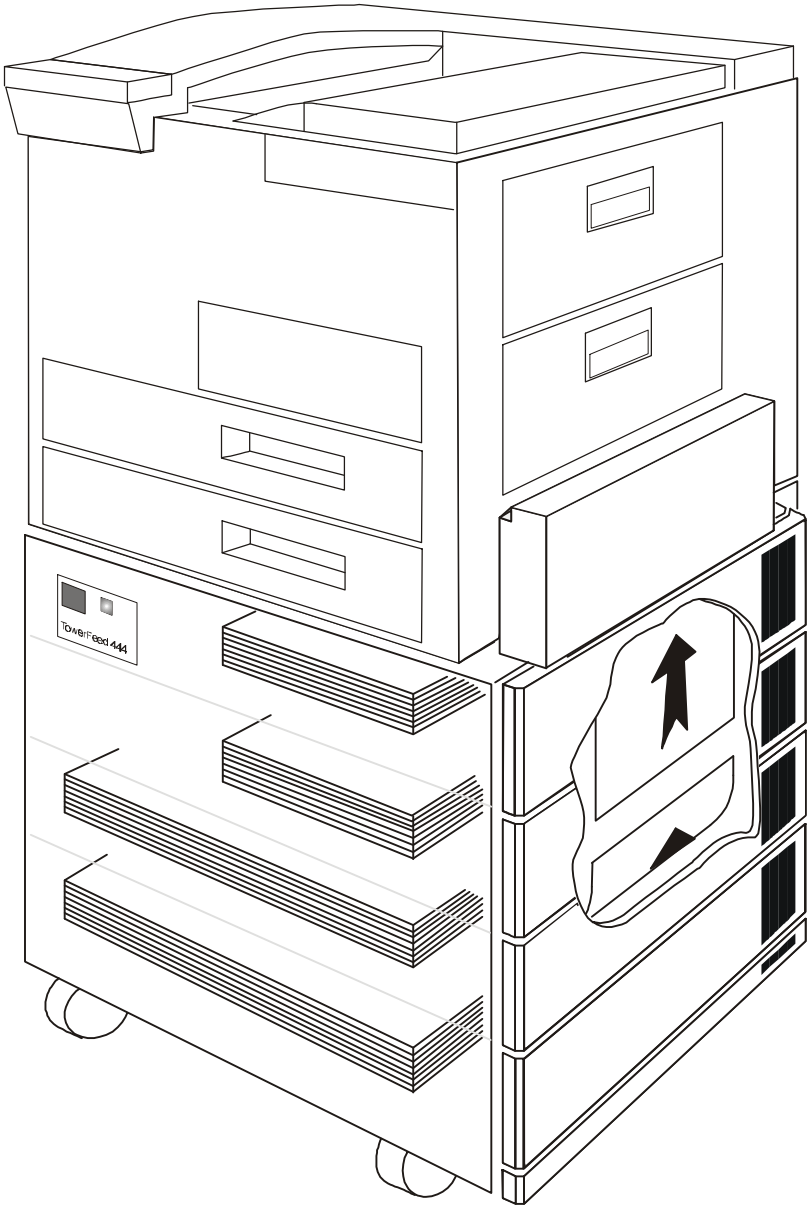
TowerFeed™ for the HP LaserJet 8150 / 8100 / 8000

Installation and User's Guide



Rutishauser

IU 661 / 0047

USER'S MANUAL

TowerFeed™ 444 for Hewlett-Packard LaserJet 8150 / 8100 / 8000 Printers

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Congratulations! You selected TowerFeed, a superior sheet feeder specifically designed by Rutishauser Data AG in collaboration with Hewlett-Packard, USA, to extend the paper handling capabilities of the HP LaserJet 8150 / 8100 / 8000.

The TowerFeed Option offers new possibilities. You can

- **select from up to 9 different paper types directly from your PC.**
- **print extra copies instead of going to the copier to make copies.** You get the better copies and you Color code copies of documents on color paper help to clearly identify a copy. The color already defines the addressee and you will save the marking of the copies.
- **realize an attractive alternative to the multi-part forms printed on conventional impact printers.** You will get better copies, raise the flexibility and you can save cost for expensive preprints and chemical papers.

We encourage you to read this manual carefully to ensure correct installation and reliable operation.
While installing TowerFeed, or whenever an unclear situation arises, please also consult the user's manuals of your HP LaserJet 8150 / 8100 / 8000, your computer system, your application software and your network software.

The name TowerFeed is generic to the TowerFeed family of automatic sheet feeders and is used throughout this manual. TowerFeed has this model number scheme:

TowerFeed 444/xx.60.1y

Version
1 = International (DIN A4 paper trays) 4 = US (110V, US Letter paper trays) 5 = Swiss (220V, DIN A4 paper trays)

Printer Model
60.1 = HP LaserJet 8150 / 8100 / 8000

Configuration
44 = desktop model, 3 x 500 sheets 66 = floor model, 6 x 500 sheets

For example: TF 444/66.60.11 is an international version with 6 DIN A4 paper trays.

A plate showing type, designation and serial number is located besides of the power inlet of TowerFeed. Please refer to this designation and the serial number whenever you call your service organization.

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UNPACKING

Note:
Prior to delivery, your TowerFeed was thoroughly tested and carefully packaged.
Please check your unit for transportation damage and/or missing parts immediately upon receipt.

It is advisable to get a second person to help you unpack the unit.

Warning:
TowerFeed may weigh up to 57 kilograms (130 pounds) depending on configuration.
To prevent back strain or injury, bend your knees when lifting the unit, and get help if you need

To unpack the TowerFeed unit, proceed as follows:

- Cut the packing strips ① and remove the top of the shipping container ② (Fig. 1).
- Remove the accessories box ⑨. It contains the rollers, the power and data cable, one diskette and this User's Manual (Fig. 7).
- Remove the four blue shock absorbers from the feed adapter and the upper edges of TowerFeed ⑤-⑧.
- Lay the unit on its side and carefully pull off the lower part of the shipping container ③+④ (Fig. 2), or enlist the help of another person to lift TowerFeed out of the container.

Caution:
Do not lift TowerFeed on the Feeder Adapter to prevent it from damage!

- Insert the rollers from the accessories box with some force onto the shafts on the TowerFeed bottom plate until they snap into position with an audible click ⑤ (Fig. 3).
- Stand up the TowerFeed unit ⑥ (Fig. 4).
- Remove the plastic from TowerFeed.

Warning:
For reshipping TowerFeed you must use the original packing to avoid shipping damage of the unit.

Re-packing (Fig. 5)

It is recommended that you keep the packaging material and inserts for proper protection of the unit and its parts in case of reshipment.

To repack TowerFeed, follow the above steps in reverse. Be sure that all accessories including manuals and diskettes are packed in the box. Remove the trays and insert the transportation inserts as shown in Fig. 8 (It is important to secure the trays to avoid possible shipping damage). Place items according to Fig. 5. Ensure TowerFeed is correctly seated and cushioned. Insert the four blue shock absorbers and close the container.

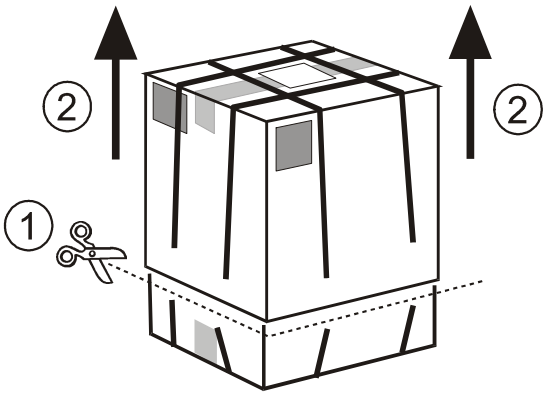

Fig. 1 Cut the packing strips and lift away the top of the shipping container.

