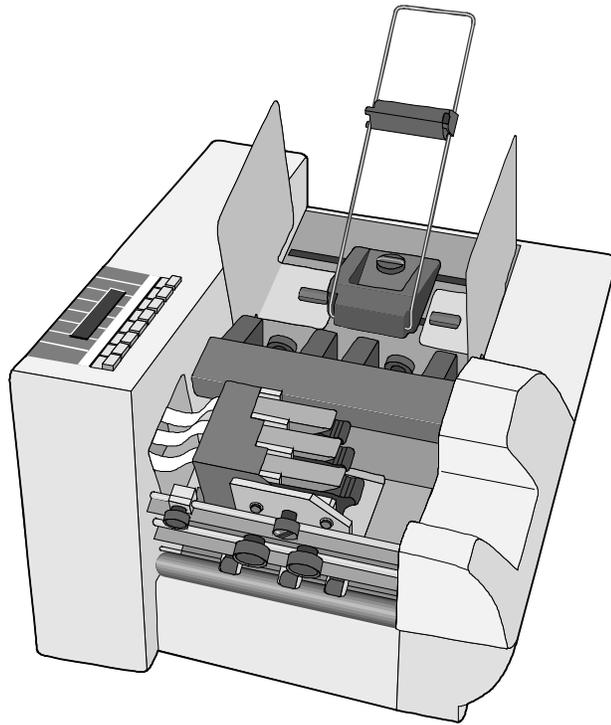# NEOPOST Address Printer *SA50S*

User Guide

November 2002

NEOPOST Address Printer *SA50S*

Ink-jet printer

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Contents

1. Safety

Before operating your printer, read the following safety hints carefully both for your own safety as well as to ensure the reliable operation of the printer. Be sure always to heed all warnings and other information marked or labeled on the printer.

Keep this manual in a safe place so that the information it contains is available to you at all times.

1.1 *Hazards associated with the printer*

The address printer has been constructed in line with state-of-the-art technology and is safe to operate. However, hazards cannot be excluded if it is operated by persons unfamiliar with its use. The same applies if it is used in an inappropriate way or in a manner not in accordance with its intended purpose.

If you ignore the information given in this manual, the following hazards cannot be excluded:

- **Electric shock,**

- **Injury by rotating rollers,**

- **Damage to the printer.**

1.2 *General notes on safety*

- The address printer may be connected only to a voltage of 230 V / 50 Hz or to 115 V / 60 Hz, depending on the country-specific version. It is therefore vital to check the information on the type-plate.

- The power plug may only be connected to a grounded socket! Make sure that the grounding has not been rendered ineffective by the use of an extension cable with no ground conductor. Any break in the ground conductor inside or outside the printer is dangerous and is not permissible.

- The printer is secured via only one terminal! Even if a fuse blows, electrical parts in the printer may continue to be live.

- Run the power lines so that no-one can trip over them. Make sure that no objects are placed onto the power cables.

- Unplug the printer from the power supply if it is not being used for a longer period of time. This avoids any damage in the event of voltage surges.

- Never touch any moving parts of the printer! Such action can lead to injury from being caught up in the rotating rollers. Also be sure to keep long hair and clothing away from the printer while it is running.

- Protect the printer from moisture. If moisture does penetrate it, this may lead to the danger of electric shock.

- Always unplug the printer before cleaning it.

- Do not use any cleaning agents. Use a damp cloth.

- You must unplug the printer and have it checked by an authorized service technician in the following circumstances:

  - If the power cable or power plug has worn or been damaged.

  - If water or other liquid has penetrated the printer.

  - If the printer does not operate properly even after the operating instructions have been followed.

  - If one of the printer parts has been dropped or its housing is damaged.

  - If the printer shows marked discrepancies from normal operation.

- Do not dismantle the printer beyond the level described in this manual. The housing must not be opened by unauthorized persons. Repairs may be carried out only by authorized service personnel.

- Prohibition of conversions: any conversions or modifications carried out by unauthorized persons are prohibited for reasons of safety.

- **Caution!**
  This is a class-A instrument. It may disturb radio equipment in the home. If this happens, the operator may be required to take appropriate action.

1.3 Handling the print cartridges

- Keep all print cartridges out of the reach of children.

- Under normal circumstances, ink cannot run out of a cartridge. Wash off any ink spray which gets onto the skin immediately under running water. If any ink gets into your eyes, rinse it out immediately with plenty of water.

- The ink cartridge should not be shaken, allowed to drop, or be struck against the palm of the hand or a hard surface.

- Install the print cartridge immediately after removing the protective tab. Be sure not to exceed the expiry date.

- Do not try to open or re-fill an ink cartridge. This could damage the printer.

- Clean the ink cartridge as described in Section 9.4 – Notes on maintenance.

1.4 Location of the printer

- When setting up the printer, ensure that it is placed on a smooth and level surface which is wider than the printer.

- The surface on which the printer stands must be sufficiently stable. If the printer tips or is dropped, this may lead to injury or damage the printer.

- Select an installation or storage location which protects all parts of the printer from extreme temperature and humidity fluctuations, direct sunlight and excessive heat.

- The printer must not be exposed to vibrations or shocks.

- Place the printer so that you can pull the power plug from its socket easily at any time.

1.5 Disposal

- The printer may not be disposed of as an item of domestic refuse. Its disposal must be carried out on the basis of the statutory requirements.

2. System requirements

The printer is designed for use with a PC (Pentium 200 MHz) equipped with a parallel and serial interface. It can be operated with the following operating systems: Windows 3.x, Windows 95 / 98 / 2000 or Windows NT4.

You will need a shielded, twisted parallel interface cable (not included within the scope of delivery).

3. Transport and packaging

3.1 Dispatch

The address printer is dispatched in appropriate packaging so that it reaches its destination without damage via a regular mode of transport.

☞ The carrier is liable for any damage during transport. Transport and storage should take place under normal conditions, i.e. at temperatures between +5°C and +70°C and relative air humidity of up to 80%. Impermissible conditions may lead to damage which is not externally visible.

3.2 Unpacking the printer

Remove all packaging and take out the printer with its accessories.

Use the following list to check that all parts of the printer are present and undamaged:

- 1 printer
- 1 power cable (option)
- 2 contact brackets, short
- 1 guide bar
- 1 printer driver (installation guide and floppy disk or CD)

If you do not wish to use the packaging later, e.g. for returning the printer for repair, be sure to dispose of it in an environmentally appropriate way.

The print cartridges and the printer cable are not included within the scope of delivery:

- Suitable print cartridges: C8842A (fast-drying ink) or HP 51645A, 6168A, 6169A, 6170A (the printer accommodates three) are available from your dealer

- Suitable printer cable: twisted parallel interface cable

3.3 Assembly of contact brackets and guide bar

- Insert the contact bracket into the lower panel slot and lock it in place by giving the bayonet lock a quarter turn.

- Insert the guide bar into the upper panel slot in the same way.
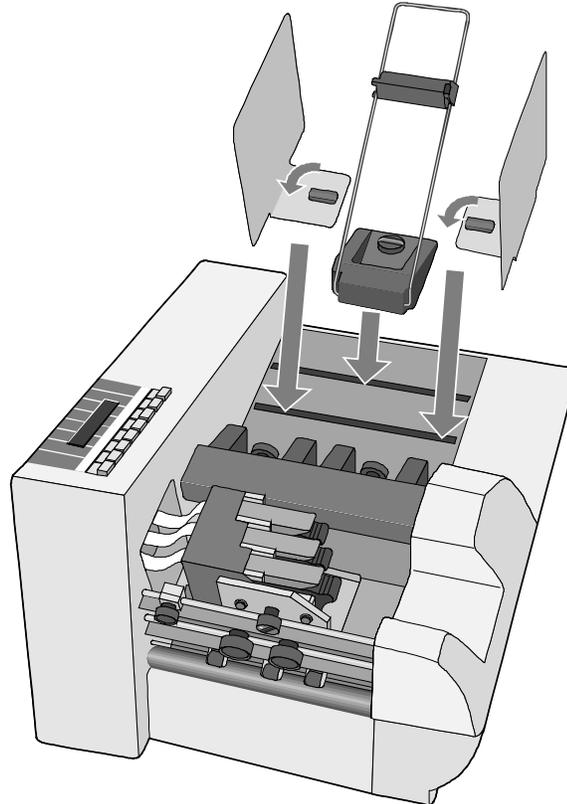
4. Description of the address printer

4.1 Applications

The address printer is an ink-jet printer offering high print speed and high print quality. It prints addresses in the correct positions on print media such as envelopes, cards, leaflets and periodicals up to dimensions of:

- **minimum**

135 mm x 85 mm with a thickness of 0,1 mm.

