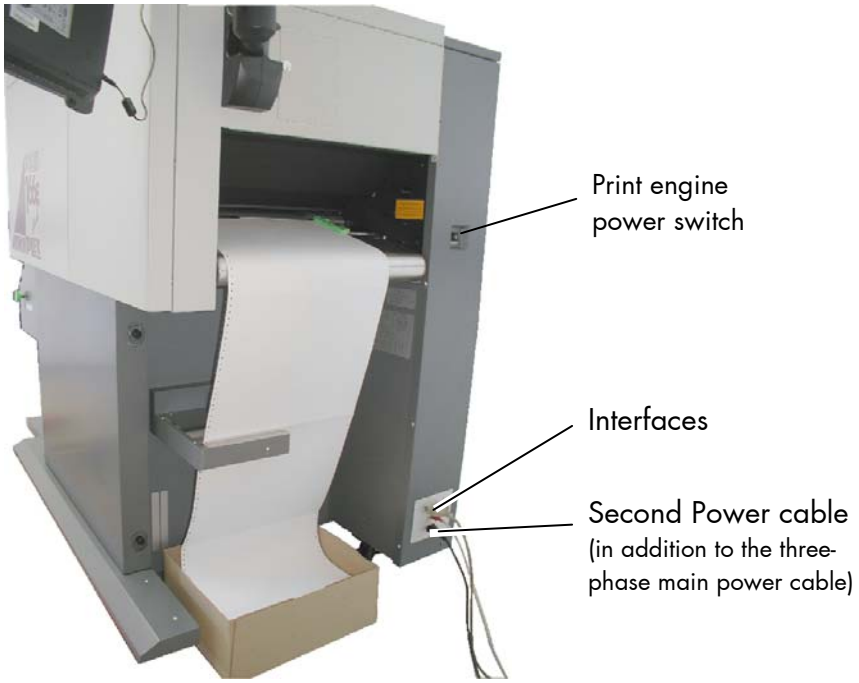


Fig. 4.2.b Print engine power switch

Please note: In this manual it is presupposed that this **print engine power switch is in the "ON" position**!

As soon as the printer's warm up phase is finished the print system SOLID 166E goes into the ON LINE mode.
The name of the printer is displayed at the touch panel, see next sections.

Note: You can change the language that appears on the touch panel.
Use the "Display Language Selection" panel function
(see section 5.16).

4.3. Touch Panel

This printer is equipped with a touch panel frontend.

The touch panel offers you:

- information about the actual state of the device.
- direct command input using the keys.

When a key is touched, the selected item changes the appearance a little. This provides confirmation as you perform an operation.

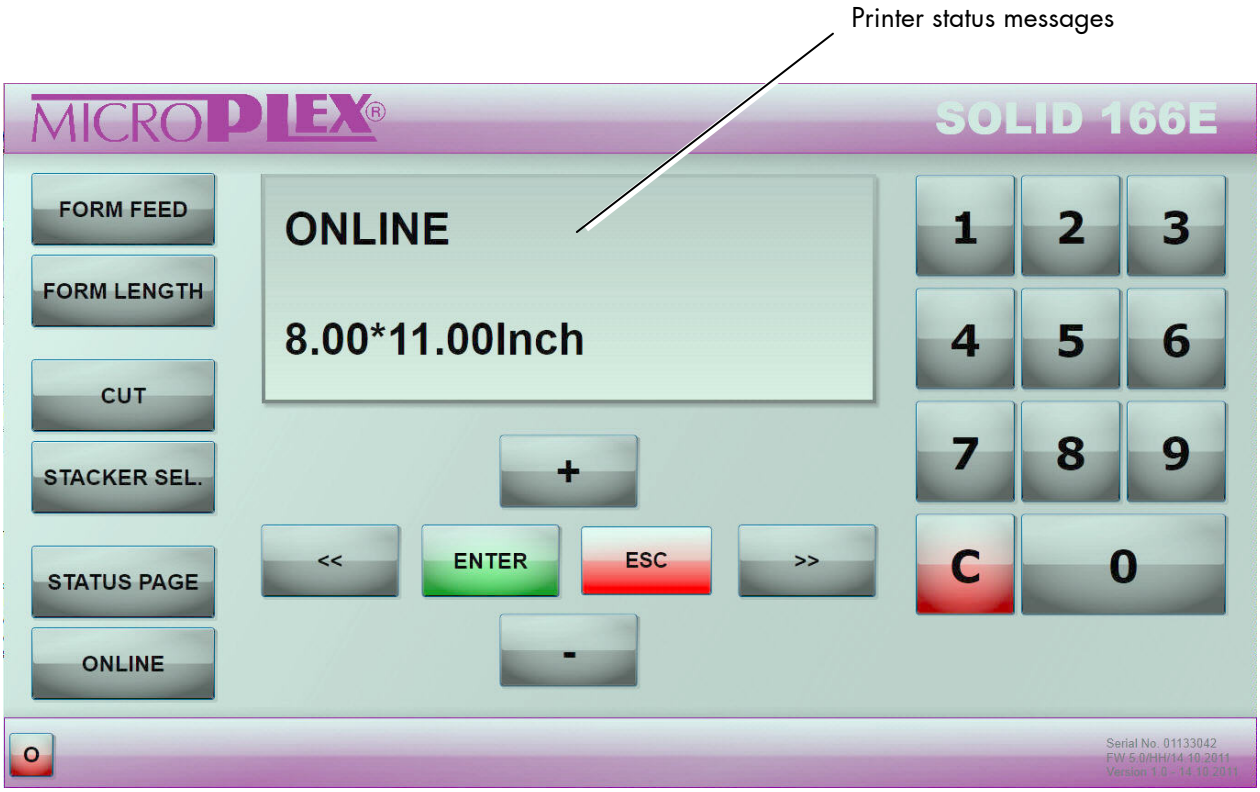


Fig. 4.3.a Touch panel of the SOLID 166E (Screenshot)

Hint

The display screens, messages, and key names shown in the manual may differ from those on the actual machine due to product improvements and modifications.

4.4. Touch Panel Keys

This symbol shows the ON LINE key. This key is used to turn the printer ON LINE or OFF LINE.

Newly loaded paper will be conveyed to the start position (Top of Form). Subsequently the printer is ready to operate.
If paper is already in the printer, it will be transported forward one form length. Bitmap memory remains unchanged. A possibly prepared page will not be printed.

The last print job will be cut at its end and the paper will be moved to the park position.

The cutting device can only cut paper along the perforation, so the set form length has to correspond with the current paper size. Wrong settings lead to paper jams.

Touching this key enables you to select the stacker (jump into the menu, see panel function Stacker Selection described in section 5.11).

Touching this key enables you to set the form length (jump into the menu: Page Length Adjustment). The current form length is announced, the setting range is 7 up to 20 inches.

A status sheet will be printed. (See section 5.1 Printing the Status Sheet and section 5.10 Generating Test Prints, too).

PREVIOUS key

PLUS key

MINUS key

NEXT key

ENTER key

ESCAPE 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 sections.

The Number Block is useful to enter new function values (for example the IP address of the printer).

Touching the OFF button starts the Power Off routine of the SOLID 166E. Details are described in section 4.8 Turning off the Printer.

4.5. Configuration via the Touch Panel

You can use the touch 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 5 (Panel Functions) describes how to reach the particular printer functions via the touch 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 panel function "Printing the Status Sheet" (see section 5.1).

Please note:

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

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

Switching the Printer OFF LINE

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

Printer messages are displayed on the touch panel.

[SOLID 166E] The first line shows the name of the printer.

[14.77*8.33 Inch] The second line serves to show additional information: in this example the format setting is displayed.

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

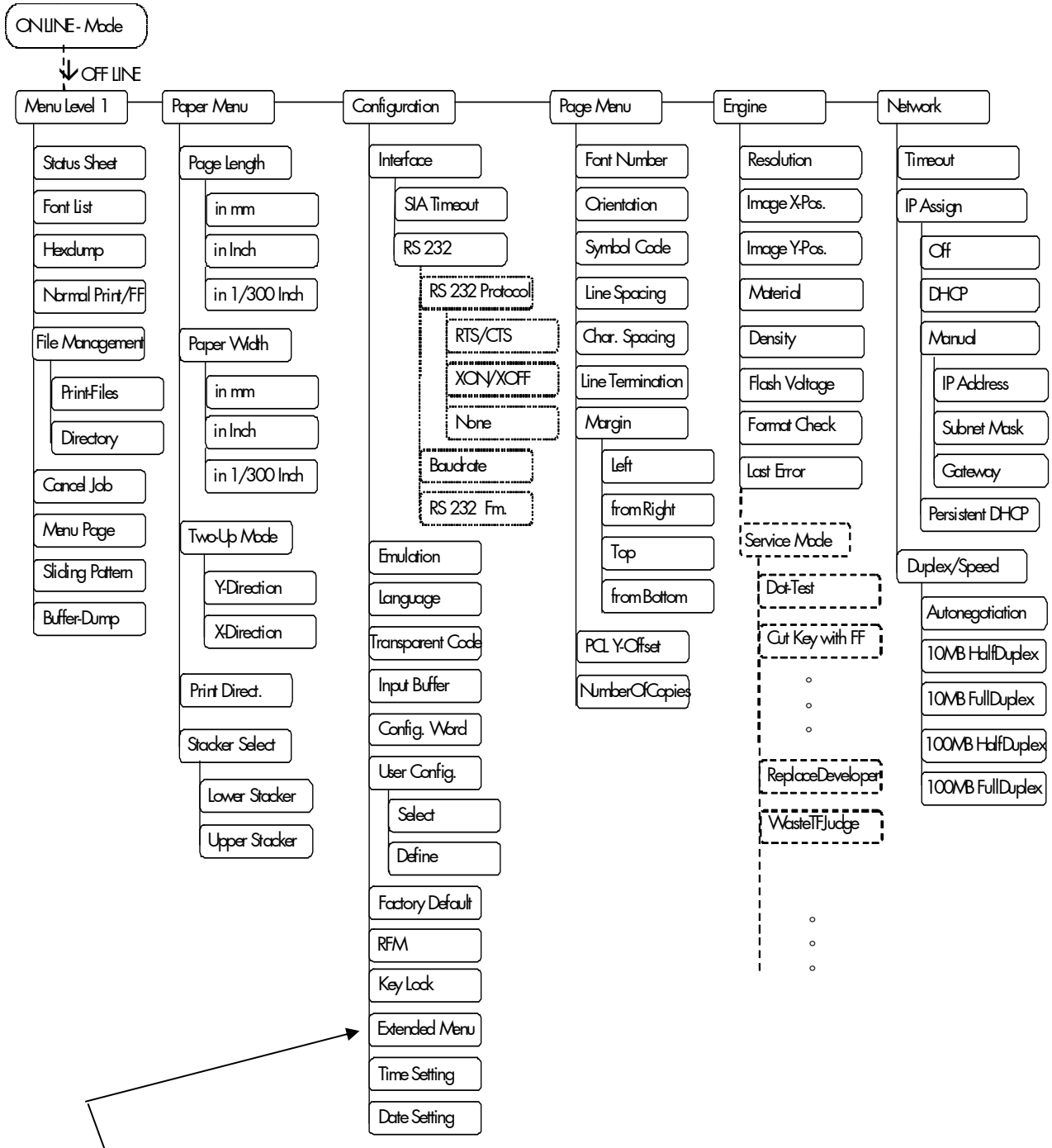
[Menu Level 1] Now this messages are displayed on the touch panel.

[14.77*8.33 Inch]

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

4.6. Menu Structure

Access to the menu structure is possible as soon as the printer is turned OFF LINE. The menu structure of the SOLID 166E 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 ON LINE key. You get automatically into first menu level, if the printer is turned OFF LINE with this key.

These symbols show the ARROW keys.
By pressing the NEXT key or the PREVIOUS key you can move within the menu levels.
Press and hold the NEXT key to scroll forward or the PREVIOUS key to scroll backward (to change numerical values, for example).

["Menu Level"]

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

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

["Function"]

Functions / Changing of function values:

In case of a multi-digit function value the NEXT key or the PREVIOUS key are used to select the position within the function value to be changed (DIGIT).

Touching the keys PLUS and MINUS changes the value of the selected digit of the function value.

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

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

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

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

[Save as Setup?]

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

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

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

Return to the menu level above:

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

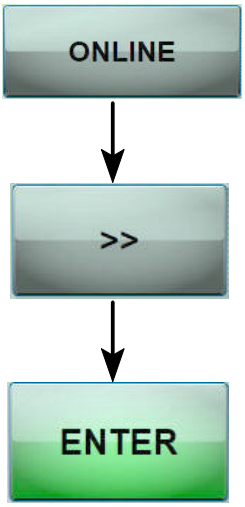
Return to the ON LINE - mode:

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

4.7. Syntax of Diagrams

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

First the elements of the diagrams are explained:



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

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

["Message"]

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

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

4.8. Turning off the Printer

Use the **main switch** to turn off the printer.
(This switch is located at the left side of the touch panel, see next figure.)

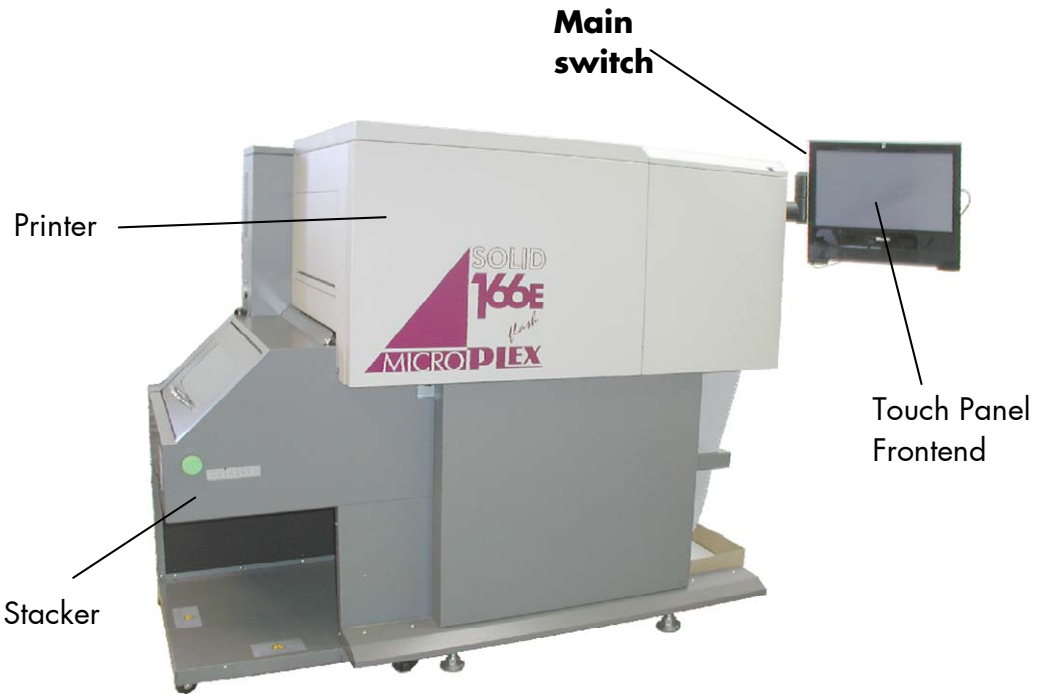


Fig. 4.8.a Main view of the SOLID 166E

Alternatively you can use the little OFF button on the touch panel.
(Secondbest, prefer the main switch.)

Touching the OFF button (located at the left lower edge of the touch panel screen, compare figure 4.3.a) starts the power off routine of the SOLID 166E. Follow the instructions (confirm the little Shutdown window).

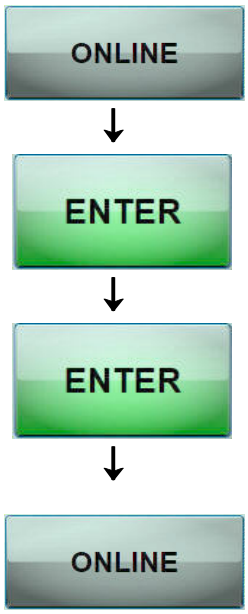
Leave the print engine power switch in the "ON" position. This is necessary for the next printer on via the Main switch.
(In this manual it is presupposed that the print engine power switch is in the "ON" position, compare section 4.2.)

5. Panel Functions

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

5.1. Printing the Status Sheet

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



Panel display	Notes
[SOLID 166E]	
	Turn the printer OFF LINE with this key.
[Menu Level 1]	
	Press the ENTER key. Menu Level 1 is selected.
[Status Sheet]	
	Press the ENTER key again.
	A status sheet is printed.
[Status Sheet]	
	The printer is turned ON LINE again.

Status sheet contents:

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

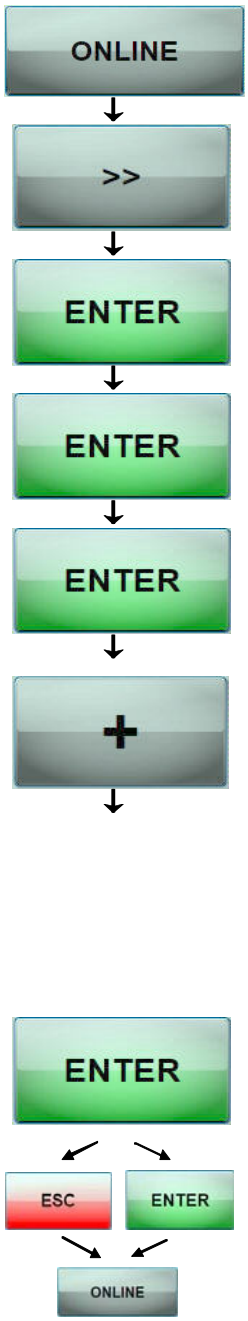
Printed in plain text:

- 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).

5.2. Page Length Adjustment

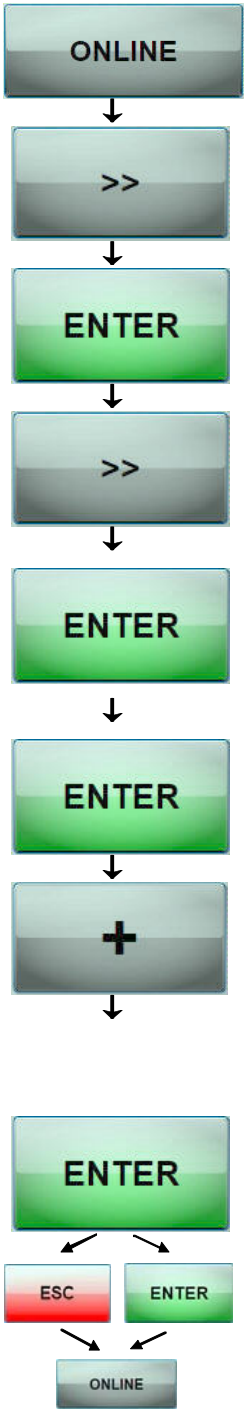
After having inserted new material to print on (e.g. paper) the paper size (the print format) has to be adjusted with this function corresponding to the currently used paper size.
The standard value for the paper size is 12 inches for Europe, 11 inches for North America.