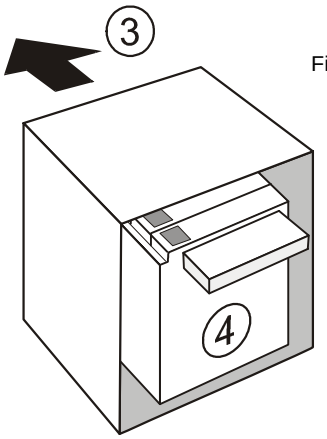

Fig. 2 Lay unit on side and carefully pull out TowerFeed from the bottom part of the shipping container.

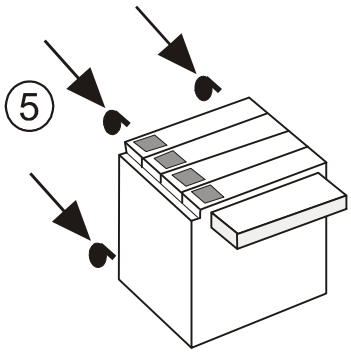

Fig. 3 Insert rollers

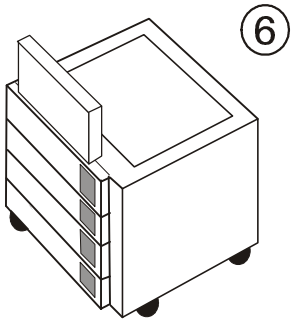

Fig. 4 Stand up TowerFeed and remove plastic

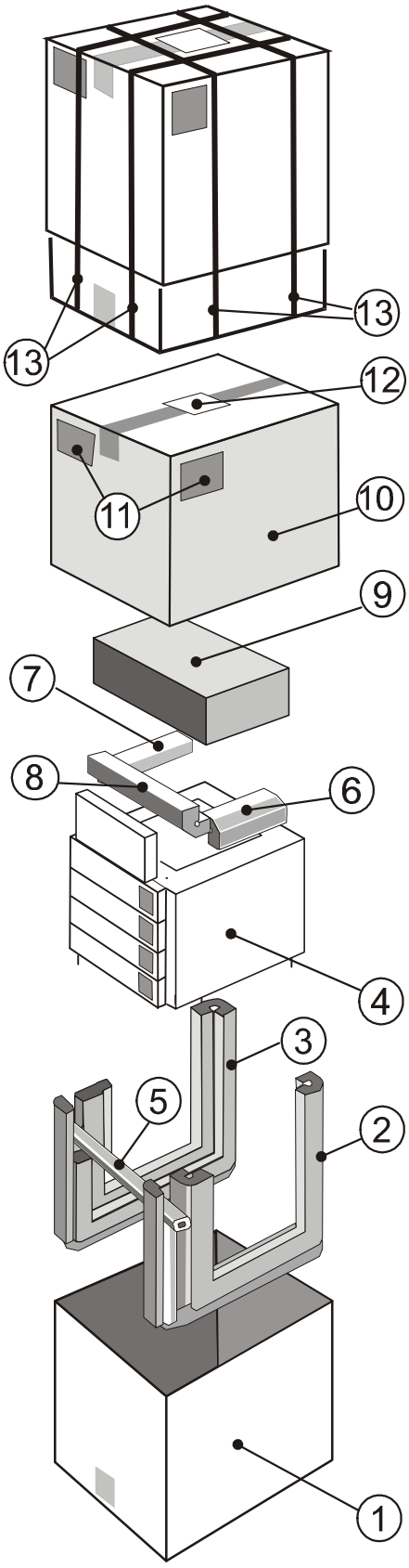

Fig. 5 Re-packing

BOX CONTENTS

Note:
Prior to delivery, your TowerFeed was thoroughly tested and carefully packaged.
Please check your unit for transportation damage and/or missing parts immediately upon receipt.

Box Contents

(1) TowerFeed unit with drawers

(2) Accessories box

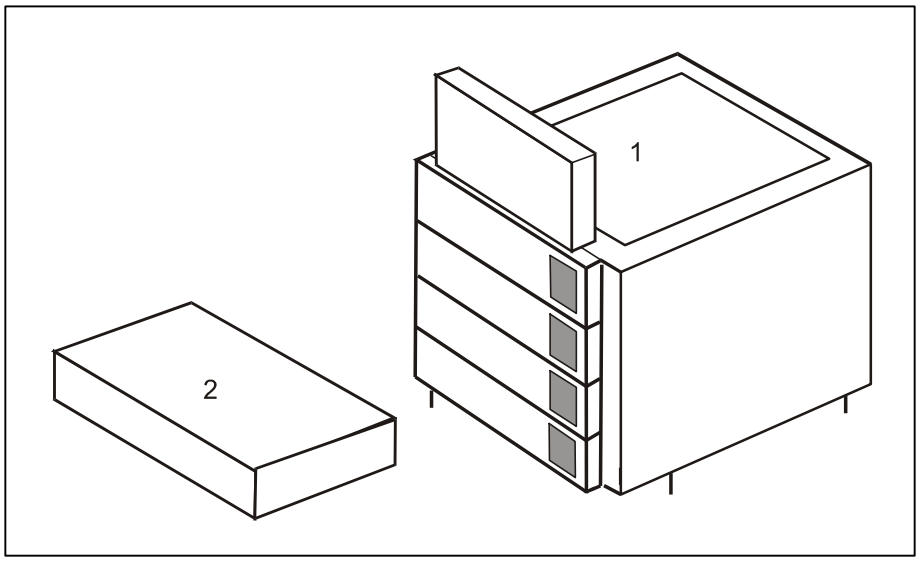

Fig. 6 Box Contents

Accessories Box Contents

(1) TowerFeed User's Manual (this manual)

(2) Data Cable

(3) Power Cable

(4) Rollers

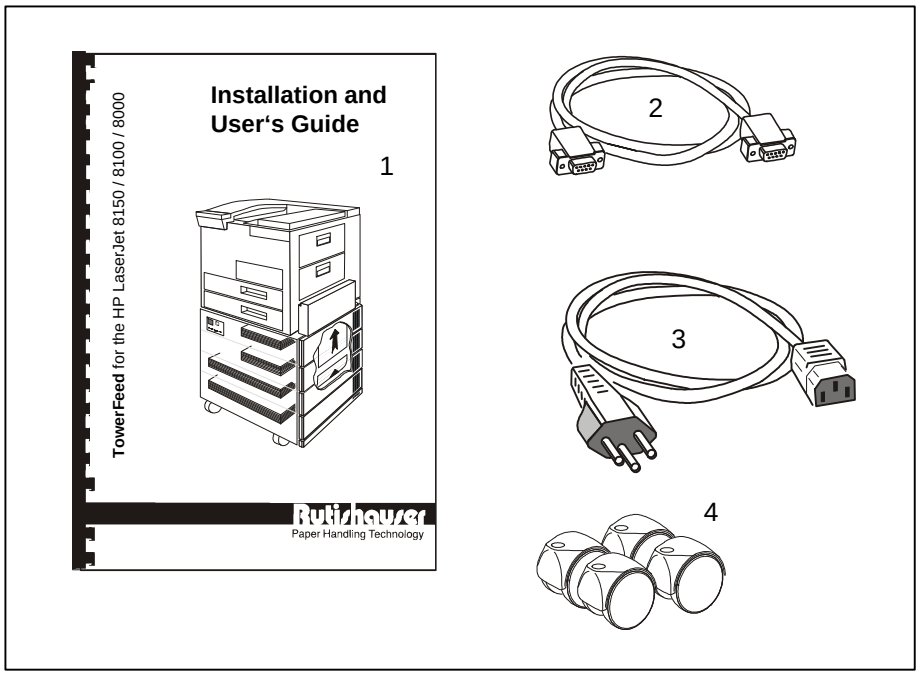

Fig. 7 Accessories Box Contents

Hardware Installation

> **Warning**:
> POWER OFF your printer and TowerFeed and disconnect all power and interface cables before you proceed with the installation.