- **maximum**

353 mm x 225 mm with a thickness of 2 mm (without spec. accessories) and
450 mm x 357 mm with a thickness of 2 mm (with special accessories).

The maximum print area is 444 mm wide and 38 mm high (corresponding to 9 lines at a font size of 12 pt. and a line spacing of 12 pt.).

4.2 Description of functions

The printer is designed to operate with an IBM-compatible PC running most word-processing, database or other programs suitable for handling addresses.

The print unit of the printer contains three HP print cartridges. This means that addresses can be printed while the print unit remains stationary.

The print media is inserted above the print unit and positioned exactly by the contact bracket. Printing takes place as the print medium passes below the print unit. The print orientation is always identical to the direction of transport: print-out can take place in either forward or reverse (rotated by 180°) sequence.

As a rule, the address height is positioned by shifting the print unit accordingly. The address width can be set either via the software on the PC or directly on the printer.

Operation is very simple. You will need about half an hour to put the printer into operation for the first time.

4.3 Overview of the printer
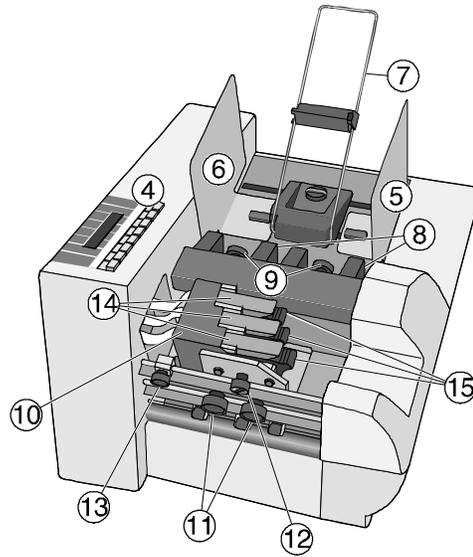
1   Printer cable terminal
2   Power cable terminal
3   ON/OFF switch
4   Control panel with display
5   Outer contact bracket
6   Inner contact bracket
7   Guide bar
8   Separator
9   Knurled screw for separator
10 Print unit
11 Knurled screws for print-unit cradle
12 Height adjuster for print unit
13 Position stop for print unit
14 Stop lever for ink cartridges
15 Ink cartridge (HP51645A, C8842A, 6168A, 6169A, 6170A)
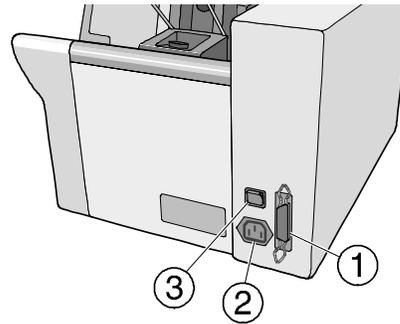
5. Installation and operation

5.1 Installing and connecting the printer

Install the printer as described in Section 1.4 – Location of the printer.

- Make sure that your PC and the printer are both switched off.
- Connect the printer cable to your PC and to the printer.

The type of power terminal depends on the country version of the printer. Ensure that the power cable connector is suitable for your location.

- Connect the power cable to the printer's power socket. Connect the power plug to a grounded socket.
- For the moment, leave the printer switched off.

5.2 Inserting print cartridges

To equip the printer with print cartridges you will need three Fast Dry Inkjet cartridges of the HP type with the designation C8842A or three Inkjet cartridges with the designation HP51645A, 6168A, 6169A or 6170A. (They all are usually available from PC dealers or by mail order.)

Observe the notes on "Handling the print cartridges" as well as the directions given by the cartridge manufacturer.

- If the printer unit is located on the rear side panel, unscrew its two lower knurled screws and push the unit into mid-position.
- Fully release all restraining levers.
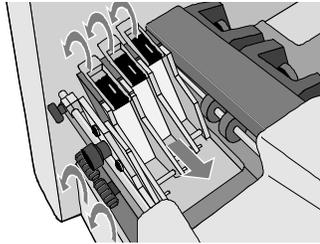
- Take the first cartridge from its packaging and remove the protective tab.

☞

To ensure that a secure contact exists between the print cartridge and the printer electronics at all times, the restraining lever has two functions:

- To place the ink cartridge into its final position
- To restrain it securely during operation

☝ This means that the cartridge must <u>not be inserted manually into its final position</u>.

When the cartridge is inserted, it should only be pressed downwards into the mount in a straight movement without being rotated. Before the restraining lever is closed, the cartridge still has a slight tilt. The lever then swings the cartridge into its final position.

- Insert the cartridge with the print field facing downwards into the first mount with a straight movement – do not press it toward the restraining lever.
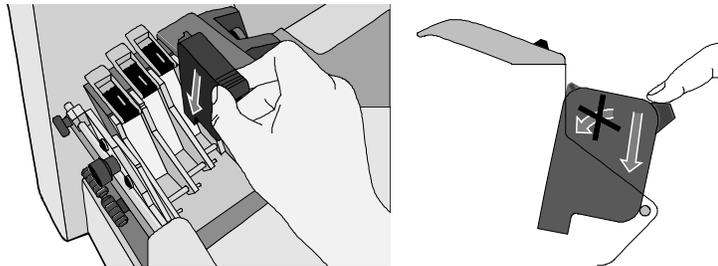
- Close the restraining lever so that the cartridge is swung into its final position and the contact to the electronics is correctly made.
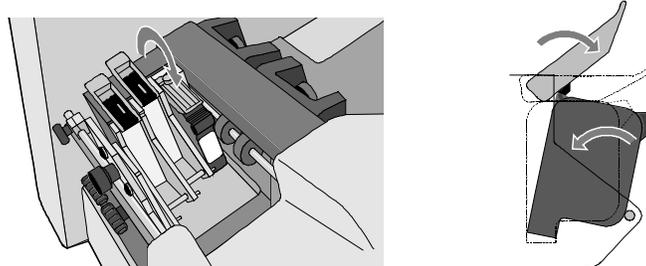
- Insert the two other cartridges in the same way.

Note on replacing used cartridges:

If the message "NO INK!! CHANGE PRINTHEAD" appears in the display, then one or more cartridges are empty.

- To replace the cartridges, put the printer into off-line mode with the *start* key (the display must show OFF).

- Proceed exactly as during the initial insertion. As soon as the restraining lever is opened, the used cartridges can be easily pulled out upwards.
  Use the menu to perform a "HEAD RESET" (see page 37)

5.3 Installing printer drivers

To allow the address printer to be operated from your PC, you must first install one of the printer drivers supplied with the printer.

- Insert the CD ROM supplied into the drive.

- Follow the instructions on your monitor.

- The product number can be obtained from the case of your CD ROM.

When you have completed the installation, you can configure the printer as described in Section 6 - Programming mode.

5.4 The control panel

A 2-line display is integrated into the control panel.

The first line displays how much ink is left, the selected font and the counter status.

The second line shows the operating mode (e.g. **On** for on-line mode), the resolution, the configuration number and finally the print direction.

```
100% Cour12      00000
On   600DPI  Set1U Nor
```

		end	next	prev	enter		
start	pap	test	clean	A/∀	prog	▯	▭
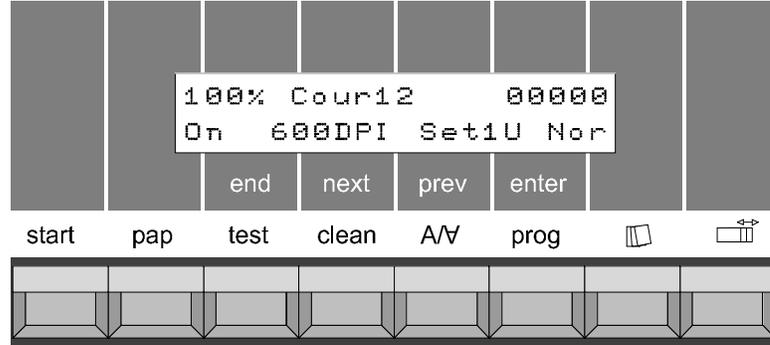
The keys for print operation are explained below. The applicable key lettering is shown directly above the keys (the lettering in the gray fields applies to programming mode).

