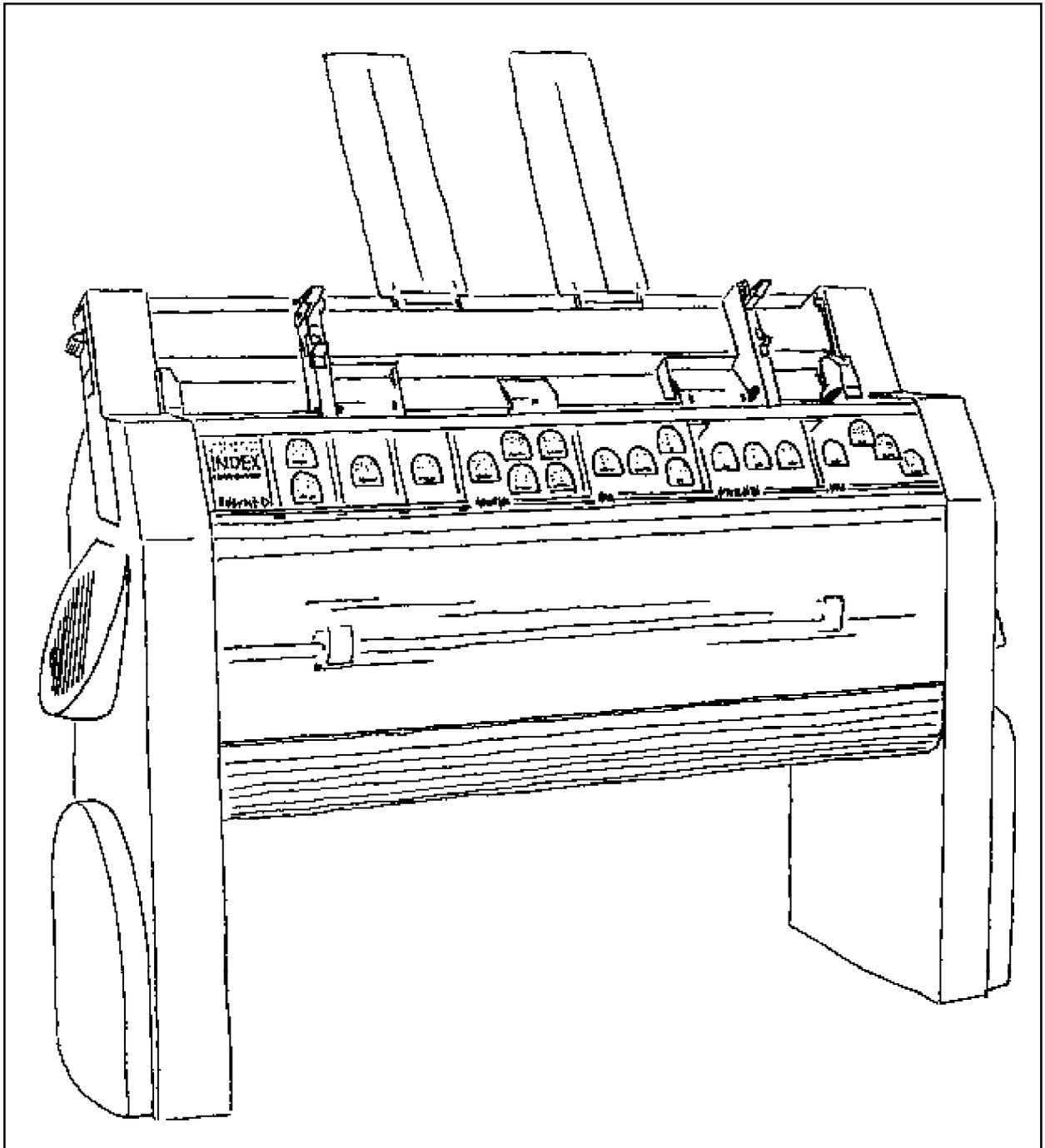

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INDEX EVEREST-D

100 cps Interpoint Braille printer

User manual version 4.32



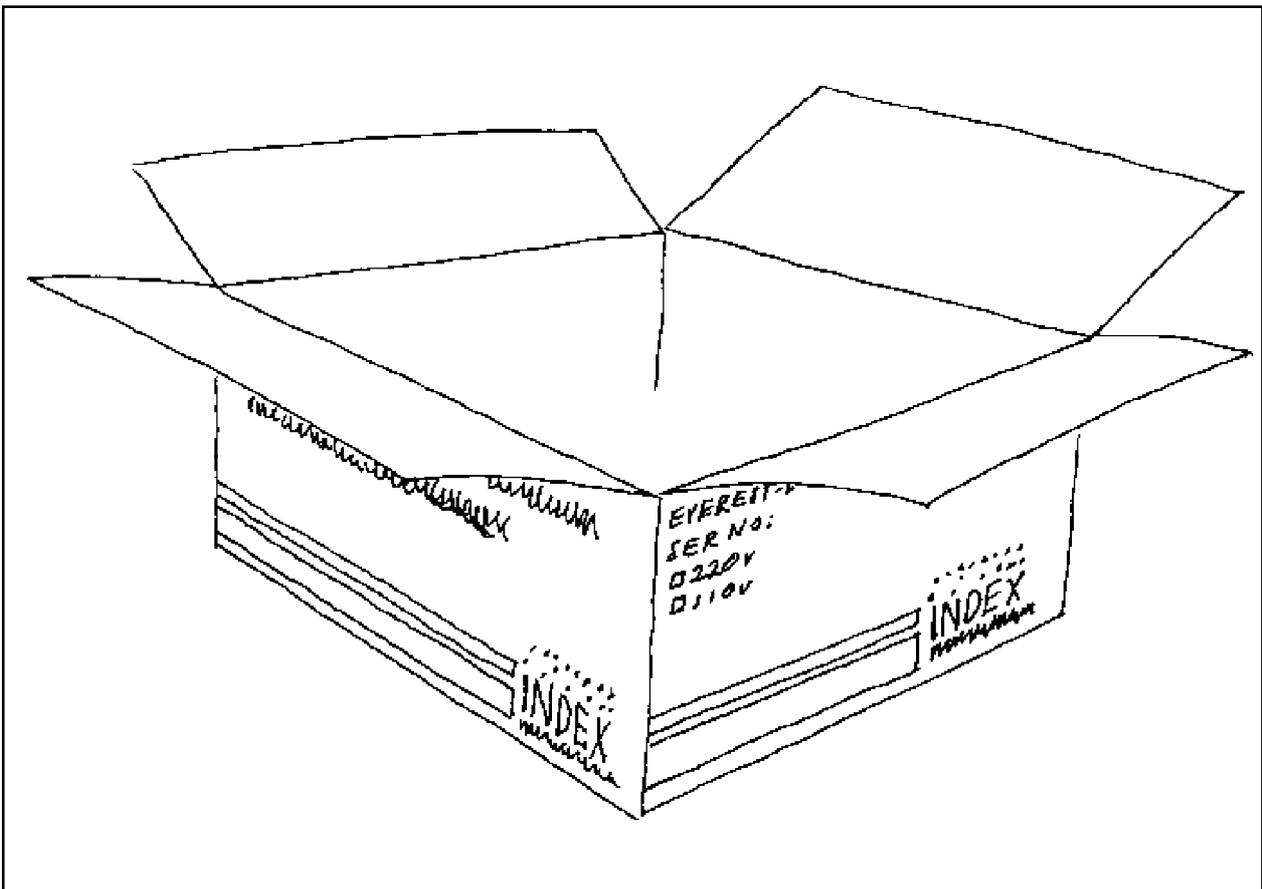
1. Unpacking.

1.1 Unpacking instructions.

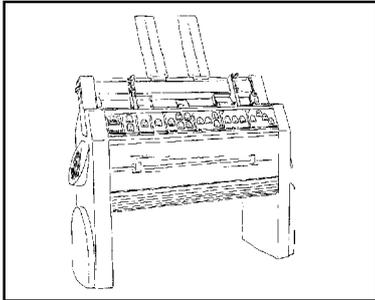
1. Open the top of the box, and remove the chock absorbing plastic.
2. Lift the Everest-D from the box and place it on a table.
3. Check that the voltage on the printer is the same as your voltage, 115 or 230V.
Note! If the pre-installed voltage by any reason should be incorrect, change the voltage on the switch under the left leg.
4. Save the transportation material back in the box.
5. Place the document collector underneath the printer.
6. Pull out the two plastic printinghead transportation lockings, located in the sheetfeeder. Save them together with the transportation material in the box. It is important that you replace them if you by any reason need to ship the printer.
Note! Printer should be shipped only in original packing!
7. Put both paper guides on the top of the sheet feeder.