Panel display	Notes
[SOLID 166E]	Turn the printer OFF LINE with this key.
[Menu Level 1]	Press the NEXT or PREVIOUS key until [Paper Menu] is displayed.
• • •	
[Paper Menu]	Press the ENTER key to select the paper menu.
[Page Length]	Press the ENTER key to adjust the page length.
[in Inch]	Inch = currently selected measuring unit. (Alternative the units mm or 1/300 Inch can be chosen with NEXT or PREVIOUS).
• • •	
[Digit4 12.00]	Pressing the PLUS or MINUS key changes the value of the current digit (Digit 4 = left position, in the example: 1). Pressing the NEXT key moves you to the next digit (the PREVIOUS key moves you back, if need be). Values from 7 to 20 inches are settable. You can use the number block to set the function value, too.
• • •	
[Digit1 12.33]	Here the page length was changed to 12.33 inches.
[Save as Setup?]	In addition this new value can be saved as setup value (using the ENTER key), before the printer is turned ON LINE again.

5.3. Paper Width Adjusting (Format Width)

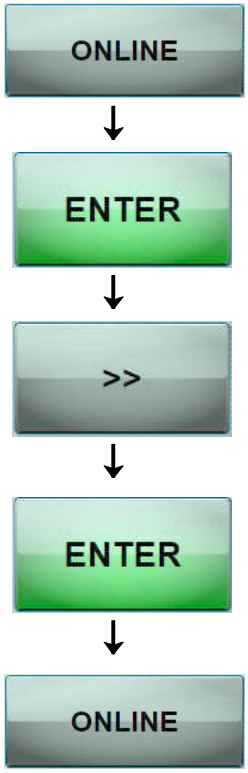
The paper width (print width) has to be adjusted with this function according to the currently used paper format.
The SOLID 166E processes continuous material with a width of 7 up to 18 inches (17 inches printable).



Panel display	Notes
[SOLID 166E]	Turn the printer OFF LINE with this key.
[Menu Level 1]	
• • •	Press the NEXT or PREVIOUS key until [Paper Menu] is displayed.
[Paper Menu]	Press the ENTER key to select the paper menu.
[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 Inch]	Inch = currently selected measuring unit (Alternative the units mm or 1/300 Inch can be chosen with NEXT or PREVIOUS).
• • •	
[Digit4 14.00]	Pressing the PLUS or MINUS key changes the value of the current digit (Digit 4 = left position, in this example: 1). Pressing the NEXT key moves you to the next digit (the PREVIOUS key moves you back, if need be). You can use the number block to set the function value, too.
• • •	
[Digit1 17.00]	The format width (paper width) is changed to 17.00 inches.
[Save as Setup?]	In addition this new value can be saved as setup value (using the ENTER key), before the printer is turned ON LINE again.

5.4. Printing the Font List

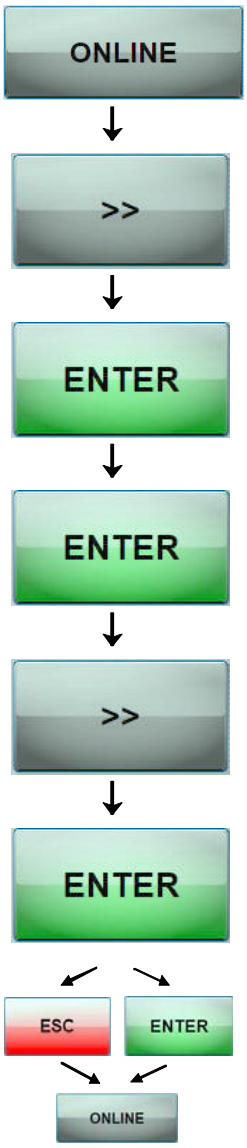
This function generates a list of all fonts installed to the printer. The font list shows demo prints of all fonts and, in addition, the concerning PCL selection commands. These commands contain information on font width and font height (see section 5.20 Font Selection, too).



Panel display	Notes
[SOLID 166E]	
	Turn the printer OFF LINE with this key.
[Menu Level 1]	
	Menu Level 1 is selected.
[Status Sheet]	
	Press the NEXT or PREVIOUS key until [Font List] is displayed.
• • •	
[Font List]	
	The font list is printed.
[Font List]	
	The printer is turned ON LINE again.

5.5. Choosing Print Resolution

This function allows the user to choose the current print resolution.
If, after a particular resolution is chosen, the print data stream indicates a different resolution (e.g. via a WINDOWS print driver), the second print resolution will be used only for that job.



Panel display	Notes
[SOLID 166E]	Turn the printer OFF LINE with this key.
[Menu Level 1]	
• • •	Press the NEXT or PREVIOUS key until [Engine] is displayed.
[Engine]	Menu item Engine is selected.
[Resolution]	Menu item Resolution is selected.
[300 dpi]	
• • •	Press the NEXT or PREVIOUS key until the desired Resolution (e.g. 600 dots per inch) is displayed.
[600 dpi]	600 dpi resolution is selected.
[Save as Setup?]	In addition this new value can be saved as setup value (using the ENTER key), before the printer is turned ON LINE again.

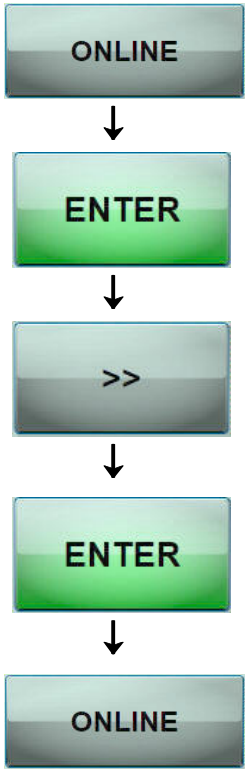
Remarks on choosing print resolution (Fonts):

By selecting 300 dpi resolution the printing system will be compatible for all applications (300 dpi data stream), also the 300 dpi font banks (bitmap writing) are available.

If 600 dpi resolution is chosen, the corresponding fonts must be loaded into the printer server (e.g. True Type fonts, scalable download fonts).

5.6. Hexdump - Mode Activation

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

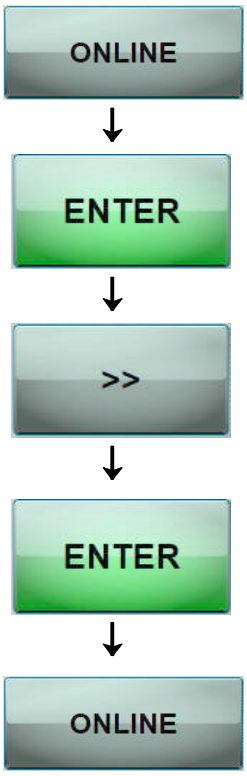


Panel display	Notes
[SOLID 166E]	
	Turn the printer OFF LINE with this key.
[Menu Level 1]	
	Menu Level 1 is selected.
[Status Sheet]	
• • •	Press the NEXT or PREVIOUS key until [Hexdump] is displayed.
[Hexdump]	
[Hexdump]	The Hexdump-Mode is activated.
	The printer is turned ON LINE again.

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

5.7. 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.

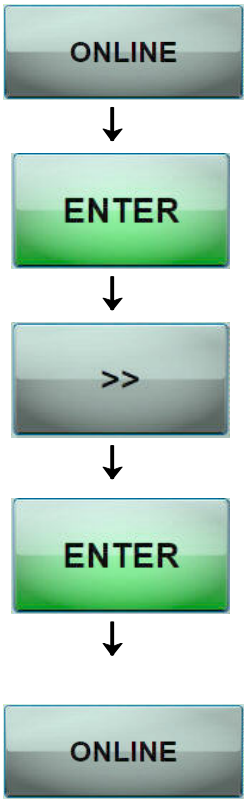


Panel display	Notes
[SOLID 166E]	
	Turn the printer OFF LINE with this key.
[Menu Level 1]	
	Menu Level 1 is selected.
[Status Sheet]	
• • •	Press the NEXT or PREVIOUS key until [Normal Print/FF] is displayed.
[Normal Print/FF]	
	The normal print mode is activated.
[Normal Print/FF]	
	The printer is turned ON LINE again.

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).

5.8. Clearing the Input Buffer (Cancel Job)

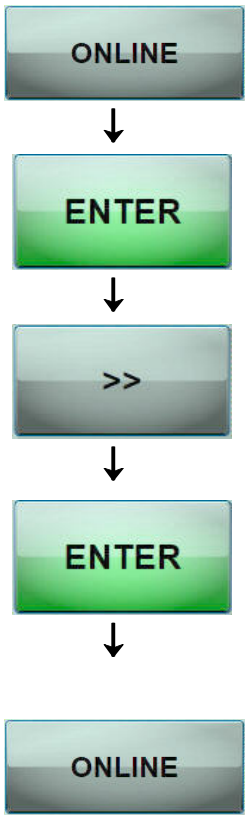
This function permits the resumption of a print job at a particular page after a print interruption (e.g. paper jam). The data contained in the input buffer before the interruption are cleared.



Panel display	Notes
[SOLID 166E]	Turn the printer OFF LINE with this key.
[Menu Level 1]	Menu Level 1 is selected.
[Status Sheet]	Press the NEXT or PREVIOUS key until [Cancel Job] is displayed.
• • •	
[Cancel Job]	
[Cancel Job]	All data contained in the input buffer will be cleared.
	The printer is turned ON LINE again.

5.9. Printing the Menu Page

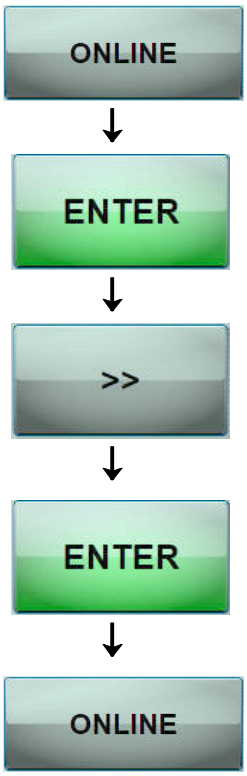
This function prints a survey of the available panel functions.
Note: When printing the menu page please use a large paper.



Panel display	Notes
[SOLID 166E]	
	Turn the printer OFF LINE with this key.
[Menu Level 1]	
	Menu Level 1 is selected.
[Status Sheet]	
	Press the NEXT or PREVIOUS key until [Menu Page] is displayed.
• • •	
[Menu Page]	
	A menu structure presentation of the SOLID 166E (see section 4.6) is printed.
[Menu Page]	
	The printer is turned ON LINE again.

5.10. 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.

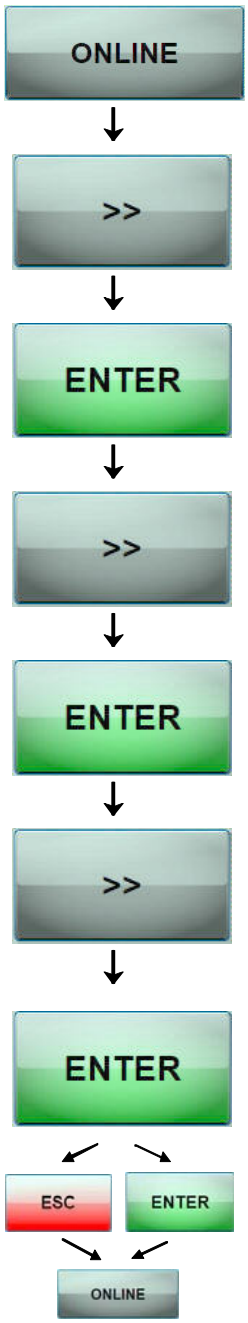


Panel display	Notes
[SOLID 166E]	Turn the printer OFF LINE with this key.
[Menu Level 1]	Menu Level 1 is selected.
[Status Sheet]	Press the NEXT or PREVIOUS key until [Sliding Pattern] is displayed.
• • •	
[Sliding Pattern]	
[Sliding Pattern]	A series of test prints is generated.
	The printer is turned ON LINE again.

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

5.11. Stacker Selection

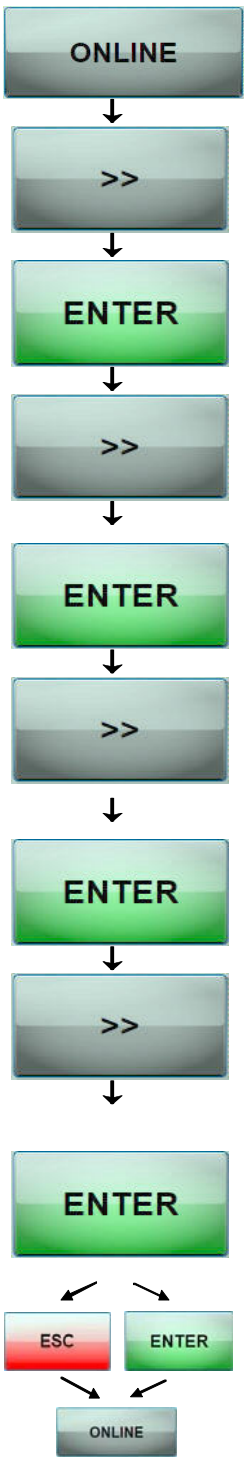
This function is used to choose the way of stacking, e.g. down to the stacker or up (that means above the stacker) to supply a post processing machine.



Panel display	Notes
[SOLID 166E]	
	Turn the printer OFF LINE with this key.
[Menu Level 1]	
• • •	Press the NEXT or PREVIOUS key until [Paper Menu] is displayed.
[Paper Menu]	
	Press the ENTER key to select the paper menu.
[Page Length]	
• • •	Press the NEXT or PREVIOUS key until [Stacker Select] is displayed.
[Stacker Select]	
	Menu item Stacker Select is chosen.
[Upper Stacker]	
• • •	Press the NEXT or PREVIOUS key until the desired stacker is displayed.
[Lower Stacker]	
	The lower stacker is selected.
[Save as Setup?]	In addition this new value can be saved as setup value (using the ENTER key), before the printer is turned ON LINE again..

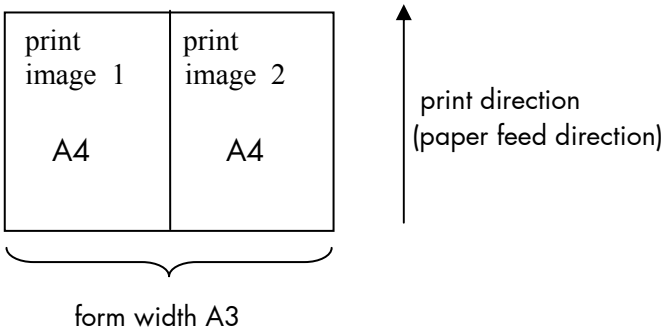
5.12. Selecting the Number of Printpages per Page Format (Two-Up Mode)

Activating this function determines the arrangement of several printpages per page format (paper width resp. page length).



Panel display	Notes
[SOLID 166E]	Turn the printer OFF LINE with this key.
[Menu Level 1]	Press the NEXT or PREVIOUS key until [Paper Menu] is displayed.
• • •	
[Paper Menu]	Press the ENTER key to select the paper menu.
[Page Length]	Press the NEXT or PREVIOUS key until [Two-Up Mode] is displayed.
• • •	
[Two-Up Mode]	Press the ENTER key to select the function Two-up mode.
[Y-Direction]	Operate the NEXT or PREVIOUS key to effect the adjustment of the two-up mode to the X-direction (cross to the print direction).
• • •	
[X-Direction]	Press the ENTER key to set the two-up mode.
[X-Direction: OFF]	By operating the NEXT or PREVIOUS key the number of print pages cross to the print direction can be altered. The maximum number of print pages being adjustable next to each other is 9.
• • •	
[X-Direction: 2]	Here the number of print pages per format width was altered to 2.
[Save as Setup?]	In addition this new value can be saved as setup value (using the ENTER key), before the printer is turned ON LINE again.

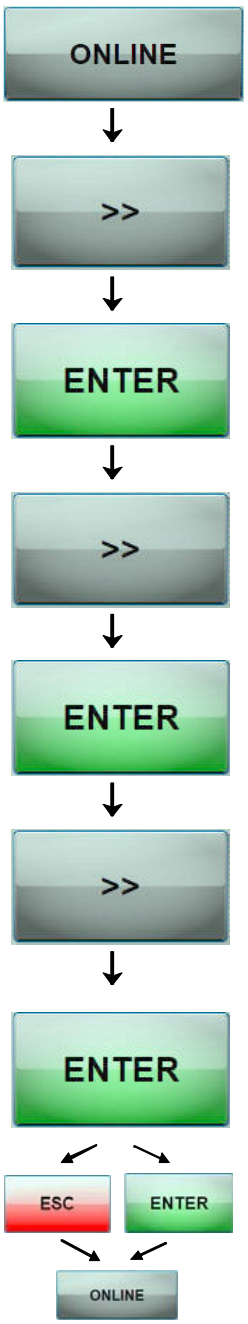
Example: The printer processes fanfold paper with a width of 17″.
When the Two-Up mode is chosen each time 2 images of A4 are printed side by side.



Note: All other page parameters have to be set optionally in accordance to the requirements.
A simultaneous combination of several print images per form length and several print images per form width isn't possible until now.

5.13. Print Direction Selection

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



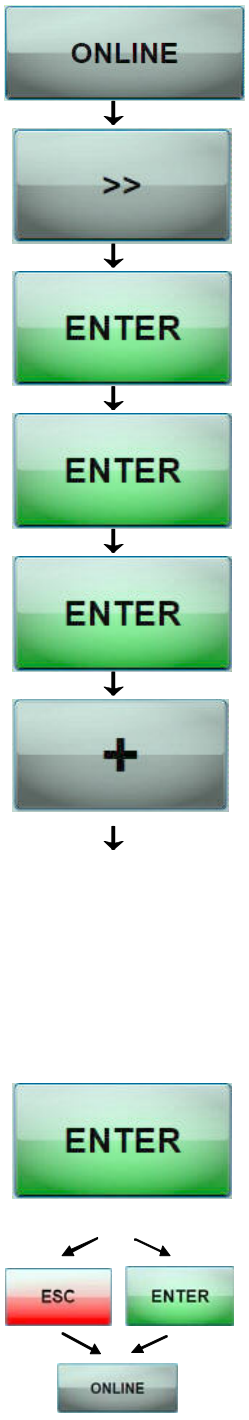
Panel display	Notes
[SOLID 166E]	Turn the printer OFF LINE with this key.
[Menu Level 1]	Press the NEXT or PREVIOUS key until [Paper Menu] is displayed.
• • •	
[Paper Menu]	
[Page Length]	Press the NEXT or PREVIOUS key until [Print Direct.] is displayed.
• • •	
[Print Direct.]	
[Print Direct. 0]	Press the NEXT or PREVIOUS key until the desired print direction is displayed.
• • •	
[Print Direct. 1]	The print direction 1 = landscape is selected.
[Save as Setup?]	In addition this new value can be saved as setup value (using the ENTER key), before the printer is turned ON LINE again.