The *start* key is always operational; all other keys are operational only in off-line mode.

start: Switch printer ONLINE/OFFLINE

pap: start/stop paper feed

[end]: Leave menu/abort changes
test: Initiate/stop print of test addresses

[next]: Select next menu point/Increase value
clean: Spray print nozzles clear.

[prev]: Select previous menu point/Decrease value
A/∀: Rotate address by 180°, Nor = Normal, Rev = Reverse.

[enter]: Activate Menu/option field. (Last Status stored)
prog: Switch over to programming mode.

▯ : Repeat print of the last address(es).

▭ : Paper length measurement.

5.5 Key combinations

The key combinations have the following functions in conjunction with turning the printer on:

○ + pap + test + prog + ⬛	Initiate download of new firmware or other software supplied by RENA
○ + enter prog	Default Reset (Default setting)
○ + start	Hex Dump (all received characters are printed immediately as HEX code)
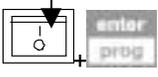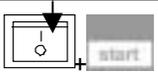
Key function in OFFLINE mode

start + ⬛	Print of black bars at 600DPI to clean the cartridges before the print job.
start + clear	Measuring and display of current speed.
start + pap	Resetting the counter status.
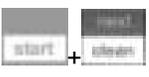
5.6 Switching the printer on

Switch the printer on with the on/off switch on the right-hand side.

The following display appears on the printer:

SA50S   Inkjet   Initialisation

If no paper size has been set, the following message appears:

Please   set   Pap.Size START   to   continue!

You are now requested to set the paper size.

This message appears to remind you to measure the paper size. This is required for a correct print-out.

- Now press the *start* key: the display changes:

```
Set  Paper  Size  Now?
Enter=YES     End=NO
```

Do you want to measure the paper size now?

Press *enter* key = YES. Press *end* key = NO.

Keep the *enter* key pressed down until an (L) appears on the display!
(The paper length has now been measured and locked.)

- Press the *end* key.

The printer is now ready for operation:

```
100% Cour12          00000
On    600DPI   Set1U   Nor
```

The first line shows the ink level, then the set font and size as well as the counter status.

The second line shows **ON** for on-line mode (**OFF** for off-line), the print quality, the configuration and the print direction.

Print direction **Nor** means that the address is printed in normal read mode – seen from the operator side, and **Rev** means that the address is rotated by 180° when it is printed.

Use the *start* key to switch the printer to off-line mode and return to on-line mode by pressing it again.

In on-line mode, all other keys are locked. A detailed description of the key functions may be found in Section 6 – Programming mode.

5.7   Adjusting the printer to the medium

To ensure that a correct and well-defined print-out appears in exactly the right place on the medium, you must adjust the printer to the print medium used. The printer processes various thicknesses (up to 2 mm) and various formats (from postcard size to B4 format, with special accessories up to format C3). This means that the thickness and format must be adjusted. For this step, keep the print media which you wish to use next in readiness.

Adjusting the printer to the thickness of the medium

1. Height adjustment of the print unit

To obtain a well-defined print-out, it is important to adjust the height of the print unit above the print medium. This can only be done when the cradle of the print unit has been detached:

- To do this, loosen the two knurled screws of the cradle.

- For print media up to 0.3 mm in thickness, the smallest spacing may be used for printing. Turn the height adjustment control so that the white dot is right at the bottom of the knurled screw.
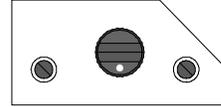
- For print media with a thickness of 2 mm, the largest spacing is used for printing. Turn the height adjustment control so that the white dot is right at the top of the knurled screw.
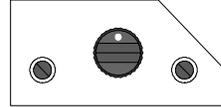
- For print media with a thickness of 1 mm, turn the height adjustment control to its mid-position. The white point will then be either to the right or to the left of the knurled screw.
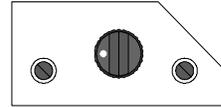
- Tighten the two knurled screws of the cradle again. At the same time, press the cradle lightly downwards so that it lies flush with the guide.

2. Height adjustment of the two separators

To make sure that only one sheet of print medium is fed in at a time, the two separators must be set to the thickness of the print medium.

Note:

Both separators must always be adjusted, even in the case that a print medium of small format lies against only a single separator. If this condition is not observed, the free separator may drag on the transport rollers. The wear on these rollers is then increased and feeding may damage the medium.

- Loosen the knurled screws of the two separators.

- Lift the two separators and place the print medium under the separator fingers. If the print medium is narrow, such as postcards and C10 envelopes, only two separator fingers may contact it. In this case, lift the outside separator up to the top stop and clamp it tight.

- This step is also recommended if a separator finger only partially contacts narrow print media, such as C6 and DL envelopes.
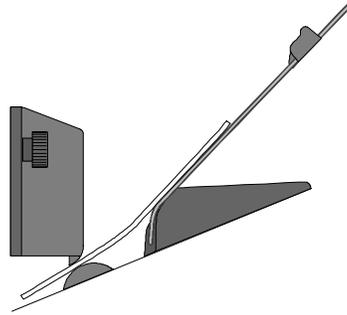
  If only three separator fingers contact the print medium, then another sheet of medium should be placed under the fourth separator finger. (It may be necessary to remove the outside contact bracket to do this.)

  ☞ If these steps are not observed, the separator rollers ☞ suffer from premature wear.

- Allow both separators to drop onto the print medium, without applying any pressur, and then fix the knurled screws again.

Test pattern 1 incorrect
(Excessive pressure on the separator)

```
Neopost, Inc.
30955 Huntwood Ave        N neopost
Hayward CA 94544-7084
Corporate Office (510)489-6800
Sales (800)624-7892
Service (800)259-2678
Consumable Supplies (800)735-5343
www.neopostinc.com
www.neopost.com
```
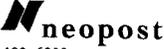
Test pattern 2 correct

```
Neopost, Inc.
30955 Huntwood Ave        N neopost
Hayward CA 94544-7084
Corporate Office (510)489-6800
Sales (800)624-7892
Service (800)259-2678
Consumable Supplies (800)735-5343
www.neopostinc.com
www.neopost.com
```
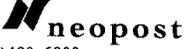
The inserted sheet will be ejected by the paper transport mechanism.

Caution! Never touch any internal parts of the printer when it is running.

- If the printer is not in off-line mode, press the *start* key and switch the printer **OFF**. If you press the *pap* key, the print medium will be ejected. The paper transport is stopped when the *pap* key is pressed again.

Adjusting to the format of the print medium

1. Adjusting the contact bracket

You must first of all know whether your print medium runs through the printer in a longitudinal or transverse direction.

The lines are always printed in the direction in which the print medium moves.

If the lines are parallel to the longer side, the medium must be fed in via the narrow side.
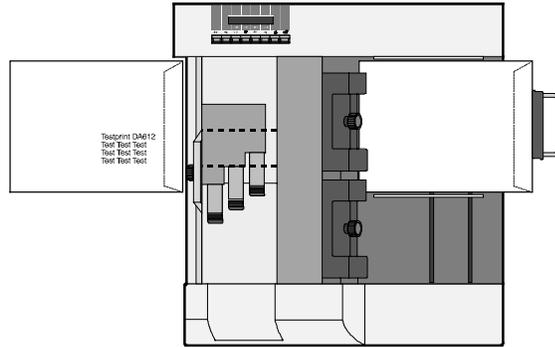
If the lines are parallel to the shorter side, the medium must be fed in via the longer side.
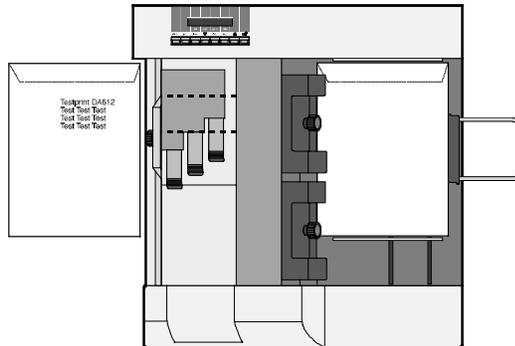
- Push the rear contact bracket all the way to the side wall of the printer.