Remove Transportation Inserts

- Pull out, lift upwards and remove the trays from TowerFeed. Remove the transportation inserts (Fig. 8). There are two at each side (keep the inserts for reshipment).
- Re-insert and close the trays.

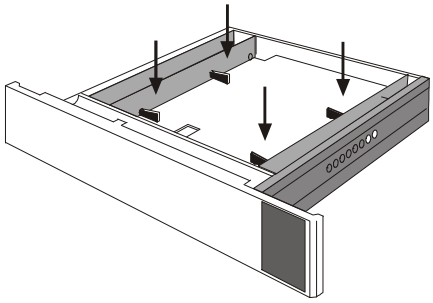

Fig. 8 Removing Transportation Inserts

> **Note:**
> Located on the right side of each tray you will find coding pins for the paper size. They are set by the factory and must not be changed.

Position and Connect Printer

> **Warning**:
> The printer may weigh up to 53 kilograms (120 pounds). Enlist the help of a second person to lift the unit. To prevent back strain or injury, bend your knees when lifting the unit.

- Place the TowerFeed unit at the location you wish. Be sure to place it on a flat location.
- Pull the feeder adapter open and carefully lift the laser printer onto TowerFeed. Place its positioning holes on the positioning pegs of the TowerFeed top (Fig. 9).
  Be careful to not damage the paper feeding adapter.

> **Caution**:
> To lift the printer use one hand for the left hand holds and the other hand to hold the printer at its right side.
> • Do not use the handholds on the right side of the printer.

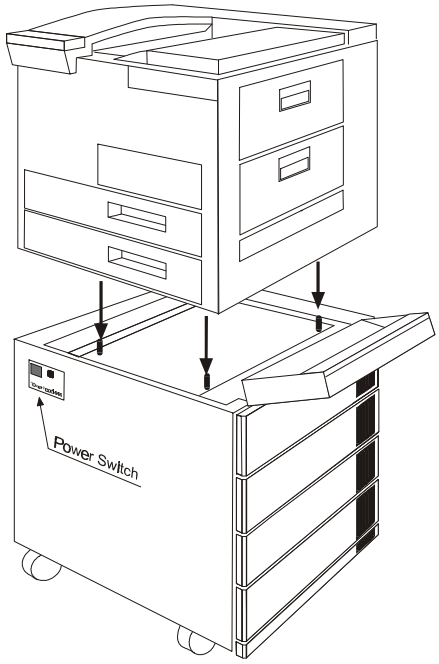

Fig. 9 Positioning the Printer and Location of the Power Switch

- Connect TowerFeed and printer with the C-Link cable (Fig. 10) - one end to the printer port (ACCESSORY) and the other end to the upper TowerFeed connector (••). The lower TowerFeed connector (•) allows to connect to further paper handling options (e.g. HP Multi-Bin Mailbox).

Note:
Secure the connectors with the screws to ensure proper connection of the systems.

- Connect the power cables to printer and TowerFeed (Fig. 10).

Note:
When you power on the system, power on FIRST TowerFeed and then the printer.

Caution:
When rolling TowerFeed and printer to another place, watch out when crossing doorsteps to not have the unit tipping over or TowerFeed drawers sliding open.

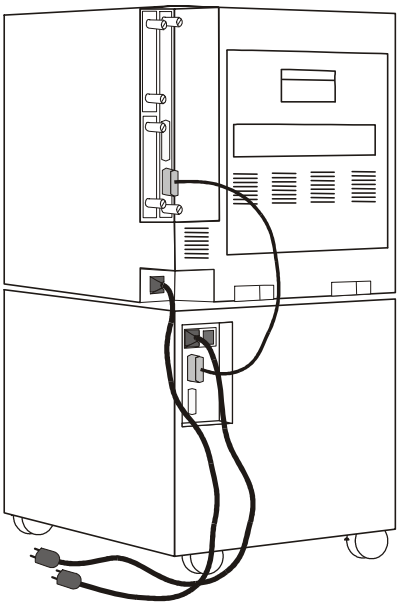

Fig. 10 Connecting the Cables

Printer Panel Settings

Papertype Assignments

By default, each paper tray has assigned the paper type PLAIN. In case of a paper out in a selected tray, the printer automatically will pull paper from another tray.
Assigning a different paper type to each tray inhibits the automatic switching to another tray if the selected tray runs out of paper.
To assign a paper type to an input tray, select with the menu key the PAPER HANDLING MENU and there the specific input tray. Then assign to each tray another one of the 11 predefined paper types.
If you have several trays with the same paper, assign to each of these trays the same paper type. This will increase your input capacity for this paper type, as the printer will automatically switch to the next tray with the same paper type in case the selected tray runs out of paper.
For further information please also refer to APPENDIX B – Tips & Hints.

> **Note:**
> PLAIN is the default paper type. In case a print job arrives without paper selection, the printer will pull paper from the first tray containing PLAIN paper (e.g. printer test pages).

Software Installation

Installation of Printer Driver

Install the printer drivers deliverd with your HP LaserJet according to the instructions.

For availability of the most recent printer drivers and drivers for other operating systems, please consult the HP WEB or our WEB site at http://www.rutishauser.ch/ti/sdlhp.htm.

> **Note:**
> After installing the new printer driver, exit and restart your Windows System.

Configuring the TowerFeed Option

To configure your printer with the TowerFeed option, go to the *Control Panel*, select *Printers* and there the respective HP LaserJet driver.

Click on *Properties*, and in the respective window the *Configure* tab.

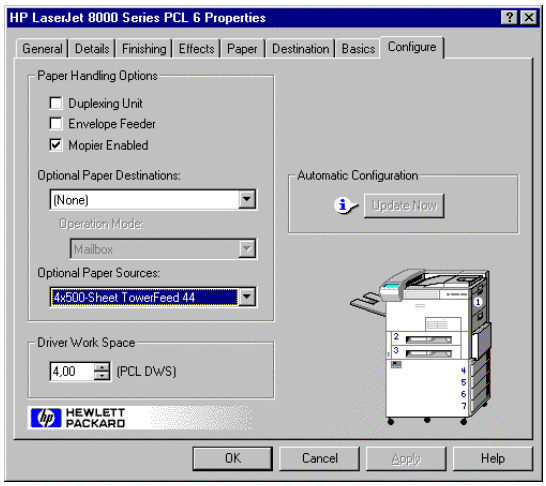

Fig 11 Configure Tab

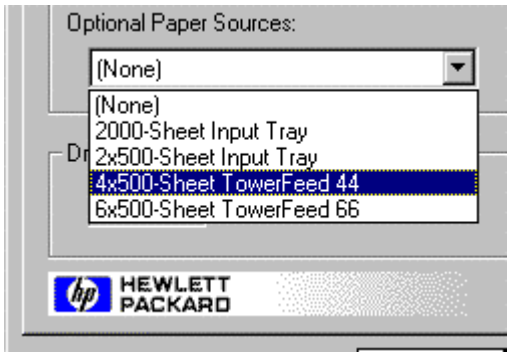

Fig. 11a Optional Paper Sources

In this window click in the pull-down bar for the *Optional Paper Sources:* to select your TowerFeed model (Fig. 11a). The artwork on the right will show the selected printer with the TowerFeed model installed (Fig. 11).