Print direction assignment:

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

5.14. Data - Interface Configuration

This function is used to set the interface parameters.

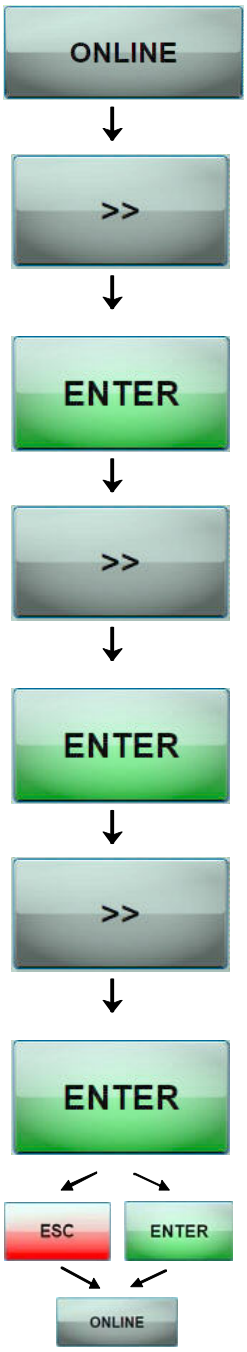


Panel display	Notes
[SOLID 166E]	Turn the printer OFF LINE with this key.
[Menu Level 1]	Press the NEXT or PREVIOUS key until [Configuration] is displayed.
• • •	
[Configuration]	
[Interface]	
[SIA Timeout]	
[Digit3 030]	The currently set value for he timeout is displayed (here: 30 seconds). Pressing the PLUS or MINUS key changes the value of the current digit (Digit 3 = left position, in this example: 0). Pressing the NEXT key moves you to the next digit (the PREVIOUS key moves you back, if need be). You can use the number block to set the function value, too.
• • •	
[Digit2 040]	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), before the printer is turned ON LINE again.

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

5.15. Emulation Selection

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



Panel display	Notes
[SOLID 166E]	Turn the printer OFF LINE with this key.
[Menu Level 1]	
• • •	Press the NEXT or PREVIOUS key until [Configuration] is displayed.
[Configuration]	
[Interface]	
• • •	Press the NEXT or PREVIOUS key until [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]	
[Save as Setup?]	The emulation HP PCL 5 is selected. In addition this new value can be saved as setup value (using the ENTER key), before the printer is turned ON LINE again.

Available emulations:

Standard:

MICROPLEX IDOL,
HP LaserJet (PCL 5),
Epson FX,
IBM Proprinter,
TIFF (CCITT group 4),
µPostscript

Optional:

Kyocera Prescribe,
Printronix IGP/PGL,
Diablo 630,
AGFA Reno,
S3000 Lineprinter,
HPGL (7475A),
DEC LN03+,
Tally MT 6xx,
Bull MP6090,
IDS/IDS2,
Datamax (FGL),
Eltron EPL2,
QMS (Magnum) Code V,
ANSI Genicom,
XEROX XES,
HP DesignJet (HPGL-2),
LDC (Label Description Language),
Express,
ZPL II (Zebra Programming Language)

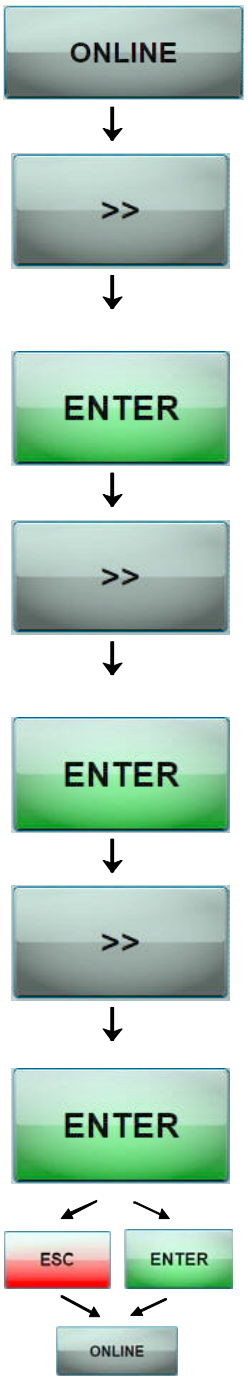
(More emulations on request)

Notice:

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

5.16. Display Language Selection

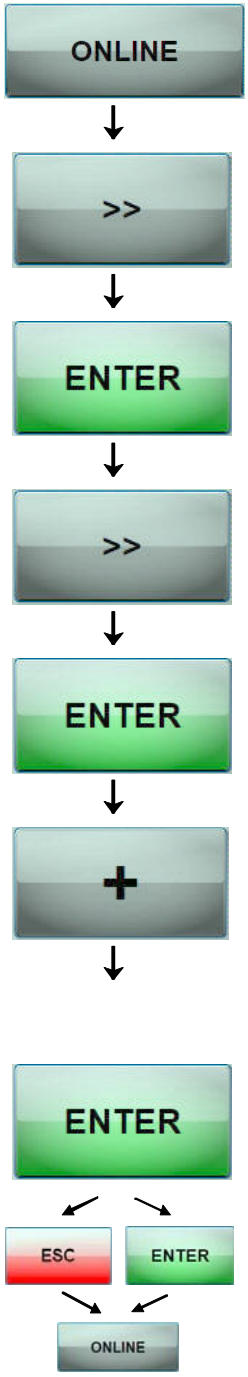
This function enables the user to determine the language for the display messages, the status sheet and the font list.



Panel display	Notes
[SOLID 166E]	Turn the printer OFF LINE with this key.
[Menu Level 1]	Press the NEXT or PREVIOUS key until [Configuration] is displayed.
• • •	
[Configuration]	
[Interface]	Press the NEXT or PREVIOUS key until [Language] is displayed.
• • •	
[Language]	
[German]	Press the NEXT or PREVIOUS key until the desired language (e.g. English) is displayed.
• • •	
[English]	The display language English is selected.
[Save as Setup?]	In addition this new value can be saved as setup value (using the ENTER key), before the printer is turned ON LINE again.

5.17. Transparent Code Adjustment

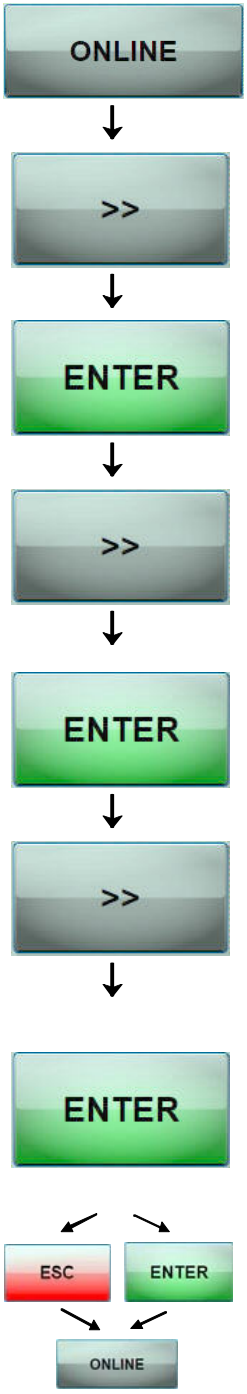
This function configures the transparent code. Using the transparent code enables you to initiate the commands of the page description language IDOL by **printable** characters. The transparent code pre-setting is 2625. These are the ASCII character codes (hexadecimal) for the characters &%. (ref. IDOL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



Panel display	Notes
[SOLID 166E]	Turn the printer OFF LINE with this key.
[Menu Level 1]	Press the NEXT or PREVIOUS key until [Configuration] is displayed.
• • •	
[Configuration]	
[Interface]	Press the NEXT or PREVIOUS key until [Transparent Code] is displayed.
• • •	
[Transparent Code]	
[Digit4 2625]	The hexadecimal numbers for &% are preset. Pressing the PLUS or MINUS key changes the value of the current digit (Digit4 = left position, in this example: 2). Pressing the NEXT key moves you to the next digit (the PREVIOUS key moves you back, if need be). You can use the number block to set the function value, too.
• • •	
[Digit1 2626]	2626 is selected as transparent code. From now on use the characters && before programming the IDOL commands.
[Save as Setup?]	In addition this new value can be saved as setup value (using the ENTER key), before the printer is turned ON LINE again.

5.18. Selection of Memory Distribution (Input Buffer)

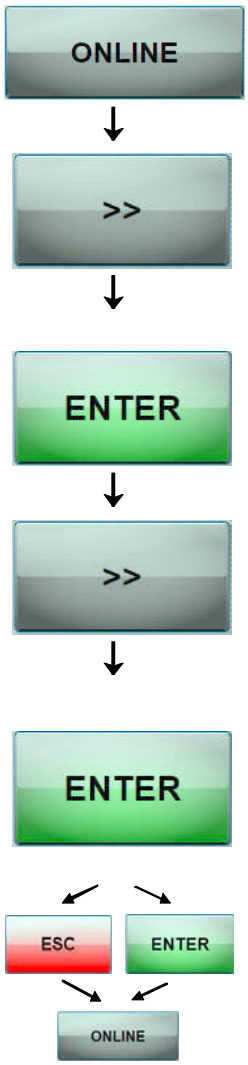
This function enables the user to choose the distribution of the available RAM memory between input buffer and macro/download memory.



Panel display	Notes
[SOLID 166E]	Turn the printer OFF LINE with this key.
[Menu Level 1]	Press the NEXT or PREVIOUS key until [Configuration] is displayed.
• • •	
[Configuration]	
[Interface]	Press the NEXT or PREVIOUS key until [Input Buffer] is displayed.
• • •	
[Input Buffer]	
[32 kB]	Press the NEXT or PREVIOUS key until the desired memory distribution is displayed. The input buffer size is specified in kilobyte (kB) or in percent of the installed memory.
• • •	
[100 kB]	100 kB is selected as input buffer.
[Save as Setup?]	In addition this new value can be saved as setup value (using the ENTER key), before the printer is turned ON LINE again.

5.19. Setting to Factory Default

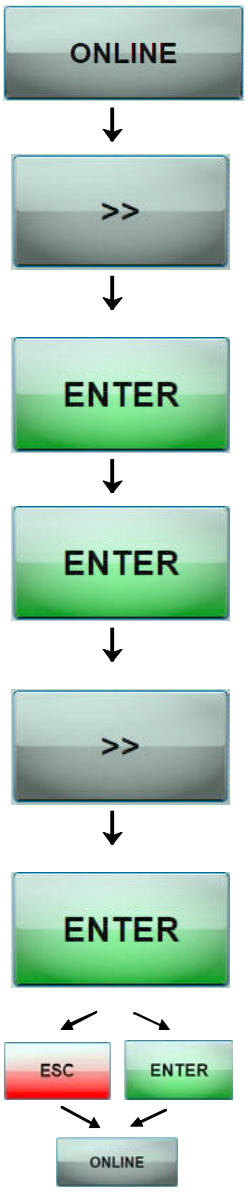
This function back-outs all configurations to factory defaults.



Panel display	Notes
[SOLID 166E]	Turn the printer OFF LINE with this key.
[Menu Level 1]	Press the NEXT or PREVIOUS key until [Configuration] is displayed.
• • •	
[Configuration]	
[Interface]	Press the NEXT or PREVIOUS key until [Factory Default] is displayed.
• • •	
[Factory Default]	
[Save as Setup?]	Only if you press the ENTER key a second time the configuration will be back-outed to factory defaults.
	The printer is turned ON LINE again.

5.20. Font Selection

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



Panel display	Notes
[SOLID 166E]	Turn the printer OFF LINE with this key.
[Menu Level 1]	Press the NEXT or PREVIOUS key until [Page Menu] is displayed.
• • •	
[Page Menu]	
[Font Number]	
[Font 0600]	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), before the printer is turned ON LINE again.

The **SOLID 166E 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.

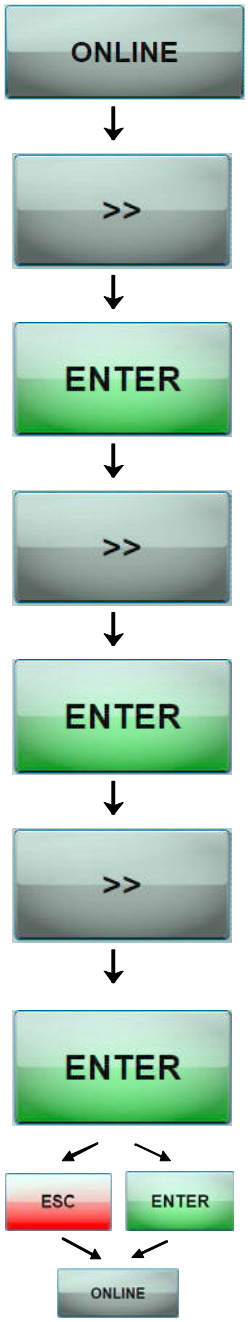
	Font no.	Font width	Font height	Font name
	0050	SC		Plakatschrift
	0590	SC		OCR /B
	0591	SC		OCR /A
	6600	SC		Juist Monospaced
PCL 5 compatible	0699	SC		Kurilen
	1700	SC		Kurilen Italic
	1800	SC		Kurilen Bold
	1900	SC		Kurilen Bold Italic
	5500	SC		Langeoog
	5600	SC		Langeoog Bold
	5700	SC		Langeoog 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 5.4) to generate a list of all fonts installed to the printer.

5.21. Text Orientation Selection

This function selects the active text orientation.



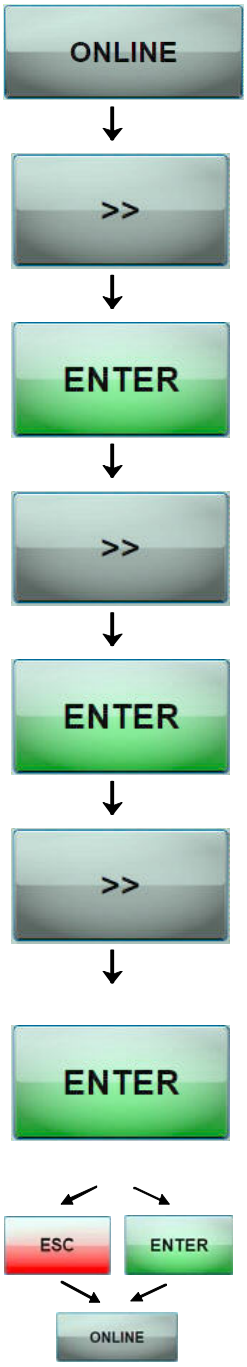
Panel display	Notes
[SOLID 166E]	Turn the printer OFF LINE with this key.
[Menu Level 1]	Press the NEXT or PREVIOUS key until [Page Menu] is displayed.
• • •	
[Page Menu]	
[Font Number]	Press the NEXT or PREVIOUS key until [Orientation] is displayed.
• • •	
[Orientation]	
[Orientation 0]	Press the NEXT or PREVIOUS key until the desired orientation is displayed.
• • •	
[Orientation 1]	The orientation 1 = Landscape is selected.
[Save as Setup?]	In addition this new value can be saved as setup value (using the ENTER key), before the printer is turned ON LINE again.

Text orientation assignment:

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

5.22. Symbol Code Selection

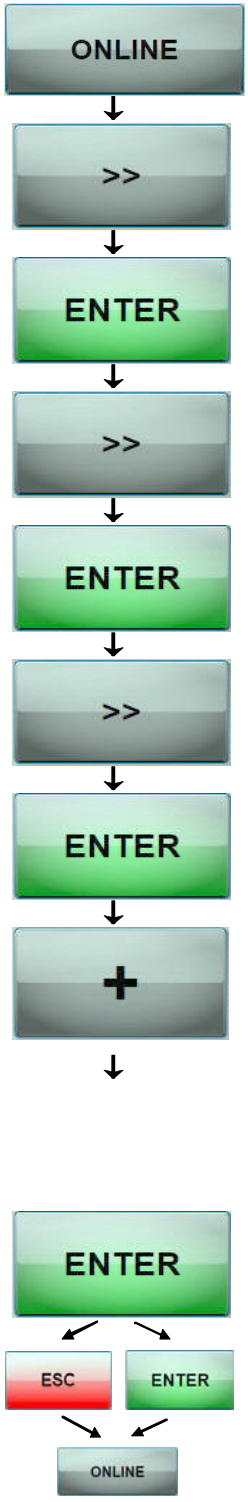
This function selects the active symbol code.



Panel display	Notes
[SOLID 166E]	Turn the printer OFF LINE with this key.
[Menu Level 1]	Press the NEXT or PREVIOUS key until [Page Menu] is displayed.
• • •	
[Page Menu]	
[Font Number]	Press the NEXT or PREVIOUS key until [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), before the printer is turned ON LINE again.

5.23. Configuration of Text Margins

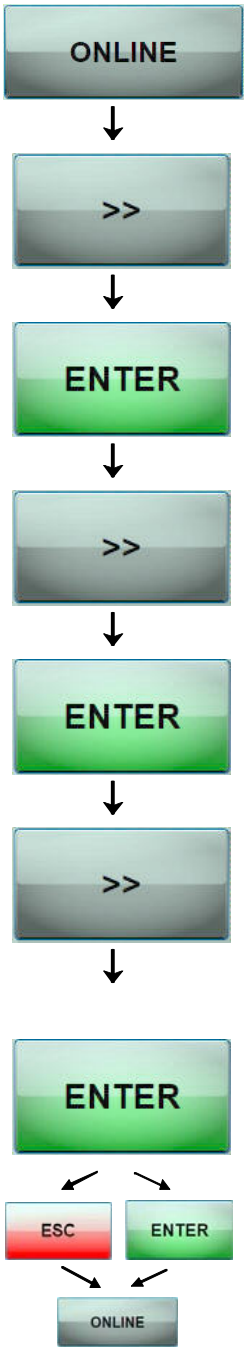
This function sets text margins. Margins are expressed in dots at the concerning edge of the paper.



Panel display	Notes
[SOLID 166E]	Turn the printer OFF LINE with this key.
[Menu Level 1]	Press the NEXT or PREVIOUS key until [Page Menu] is displayed.
• • •	
[Page Menu]	
[Font Number]	Press the NEXT or PREVIOUS key until [Margin] is displayed.
• • •	
[Margin]	
[Left]	Press the NEXT or PREVIOUS key until the desired margin is displayed.
• • •	
[from Right]	
[Digit4 0089]	Pressing the PLUS or MINUS key changes the value of the current digit (Digit 4 = left position, in this example: 0). Pressing the NEXT key moves you to the next digit (the PREVIOUS key moves you back, if need be). You can use the number block to set the function value, too.
• • •	
[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), before the printer is turned ON LINE again.