- Place your print medium between the contact brackets all the way up to the separators.

- Push the front contact bracket up to the print medium. However, the medium must not be clamped. In the case of very narrow formats, it may be necessary to turn the outer contact bracket.

If your print medium exceeds the holding capacity of the two contact brackets supplied, a medium and a long contact bracket are also available (see p. 38 – "Accessories") as an alternative to the front contact bracket.

You can see which contact brackets are used for the various format sizes from the overview tables of the PAPER SIZE parameters on p. 31 and from Section 9.1 "Adjustable widths of the contact brackets" in the annex.

2. Adjusting the guide bars

- Place a single sheet of paper into the feed tray.

- Arrange the bar in the middle between the two contact brackets.

- Push the plastic runner (riffling aid) along the guide bar up to the paper so that it just touches it.

- Riffle the paper stack so that the lowest sheet can be pulled in first and then place it onto the guide bar.

- Push the plastic cross-bar of the guide bar right up to the paper stack. The lowest sheet of paper must just touch the cross-bar. For high stacks of large-format medium (e.g. C4), use bar R0612.3.051 and stack extender R0612.1.040 (cf. Section 7 - Accessories).
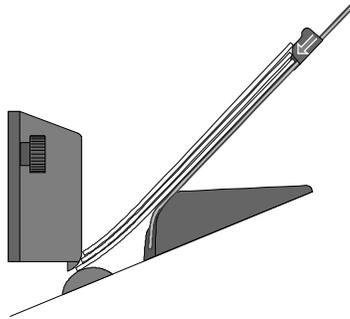
Now check that the print medium is fed in correctly. Let a media stack traverse the printer with the aid of the paper transport function in off-line mode as follows:

Warning! Never touch the inside of the printer while it is running.

- If the printer is not in off-line mode, press the *start* key and switch the printer **OFF**.

- Press the *pap* key: the medium is transported or ejected. When the *pap* key is pressed again, the paper transport is stopped.

5.8 Setting the address print position

Before setting your desired address position, you must know which areas the printer can reach.

The address height is positioned by shifting the print unit. The printable area results from the necessary margins and the offset path of the print unit:

| Unprintable area | Print area | Offset area of print unit |
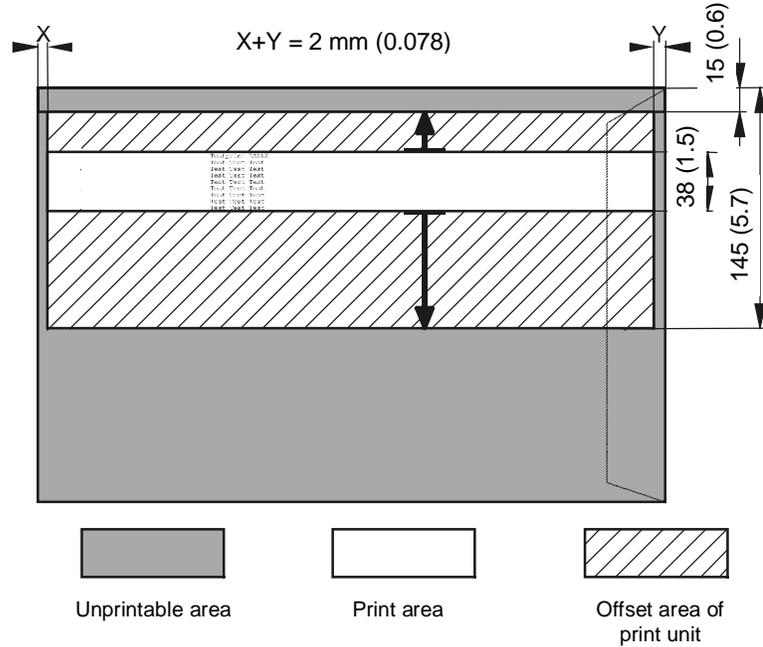
The upper margin of 15 mm shown here can be reduced to 0 mm if required. To do this, shift the rear contact bracket onto the red mark. You can now print without margins.

15 mm (0.6 inch)
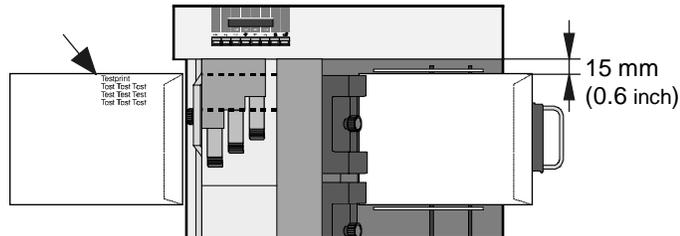
The print direction depends on the size of your print medium and of the upper margin. If the desired margin cannot be reached by the print unit, then the address block and thus the print medium must be rotated by 180°.

Positioning the address height

The SA50S is a *WYSIWYG* printer[1]) with some restrictions. These apply to the vertical position of the address.

Note the following points regarding your document:

- In your page layout, set the document to portrait format.
- Always enter the value 0 for the upper margin.

The last position in the print-out is set by the mechanical position of the print unit:

- Place your medium into the printer.
- Loosen the two knurled screws of the printer unit's cradle.
- Shift the printer unit so that the nozzle areas of the ink cartridges come to lie at the desired position.
- If the nozzle areas cannot reach the required margin, rotate the medium by 180°. Now position the nozzle area for this situation.
- Fix the cradle again.

If you have inserted the medium rotated by 180°, you must also rotate the print orientation by the same amount (**Rev**):

- If the printer is not in off-line mode, press the *start* key and switch the printer **OFF**.
- Press the Λ/V key, the orientation will be switched over to **Rev**.
- Recommendation: Every change should be locked.

Positioning the address width

The width is positioned via the software on the PC:

- Position the address as required, e.g. with the aid of the left margin setting, tabulators or other suitable formatting tools.

To ensure that the positioning can be applied correctly to the medium as specified by the program, the printer must know the exact length of the medium. This is determined by measurement.

---

[1]) WYSIWYG (What You See Is What You Get)

Measuring the length of the medium

- Insert a medium.

- If the printer is not in off-line mode, press the *start* key and switch the printer **OFF**.

- Press the ⬚ key and keep it pressed down until (L) appears in the display. The length is then stored.

The length of the medium is measured and displayed.

5.9 Printing addresses

Addresses are printed in the same way as on other desktop printers, namely via your program.

To print an address, select the address printer from your list of printers. If you cannot do this, the printer driver has not been correctly installed. You must then install the driver as described in this guide.

Start printing by giving the print command in your program.

The address printer must be in **on-line** mode. If it is not, press the *start* key.

Counting addresses

The five-digit number (right top) in the display is the counter status of the received and printed addresses.

Resetting the counter status:

- When in off-line mode, press the *start* and *pap* keys simultaneously.

The counter status is also reset when the printer is switched off.

Cleaning of print nozzles

It may at times be necessary to clean the print nozzles or to spray them clear.

- Insert a sheet of paper under the print-head.
- Switch to **off-line** mode
- Press the *start* and ⬚ keys simultaneously.

The print nozzles are sprayed clear into the sheet of paper which has been fed in.

Print test

- Insert a sheet of paper.

- Switch to **off-line** mode**.**

- Press the *test* key.

A print test is now carried out.

5.10 Resetting the address printer

With loss of configuration

The following procedure resets the printer. All values and configurations which have been changed are reset to the works settings:

- Switch the printer off.

- Keep the *prog* key pressed and switch the printer on again.