When clicking on the *Paper* tab you will see in the *Source is:* all available paper sources of your printer including the TowerFeed paper trays (Fig. 12).

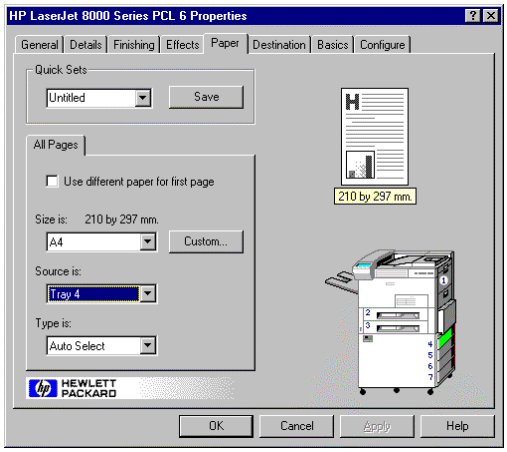

Fig. 12 Paper Tab

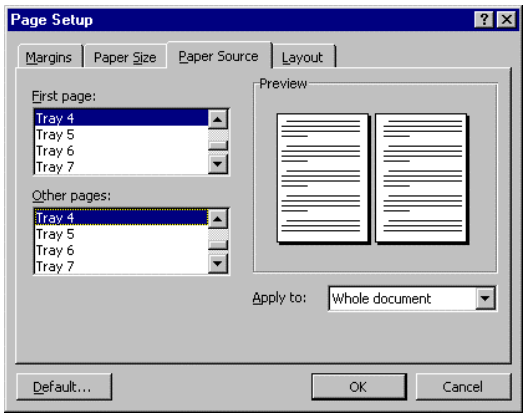

Fig. 13 Page Setup (Word 7)

In the application programs you select the paper sources in the Paper Setup function (File - Page Setup), where all available paper sources show up in the respective Paper Sources: pull-down bar(s) (Fig. 13).

> **Note:**
> For further information on Tray and Media Type definition please also refer to APPENDIX B - Tips & Hints of this manual.

Operation

Loading Paper

- Pull open the tray you wish to load until it reaches the stop or remove it completely for more convenient loading.
- Obtain a fresh ream of paper. Best results will be obtained using regular copier or laser printer paper (see "Paper Quality Guidelines").
  Hold the ream on the long edge and bend it in and out. Repeat on the short edge. Square it off properly (Fig. 14).
- Load letterhead paper face down, with the letterhead towards the right side.

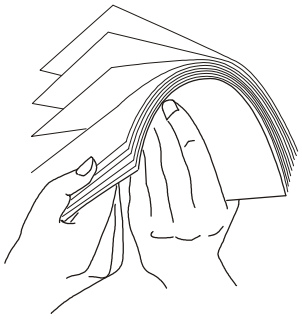

Fig. 14 Fanning the Paper

> **Note:**
> Duplex printing requires different loading of preprinted paper (please also refer to the instructions in the printer manual).
> *An additional TowerFeed tray will allow to have the same (preprinted) paper in two different trays and available online for regular and duplex printing.*

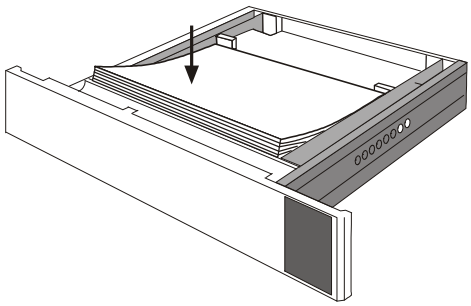

Fig. 15 Filling in Paper

- Insert approx. one third of the ream in the tray and ensure that all paper is lined up with the rear stop. Repeat two more times for the rest of the ream (Fig. 15).
- Push down the stack, such that all sheets are under the separation corners (Fig. 16).
- The right paper guide can be adjusted by pushing the separation corner tab to the left to ensure proper guiding of the paper.
- Push down on the paper stack a few times. The paper must move up and down freely.

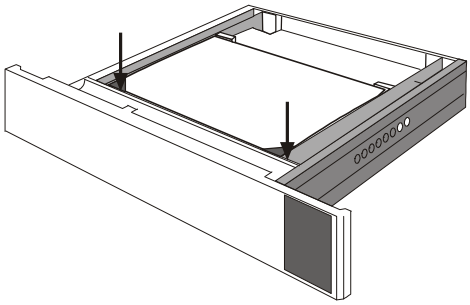

Fig. 16 Correct Paper Loading

> **Note:**
> For your convenience, you may insert a sample piece (about 1 inch/28 mm) of the loaded paper type into the extrusion as a reference when reloading the tray (Fig. 17).

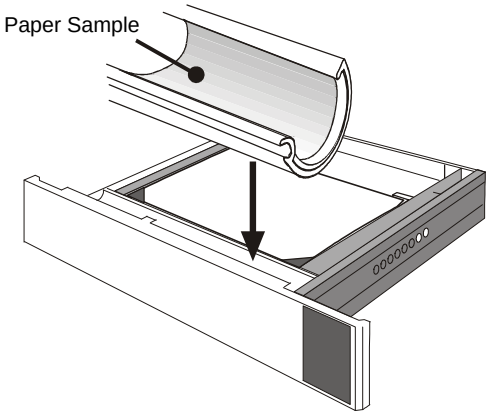

Fig. 17 Marking the Tray

- Close the tray. Repeat the procedure for all trays to be loaded.

Paper Tray empty

TRAY n EMPTY CHECK RIGHT DOOR	alternating with	READY

This message indicates an empty paper tray. Refill the depleted tray.
While feeding occurs from a higher tray, lower ones may be reloaded without interrupting feeding and printing.

Paper Tray depleted during Print Job

TRAY n LOAD Media Type & Size	(n = drawer number)

This message appears if the selected tray runs out of paper (and if there is no other tray with the same paper size and type, depending of the printer settings.)
If a tray runs out of paper, the printer will automatically switch to another tray with the same paper type and size and pull paper from there. Otherwise it displays that message, the Attention LED starts blinking, and a respective error message appears at the user screen (depending on the application).
Refill the tray with the correct paper. After closing the tray, the printer will resume printing.

Requested Paper missing

TRAY 1 LOAD Media Type & Size

This message indicates that the requested paper is not available, either because the print job explicitely asks paper from tray 1, or because it asks for paper from a tray which size and type does not correspond with the document page settings.
Load tray 1 with the requested paper or cross-check the settings for the document (Page Setup).

Paper Jam

In case of a paper jam, the printer panel Attention LED will start blinking and the printer display will show a respective message with the following meaning:

13.1 PAPER JAM	paper jam in printer
13.11 PAPER JAM	paper jam in TowerFeed

- In case of a **printer paper jam**, you will see the following alternating messages:

13.1 PAPER JAM CHECK RIGHT DOOR	alternating with	THEN OPEN AND CLOSE TOP COVER

Remove the paper jam and all other pages in the paper path and close all the cover(s). Printing will continue. For more details on clearing printer paper jams please refer to your printer manual (Chapter Maintenance and Trouble Shooting, Section Paper Jams).

- In case of a **TowerFeed paper error**, the following alternating messages will be displayed:

13.11 PAPER JAM IN INPUT DEVICE	alternating with	CHECK TRAY n AND RIGHT DOOR

and TowerFeed will beep with either one of the following sequences (depending on type of error):

or

(TowerFeed Paper Jam) (TowerFeed Motor Block)

Open the TowerFeed trays, starting with the lowest one. TowerFeed beeping will stop when the tray which fed the last sheet is opened. Remove the jammed paper from the TowerFeed paper path. Close all TowerFeed trays. Printing will continue automatically.