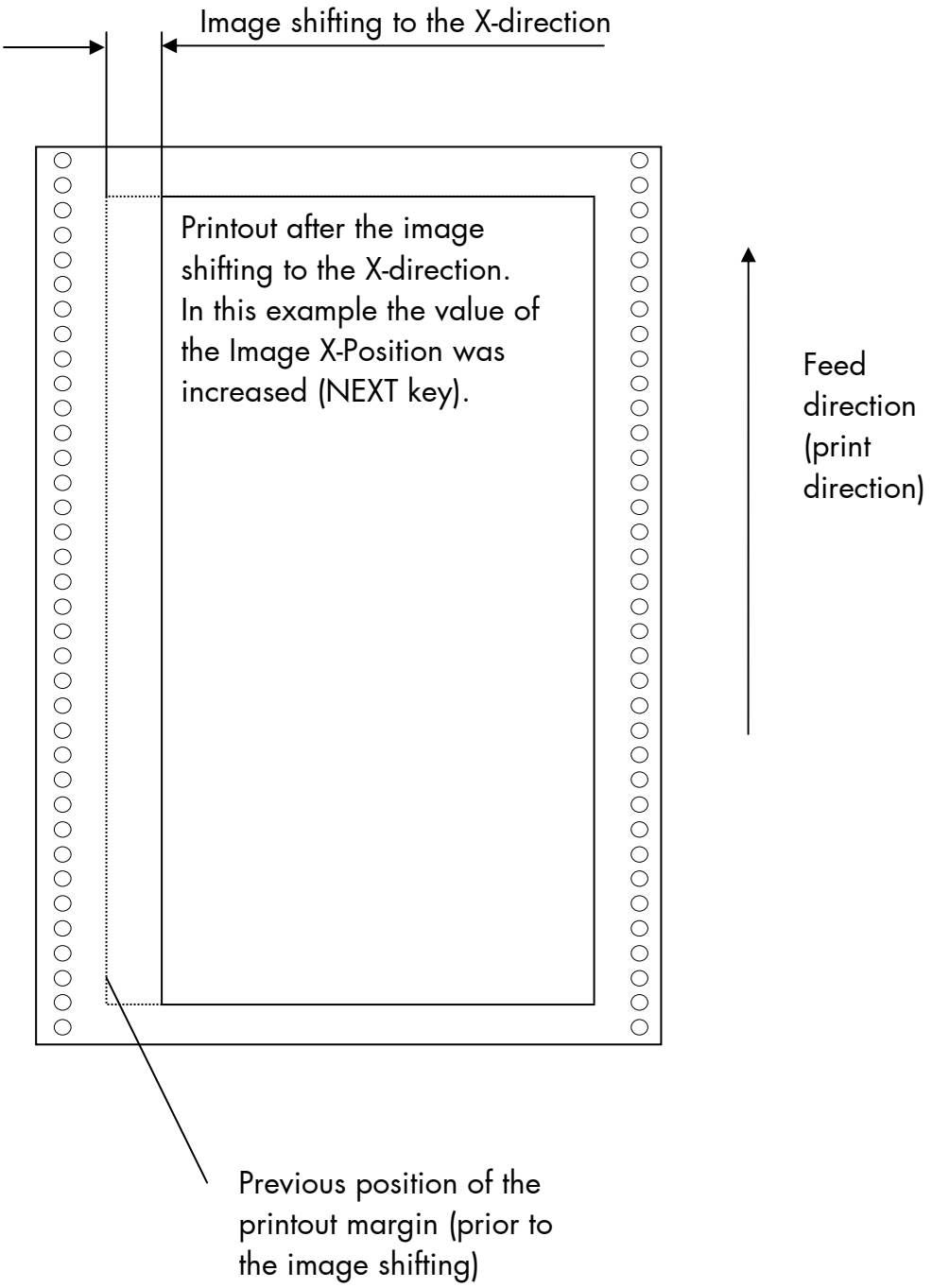
5.24. Image Shifting to the X-Direction

This function shifts the print image in relation to the paper to the X-direction (crosswise the print direction). Because the paper feed is always centered to the middle in the SOLID 166E, the image shifting might be necessary when using e.g. special paper formats to shift the X-coordinate zero to the left paper edge.



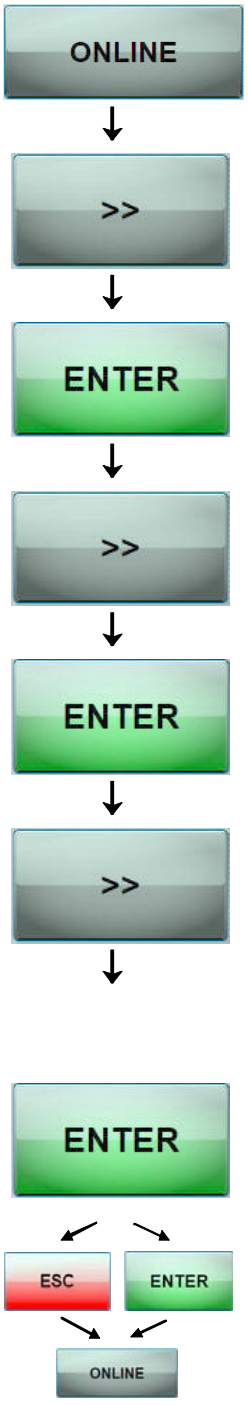
Panel display	Notes
[SOLID 166E]	Turn the printer OFF LINE with this key.
[Menu Level 1]	Press the NEXT or PREVIOUS key until [Engine] is displayed.
• • •	
[Engine]	
[Resolution]	Press the NEXT or PREVIOUS key until [Image X-Pos.] is displayed.
• • •	
[Image X-Pos.]	The panel function Image Shifting to the X-Direction is selected.
[Image X-Pos. xxx]	xxx = currently set value. (Default value =128). Operating the NEXT or PREVIOUS key the value for the image shift can be altered. Values from 0 up to 254 are settable, so a max. image shifting of appr. ±1 ¼ Inch (approx. ±32 mm) can be reached.
• • •	
[Image X-Pos. 160]	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), before the printer is turned ON LINE again.

Example for shifting the image to the X-direction:



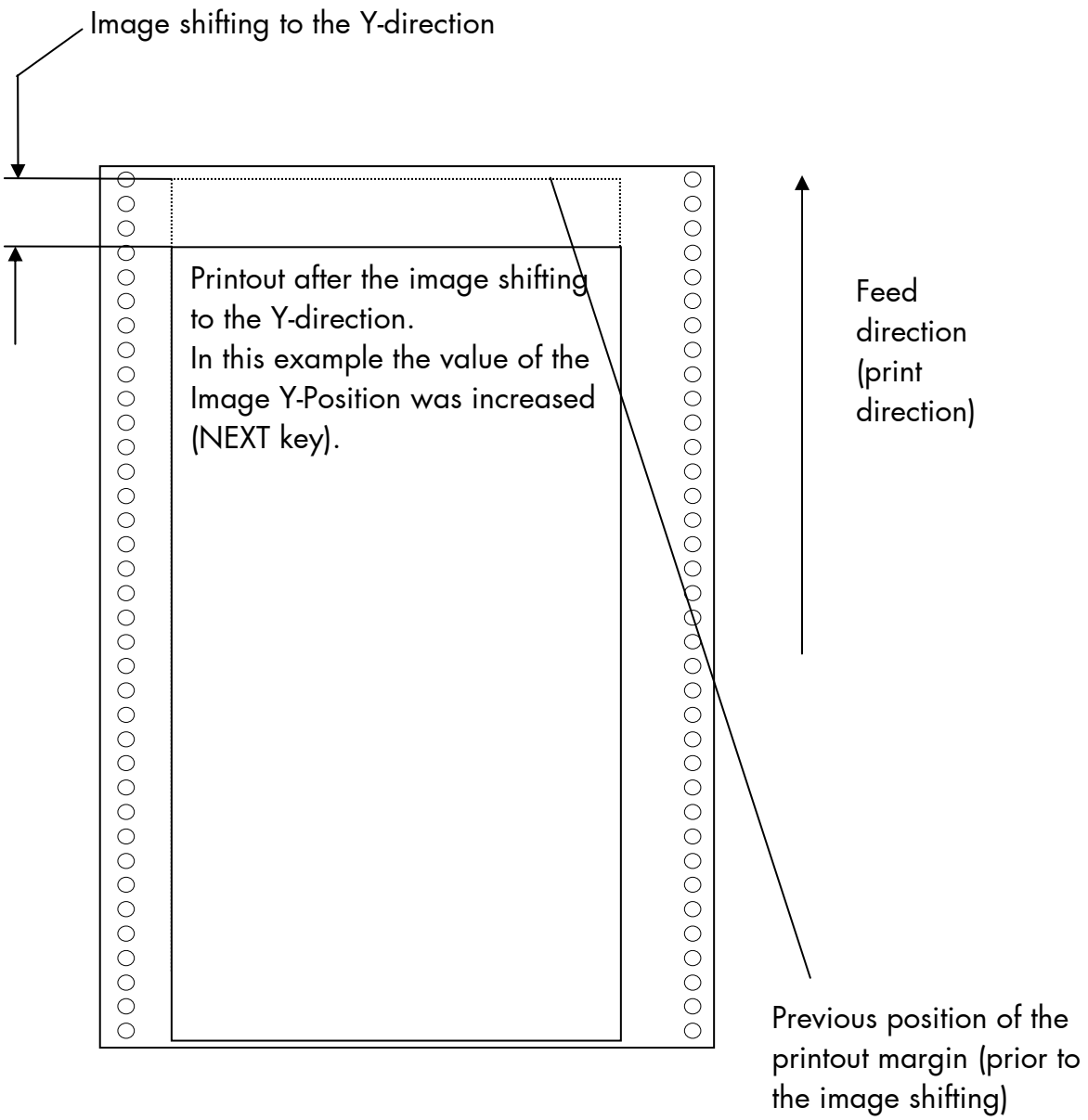
5.25. Image Shifting to the Y-Direction

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



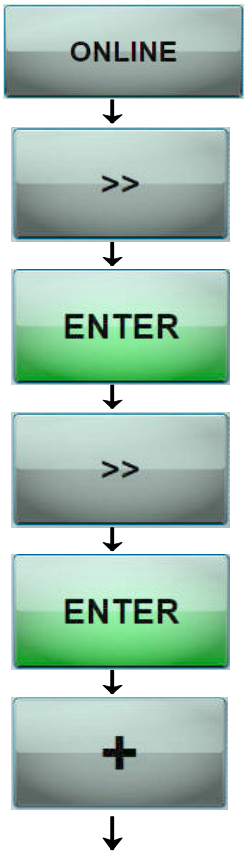
Panel display	Notes
[SOLID 166E]	Turn the printer OFF LINE with this key.
[Menu Level 1]	Press the NEXT or PREVIOUS key until [Engine] is displayed.
• • •	
[Engine]	
[Resolution]	Press the NEXT or PREVIOUS key until [Image Y-Pos.] is displayed.
• • •	
[Image Y-Pos.]	The panel function Image Shifting to the Y-Direction is selected.
[Image Y-Pos. yyy]	yyy = currently set value. (Default value = 128). Operating the NEXT or PREVIOUS key the image can be shifted relative to the paper. Values from 0 up to 254 are settable, so a max. image shifting of approx. ± 1 ¼ Inch (approx. ± 32 mm) can be reached.
• • •	
[Image Y-Pos. 190]	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), before the printer is turned ON LINE again.

Example for shifting the image to the Y-direction:

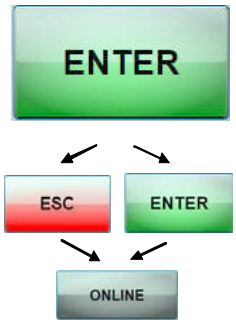


5.26. Lines per Inch Setting (Line Spacing)

This function sets the number of lines per inch. This setting is effective only in case of using the printer as a line printer.
With a small number of lines per inch, line spacing will be relatively large. (Ref. IDOL Programming Manual).

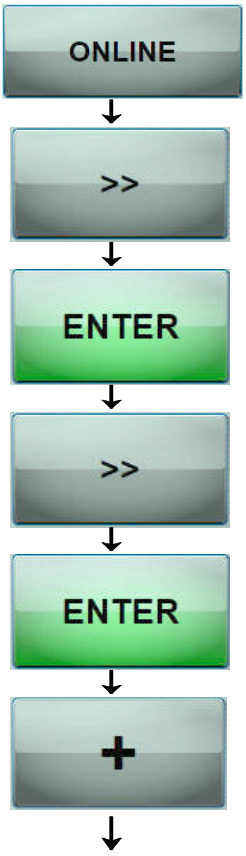


Panel display	Notes
[SOLID 166E]	
	Turn the printer OFF LINE with this key.
[Menu Level 1]	
	Press the NEXT or PREVIOUS key until [Page Menu] is displayed.
• • •	
[Page Menu]	
[Font Number]	
	Press the NEXT or PREVIOUS key until [Line Spacing] is displayed.
• • •	
[Line Spacing]	
[Digit4 0̲06.5]	6.5 lpi = currently set value. (**l**ines **p**er **i**nch). Pressing the PLUS or MINUS key changes the value of the current digit (Digit 4 = left position, in this example: 0). Pressing the NEXT key moves you to the next digit (the PREVIOUS key moves you back, if need be). You can use the number block to set the function value, too.
• • •	
[Digit1 010.0̲]	
	The number of lines per inch was increased to 10 lpi.
[Save as Setup?]	
	In addition this new value can be saved as setup value (using the ENTER key), before the printer is turned ON LINE again.

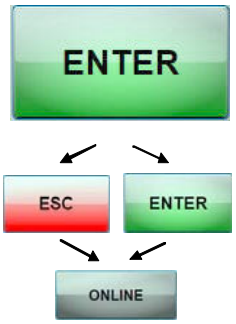


5.27. Number of Characters per Inch Setting (Character Spacing)

This function sets the number of characters per inch. This setting is effective only in case of using a line printer emulation.
With a small number of characters per inch, character spacing will be relatively large. (Ref. IDOL Programming Manual).



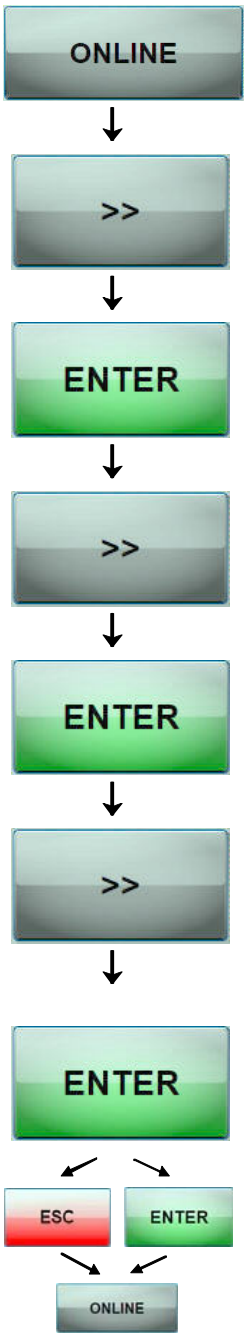
Panel display	Notes
[SOLID 166E]	Turn the printer OFF LINE with this key.
[Menu Level 1]	Press the NEXT or PREVIOUS key until [Page Menu] is displayed.
• • •	
[Page Menu]	
[Font Number]	Press the NEXT or PREVIOUS key until [Char. Spacing] is displayed.
• • •	
[Char. Spacing]	
[Digit4 013.3]	13.3 cpi = currently set value. (**c**haracters **p**er **i**nch). Pressing the PLUS or MINUS key changes the value of the current digit (Digit 4 = left position, in this example: 0. Pressing the NEXT key moves you to the next digit (the PREVIOUS key moves you back, if need be). You can use the number block to set the function value, too.
• • •	
[Digit1 012.0]	The number of characters per inch was reduced to 12 cpi.
[Save as Setup?]	In addition this new value can be saved as setup value (using the ENTER key), before the printer is turned ON LINE again.



5.28. Print Density Setting

Using this function the density of the printed characters can be changed.

Selecting a low print density value reduces the amount of toner on the printed page. This may help lower the cost of printing.

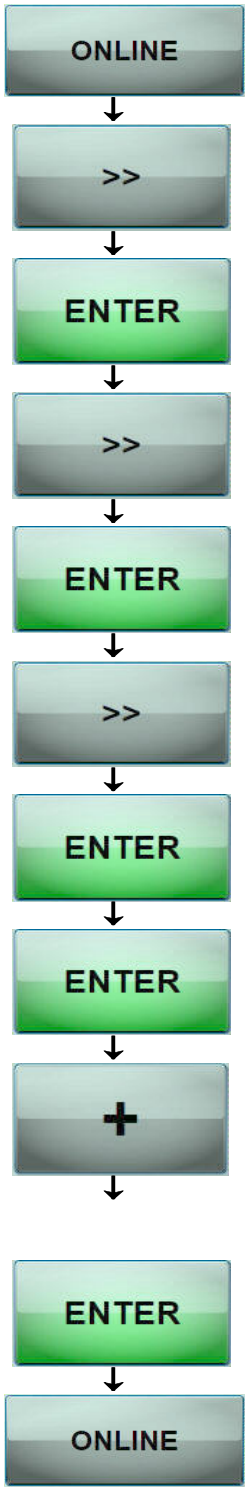


Panel display	Notes
[SOLID 166E]	Turn the printer OFF LINE with this key.
[Menu Level 1]	
• • •	Press the NEXT or PREVIOUS key until [Engine] is displayed.
[Engine]	
[Resolution]	
• • •	Press the NEXT or PREVIOUS key until [Print Density] is displayed.
[Print Density]	
[Print Density 96]	96 = currently set value. (Default value = 88).
• • •	Press the NEXT or PREVIOUS key to change the density. Values from 0 up to 152 are settable.
[Print Density 104]	The print density is increased, the print image gets darker. Now the new value is saved.
[Save as Setup?]	In addition this new value can be saved as setup value (using the ENTER key), before the printer is turned ON LINE again.

5.29. 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
[SOLID 166E]	Turn the printer OFF LINE with this key.
[Menu Level 1]	Press the NEXT or PREVIOUS key until [Network] is displayed.
• • •	
[Network]	Press the ENTER key to select the Network menu.
[Timeout]	Press the NEXT or PREVIOUS key until [IP Assign] is displayed.
• • •	
[IP Assign]	Press the ENTER key to select the IP Assign menu.
[Off]	The currently set configuration 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 PLUS or MINUS key changes the value of the current digit (left digit first, in this example: 1). Pressing the NEXT key moves you to the next digit (the PREVIOUS key moves you back, if need be). You can use the number block to set the function value, too.
• • •	
[192.168.010.123]	The new IP address is saved as setup value.
[Saved !]	The printer is turned ON LINE again.

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 4.6 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.

6. Operator Maintenance

In order to run the printer always 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 untrained person is not allowed to perform these operations.

Please note:
The printer is provided with a drum counter.
Although this counter only records the revolutions of the drum, the meter readings can be used to calculate values for the "number of pages". For every conversion you have to know the page length of the printjob and to consider the following:
One digit of the counter corresponds to a page length of 14.8 inch, because this is the circumference of the drum.

Example: If 30,000 pages of 12"x17" have been printed the number shown by the counter is approx. 25,000.