The display shows the procedure:

SA50S	Inkjet
Default	Reset

Without loss of configuration

In this procedure, the works setting is simply selected. It is stored in Setting No.0 where it cannot be changed. This is done in programming mode as follows:

- Switch the printer to off-line mode.

- Press the *prog* key twice.

- Use the *prev* or *next* key until No.0 appears in the display.

- Press the *prog* key again.

The *end* key terminates programming mode, the works setting has been selected.

6. Programming mode

6.1 The purpose of programming mode

Programming mode is used to set certain parameters manually via the control panel. These comprise settings for the fonts, the print quality, the paper as well as special and test functions.

As the printer is usually operated from a word or address processing program, the works settings are optimized for this purpose and do not usually need to be changed.

It may, however, be necessary to adapt these parameters. They will all be treated in this section so that you can make these adaptations and utilize all the options of your address printer.

This section is designed as a reference source for experienced users.

6.2 The control panel in programming mode

Switching to programming mode:

- Switch to **off-line** mode**.**

- Press the *prog* key.

The following message appears briefly in the display:

SA50S	Inkjet
Programming	Mode

Followed by

SETTING	: No 1

You are now in programming mode. The word "SETTING" blinks in the display.

Key assignment in programming mode

Programming mode uses the four middle keys as well as the key at the extreme right. The upper line of key lettering applies.

Menu field   Option field

SETTING   : No 1

| end | next | prev | enter |

start   pap   test   clean   A/∀   prog
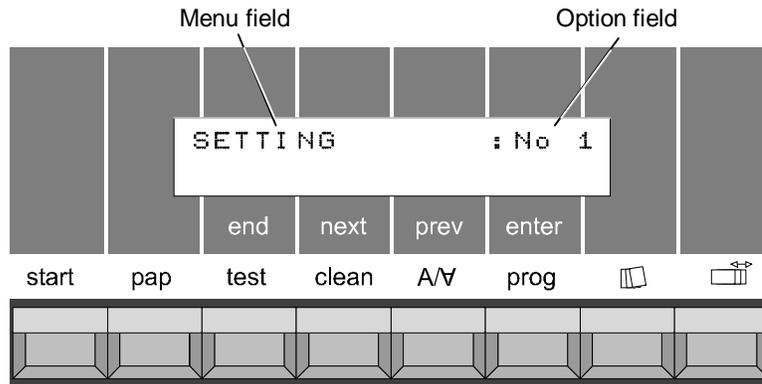
enter: Aktivate menu/option field. (last status stored)

next: Select next menu point/Increase value.

prev: Select previous menu point./Decrease value.

end: Leave programming mode. Changes are stored.

:   Activate locking of configuration/parameters.

6.3 Menu overview

MENU	OPTION					
SETTING	No 0 <u>No 1</u> ... No 9					
FONT	<u>Cour12</u> Cour12bo Cour12it Helv07 Helv10 Helv12 Helv12bo Helv12it Helv13 LetGot12 TmsRm12 Bru12 OCR-A					
PRINT QUALITY	<u>600D</u> 550D 500D 450D 400D 300D 200D 150D					
LEFT MARGIN	<u>0</u> ... 304 [mm] <u>0</u> ... 11.9 [inch]					
TOP MARGIN	<u>0</u> ... 37 [mm] <u>0</u> ... 1.45 [inch]					
TYPE OF BARC.	off	<u>zip</u>	bpo4 kix cana	2/5i coda co39	co93 c128	Ean [1] (upc)
BARC. OPTIONS		<u>off</u> zip4 dpbc				
BARC. POSITION		<u>top</u> bot				
AUTO CHECK DIG.		<u>on</u> off				
SMALL WIDTH (dots)				1 .. <u>6</u> .. 99		
LARGE WIDTH (dots)				1..<u>15</u>..99		
BARCODE HEIGHT (dots)				1 ... <u>50</u> ... 999		
CHAR. SPACING	<u>0</u> 1 2 ... 89 90					
CHAR. HEIGHT	<u>1x</u> 2x 3x 4x 5x 6x					
CHAR. WIDTH	<u>1x</u> 2x 3x 4x 5x 6x					
LINE SPACING	1 2 ... <u>6</u> ... 10					
ORIENTATION	<u>NOR</u> REV					
PAPER SIZE	USER	<u>off</u> EXEC LETT LEGA A4 A5 MONA C10 INTD C5 INSD C6 A6 CRD1 CRD2 HAGA B5				
MAXIMUM VALUE [mm] [inch]	450 17,71					
CHARACTER SET	<u>PC8</u> Rom8 P850 ECMA P8DN ICEL P852 P860 P857 Lat5 USA7 UK7 Fra7 Ger7 Ita7 Spa7 Den7 Nor7 Swe7 SwN7 Por7					

The underlined values are set at the works

1) EAN barcode for European printers / UPC barcode for US printers

MENU	OPTION
HEAD12 CORRECT.	-24 -23 -22 -21 ...-2 -1 <u>0</u> 1 2... 21 22 23 24
HEAD23 CORRECT.	-24 -23 -22 -21 ...-2 -1 <u>0</u> 1 2... 21 22 23 24
PAPER SENSOR	<u>on</u> off
SETTING LOCKED	<u>no</u> yes
SPECIAL FUNCT.	
AUTO LF	<u>off</u> on_1 on_2 on_3
HEX TO ASCII	<u>off</u> on
LINE MODE	<u>off</u> 0 1 ... 99
STX-ETX	<u>off</u> on
OFFS. EDGE [mm]	<u>0</u> ... 304 [mm]
WARMING	<u>off</u> on pre
PAPER TIME-OUT	<u>off</u> on
TEST ADDRESS	<u>1</u> 2
CENTRONICS	<u>def</u> IEEE
AUTO RECOVERY	<u>off</u> 1st
SERVICE	<u>Rev</u>. Adrc Head Char HexD InpD SetD
HARDWARE TEST	-- nur für den Kundendienst ! --
HEAD RESET	<u>all</u> Hd.1 Hd.2 Hd.3 no

The underlined values are set at the works

6.4 Description of parameters

SETTING

Selecting a configuration.

A specific configuration can be set up for various applications.

Configuration "No. 0" is the default setting which cannot be changed. Configurations "No. 1 through No. 9" may be individually set.

When programming mode has ended, the changes made are automatically stored under the selected setting number.

You can lock the setting you have made against any changes by printer instructions. To do this, press the ⬚ key, so that SETTING LOCKED appears. Use the same key to choose between "yes" and "no".

Individual parameters can also be locked. A locked parameter can be recognized by the "L" under the menu field. (When locking parameters, incompatibilities may occur with software applications. An example is when the left margin is locked but the software application sets absolute horizontal positions. Other conflicts may also occur.)

The set configurations are retained when the printer is switched off.

At a works initialization (***prog*** key is kept pressed down at turn-on), all configurations are set to the default settings.

FONT

The printer contains 13 fonts and font sizes. Simply select the one you require.

PRINT QUALITY

Selection of print quality. The higher the number, the better the quality of the print-out.

LEFT MARGIN

Setting the left margin within a range from 0 – 304 mm.

The value is changed in mm increments. If the ***next*** or ***prev*** keys are kept pressed down, the value is changed in cm increments.

TOP MARGIN

Setting the upper margin within a range from 0 – 37 mm.

The value is changed in mm increments. If the **next** or **prev** keys are pressed down, the value changes in cm increments.

However, if an upper margin is entered, the usable printing area is reduced.