We understand that you want to test your Everest, however we recommend that you read chapters 1-3 in the manual before you start to use your printer.

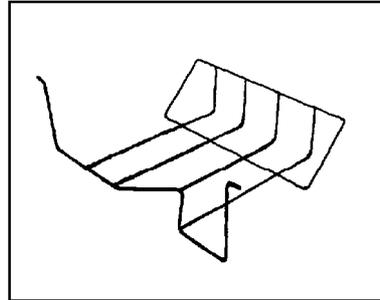
Before installing the printer make sure that there is no visible damages to the printer and that the delivery is complete. If you encounter any problems, contact your local dealer.



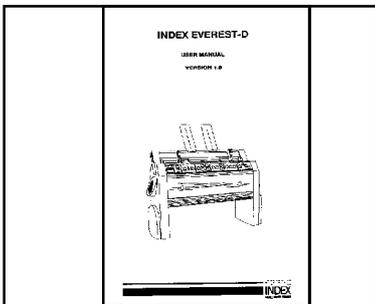
1.2 Unpacking checklist.



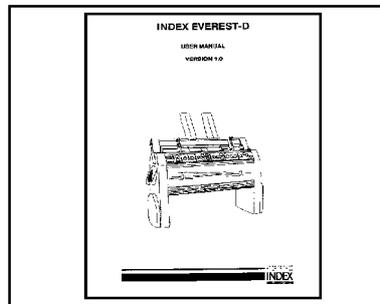
INDEX EVEREST-D



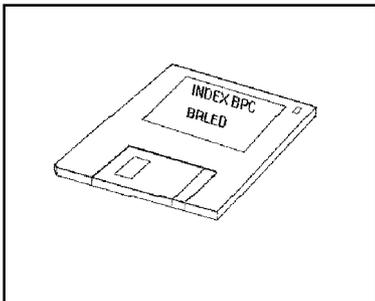
DOCUMENT COLLECTOR



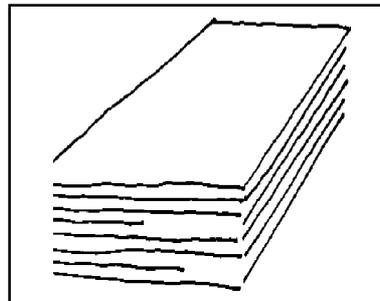
USER MANUAL INKPRINT



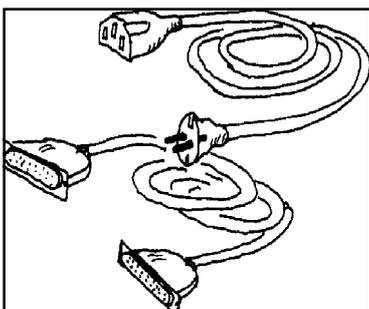
USER MANUAL BRAILLE



SUPPORT DISK



BRAILLE PAPER



CABLES

2. Before start printing.

2.1 How to use this manual.

This manual is organized in 9 chapters, with a table of contents and an index. Chapters 1-3 includes the basic information to get the printer up and running. We recommend that you read chapters 1-3 before you start the printer. Chapters 4-8 includes information about the different detailed functions of the Everest. Chapter 9 is an Appendix for the control sequences in the Pro-printer emulation.