6.1. Pre-Operation Check

To prevent occurrences of reduced print quality or accuracy, such as smear on white background, black vertical lines, defective print position, etc., the pre-operation check is to be performed. If any dirt is found, perform the printer cleaning.
Furthermore, to prevent occurrences of defects mentioned above at an early stage, observe the cleaning intervals (see next section).

1. Open the front cover, then check whether or not paper dust or toner has been stacked on the environs of the tractor, of the transfer/transport unit, of the power stacker.

2. Remove the main charger, the transfer charger, and the pre-charger from the engine, then check whether or not wires are stained black. (Compare section 6.2.2.)

3. Concerning the transfer/transport unit, turn the green lever of transfer/transport unit counterclockwise, and then pull out the transfer/transport unit outwardly after confirming that the transfer unit is in the down position. Check whether or not paper dust has been stacked in the concave on the transport surface.

4. Lower the transport surface of the transfer/transport unit.

5. Before pulling out the fuser unit the bracket (see following figure) has to be disassembled.

Caution: It is not allowed to use the printer while the bracket is disassembled.

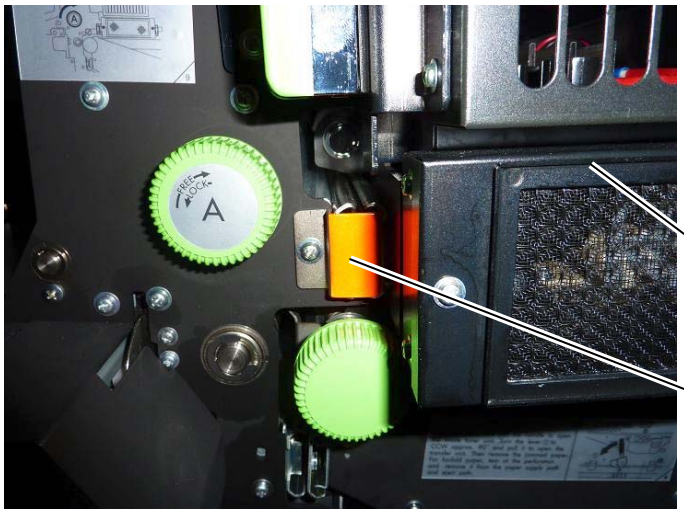


Fig. 6.1.a Disassembling the bracket of the fuser unit

6. Pull out the fuser unit from the engine.

7. After that, turn the fuser unit counterclockwise, check whether or not the glass surface is stained black by toner, and whether or not paper dust has been stacked on the glass surface.

6.2. Printer Cleaning

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

After the printing of about 30,000 pages of 12″x17″(print density 4 %; compare chapter 9 Specifications) the components listed in this chapter should be cleaned. (For some components different values for the number of pages are valid; see following pages).

For safety disconnect the printer from the main power first. Make sure the components 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. Please do only use the auxiliary materials being contained inside the cleaning kit.

When the desired print quality is not obtained even after those cleaning operations, replace the Chargers for improvement. (Keep them in storage if necessary.)
When the desired print quality is still not obtained, please call for a MICROPLEX authorized service engineer.

6.2.1. Cleaning the Printer Cabinet

- Please use a soft, lint-free cloth, which has been moistured with water or a neutral detergent if necessary to remove dust and grease from the printer cabinet.

- Please be especially careful to avoid damaging the mechanical or electronic components.

6.2.2. Cleaning the Printer Interior

Turn off the SOLID 166E printer and disconnect the printer from the main power. Make sure, the printer has been switched off for at least 15 minutes before you start cleaning.
Please be especially careful to avoid damaging the mechanical or electronic modules.

The following cleaning operations should always be performed before the installation of a new toner cartridge (see also section 6.3 Replacing the Toner Cartridge).

If there are any toner residues on the print pages, please do also perform a cleaning of the printer interior.

1. Disconnect the printer from the mains and let it cool down for at least 15 minutes.

2. Remove all toner residues, paper dust etc. in the area of the paper feeder (tractor) and the paper outlet with an anti-static service vacuum cleaner.

3. Open the two front covers of the printer.

Fig. 6.2.2.a Opening the front covers

4. Push down the open lever of the waste toner bottle unit, pull the green handle and open the unit.

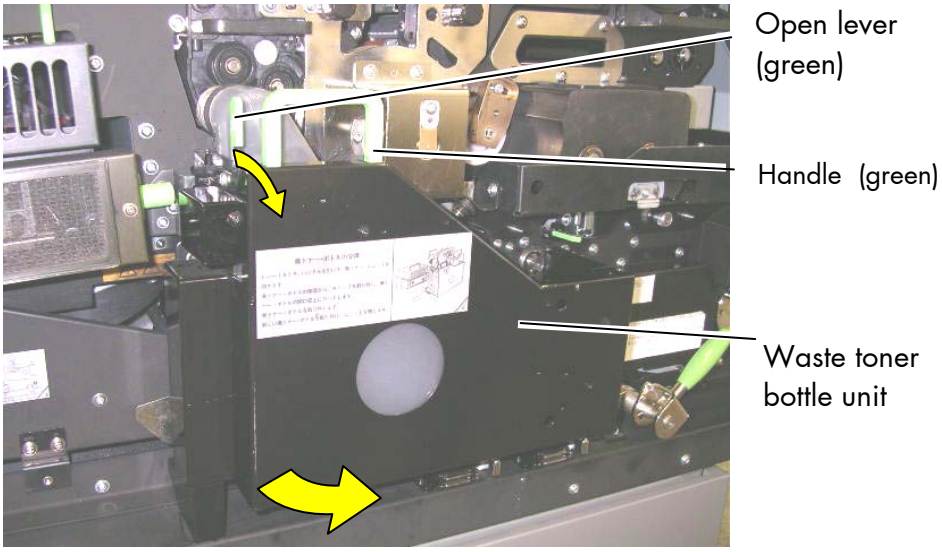


Fig. 6.2.2.b Opening the waste toner bottle unit

5. Remove the toner residues from the environment of the waste toner bottle unit with an anti-static service vacuum cleaner.

6. Clean the Main Charger
   a. Find the green knob below the Main Charger.
   b. Pull the cleaning rod out horizontally to the limit and then push it back in (while holding the knob, see figure below).
   c. Repeat this 5 times.

Caution: Do not pull the cleaning rod too hard not to damage the main charger.

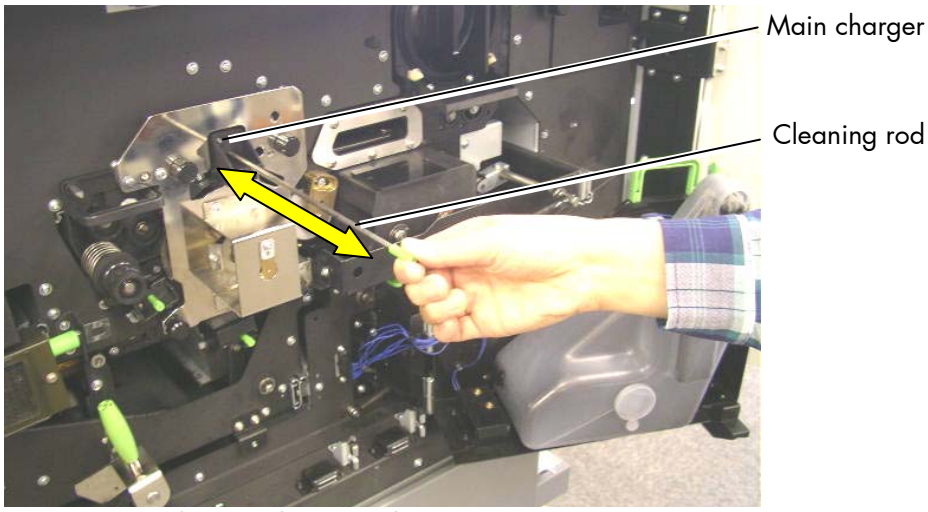


Fig. 6.2.2.c Cleaning the main charger

7. Clean the Transfer Charger
   a. Find the green knob below the Transfer Charger.
   b. Pull the cleaning rod out horizontally to the limit and then push it back in (while holding the knob, see figure below).
   c. Repeat this 5 times.

Caution: Do not pull the cleaning rod too hard not to damage the transfer charger.

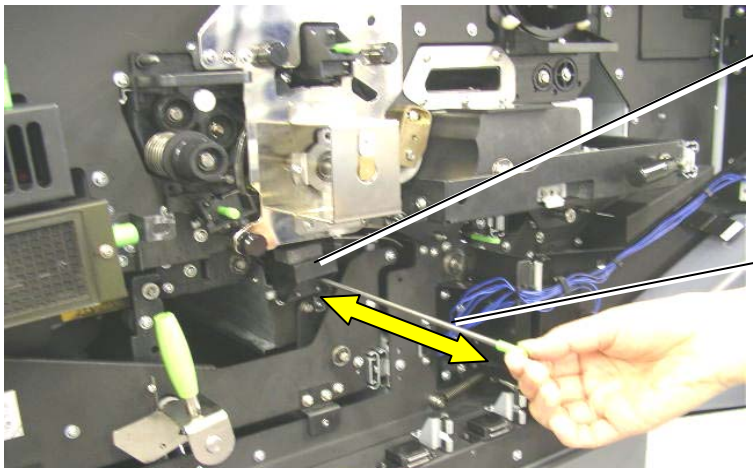


Fig. 6.2.2.d Cleaning the transfer charger

8. Clean the Pre-Charger
   a. Find the green knob below the Pre-Charger.
   b. Pull the cleaning rod out horizontally to the limit and then push it back in (while holding the knob, see figure below).
   c. Repeat this 5 times.

Caution: Do not pull the cleaning rod too hard not to damage the pre-charger.

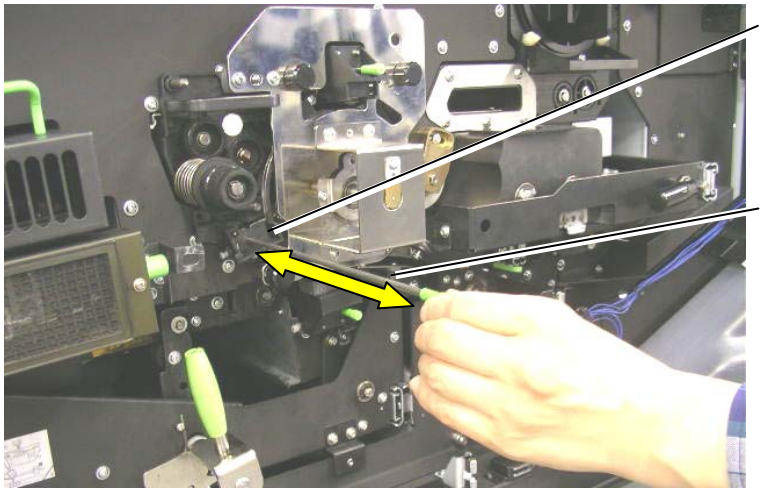


Fig. 6.2.2.e Cleaning the pre-charger

9. Remove the waste toner bottle.

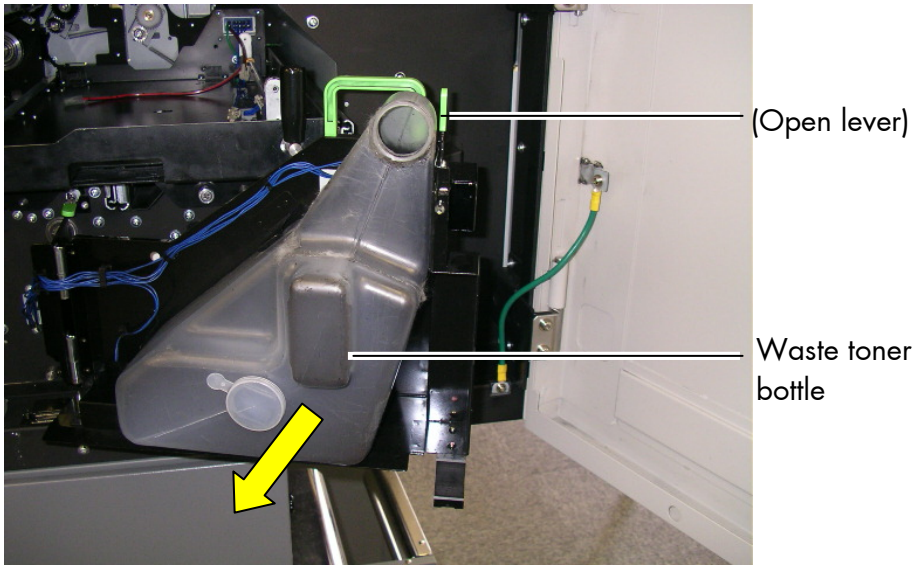


Fig. 6.2.2.f Waste toner bottle unit opened

10. Clean this area of the waste toner bottle unit, too.

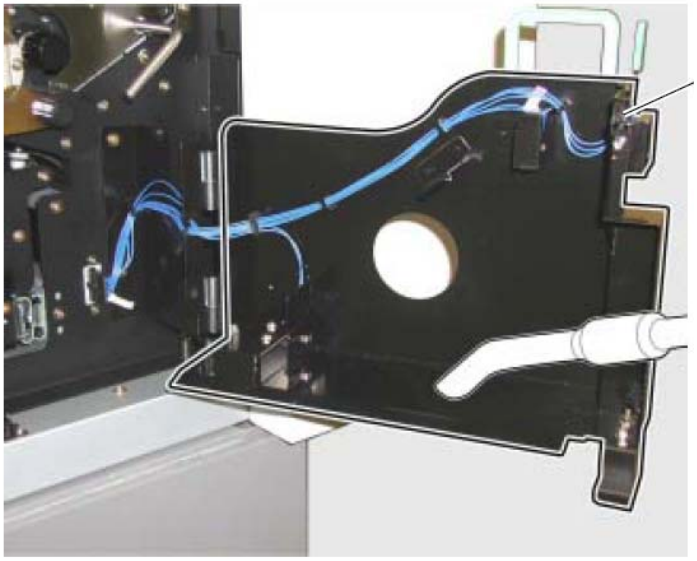


Fig. 6.2.2.g Cleaning the inside of the waste toner bottle unit

11. Reassemble the waste toner bottle.

12. Using an anti-static service vacuum cleaner, pick up any dirt on the developer unit or toner cartridge.

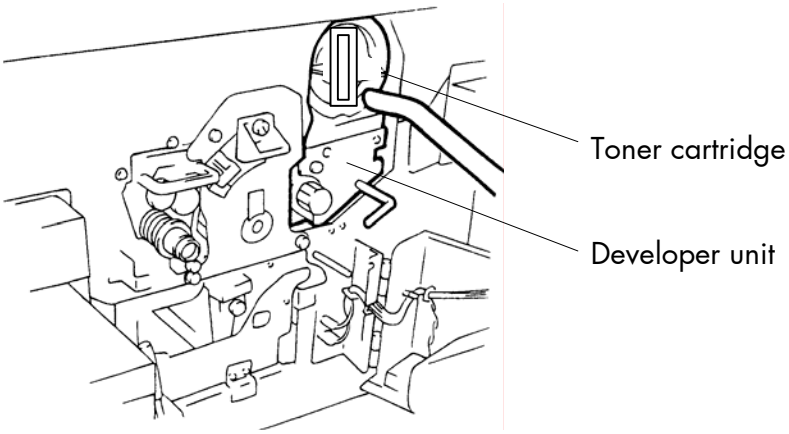


Fig. 6.2.2.h Cleaning the area of the developer unit

13. Clean the drum cleaning unit and the elements around it in the same way.

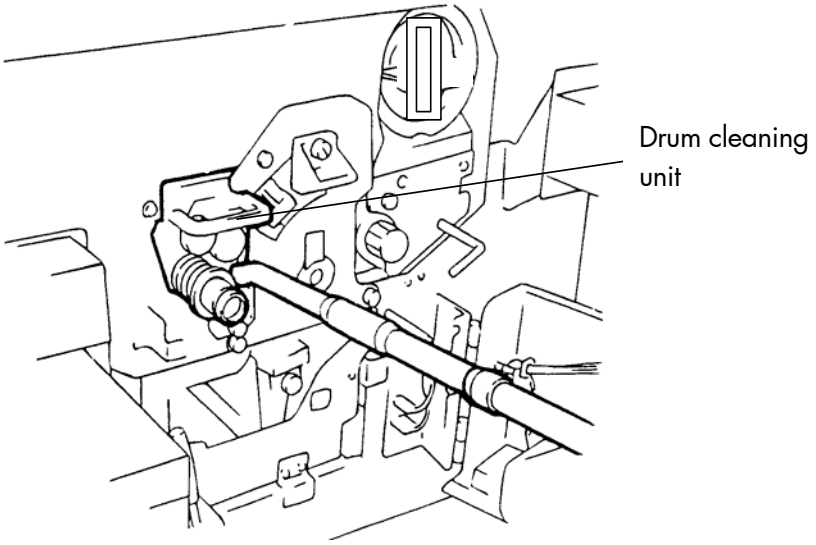


Fig. 6.2.2.i Cleaning the area of the drum cleaning unit

14. Also vacuum the fuser unit and the area around it.

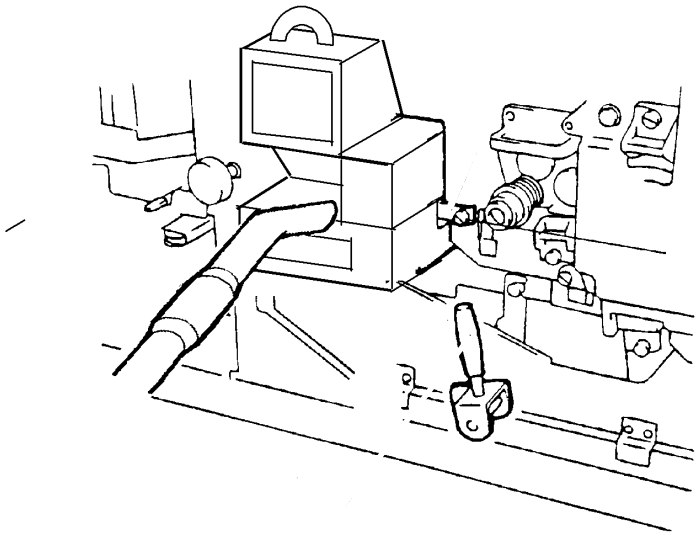


Fig. 6.2.2.j Cleaning the area of the fuser unit

15. Close the waste toner bottle unit.

Make sure the bar has engaged.

16. Close the two front covers of the printer.

Make sure the front covers are completely closed.

6.3. Replacing the Toner Cartridge

Replace the toner cartridge when the message [TONER EMPTY !] is displayed. With one toner filling approximately 30,000 pages of 12"x17" with a print density of 4 % can be printed.

Only use consumables that have been approved for use with this device.
To avoid soiling your hands please wear protective gloves during this operation. Take care not to spill any toner inside the printer.

a) Removing the old toner cartridge

1. Prepare a place to put the spent toner cartridge. For example, you might put it in a small plastic trash bag or on sheets of paper. The spent toner cartridge will give off black toner dust.

Please wear vinyl gloves to avoid dirty hands when replacing the cartridge.