TYPE OF BARCODE

The following barcodes are available:

Option	Barcode	Option	Barcode
Zip	Barcode USA	co39	co39 barcode
bpo4	Barcode Great Britain	co93	co93 barcode
kix	Barcode Netherlands	c128	c128 barcode
cana	Barcode Canada	ean	EAN barcode
2/5 i	2/5 interleaved barcode	off	No barcode
Coda	Coda barcode		

Overview of the barcodes with submenu fields
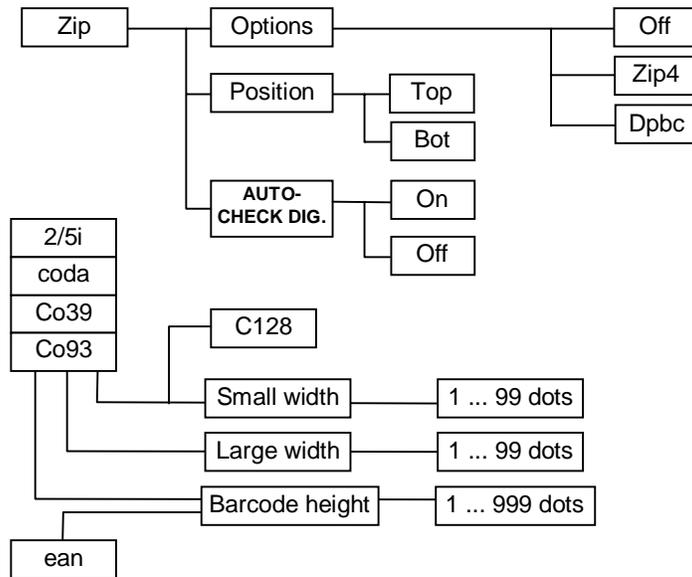
CHAR. SPACING

Increases the character spacing in dots from 0 to 90.

CHAR. HEIGHT

Increases the character height up to six times without changing the width.

CHAR. WIDTH

Increases the character width up to six times without changing the height.

LINE SPACING

Increases the line spacing from 1 to 10 lpi (=lines per inch).

ORIENTATION

Address rotation by 180°.

Nor – the print-out can be read normally from the user side.
Rev – the print-out is rotated by 180°.

PAPER SIZE

The following page shows an **overview of the format sizes** which you can set in programming mode in the PAPER SIZE menu.

The two right-hand columns in the table show which contact bracket should be used in each case (cf. also Section 9.1).

The following contact brackets can be used:

Short contact bracket (2x) R0612.1.043 (Standard)
Medium contact bracket   R0612.2.044 (Accessories)
Long contact bracket   R0612.2.045 (Accessories)

Overview of format sizes supported in the printer menu

Format	Designation	Type	Size in inches	in mm	Contact bracket [1]	
Off	No format size	--	--	--	⌐ ⌐⌐⌐	⌐ ⌐⌐⌐
EXEC	Executive	Paper	7 1/4 x 10 1/2	184 x 267	L ⌐	L ⌐
LETT	Letter	Paper	8 1/2 x 11	216 x 279	L ⌐	L ⌐
LEGA	Legal	Paper	8 1/2 x 14	216 x 356	L ⌐	L ⌐
A4	DIN A4	Paper	8 1/4 x 11 11/16	210 x 297	L ⌐	L ⌐
A5	DIN A5	Paper	5 13/16 x 8 1/4	148 x 210	L ⌐	L ⌐
MONA	Monarch	Envel.	3 7/8 x 7 1/2	98 x 190.5	L L	L ⌐
C10	Com-10 (Business)	Envel.	4 1/8 x 9 1/2	105 x 241	L L	L ⌐
INTD	International DL	Envel.	3 7/8 x 7 1/2	98 x 190.5	L L	L ⌐
C5	International C5	Envel.	6 3/8 x 9 1/64	110 x 220	L L	L ⌐
INSD	Inserter DL	Envel.	4 1/2 x 9 1/64	114 x 229	L L	L ⌐
C6	International C6	Envel.	4 1/2 x 6 3/8	114 x 162	L L	L ⌐
A6	DIN A6	Paper	4 1/8 x 5 13/16	105 x 148	L L	L ⌐
CRD1	Card 1	Card	4 x 6	102 x 152	L L	L ⌐
CRD2	Card 2	Card	5 x 8	127 x 203	L ⌐	L ⌐
HAGA	Hagaki	Envel.	3 15/16 x 5 13/16	100 x 148	L L	L ⌐
B5		Envel.	6 15/16 x 9 27/32	176 x 250	L ⌐	L ⌐
USER	Enter format width in mm	Paper	max. 30	max. 762		
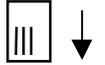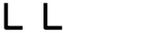
[1] See previous page

CHARACTER SET

These are national character sets with their own special characters in each language.

HEADXY CORRECT.

This function is used to correct manufacturing tolerances between the print heads.

The resulting offset between the print nozzle areas of two adjacent cartridges can be corrected horizontally.

XY = 12 for cartridges 1 and 2
XY = 23 for cartridges 2 and 3

The correction is carried out in 1/300 inch steps:

-24 –23 –22 –21 ... –2 –1 0 1 2 ... 21 22 23 24

PAPER SENSOR

If you want to print onto media containing black areas, you can deactivate the paper light barrier while you are printing. To do this, you must set a format size under **Paper Size** (an incorrect format size can lead to printing outside the paper area).

With a deactivated paper sensor and a specified format size, the light barrier is queried only at paper feed.

SETTING LOCKED

This function can be used to individually lock each configuration for printer instructions, which are then ignored.

This setting is highlighted in the program print-out by the characters "!!!".

The active configuration status is shown on the display.

The display text Set1U means that configuration 1 is not locked (U for unlocked). The display text Set1L means that configuration 1 is locked (L for locked).

☞ **As a rule, this menu point should not be locked.
(This can lead to undesirable problems)** ☞

SPECIAL FUNCT.

AUTO LF

This defines how the printer should interpret the control characters

CR = Carriage Return
LF = Line Feed
FF = Forward Feed

The settings mean:

off:	CR = CR	LF = LF	FF = FF
on_1:	CR = CR + LF	LF = LF	FF = FF
on_2:	CR = CR	LF = CR + LF	FF = CR + FF
on_3:	CR = CR + LF	LF = CR + LF	FF = CR + FF

HEX TO ASCII

Conversion from HEX to ASCII.

If the conversion is switched on, the printer interprets the percentage sign "%" as a non-printable control character. The two characters following the % sign are interpreted as HEX values, e.g. %0C = Form Feed.

LINE MODE

This permits the address to be separated by a specific number of lines.

STX-ETX

If this function is active, only the text positioned between the ASCII (02) and the ASCII (03) control characters is printed.

STX = Start text   ETX = End text

OFFSET EDGE

Offset of the measured paper edge by between 0 and 304 mm. To the user it looks as if the left margin has been extended. This offset is required in the event of:

- Windows programs in which the left margin cannot be changed,

- Printing of large envelopes with Windows serial print if the desired print position cannot be set on the PC.

WARMING

Function for heating the print nozzles.

off = No heating
on = Heating on during the print process
pre = Heating and pre-heating before starting the print process

PAPER TIME-OUT

If this function is active, the paper transport is stopped immediately after the print job has been completed.

TEST ADDRESS

Select test address 1 or 2.

CENTRONICS

def = Standard (default) setting. The second IEEE option should be selected in the event of any problems with the control PC.

AUTO RECOVERY

In the 1st setting, a page is printed with black bars before every print job in order to clear the cartridges.

SERVICE

Rev.

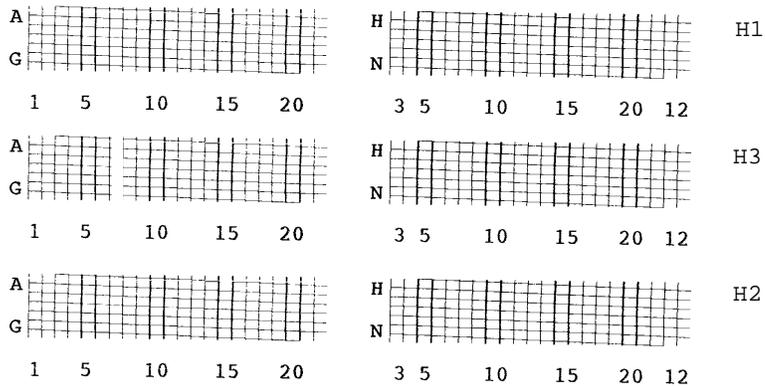Display of inspection number. You must specify this number whenever you contact our customer service.

Adrc

Counter status of all printed addresses since starting operation. (This counter may only be reset by the customer service.)

Head

In several test prints, for all cartridges:

- the contacts to the nozzles are displayed in a grid pattern,

- the contacts to all nozzles, addressed individually in sequence, are displayed in a continuous oblique line.