In case the printer could not automatically eject the remaining paper inside the printer, open the printer cover(s) and clear the paper path. Close the printer cover(s) to have the printer resume the print job.

PAPER QUALITY GUIDELINES

General

These paper quality guidelines are general recommendations. Paper beyond these specifications may work as well, however it should be tested before use. Paper is a material that reacts intensively to adverse temperature and humidity conditions. The observance of proper conditions as defined below is therefore essential for trouble-free operation of TowerFeed. Please also refer to the corresponding guidelines in the printer manual.

Paper Quality and Surface

Bond type papers and papers with slight rag content are recommended. For papers with high rag content, as well as very light and air mail papers, feeding tests must be conducted to check for satisfactory performance before regular use. Paper with embossed or heavy printing should be tested in TowerFeed before use, as well. Papers with glossy or structured surface are not recommended. Individual sheets in a stack must not be damaged, warped more than 3 mm (0. 12") at an angle of max. 20° or creased, since all these may reduce the feeding performance.

Paper Weight

60 - 95 g / m^2 (16 - 24 lb.). Other paper weights must be tested before use.

Tolerance

Paper must be cut to the appropriate size dimension within a tolerance of +/- 1.0 mm (+/- 0.04"). The paper stack must be cut square to within a tolerance of 90° +/- 0.1°.

Recommended Storage Environment

Temperature: 18°C - 24°C (64°F - 75°F)

Relative humidity: 40% - 60%

Printer Firmware Revision

The Firmware of your HP LaserJet printer must be the following Revision to correctly support the TowerFeed option:

HP LaserJet 8150	all revisions	
HP LaserJet 8100	5.29 or newer	
HP LaserJet 8000	>4.29	(lower firmware revisions do not support the 'POWESAVE' function)

In case your HP LaserJet 8000 printer does not have a newer printer Firmware revision than 4.29, you have to set the POWERSAVE function to OFF (printer panel: CONFIGURATION MENU, POWERSAVE = OFF) or ask your HP Dealer for a newer printer firmware.

Printer Driver Revision

Please use the drivers from the CD received with your printer.
For the most recent driver revisions available, please consult the HP WEB or our WEB site at http://www.rutishauser.ch/ti/sdlhp.htm.

HP LaserJet Duplexer Option

The printer's duplexing capabilities remain fully supported, with the TowerFeed paper handling option installed.

HP 2000-Sheet Tray and 2x500-Sheet Input Trays

TowerFeed is used instead of these options and therefore, they cannot be installed together with TowerFeed.

Optional HP Paper Output Units

These output options can be installed together with TowerFeed. For the TowerFeed 6-tray unit you can order a special stand to compensate for the height difference of the output option.

HP JetAdmin

The HP JetAdmin network printer administration software does not fully support the TowerFeed paper handling option, particularly not the remote paper type assignment to the paper trays. (This assignment has to be done via the printer panel, as described in Papertype Assignments on page 9 of this manual.)

APPENDIX B - Tips & Hints

Power ON Sequence

Power On TowerFeed first!

When powering on the printer, it will scan its option bus for available options. In case TowerFeed would not be ready at that point in time, the printer would not activate its support and not add this option to its configuration.

Printing on the wrong Paper

Why doesn't it print from the tray I selected?

If a selected Tray # does not contain the paper size assigned for the print job, the printer might look for other trays containing the demanded paper size, and if this is available (and with the same Media Type as Tray #) will pull paper from there.

The 3 Rules For Correct Paper Selection

1. **Assign a different Paper Type to every Tray # by using the printers control panel.**
   You may assign the same Paper Type to two or more tray numbers only if these trays all contain the same Paper Type.

2. **Make sure that you select the correct Paper Size for the selected Tray #.**
   The selected Paper Size in the application software must be the same as the size of the selected Tray #.

3. **Select paper within your application by Paper Type or by Tray #.**
   If a tray containing the selected Paper Type runs out, the printer will pull paper from other trays only if they have the same Paper Size and Type.

Paper Control and Selection

Selection Criteria

The HP LaserJet offers various possibilities to select paper by offering three selection criteria:

- Paper Size
- Paper Source (Tray number)
- Paper Type

The selection criteria differ in their priorities and can be changed using the JetAdmin utility software.

Paper Types

The Paper Type is a selection criteria which can be used to name trays and to distinguish between different paper types within a given paper size. The HP LaserJet offers 11 predefined Paper Types: Bond, Cardstock, Color, Labels, Letterhead, Plain, Preprinted, Prepunched, Recycled, Rough and Transparency.

Default Paper Type

Without a specific paper type assigned to a Tray, Plain becomes the default paper type.

Changing Paper Type from the Control Panel

1. Press MENU until PAPER HANDLING MENU appears
2. Press ITEM to scroll through the trays and their paper types
3. Press + to scroll through the paper type options
4. Press SELECT* to choose the type of paper you loaded in the tray.

Creating PAPER SEQUENCES for a Word Document

It is widely known that in Page Setup you have the possibility to enter different paper sources for First Page and Other Pages. If there are other pages in the document, which have to be printed on another paper, this can be defined in the same Page Setup window. In this window there is a pull-down bar *Apply to:* which is used for that purpose. The default setting is *Whole Document* but there are also the options *This point forward* and *Selected text,* which can be selected (Fig. 18 and 18a).

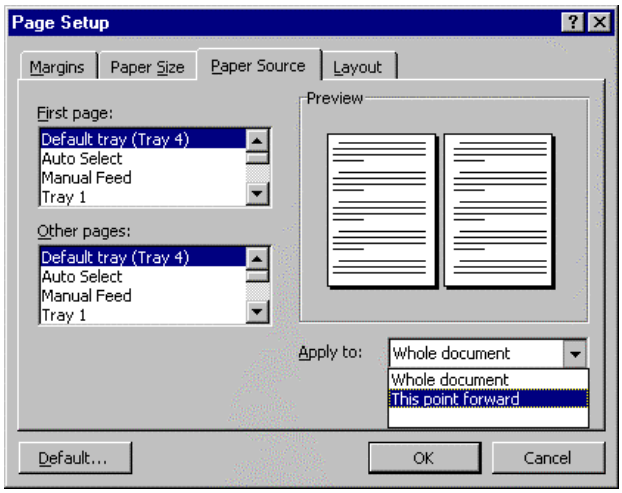

Fig. 18 Page Setup – This point forward

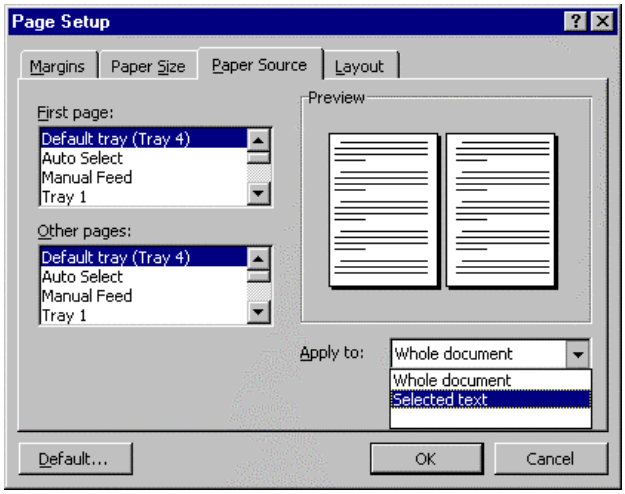

Fig. 18a Page Setup – Selected text

The option *Apply to:* allows to force a change of the paper source or from a specific page onwards and thus to define paper sequences for a whole document.