2. Open the two front covers of the printer.

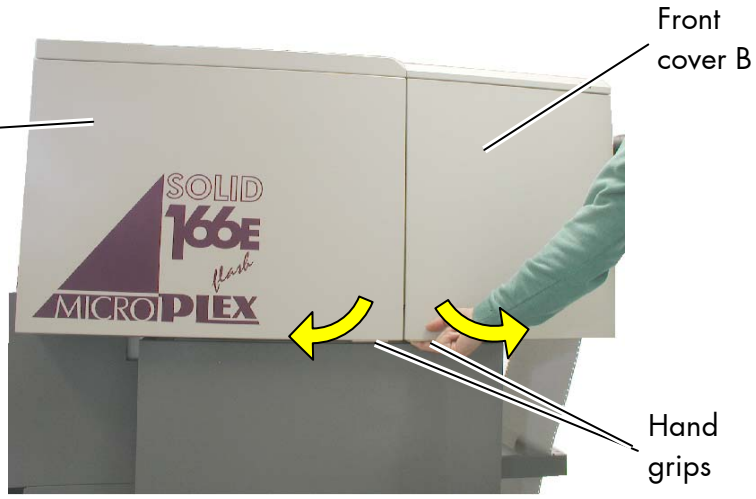


Fig. 6.3.a Opening the front covers

3. Use the handle (compare figure 6.3.b) to rotate the used toner cartridge 180° counterclockwise until it stops.

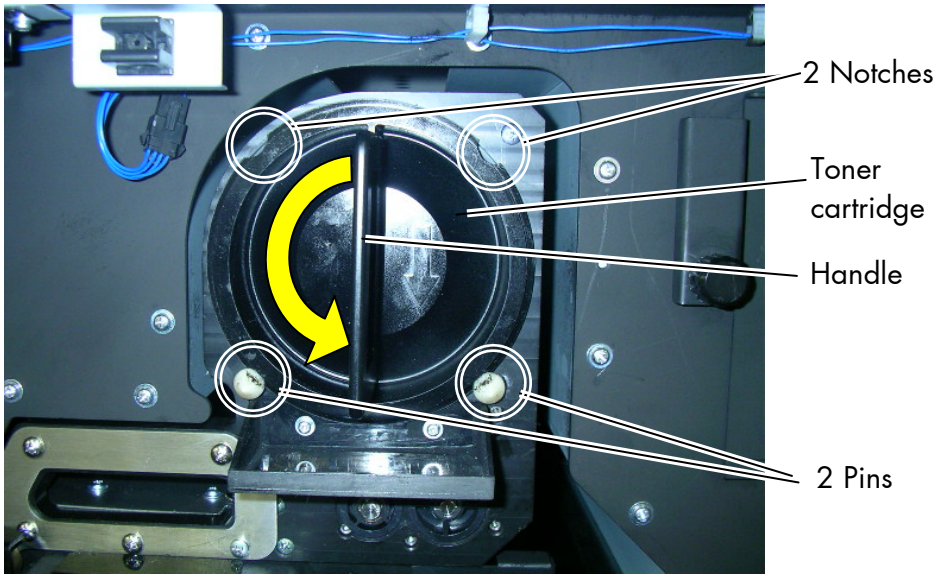


Fig. 6.3.b Rotating the toner cartridge

4. Slowly pull the used toner cartridge out of the printer and put it in the place you prepared for it.

Please use your second hand to hold the cartridge.

5. Wrap up the used toner cartridge so it doesn't spill toner dust. Lead the old toner cartridge to a duly disposal.

b) Performing a cleaning of the printer interior

The description can be found in chapter 6.2.2.

c) Inserting the new toner cartridge

6. Take the new toner cartridge out of the packing and hold it as shown in figure 6.3.c (plastic sealing tape point upward).

7. Shake the new cartridge gently 3 or 4 times by performing horizontal movements to distribute the toner.

Fig. 6.3.c Shaking the new toner cartridge

8. Now take the new toner cartridge and position it in front of the corresponding opening of the printer.

9. Put the end of the new cartridge into the SOLID 166E toner hopper with the adhesive tape facing up.

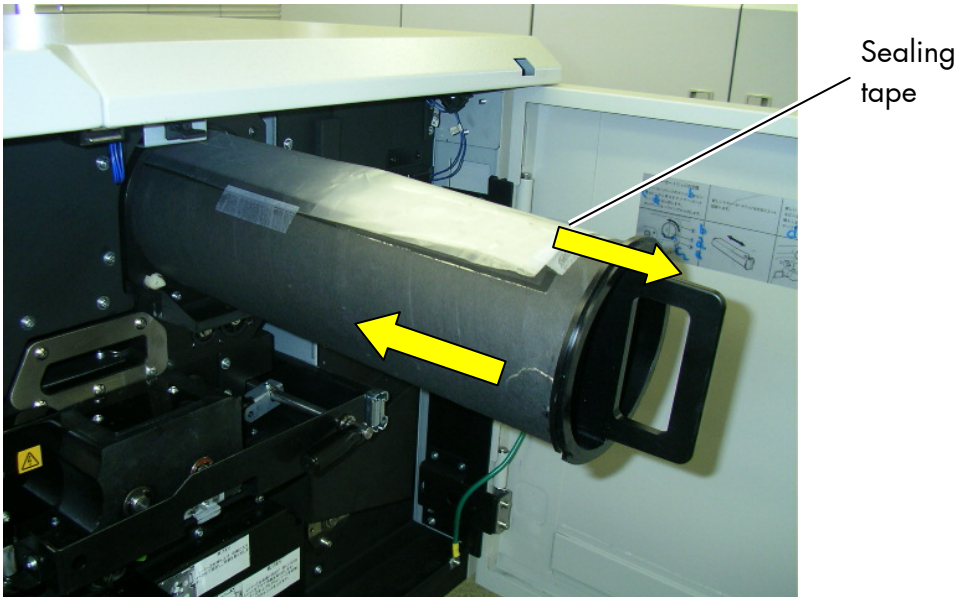


Fig. 6.3.d Inserting the new toner cartridge

10. Slide the toner cartridge slowly into the device and pull off the plastic seal (adhesive tape) at the same time (see arrows in the figure above).

Hint: Roll or fold the sealing strip as you pull. This avoids snapping the sealing strip when it reaches the end of the toner cartridge and scattering any loose toner on the sealing strip.

11. Completely remove the plastic seal and discard it.

12. Align the two toner cartridge notches with the two developing unit pins (see following figure).

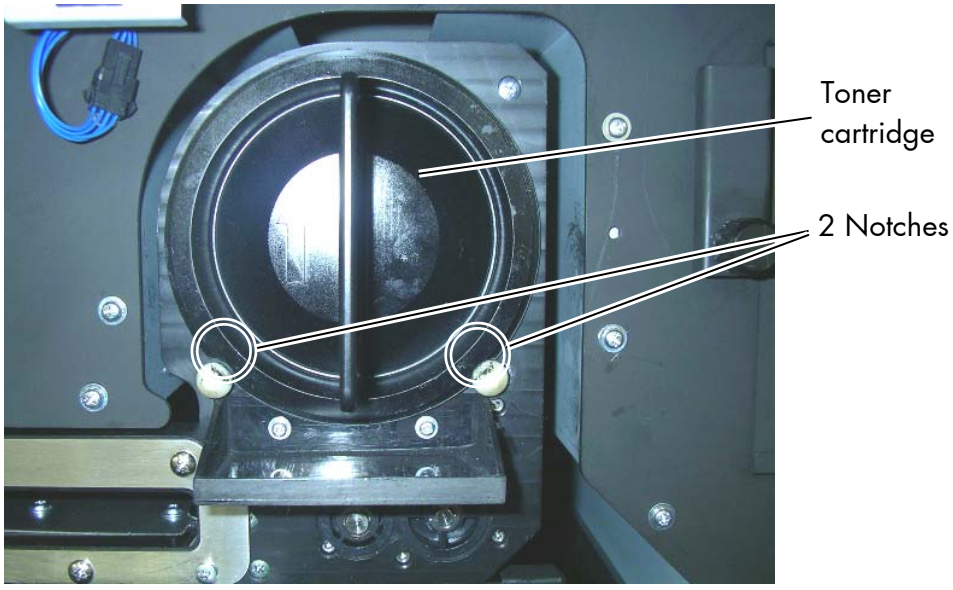


Fig. 6.3.e Aligning the new toner cartridge

13. Now you are able to slide the cartridge completely into the device until it stops.

d) Dropping toner into the developer unit

14. Use the handle (compare the following figure) to rotate the new toner cartridge 180° clockwise until it stops.

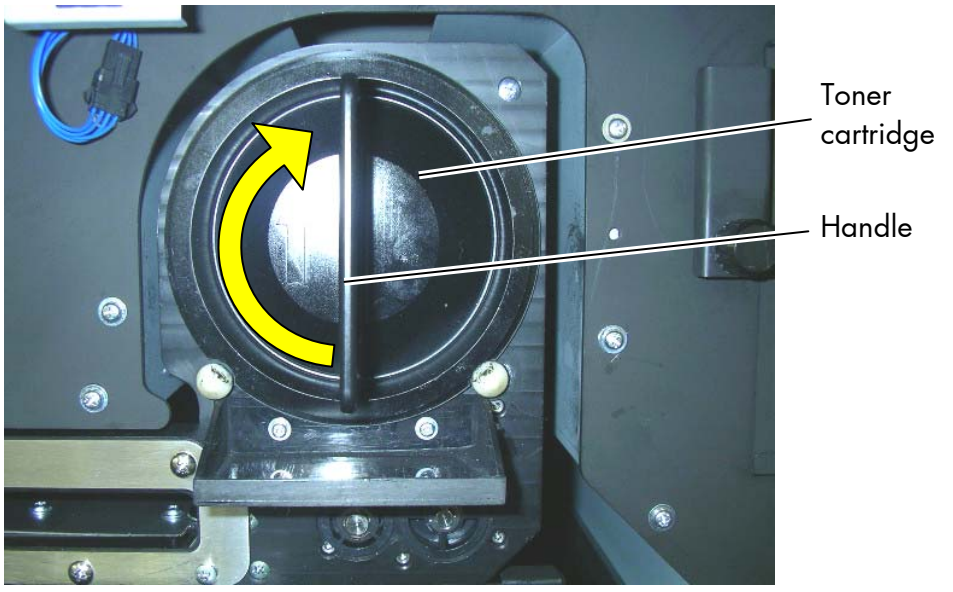


Fig. 6.3.f Rotating the new toner cartridge

This effects that the toner falls out of the toner cartridge into the developer unit.

Now the toner cartridge's handle should be vertical and the toner cartridge is locked into position (compare figure 6.3.f).

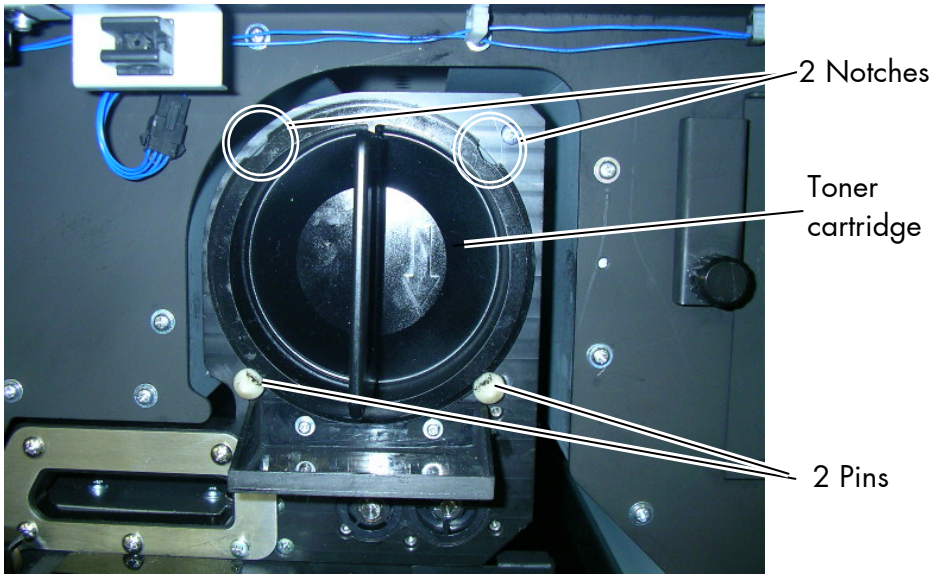


Fig. 6.3.g Toner cartridge locked into position

15. Close the two front covers of the printer.
    Make sure the front covers are completely closed.

The announcement [TONER EMPTY!] will be extinguished.

The toner is easily combustible and should never come in contact with fire. Disposal will be carried out by your service engineer. Until disposal please store the old cartridge in a vinyl bag in a closed cardboard box.

Now replace the waste toner bottle if need be (see next section).

6.4. Replacing the Waste Toner Bottle

The waste toner bottle has to be replaced every third time the toner cartridge is replaced (compare section 6.3).
Exchange the waste toner bottle immediately, if the message [Toner Waste !] is displayed.

Approximately 100,000 pages of 12"x17" with a print density of 4 % can be printed until the waste toner bottle is filled.

1. Open the two front covers of the printer.

2. Push down the open lever of the waste toner bottle unit, pull the green handle and open the unit.

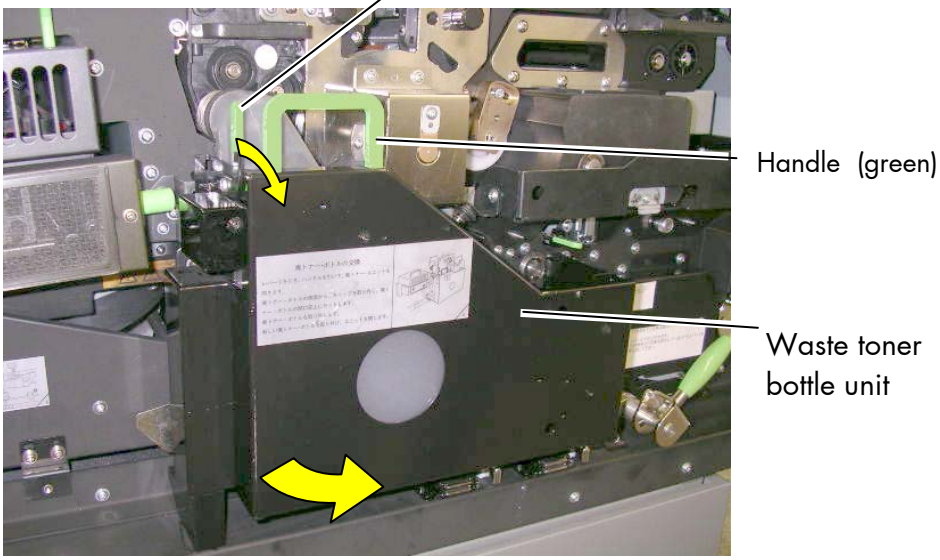


Fig. 6.4.a Opening the waste toner bottle unit

The waste toner bottle unit is provided with two sensors (compare figure 6.4.b).

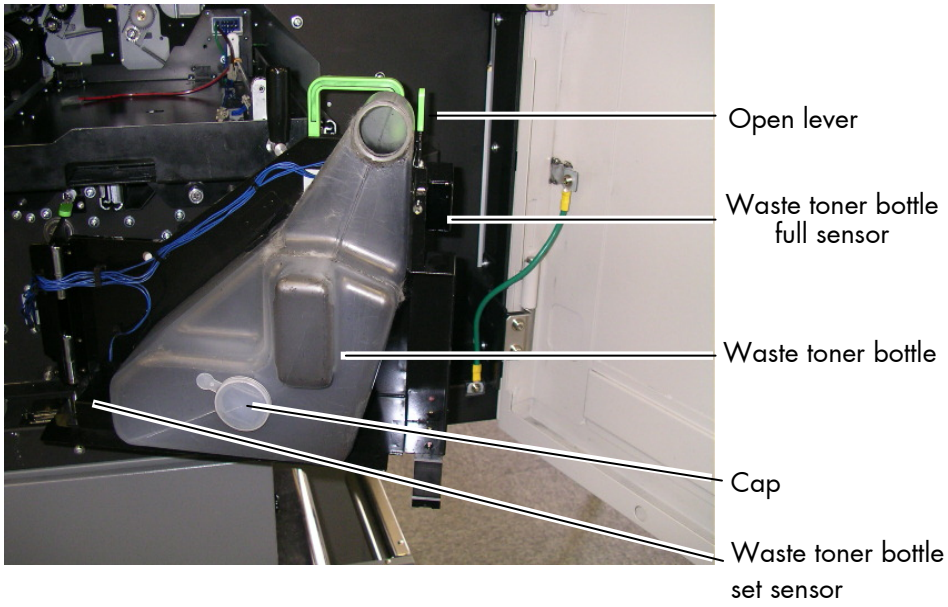


Fig. 6.4.b Waste Toner Bottle unit opened

3. Close the filled waste toner bottle using the cap located at the center of the waste toner bottle (compare figure 6.4.b and figure 6.4.c).

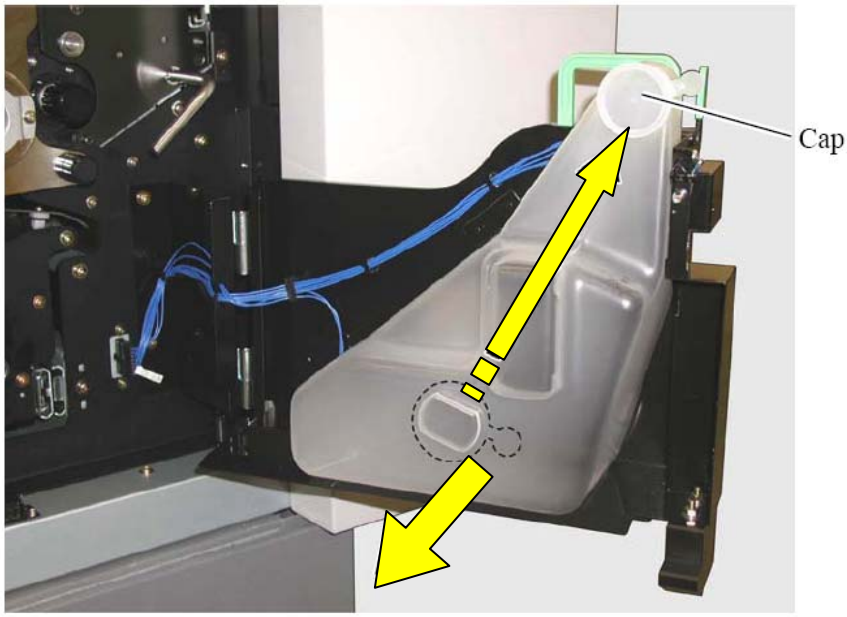


Fig.6.4.c Using the cap to close the filled bottle

4. Remove the old waste toner bottle from the printer (compare lower arrow in the figure above).

5. Remove all toner residues, paper dust etc. in the area of the waste toner bottle unit with an anti-static service vacuum cleaner.