If a pattern or the oblique line contains gaps (see the examples on the next page), the contact areas and the cable contacts of the affected print head must be cleaned, or the affected print head must be replaced (see Section 9.4 -Notes on maintenance).

EXAMPLES of defects on print heads:
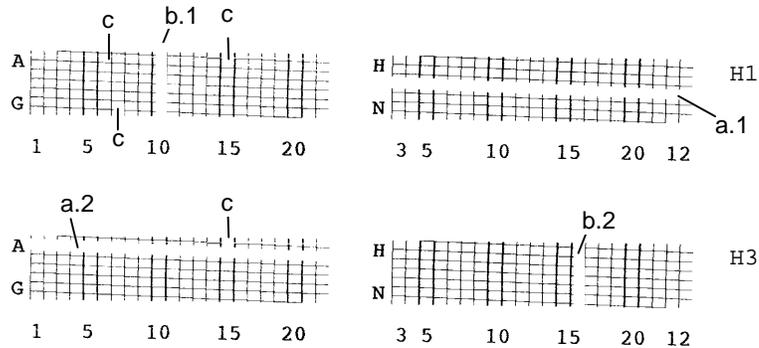
a.1 = No connection at contact "K" (for print-head H1)
a.2 = No connection at contact "B" (for print-head H3)

b.1 = No connection at contact "10" (for print-head H1)
b.2 = No connection at contact "16" (for print-head H3)

c = These nozzles are soiled

Char

Print-out of the currently active character set.

HexD

This function is used to check the connection from the printer to the PC. In hex-dump, all characters received from the receive buffer are printed in LetGot12.

You can also switch hex-dump on directly by keeping the *start* key pressed and then switching the printer on.

Do not end hex-dump by switching the printer off, as settings may then be changed! End it by pressing the *prog*, *end* or *start* keys.

InpD

In Inp-Dump, all 96 kbytes of the receive buffer are printed with PC8-symbols.

The complete print-out requires approximately 180 sheets. Switch the printer off before a dump print-out and then on again. Transmit the print job and then start the dump print-out. The required data are now at the beginning of the buffer. Stop the process by pressing the *end* key.

SetD

Print-out of the 10 setting configurations. Nine sheets are required.

HARDWARE TEST

For service use only.

HEAD RESET

Resetting the display for used ink after inserting the new print cartridge(s).

7. Accessories

The following accessories are available (at a charge) to extend the usable format size and to increase the print media stack:
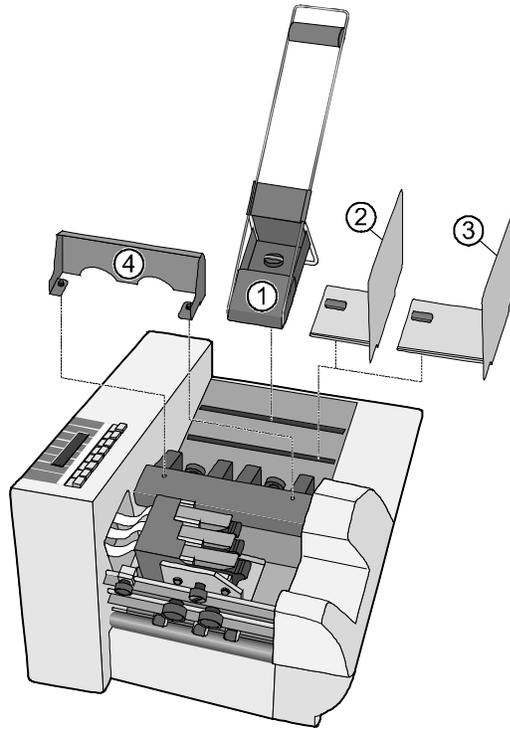
Item	Designation	Qty.	Order No.
1	Assembled bar	1	R0612.3.051
2	Medium contact bracket	1	R0612.2.044
3	Long contact bracket	1	R0612.2.045
4	Stack extension	1	R0612.1.040

Deflector unit for ejecting the print medium onto a conveyor belt.
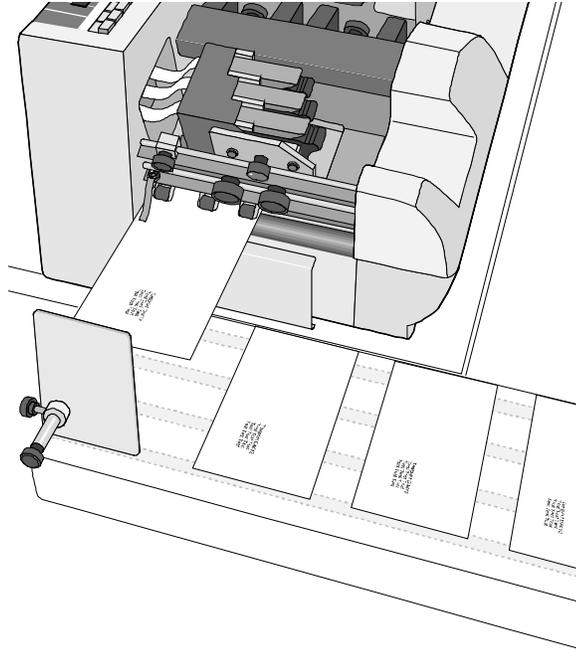
Item.	Designation	Qty.	Order No.
5	Deflector unit	1	R0613.2.010

8. Technical data

Dimensions of print media

min. width	140 mm (5.5")
max. width	320 mm (12.5") standard
min. height	70 mm (2.8")
max. height	215 mm (8.4") standard,
	355 mm (14") special accessories
min. thickness	0.1 mm (0.004")
max. thickness	2.0 mm (0.079")
max. envelope format	C5, B4 with special accessories

Dimensions of print area for each print unit

max. print width	508 mm (20")
max. print height	38 mm (1.5")

Number of print units

standard	1
maximum	1

Print speed

Constant	0.5 m/s

Spacing between two print items

minimum	Not relevant
maximum	Not relevant

Throughput

Postcards (A6)	11,000 items/hr - 600 dpi
C5/C6	7300 items/hr - 600 dpi

Print qualities 150x300, 150x600, 300x300, 300x500, 300x600, 500x500, 500x600, 600x600

Max. stack height 80 mm (3.15") standard, 175 mm (6.9") special accessories

Max. weight of stack 1 kg

|	
Operating height	
Standard	Desktop printer
Without guide rollers	Not applicable
Option tong-type adjustment unit	Not applicable
Usable cartridges	HP51645A,C8842A, 6168A, 6169A, 6170A
Main memory	4 MB standard, 8 MB optional
Address buffer	The last 20 addresses
Counter	Resettable address counter Operating life counter
Interfaces	
Data	IEEE1284 (parallel interface)
Signal inputs	Not present
Signal outputs	Not present
Feeder control (other types upon request)	Not relevant
Printer language	HP PCL5 with extensions
Font types	
Internal fonts (only relevant for DOS-managed files)	13
Downloadable fonts	Not limited by the printer
Range of supply voltage	100-240 VAC/50-60Hz
Ambient conditions	10 – 31 ºC/ 20-80% rel. air humidity (non-condensing)
Noise	The emission value referred to the workplace is < 70 db(A) measured to EN27779
Dimensions of the printer (LxWxH)	425 x 380 x 280
Weight	20 kg (44.1 lbs.)
Certificates	CE and GS

9. Annex

9.1 Contact brackets

Short contact brackets (2x) R0612.1.043 (standard)
Medium contact bracket   R0612.2.044 (accessories)
Long contact bracket   R0612.2.045 (accessories)

Adjustable widths of the contact brackets

The specifications (in mm/inches) refer to the print media widths *transverse* to the transport direction.