Printing a DOCUMENT WITH COPIES (Multi-Part-Form)

When printing a document you get either an original copy (copies = 1), or, if you set copies = n, you will get n times the same printout. Usually you want the original document to distinguish from its copies. An elegant method for that purpose is to print the copies on different (color) paper. This can be done by sending the print job several times to the printer but with different page settings. Using a Macro makes this an easy task.

On the next page you will find an example of a macro used for a Word document. The macro starts with 'Sub Macro' and ends with 'End Sub'. It consists of several sections (one per copy) which contain the paper definitions for each copy (FirstPageTray = xx; OtherPagesTray = yy).

You can use the Macro Recording function of Word (Extra-Macro-Record) to produce the first section by performing the steps for Page Setup and Print. Then, in Macro Edit mode, you copy/paste this section to have one for each copy to print (one section per copy). Finally you edit the entries in FirstPageTray = xx; OtherPagesTray = yy to the desired paper sources.
This will produce a macro, which prints the document in multiple copies and with the respective page settings. Such a macro can be incorporated into a Menu item or added as icon into the Toolbar.

> **Hint:**
> When creating and adding a Macro to the Toolbar for automatic printing of the final document with its copies, it might be useful to also create and add a second Macro for draft printing on cheap paper.

APPENDIX B - Tips & Hints

The following table shows the internal denominations of the paper sources:

HP LaserJet 8150 / 8100 / 8000		**Paper Type**
Tray	Denomination	
Tray 1 (HP Printer)	wdPrinterUpperBin	
Tray 2 (HP Printer)	wdPrinterLowerBin	e.g. Letterhead
Tray 3 (HP Printer)	wdPrinterLargeCapacityBin	e.g. Plain
Tray 4 (TowerFeed)	256	e.g. Bond
Tray 5 (TowerFeed)	257	e.g. Color
Tray 6 (TowerFeed)	258	
Tray 7 (TowerFeed)	259	
Tray 8 (TowerFeed)	260	
Tray 9 (TowerFeed)	261	

Example:
The following Word Macro will produce an original document (on company paper) incl. 2 copies (plain and color).

Page	**Original** (Copy 1)	**1st Copy** (Copy 2)	**2nd Copy** (Copy 3)
First Page	Letterhead	Plain	Color
Other Pages	Bond	Plain	Color

Macro Start

```
Sub Macro1 ()

    Macro1 Macro
    Macro recorded 05.06.98 by ...

ActivePrinter = "HP LaserJet 8000 Series PCL 6"
   Application.PrintOut FileName:="", Range:=wdPrintRangeOfPages, Item:= _
      wdPrintDocumentContent, Copies:=1, Pages:="1", PageType:=wdPrintAllPages, _
       Collate:=True, Background:=True, PrintToFile:=False
   With ActiveDocument.PageSetup
      .LineNumbering.Active = False
      .Orientation = wdOrientPortrait
      .TopMargin = CentimetersToPoints(1.8)
      .BottomMargin = CentimetersToPoints(2)
      .LeftMargin = CentimetersToPoints(2)
      .RightMargin = CentimetersToPoints(1)
      .Gutter = CentimetersToPoints(0)
      .HeaderDistance = CentimetersToPoints(0.5)
      .FooterDistance = CentimetersToPoints(2)
      .PageWidth = CentimetersToPoints(21)
      .PageHeight = CentimetersToPoints(29.7)
      .FirstPageTray = wdPrinterLowerBin
      .OtherPagesTray = 256
      .SectionStart = wdSectionNewPage
      .OddAndEvenPagesHeaderFooter = False
      .DifferentFirstPageHeaderFooter = False
      .VerticalAlignment = wdAlignVerticalTop
      .SuppressEndnotes = False
      .MirrorMargins = True
   End With
   Active Document.PrintOut
```

```
With ActiveDocument.PageSetup
      .LineNumbering.Active = False
      .Orientation = wdOrientPortrait
      .TopMargin = CentimetersToPoints(1.8)
      .BottomMargin = CentimetersToPoints(2)
      .LeftMargin = CentimetersToPoints(2)
      .RightMargin = CentimetersToPoints(1)
      .Gutter = CentimetersToPoints(0)
      .HeaderDistance = CentimetersToPoints(0.5)
      .FooterDistance = CentimetersToPoints(2)
      .PageWidth = CentimetersToPoints(21)
      .PageHeight = CentimetersToPoints(29.7)
      .FirstPageTray = wdPrinterLargeCapacityBin
      .OtherPagesTray = wdPrinterLargeCapacityBin
      .SectionStart = wdSectionNewPage
      .OddAndEvenPagesHeaderFooter = False
      .DifferentFirstPageHeaderFooter = False
      .VerticalAlignment = wdAlignVerticalTop
      .SuppressEndnotes = False
      .MirrorMargins = True
   End With
   Active Document.PrintOut
   With ActiveDocument.PageSetup
      .LineNumbering.Active = False
      .Orientation = wdOrientPortrait
      .TopMargin = CentimetersToPoints(1.8)
      .BottomMargin = CentimetersToPoints(2)
      .LeftMargin = CentimetersToPoints(2)
      .RightMargin = CentimetersToPoints(1)
      .Gutter = CentimetersToPoints(0)
      .HeaderDistance = CentimetersToPoints(0.5)
      .FooterDistance = CentimetersToPoints(2)
      .PageWidth = CentimetersToPoints(21)
      .PageHeight = CentimetersToPoints(29.7)
      .FirstPageTray = 257
      .OtherPagesTray = 257
      .SectionStart = wdSectionNewPage
      .OddAndEvenPagesHeaderFooter = False
      .DifferentFirstPageHeaderFooter = False
      .VerticalAlignment = wdAlignVerticalTop
      .SuppressEndnotes = False
      .MirrorMargins = True
   End With
   Active Document.PrintOut
End Sub
```

Macro End

APPENDIX C - Standard Applications

Where to select Paper Size and Paper Type

You select the TowerFeed option paper sources from your standard application software the same way as the regular printers paper sources.

Please also refer to Appendix B (Tips & Hints - The 3 Rules For Correct Paper Selection) for recommendations on which paper selection criteria to use.

Below you will find the information on where to set the paper selection parameters in the most common standard applications.

MS-WORD:	File - Page Setup –	Paper Size	Paper Size:
		Paper Source	First Page:
			Other Pages:
EXCEL:	File - Print - Properties - Paper		Size is:
			Source is:
			Type is:
	File - Page Setup -	Page	Paper Size:
		Page - Options - Paper	Size is:
			Source is:
			Type is:
WRITE:	File - Print - Setup		Paper Size:
			Paper Source:

APPENDIX D - Macintosh Environment

This information was not yet available at printing time.

Please refer to our WEB site for the most recent software versions: http://www.rutishauser.ch/ti/sdlhp.htm.

APPENDIX D - Macintosh Environment

This information was not yet available at printing time.

Please refer to our WEB site for the most recent software versions: http://www.rutishauser.ch/ti/sdlhp.htm.