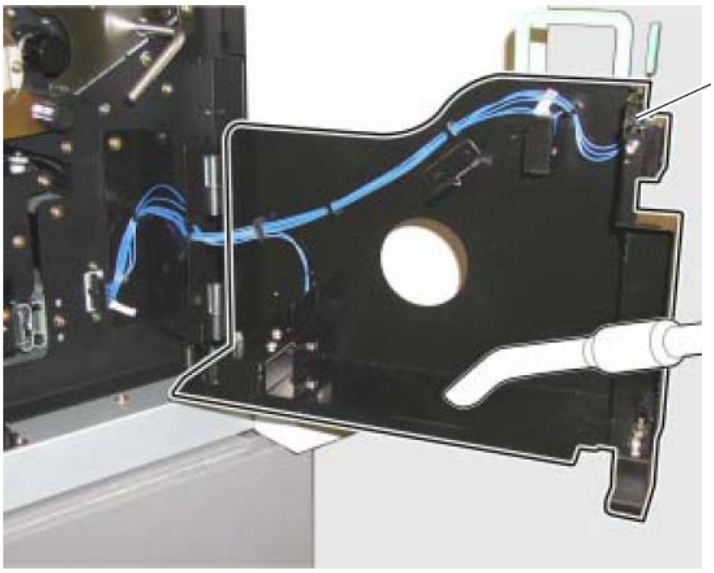


Fig. 6.4.d Cleaning the inside of the waste toner bottle unit

6. Take a new waste toner bottle and insert this bottle into the waste toner bottle unit.

7. Close the waste toner bottle unit.

   Make sure the bar has engaged.

8. Close the two front covers of the printer.
   Make sure the front covers are completely closed.

The announcement [Toner Waste !] will be extinguished.

The waste toner is easily combustible and should never come in contact with fire. Disposal will be carried out by your service engineer. Until disposal please store the old waste toner bottle in a vinyl bag in a closed cardboard box.

7. Troubleshooting

When an error occurs, a corresponding error message is displayed on the touch panel (see section 7.3).

Please address the problems described in section 7.1 to 7.4 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 in the following sections 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 (descriptions on the following pages). That helps to localize the error more quickly.

If an error message indicates a paper jam, a print repetition will be necessary.
The printer is provided with an automatic jam safety routine to prevent a loss of information.
This automatical jam safety routine can also be switched off, if the user wants to take up the print job at a passage chosen by himself (see section 5.8 Clearing the Input Buffer).

7.1. Error during the Print Process

Defect	Remedy
Printer does not work	- Check the power supply, switch on the device. - Make sure all covers of the device (e.g. the front cover) are completely closed. - Pay attention to the panel messages (see section 7.3). - Check if the paper has been inserted correctly (see chapter 3).
Frequent paper jams	- Make sure all paper is removed from the paper path after a paper jam. - Pay attention to all information in section 7.4: Clearing Paper Jam
Stacker errors	- See section 3.2.8 Troubleshooting (Stacker)

If the remedies above are not successful or there is an error message that is not described on the following pages please switch off the device and contact a MICROPLEX authorized service engineer.

7.2. Reduced Print Quality

Defect	Remedy
One side of the printout too light	- Adjust the horizontal position of the printer.
Printout too light	- If the message [Toner Empty!] is displayed: Replace the toner cartridge (see section 6.3: Replacing the Toner Cartridge). - Do not use damp paper. - If you want to print on special paper: please choose a more appropriate paper type if necessary. - Check the environment conditions and change them if necessary. Pay attention to the admissible values for atmospheric humidity, temperature etc, see also section 2.3: Environment and Power Standards.
Toner residues on the printouts	- Clean the printer (see section 6.2: Printer Cleaning).

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

Hint: Fanfold material cannot be printed in the area of the sprocket holes, even in the distance up to 5mm around the sprocket holes a reduced print quality has to be expected.

7.3. Error Messages

In the following the individual error messages that may appear on the display are shown in the following systematic manner:

[Error message] Short description
[Error code] Remedy

[COVER OPEN!] **[E0001]**	The front cover has not been closed completely. Please close it completely.
[PAPER END!] **[E0002]**	There is no more fanfold paper on the tractor. Replace the fanfold paper (see chapter 3).
[PAPER JAM!] **[E0003]**	Paper jam in the fusing section. Remove the jammed paper (see section 7.4).
[PAPER JAM!] **[E0004]**	Paper jam behind the fusing section. Remove the jammed paper (see section 7.4).
[PAPER JAM!] **[E0005]**	Paper jam in the exit unit. Remove the jammed paper (see section 7.4).
[PAPER JAM!] **[E0007]**	1) Knob "A" (scuff roller) is free. Turn knob "A" counterclockwise to lock (see section 7.4.2). 2) The paper path is open. Use the lever (located left side of knob “A” in a distance of about 3cm; compare section 7.4.2) to close the paper path.
[Tract.Guide Open!] **[E000F]**	The tractor guide is open. Close the tractor guide.
[PAPER JAM!] **[E0011]**	There is still paper within the separator unit. Remove the paper (compare section 7.4).
[PAPER JAM!] **[E0012]**	There is still paper within the fuser unit. Remove the paper (compare section 7.4).

[PAPER JAM!] **[E0013]**	There is still paper within the exit unit. Remove the paper (compare section 7.4).
[PAPER JAM!] **[E0016]**	Paper jam within the feeding unit. Remove the jammed paper (compare section 7.4) and press the key PARK FANFOLD.
[TONER WASTE!] **[E0028]**	The waste toner bottle is full. Replace the bottle with a new one (see section 6.4).
[TONER WASTE!] **[E0029]**	There is no waste toner bottle within the unit. Insert a waste toner bottle (see section 6.4).
[TONER EMPTY!] **[E002A]**	There is no more toner within the cartridge. Insert a new toner cartridge (see section 6.3).
[PAPER TRAY FULL!] **[E0056]**	The power stacker is full. Please remove the paper.
[STACK ERROR!] **[E005X]**	X = 4,5,7,8,9,A,B,C An error occurred at the power stacker. The number "X" indicates, what kind of error occurred (see section 7.3.1 Error codes and section 3.2.8 Troubleshooting (Stacker)).

7.3.1. Error Codes

The following printer errors will be displayed in the panel by a hex number only and the additional word "ERROR".
Only a MICROPLEX authorized operator or service engineer should address the printer problems listed in the following table (error code E009 and so on).

Error code	Description
E0001	Front cover open
E0002	No fanfold paper on the tractor
E0003	Paper jam within the fuser unit
E0004	Paper jam behind the fuser unit
E0005	Paper jam in the paper exit
E0007	Paper Transport roller is free (knob C) or paper path is open
E0008	Paper path is open
E0009	Transport motor does not work normally
E000A	Cut motor does not work normally (at the front)
E000B	Cut motor does not work normally (at the rear)
E000C	Transport motor does not work normally (no up position)
E000D	Transport motor does not work normally (no down position)
E000F	Tractor guide open
E0011	Paper does not leave the separator unit
E0012	Paper does not leave the fuser unit
E0013	Paper does not leave the paper exit
E0014	Tractor speed is not normal (too fast)
E0015	Tractor speed is not normal (too slow)
E0016	Position of fanfold paper is not normal
E0017	High voltage providing is not normal
E0018	Drum motor does not work normally
E0019	Surface potential is not normal (too high)
E001A	Surface potential is not normal (too low)
E001B	Locking device is defect (locking signal for the tractor cannot be released)
E001E	Flash power is not normal
E001F	Flash is missing
E0020	Fuser unit is too hot
E0026	Cleaning unit is missing
E0028	Waste toner bottle is full
E0029	Waste toner bottle is missing
E002A	No toner

Error code	Description
E002B	Toner density is not normal (too high)
E002C	Toner density is not normal (too low)
E0032	LED head is too hot
E0038	RAM is not normal
E0039	Exeption interruption is not normal
E003A	Bus error
E003B	Address error
E003C	Undefined order
E003D	0 Division interruption
E003E	CHK order interruption
E003F	TRAPV order interruption
E0040	TRAP interruption is not used
E0041	Auto vector interruption is not used
E0042	Null task
E0043	Monitor overrun
E0044	Privileged command
E0045	Spurious command
E0046	Interruption during interruption vector initializing
E0047	Macro error
E0048	Communication error with the controller (overrun error)
E0049	Communication error with the controller (parity error)
E004A	Communication error with the controller (framing error)
E004B	Communication error with the controller (command error)
E004C	Video data input error
E004D	No power supply for the controller
E0050	Communication error at the power stacker (overrun error)
E0051	Communication error at the power stacker (parity error)
E0052	Communication error at the power stacker (framing error)
E0053	Communication error at the power stacker
E0054	Error at the locking device of the power stacker
E0055	Fanfold paper is not folded
E0056	Stacker is full
E0057	Stacker is not ready
E0058	No auto mode
E0059	Stacker capacity is exceeded
E005A	Motor rotation is not normal
E005B	Power stacker is active
E005C	Error at the stacker

7.4. Clearing Paper Jam

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

Please note:
- The fuser unit and the components next to it become very hot. Because of this let the printer cool down first.
- To avoid soiling your clothes please be especially careful with the components carrying toner.

Please regard the following information to avoid resp. remove a paper jam:

- Check if the paper has been inserted correctly (see chapter 3).

- Check if the paper is impeccable (crushed or damped paper must not be inserted).

- The jammed material only has to be removed carefully out of the printer.

- The paper has to be removed completely from the paper path.

- Close all parts of the printer cabinet correctly.

- Press the ON LINE key to continue printing.

7.4.1. Paper Jam at the Tractor

1. Open the two green tractor cover plates (by positioning them into the upright position).

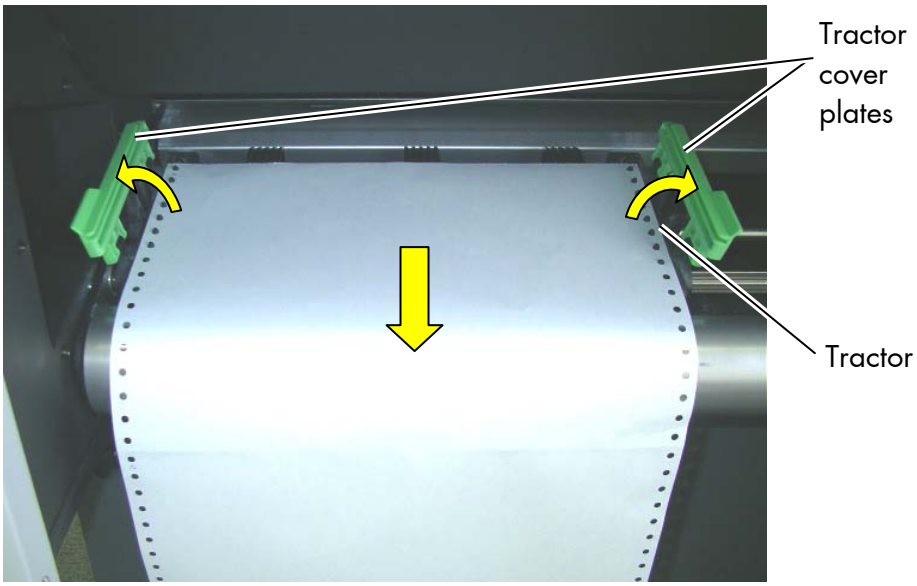


Fig. 7.4.1.a Opening the tractor cover plates

2. Remove the jammed paper. Crushed sheets must be disjoined at the perforation.

3. Pull the paper only in transport direction out of the printer.

4. Insert paper if necessary (see chapter 3).

Please do not push the paper beyond the tractor into the device to avoid reaching the Paper Jam Sensor.

7.4.2. Paper Jam inside the Printer

The components of the fuser unit and the transport unit can get hot. Please wait until they have cooled down.

Most of the working steps necessary to remove the paper from the printer's paper path are described in a order similar to the print direction (from right to left):

1. Open the two front covers of the printer.

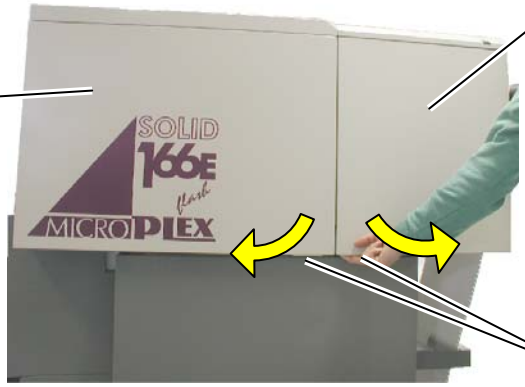


Fig. 7.4.2.a Opening the front covers

2. Lift up the **small green lever** (at the right side of the waste toner bottle unit, see next figure) and slide it **to the right** until it touches. (This unlocks the transport roll.)

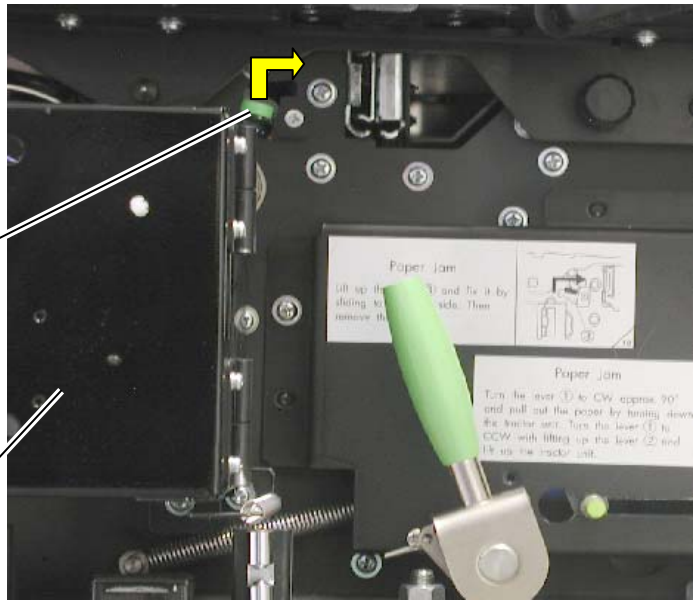


Fig. 7.4.2.b Lifting up and sliding the small lever to the right

3. Turn the **lever** (green) clockwise (approx. 90°) to **turn down the tractor unit**.

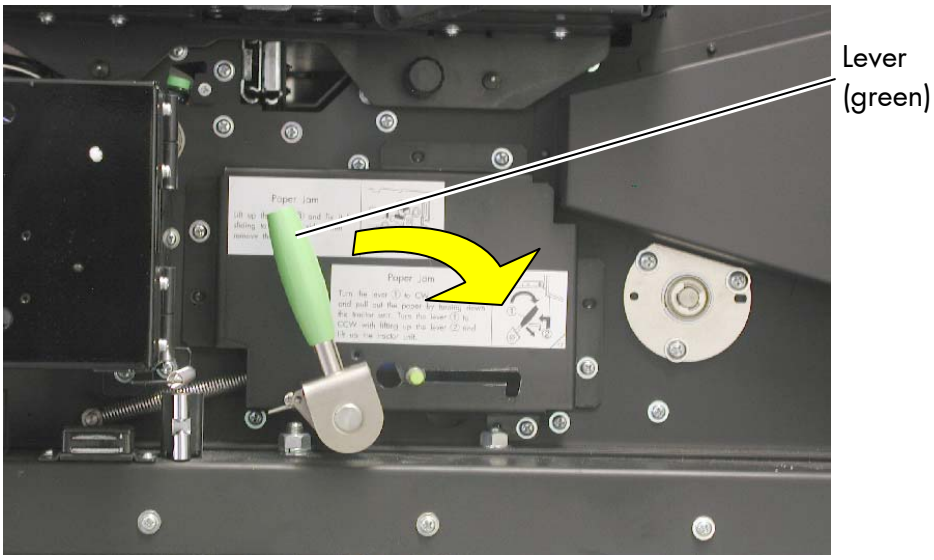


Fig. 7.4.2.c Swivelling the lever to lower the tractor unit

4. Push down the **open** lever of the **waste toner bottle unit**, pull the green handle and open the unit.

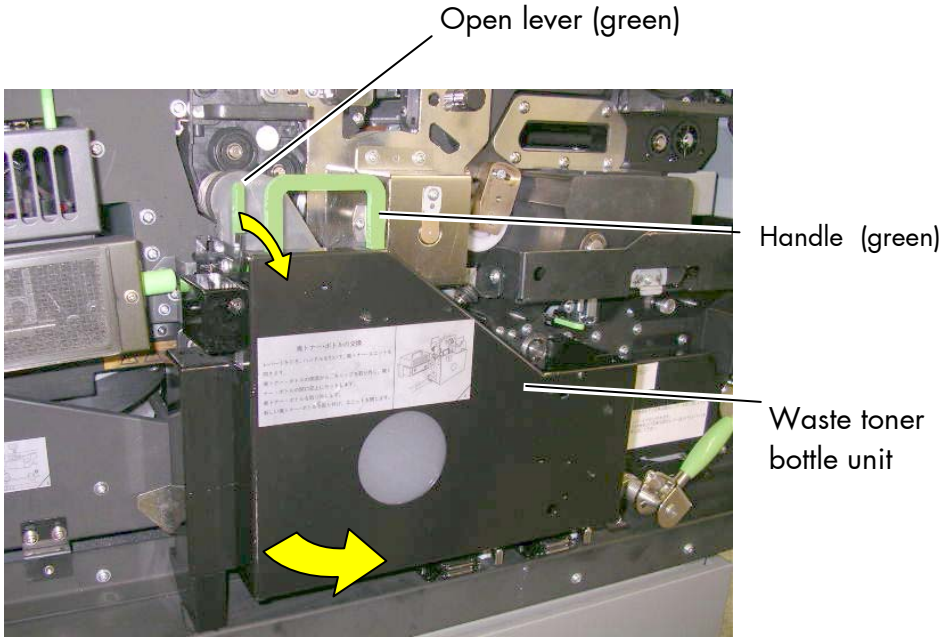


Fig. 7.4.2.d Opening the waste toner bottle unit

5. Swivel the **lever of the transport unit** to the left (approx. 90° countercklockwise, compare the following figure).
   The transport path will be shifted down. Do not pull out the transport unit at this time.