- Rear + front contact brackets, short 2x (R0612.1.043)

| 85 3.35 | 142 5.6 |
| 125 5 | 225 8.86 |
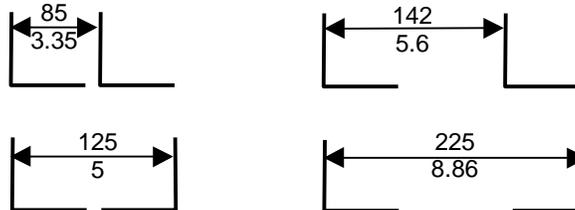
- Rear contact bracket, short (R0612.1.043) +
  Front contact bracket, medium (R0612.2.044)

| 198 7.8 | 285 11.2 |
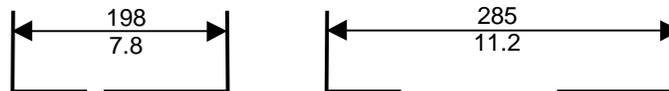
- Rear contact bracket, short (R0612.1.043) +
  Front contact bracket, long (R0612.2.045)

277
10.9

365
14.37
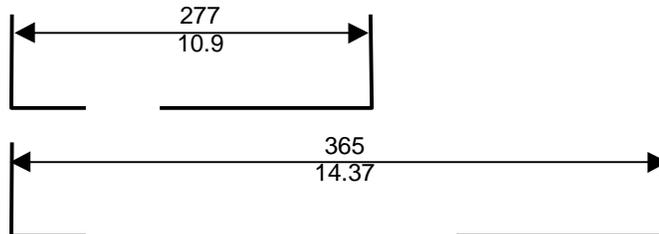
When the *maximum* possible width of the adjustable contact brackets is used, a margin of 15 mm (0.6 inches) from the rear contact bracket cannot be printed.

Special format sizes

Overview of format sizes which can be entered in the PAPER SIZE menu under USER.

These format sizes are *not* supported in the printer menu.

Format	Size in inches	in mm		
	Contact bracket [1])			
B4	9 27/32 x 139/10	250 x 353		
B6	4 9/10 x 6 15/16	125 x 176		
C4	9 1/64 x 12 3/4	229 x 324		
E4	11 x 15 3/4	280 x 400		---

[1]) See preceding page

The two right-hand columns show which contact brackets should be used in each case.

9.2 Meanings of some displayed messages

```
100%    Cour12      00000
???     600DPI   Set1U    Nor
```

??? blinks

Data/addresses have been seen but no print medium is present.

```
100%    Cour12      00000
NoD     600DPI   Set1U    Nor
```

NoD blinks

The last data/addresses are incomplete (the FormFeed is missing)

```
100%    Cour12      00000
Wait    600DPI   Set1U    Nor
```

Wait blinks

Printing has stopped because the control character EOT was sent. Printing can be re-started by pressing the *start key.*

```
100%    Cour12      00000
Off     600DPI   Set1U    Nor
```

Off blinks

Printing has stopped fo a few seconds because a Pause was set via sequences. Printing starts again after the set time has elapsed.

9.3 Error messages and warnings

9.3.1 Error messages

Error message	Description	Solving the problem
ERROR LCA INITIALIS. CALL SERVICE	Error in loading the hardware into the XC5210 module	- Plug connection on/to print board
ERROR LCA1 Ready CALL SERVICE	Error in printing – module XC5210	- Module XC5210
ERROR LCA2 Ready CALL SERVICE	Printing error. The number after „LCA" shows which module	
ERROR LCA3 Ready CALL SERVICE	is responsible	
ERROR PEN BOARD# CALL SERVICE	Error Pen Board, #1,2 oder 3	
NO PAPER !!	No paper in feed	- Insert paper
PAPER JAM OR WRONG PAPER LENGHT	Paper jam, or an incorrect format was set	- Set paper feed correctly - Meassure paper format and lock the setting
NO INK !! CHANGE PRINTHEAD #	The cartridge is empty. #1,2,3 #shows the number of the cartridge.	- Insert new cartridge and reset the counter.
CHECKSUM ERROR !! MAKE DEFAULT RESET	Error in buffered RAM.	- Works setting (***prog*** key)
CHECKSUM ERROR !! MAKE COUNTER RESET		
CHECKSUM ERROR !! TESTMACRO RESET		
CHECKSUM ERROR !! SETTING RESET		

Error message	Description	Solving the problem
TEST MACRO TOO LONG	The user-defined test address is too long	- Keep within maximum lenght.
BUFFER OVERFLOW !!	Overflow of receive buffer.	- Check connection to PC
RAM ERROR !! **VERIFY RAM**	Error in RAM.	- Replace CPU board
PROGRAM ERROR **MAKE DEFAULT RESET**	Error in program execution	- Works initialization - Reload firmware
UART TIMEOUT **CALL SERVICE**	Error in UART component	- Replace CPU board
DISPLAY TIMEOUT **CALL SERVICE**	Error in accessing the display	- Check cable connections - Replace display unit
CHECK CARTRIDGE 1 **START TO CONTINUE**	Cartridge No. 1 is not inserted	- Insert cartridge(s)
CHECK CARTRIDGE 2 **START TO CONTINUE**	Cartridge No. 2 is not inserted	
CHECK CARTRIDGES1,2 **START TO CONTINUE**	Cartridges No. 1 and 2 are not inserted	
CHECK CARTRIDGE 3 **START TO CONTINUE**	Cartridge No. 3 ist not inserted	
CHECK ALL CARTRIDGES **START TO CONTINUE**	No cartridge inserted	- Insert cartridges
CHECK THE CARTRIDGES **START TO CONTINUE**	Some cartridges are not inserted	- Insert cartridges
PRINTING ERROR **REPEAT LAST ADRESS**	Serious fault	- Replace control board R0612.1.501.11

Error message	Description	Solving the problem
WRONG LCA REVISION! PLEASE UPDATE LCA!	Incorrect LCA revision loaded	Obtain valid flashware from Support/ Internet and load into the printer
Feed Motor Jammed! START to continue!	The paper motor is blocked	Set paper separator. Replace control board R0612.1.501.11
Feed Motor Controller Fault! Call Service!	Fault in motor control system	Replace control board R0612.1.501.11

9.3.2 Warnings

| Warning	Description	Solving the problem
Warning:Non-Existant Font Selected	Font not in printer	Examine print image, unlock font setting in the printer
Position Warning! Reduce Left Margin!	Print area outside print area	Check print area outside paper lenght, reduce left margin on PC, set OFFSET EDGE to 0
Macro Too Large Or Wrong Hor. Position!	Graphics too wide	Graphic should alsways be on top left, max. 101mm wide, then convert to macro
Macro ID# In Use Macro Load Ignored!	Macro (same number) already exists, overwriting not possible	Delete macro and redefine it
MACRO HEIGHT EXCEEDS 1.5 INCH	Macro is too high	Reduce the height of the graphics by 38.1 mm
Image Height Exceeds The Maximum Value!	Print area higher than 38.1mm	No upper margin, set line spacing to exactly 12 points

9.4 Notes on maintenance

Cleaning the ink cartridges
HP51645A,C8842A, 6168A, 6169A, 6170A

Clean the nozzles of the ink cartridge with a *cleaning cloth* of brand TexWipe® *(Order no. KH-TX304)*

☞   The following materials are **NOT** suitable for cleaning   ☞
the print-head and the ink cartridges !

- Paper towels
- Toilet paper
- Sponges
- Cloths with abrasive materials or small fibers which can cling to the nozzle plate of the cartridges
- Dry cloths

To obtain optimum print quality, apply the cloth in line with the rows of nozzles (see photo below):
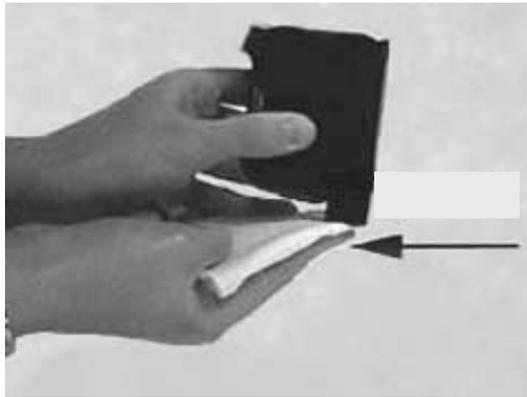
Contact and media rollers

Ensure that the contact and media rollers are kept clean at all times.
After printing, store the cartridges in a closed plastic container to avoid the ink drying out.