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APPENDIX E - PCL Paper Selection Commands

Frequently used PCL commands for Paper Selection:

<table>
<tr><th>Command</th><th>function</th><th># refers to HP LaserJet 8150 / 8100 / 8000</th></tr>
<tr><td>ESC & l # H</td><td>Selects Paper Source</td><td>0 print/eject page
1 Tray 2
2 Manual Feed - Paper
3 Manual Feed - Envelope
4 Tray 4 (2000-Sheet Input Tray*)
5 Tray 3
6 Envelope Feeder
7 Auto Select
8 Tray 1
20 Tray 4 (TowerFeed Tray 1)
21 Tray 5 (TowerFeed Tray 2)
22 Tray 6 (TowerFeed Tray 3)
23 Tray 7 (TowerFeed Tray 4)
24 Tray 8 (TowerFeed Tray 5)
25 Tray 9 (TowerFeed Tray 6)
*NA with TowerFeed installed</td></tr>
<tr><td>ESC & l # A</td><td>Selects Paper Size</td><td>2 = Letter
3 = Legal
6 = 11 in x 17 in
26 = A4
27 = A3
for other sizes please refer to your printer manual</td></tr>
<tr><td>ESC & n # Wd mediatype</td><td>Selects Paper Type</td><td>
<table>
<tr><th>#</th><th>mediatype</th><th>Panel Display**</th></tr>
<tr><td>6</td><td>Plain</td><td>PLAIN</td></tr>
<tr><td>11</td><td>Preprinted</td><td>PREPRINTD</td></tr>
<tr><td>11</td><td>Letterhead</td><td>LTRHEAD</td></tr>
<tr><td>13</td><td>Transparency</td><td>TRNSPRNCY</td></tr>
<tr><td>11</td><td>Prepunched</td><td>PREPUNCHD</td></tr>
<tr><td>7</td><td>Labels</td><td>LABELS</td></tr>
<tr><td>5</td><td>Bond</td><td>BOND</td></tr>
<tr><td>9</td><td>Recycled</td><td>RECYCLED</td></tr>
<tr><td>6</td><td>Color</td><td>COLOR</td></tr>
<tr><td>11</td><td>Cardstock</td><td>CARDSTOCK</td></tr>
<tr><td>6</td><td>Rough</td><td>ROUGH</td></tr>
</table>
**indication for refernce purposes only
</td></tr>
</table>

APPENDIX F - Troubleshooting

Diagnosing an Error Situation

When calling for support, please have the Printer test pages at hand (Configuration Page, Menu Map and Event Log Page as per APPENDIX G).

Pos	LED	Printer Display	TF Beeping	Description	Action / Remarks
1	OFF	TRAY n OPEN alternating with READY		Tray n open	Close Tray
2	OFF	TRAY n EMPTY alternating with READY		Empty Tray without pending print request	Reload tray n
3	ON	TRAY 1 LOAD Media Type & Size		Requested paper not available	Load Tray 1 with the correct size See printer manual to change Media Size and Type through the printer control panel.
4	ON	TRAY n LOAD Media Type & Size		Paper requested from empty Tray n	Refill Tray n Switches automatically to next Tray with same Size & Type and pulls paper from there (depending on settings).
5	ON	13.1 PAPER JAM CHECK RIGHT DOOR alternating with THEN OPEN AND CLOSE TOP COVER		Paper jam in Printer	Clear paper jam and all other sheets from the paper path. Open/close printer cover(s) Also refer to section 'OPERATING - 'Paper Jam' in this manual and to your printer manual for further details.
6	ON	13.11 PAPER JAM IN INPUT DEVICE alternating with CHECK TRAY n AND RIGHT DOOR	Beep Type 2 or Beep Type 3	Paper jam in TowerFeed TowerFeed Motor blocked	Clear paper jam in TF. Close TF Tray(s). Open TF Tray(s). Remove all sheets from the TF paper path. Close TF Tray(s). In case error stays, call Service.

For TF Beeping Sequences (TF Beep Types) see next page.
For other error messages on the printer panel display please refer to your printer manual.

TowerFeed Beep Types

Type 0 (1x short)		TowerFeed Reset Beep (e.g. after Power ON)
Type 1 (short – short)		Paper in TowerFeed paper path after a printer Reset
Type 2 (long – long)		Paper Jam in TowerFeed
Type 3 (short – long)		TowerFeed Motor blocked
Type 4 (6x short)		Opening a TowerFeed tray or the paper feeding adapter during a feed cycle

APPENDIX G – Printer Selftest Pages

The following three functions allow you to print out information about your printing system configuration. These pages can be selected via printer panel (Item: INFORMATION MENU).

> **Note:**
> The information for the configuration page are recorded at power-up time. There is no update of the changes after power-up.

Configuration Page (Sample page on page 27)

This page will be printed via printer panel (INFORMATION MENU - PRINT CONFIGURATION).
Of particular interest are the indications under Paper Trays and Options where you can see:

Paper Trays and Options

- PH Controller (Revision) PHC
- Device 1: Rutishauser TOWERFEED 444 option with configuration,
  Firmware Revision of Option PCB/Logic PCB,
  installed trays [size code*] and tray capacity
  *[size codes]: A4=6, A3=4, US Letter=7 , US Legal=3, US Ledger=5

Menu Map (Sample page on page 28)

The Menu Map page can be selected via printer panel (INFORMATION MENU - PRINT MENU MAP).
This page is showing the different paper sources and its allocated Media Types.

PAPER HANDLING MENU showing paper sources (trays) with the allocated Media Types, e.g.
Tray 4 TYPE = LETTERHEAD

Event Log Page (Sample page on page 29)

Via printer panel (INFORMATION MENU - PRINT EVENT LOG) you can print the Event Log Page showing the last 50 system errors including an error code for identification. Very helpful for diagnosing purposes!

TowerFeed error codes:

13.1x.3n	TowerFeed Paper Jam
13.1x.2n	TowerFeed Motor blocked

x = Device numer
n = TowerFeed tray number (not printer tray)

> **Note:**
> Whenever calling for service, please make sure to have these information pages at hand.

HP LaserJet *8000 series printers*

HEWLETT PACKARD

Configuration Page 1

Printer Information

```
Product Name:  HP LaserJet 8000 Series
Printer Name:  HP LaserJet 8000 Series
Printer Number:  10
Formatter Number:  S46XXXXXXXX
Printer Serial Number = XXXXXXXXXX
Firmware Datecode:  980318 MOBY4.26
PS Wait Time-out:  300 seconds
Page Count:  191480
Preventive Maintenance Interval: 350000
Pages Since Last Maintenance: 191480
HP JetSend Address: ip:10.1.1.229
```

Memory

```
Total Memory:  24 MBytes
PCL DWS:  19.22
I/O Buffering:
  100K bytes Allocated of 16300K bytes Available
Resource Saving:
  0K bytes Allocated of 13300K bytes Available
```

Event Log

```
Number of Entries in Use:  2
Maximum Number of Entries:  30
Last Three Entries:
Number  Error     Page Count
   2    13.11 22    191482
   1    13.11 32    191481
```

Security

```
Control Panel Lock:  NONE
Control Panel Password:  ENABLED
Write Protect:  DISABLED
```

Installed Personalities and Options

```
PCL  (19980318)
PCLXL  (19980318)
PS  (19980318)
DIMM Slot 1:  Empty
DIMM Slot 2:  Side 1: 8 MByte SDRAM
              Side 2: 8 MByte SDRAM
DIMM Slot 3:  Empty
EIO 1:  HP JETDIRECT              J3113A
EIO 2:  Disk (HP C2985A)
EIO 3:  Empty
DISK Storage:  1408176K byte Capacity
```

Paper Trays and Options

```
Mopier: ON
Default Paper Size:  A4
Tray 2 (A4)
Tray 3 (A3)
Duplex Unit
PHC V1.0 (19980318)
Device 1:
   RUTISHAUSER
   TOWERFEED 6-BIN REV: 4.5/5.6 [777735]
     Input Trays:
        1: TRAY 4, 500 Sheets
        2: TRAY 5, 500 Sheets
        3: TRAY 6, 500 Sheets
        4: TRAY 7, 500 Sheets
        5: TRAY 8, 500 Sheets
        6: TRAY 9, 250 Sheets
```

Please refer to page 26 for more information on this page.