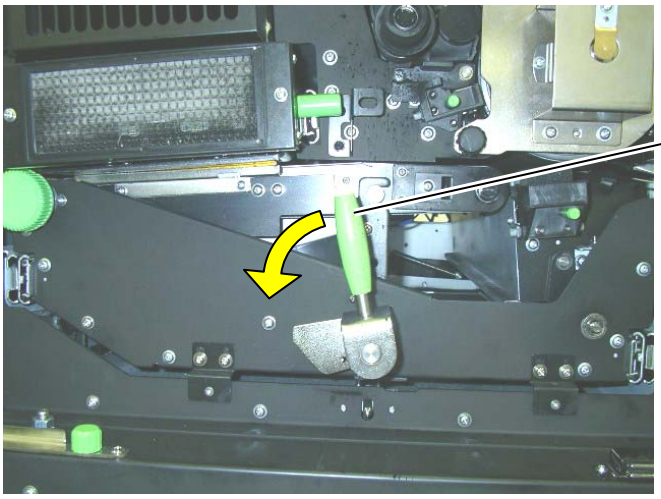


Fig. 7.4.2.e Swivelling the lever of the transport unit

6. Rotate **knob "A"** approx. 90° clockwise to **release the scuff roller**:

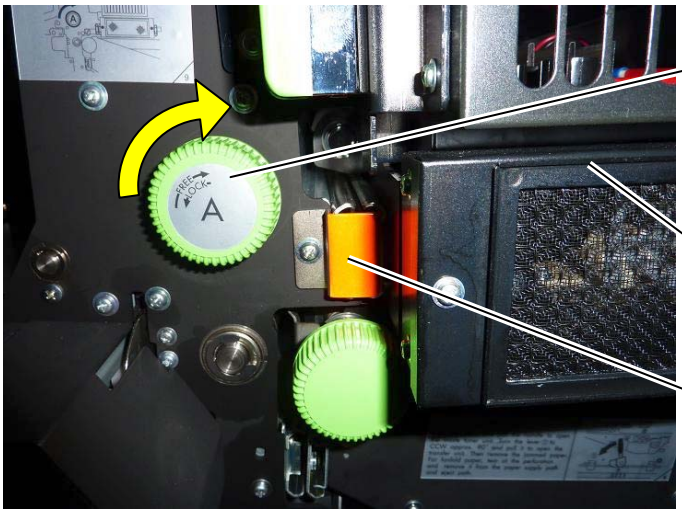


Fig. 7.4.2.f Releasing the scuff roller

7. If you want to pull out the **fuser unit** the bracket (see figure above) has to be disassembled first.

Caution: It is not allowed to use the printer while the bracket is disassembled.

8. **Separate the fanfold paper at the perforation** on both sides of the printer (i.e. at the paper input and at the paper output of the printer).

9. **Open** the two green **tractor cover plates** (by positioning them into the upright position).

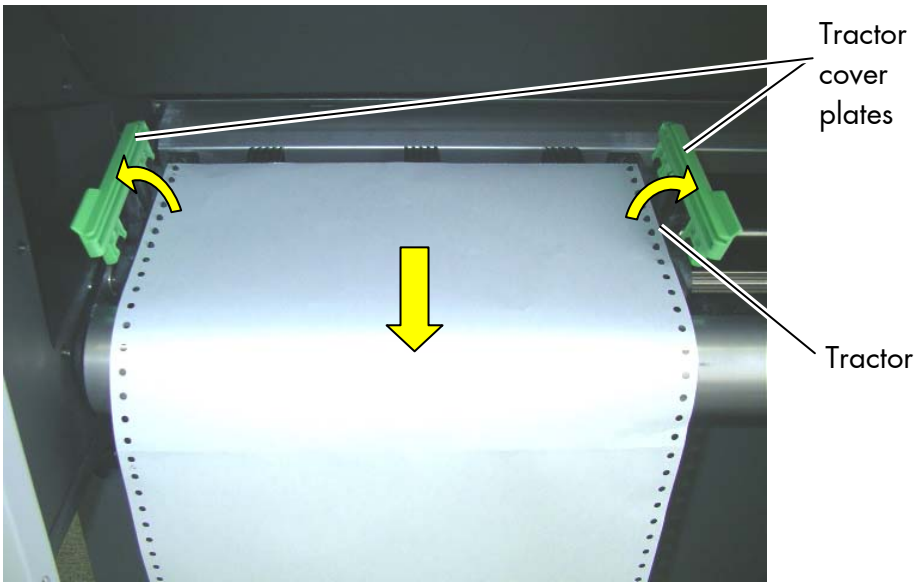


Fig. 7.4.2.g Opening the tractor cover plates

10. **Remove the jammed paper reachable** from this **input side** of the printer.

Please note: If you have to **pull paper out** of the printer, this has to be done in transport direction only.

11. Now remove the jammed paper from the printer's output side by pulling it out as shown in the following figure.

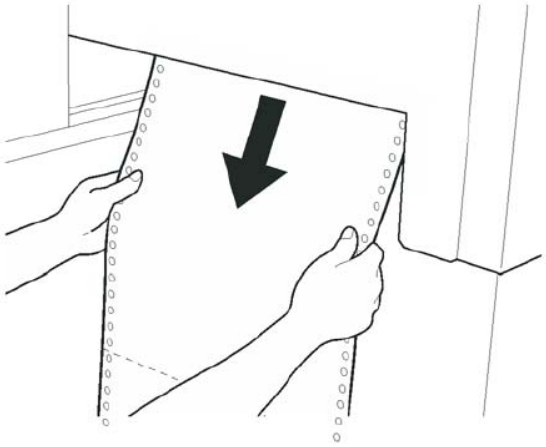


Fig. 7.4.2.h Removing jammed paper from the printer's output side

12. Use the green lever to pull out the transport unit.

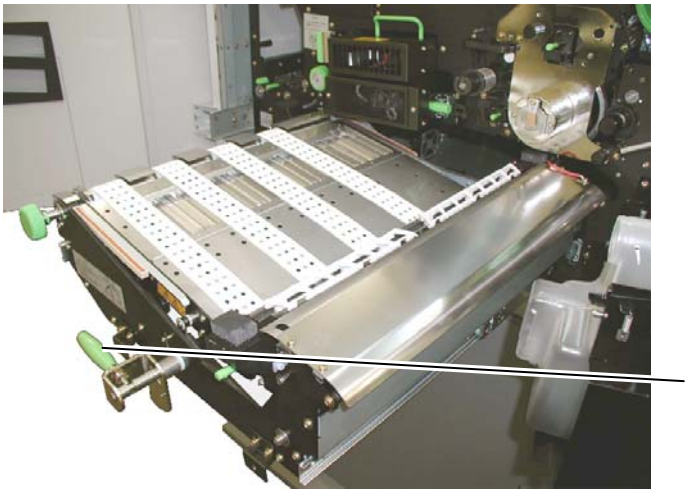


Fig. 7.4.2.i Transport unit opened

13. Look for pieces of jammed paper on the transport unit and remove them.

The paper has to be removed completely from the paper path.
Remaining pieces of paper can cause paper jams.
Remaining paper in the area of the fuser unit may even cause fire.

After having removed the jammed paper:

14. Use the green lever (still in down position, compare figure above) to **push the transport unit back into the printer** until it touches.

15. Swivel the **lever of the transport unit** to the right (approx. 90° **clockwise**, see next figure). The transport path will be shifted up.

    Pay attention to the second bar of the transport unit located under the lever - it also has to click into place (second bar up).

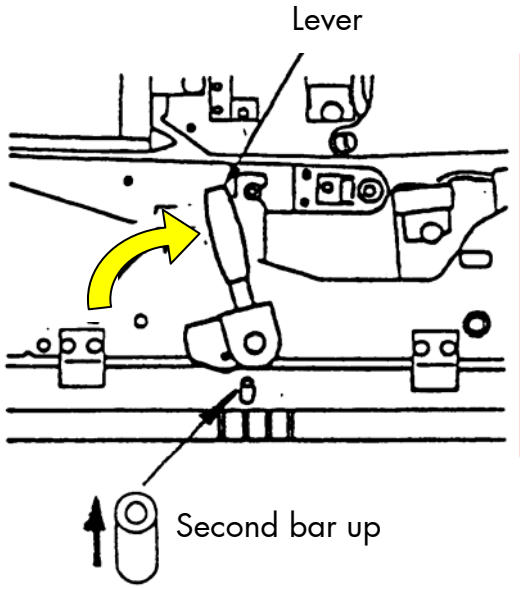


Fig. 7.4.2.j Second bar of the transport unit

Both locks of the transport unit have to be engaged to avoid damaging the printer.

16. Rotate **knob "A"** approx. 90° counterclockwise (as shown in the next figure) to **lock the scuff roller**.

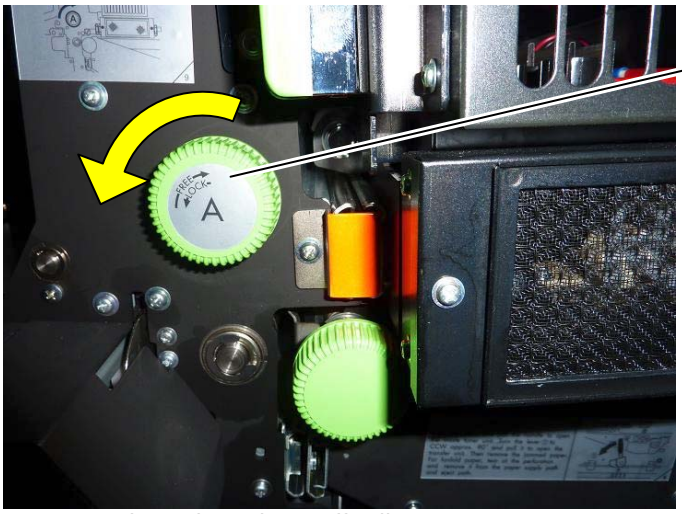


Fig. 7.4.2.k Locking the scuff roller

17. **Close** the **waste toner bottle unit**.

    Make sure the bar has engaged.

18. Lift up the **small green knob** (see next figure: this enables sliding to the left).

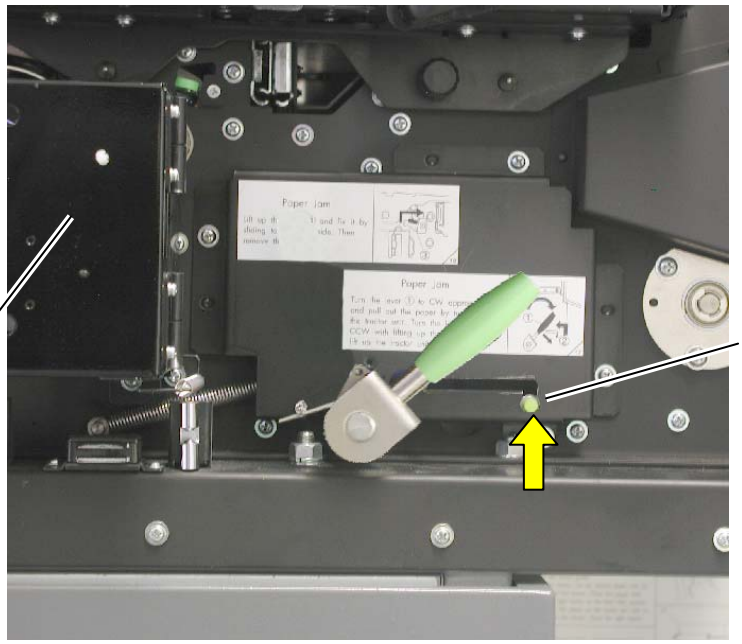


Fig. 7.4.2.l Unlocking the tractor unit mechanism

19. Turn the lever (green) approx. 90° counterclockwise to **lift up the tractor unit**.

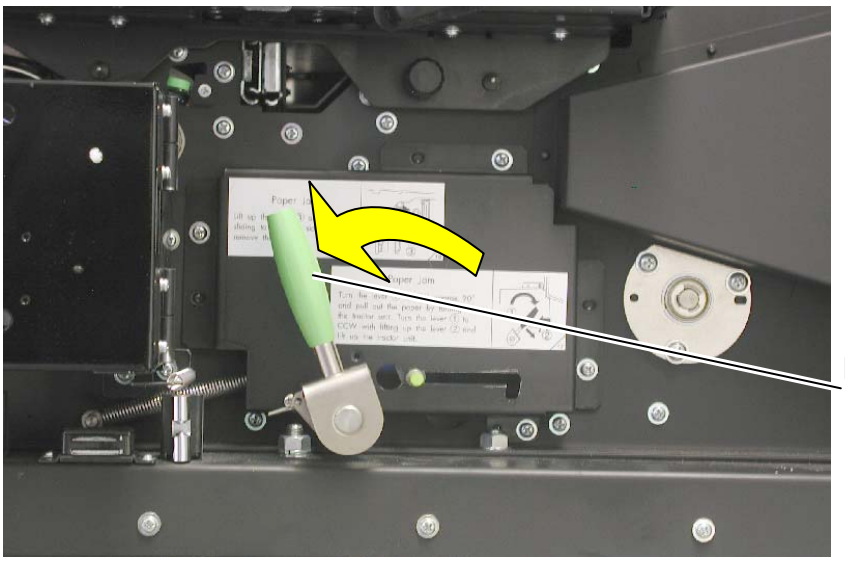


Fig. 7.4.2.m Swivelling the lever of the transport unit counterclockwise

20. Slide the **small green lever to the left** until it clicks into the down position. (This locks the transport roll.)

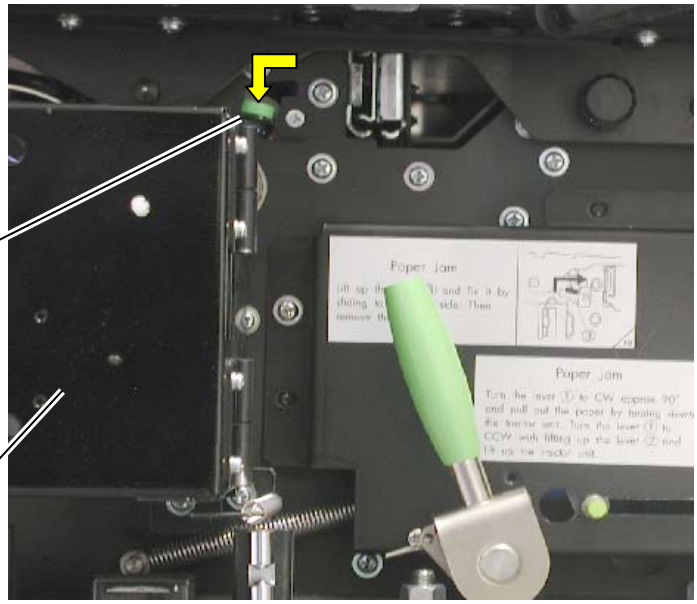


Fig. 7.4.2.n Sliding the small lever into the down position

21. Close the printer's front covers.

Information about clearing a paper jam within the stacker can be found in section 3.2.8. **Troubleshooting (Stacker)**.

22. Insert new paper (see chapter 3).

7.5. 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 5.8).

8. 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: feeder, stacker, cassettes …).
- Remove the Waste Toner Bottle from the printer and seal it.
- Remove the Developer Unit.
  Close carefully the toner input and output holes
  (for example using paper stripes sealed with adhesive tape).
  Put the Developer Unit into its original box.
- Remove the Drum from the printer and pack it lightproof into its original box.
- 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.

9. Specifications

Printer:

Print technology:	LED array electrophotographic system, flash fusing system based on a Xenon
Print speed:	up to 166 A4 pages per minute in the Two-Up mode
Resolution:	300/600 dpi (dots per inch, horizontal and vertical)
Warm-up time:	60 seconds max.
Paper weight:	64 - 209 g/m^2 (wood-free paper) 64 - 105 g/m^2 (wood-free labels)
Paper size:	width: 7" (17.8 cm) to 18" (45.7 cm), 17" printable *) length: 7" (17.8 cm) to 20" (50.8 cm)
Interfaces:	parallel: IEEE 1284 (Centronics), (MP-BUS, SPS-Control, optional) 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)
Size:	1350 mm (H) x 1580 mm (W) x 870 mm (D) (measurements of printer+stacker; the touch panel is not considered)
Weight:	about 550 kg (Europe, United Kingdom e.g.) about 450 kg (North America)
Noise level:	operation: $\leq$ 66 dB(A) stand by: $\leq$ 52 dB(A)
Environment:	temperature: +10°C to +30°C (50°F to 86°F) operating - 10°C to +35°C (14°F to 95°F) non-operating relative atmospheric humidity: 30% to 80% operating 10% to 80% non-operating

*) Hint: Fanfold material cannot be printed in the area of the sprocket holes, even in the distance up to 5mm around the sprocket holes a reduced print quality has to be expected.

Mains connection:	400 V, 50Hz/60Hz three-phase alternating current (Europe, United Kingdom e.g.) 220 V ±10% 50 to 60 Hz three–phase alternating current (North America) The SOLID 166E print system comes with a second power cable (separate power supply for the touch panel; Europe: 230V)
Power admission:	Apparent power max. 9.0 kVA Use 32A fuses (40A, if necessary) for the mains connection to enable the higher starting currents.
maximum permissible system impedance Z_{max}:	for Europe, United Kingdom e.g.: P_{st} = 3.2; d(t) > 3.30 % = 0.00 msec; d_{max} = 2.25 % RA = 0.041 Ohm + j0.026 Ohm RN = 0.027 Ohm + j0.017 Ohm

Stacker:

Size:	880 mm (H) x 600mm (W) x 665mm (D in print direction)
Weight:	about 70 kg
Paper accumulable capacity:	265mm±5mm
Table lifting drive system:	Upward movement is by hands and downward movement is by motors
Paper sizes:	Fanfold paper: 7” (17.8 cm) up to 14” (35.6 cm) length 7” (17.8 cm) up to 18” (45.7 cm) width
Paper set up standard:	The first page is set with mountain fold. (The first fold line is a mountain fold.)

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

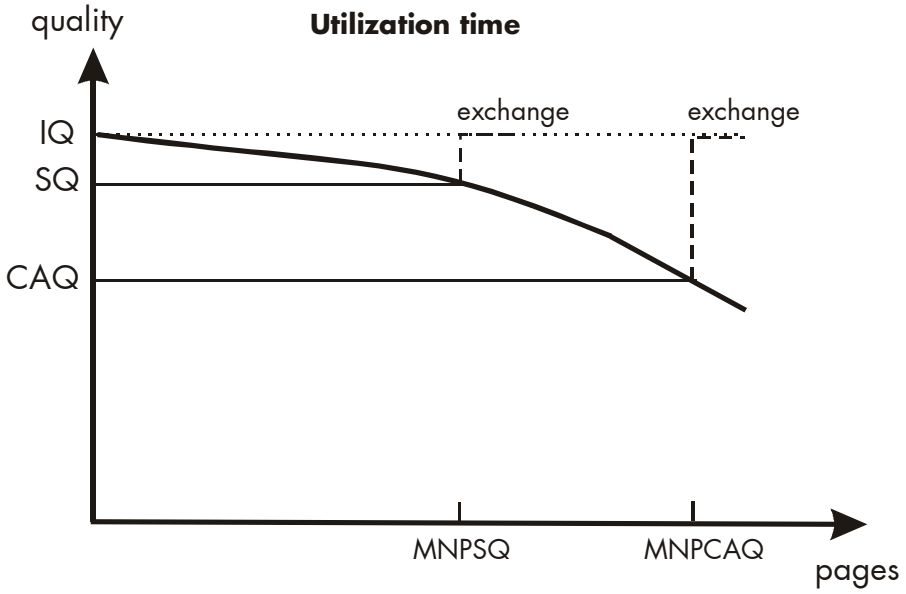
Spare parts are exchanged by the service engineer, when they fail.
Examples for spare parts are:
- couplings
- electronic assemblies
- rollers

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.



10. Index