HEWLETT PACKARD

HP LaserJet 8000 series printers

Menu Map 1

INFORMATION MENU

PRINT
MENU MAP
PRINT
CONFIGURATION
PRINT
PCL FONT LIST
PRINT
PS FONT LIST
PRINT
FILE DIRECTORY
PRINT
EVENT LOG
SHOW
EVENT LOG
PRINT
PAPER PATH TEST

Menu Continued

APPEND CR TO LF=
NO
PRINT PS ERRORS=
OFF

PAPER HANDLING MENU

TRAY 1 MODE=
FIRST
TRAY 2 TYPE=
ROUGH
TRAY 3 TYPE=
PREPRINTD
TRAY 4 TYPE=
LTRHEAD
TRAY 5 TYPE=
TRNSPRNCY
TRAY 6 TYPE=
PREPUNCHD
TRAY 7 TYPE=
LABELS
TRAY 8 TYPE=
BOND
TRAY 9 TYPE=
RECYCLED

Menu Continued

PAPER DEST=
STANDARD OUTBIN
MANUAL FEED=OFF
DUPLEX=OFF
OVERRIDE
A4/LETTER=NO

CONFIGURATION MENU

POWERSAVE=
15 MINUTES
PERSONALITY=
AUTO
RESOURCE SAVE=
OFF
CLEARABLE
WARNINGS=JOB
AUTO CONTINUE=
ON
TONER LOW=
CONTINUE
JAM RECOVERY=
AUTO

I/O MENU

I/O TIMEOUT=15
I/O BUFFER=AUTO
PARALLEL HIGH
SPEED=YES
PARALLEL ADV
FUNCTIONS=ON

PRINT QUALITY MENU

RESOLUTION=
FASTRES 1200
RET=MEDIUM
ECONOMODE=OFF
TONER DENSITY=3
CREATE
CLEANING PAGE

EIO 1 JETDIRECT MENU

CFG NETWORK=NO

PRINTING MENU

COPIES=1
PAPER=
A4
CONFIGURE CUSTOM
PAPER=NO
FORM=64 LINES
ORIENTATION=
PORTRAIT
PCL FONT SOURCE=
INTERNAL
PCL FONT NUMBER=
0
PCL FONT PITCH=
10.00
PCL SYMBOL SET=
PC-8
COURIER=REGULAR
WIDE A4=YES

RESETS MENU

RESET MEMORY
RESTORE FACTORY
SETTINGS
RESET ACTIVE I/O
CHANNEL
RESET ALL I/O
CHANNELS

Please refer to page 26 for more information on this page.

HP LaserJet *8000 series printers*

HEWLETT PACKARD

Event Log Page 1

Current Page Count: 191488 Serial Number: XXXXXXXXXX

Number	Error	Page Count	Description or Personality
2	13.11 22	191482	EXTERNAL INPUT DEVICE PAPER JAM
1	13.11 32	191481	EXTERNAL INPUT DEVICE PAPER JAM

Please refer to page 26 for more information on this page.

APPENDIX H - TowerFeed Selftest

TowerFeed Selftest Feature

The TowerFeed selftest feature allows to test the TowerFeed unit independently from any printer and computer. With this test you can check for correct paper feeding (horizontal position, skew, jam behavior).

> **Note:**
> To perform a TowerFeed selftest, remove the printer's paper cassette.

Follow the following steps:

- Power-off TowerFeed.
- Open all TowerFeed Trays (approx. 5 cm is sufficient).
- Put a (deflector-) sheet of paper between the TowerFeed paper feeding adapter and the printer (to avoid the sheet being fed to enter into the printeer’s paper path).
- Power-on TowerFeed.
- Wait until you hear a short beep followed by the clicking of the solenoid activation in every module, and finally the spinning of the motor (approx. 5 sec).
- Close the top-most TowerFeed tray. After a few seconds a sheet will be fed from this drawer. You now can mark on the (deflector-) sheet the position of the left border of the (reference for horizontal paper position).
- Pull out the sheet from its waiting position. TowerFeed will automatically feed a next sheet. You now can compare the position of the left border of the next sheet. If it moves up straight in the same position, this is ok. (In case the left position would be different, or moving from left to right (or vice-versa), this might indicate a problem in either the tray, the unit (module) or the paper loading.)
- To test the next lower tray, close that tray before removing the sheet from its waiting position. Now TowerFeed will feed the sheet from that next lower tray. (TowerFeed will always feed the next sheet from its lowest closed tray.)
- To revert to normal operation, remove the (deflector-) sheet and power-off and on TowerFeed again with at least on tray closed. TowerFeed will respond with a short 'Reset' beep that it is ready again.

In case error conditions are showing up which are depending on a specific TowerFeed tray, you can swap trays to find out whether a problem exists with the tray itself or whether a specific module is the cause.

APPENDIX I - Cleaning and Maintenance

TowerFeed does not require preventive maintenance. Cleaning of housing and removal of paper dust from within the TowerFeed drawers might now and then be indicated.

Clean the outside of TowerFeed with a lightly water-dampened cloth. Do not use detergents to avoid damage of the surfaces.

To **clean the paper drawers** from paper dust, completely remove the drawers from TowerFeed, remove the paper and use a vacuum cleaner with a soft brush.

> **Warning:**
> To avoid damage to the paper-out sensor arms do not reach into the openings for the paper drawers.

APPENDIX J – TowerFeed Specifications

Dimensions and Weights:	*Model Designation*	*Width*	*Depth*	*Height*	*Weight*
Desktop Model	TF 444/44.60	608 mm	521 mm	480 mm	38.7 kg
Floor Model	TF 444/66.60	608 mm	521 mm	660 mm	56.8 kg

Paper Specifications: 60 - 95 g/m^2 (16 - 24 lb.)

Note: Also consult the paper specifications for your printer.

Paper Trays:

Standard trays:
Europe: A4 Landscape (European Size)
USA: US Letter Landscape (8$^1/_2$" x 11")

Optional trays:
Europe: A3 Portrait
USA: US Legal Portrait (8$^1/_2$" x 14")
US Ledger Portrait (11" x 17")

Tray capacity:

Small paper sizes (A4, Letter, Legal): Up to 500 sheets or a stack of 50 mm, whichever, depending on paper weight, is reached first.

Large paper sizes (A3, Ledger): Up to 250 sheets or a stack of 26 mm, whichever, depending on paper weight, is reached first.

Positioning accuracy: For bond type paper typically better than

vertical: +/- 2.0 mm (0.08")

horizontal: +/- 2.0 mm (0.08")

skew: 2.5 mm (0.10")

Temperature:
Operating: 10°C to 32°C (50°F to 90°F)
Storage: -25°C to 50°C (-13°F to 122°F)

Relative humidity (non-condensing):
Operating: 30% to 80%
Storage: 5% to 95%

Note: Observe recommended storage conditions for paper (see 'Paper Quality Guidelines').

Power Requirements:
220 - 240 V~ +/-10%, 50 Hz, 100 mA
or
100 - 120 V~ +/-10%, 60 Hz, 200 mA

Fuse Type:
220 - 240 V: 150 mA slow (5x20mm)
100 - 120 V: 300 mA slow (5x20mm)

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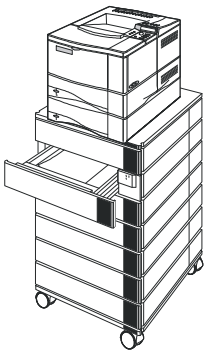
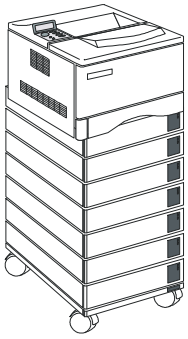
Further Options for HP LaserJets:



TowerFeed 444 for
the HP LaserJet 4050/4000



TowerFeed 444 for
the HP LaserJet 5000

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