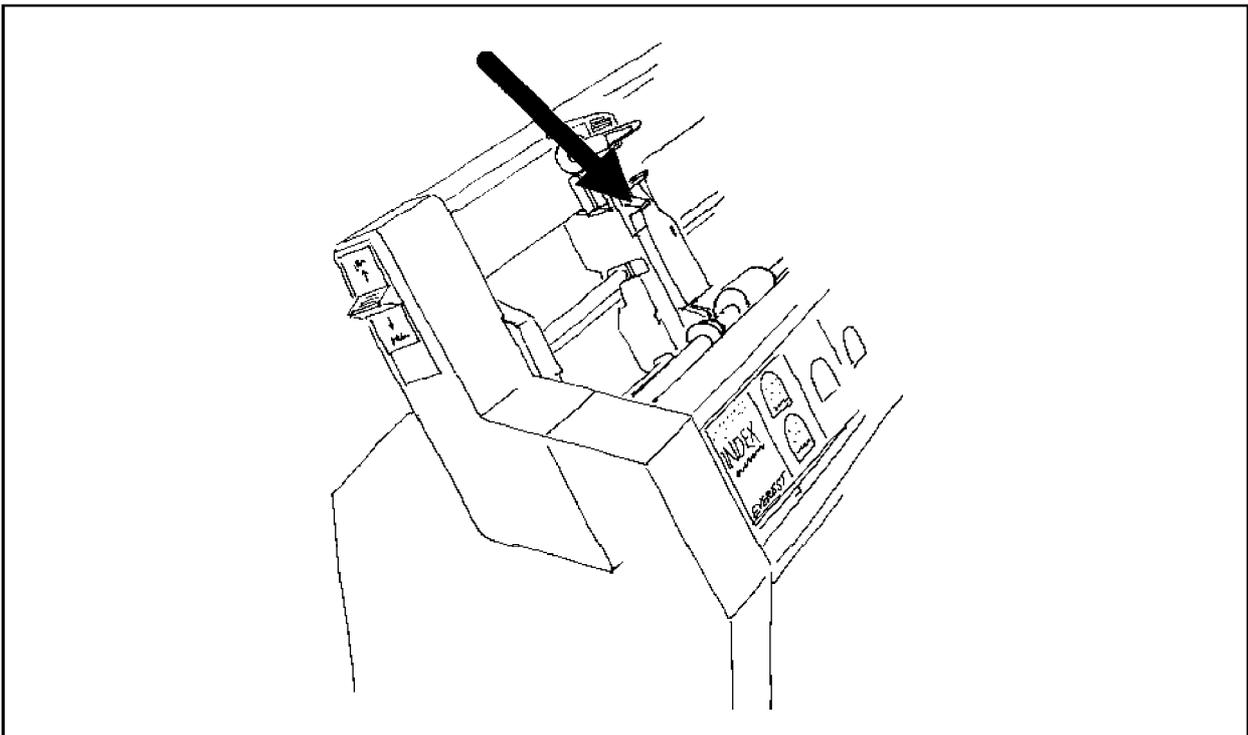
3 Operating the printer

This chapter is a short-hand manual that explains how to run the printer.

3.1 How to start up.

3.1.1 Load paper.

1. Adjust the sheet feeder to the correct paper width by adjusting the left paper mechanism. Don't forget to lock it.
2. Release the pick-up rollers, by moving the control on the button on the side of the sheet feeder upwards and fill it with paper. Move the control back down. If you intend to use normal Braille paper the sheet feeder must be in CARD position. When using normal (90 gram/m²) paper, the sheet feeder must be in the position SHEET. To change between SHEET and CARD, move the buttons on the front of the sheet feeder.



3.1.2 Document guides position.

On the lower edge of the front panel cover are two plastic document guides located. The right position for these is to follow the side edges of the document when it leaves the printer, in order to lift the paper to the correct position in the document stack.

Note! If the document guides are too close to the centre or used together with a very hard type of paper, it can cause paper jam.

3.1.3 Paper length setting.

When the Everest is powered on for the first time, the paper length is set for A4. If a paper with a different length is used, Everest will give a faulty alarm PAPER JAM. To change the default paper length value, simply press Form Feed. The printer will now feed a paper, in order to measure it. The new length will now be stored until the next time the Form Feed key is pressed. After paper length measuring by the FF command, the printer echoes: "lines per page :#". Index Everest accepts all paper lengths between 150-350mm (6-14 Inch).

3.1.4 Computer connection.

Connect Index Everest to the computer with the serial and centronics interface. When turning on the Everest, both ports are ready to receive information. As soon as the printout has started, Everest will close the non-active port.

The ports are designed to follow the international standards for printers as far as possible. When using Everest together with a standard PC, you can use standard centronics and a serial cable.

3.1.5 Serial communication cable.

Everest is equipped with a 25 pin female (D-sub) on the serial interface and a standard centronics connector for the centronics interface.

Pin configuration on serial interface:

1=GND, 2=TXD, 3=RXD, 4=RTS, 5=CTS, 6=DSR, 7=SG, 20=DTR.

Transmitting parameters (factory setting) are:

Baudrate=9600, Data bits=8, Parity=N, Stop bits=1, Handshake=DTR hardware handshake.

3.1.6 Transmission parameters.

The communication parameters on the serial-port and centronics port on your PC are normally set with the following command in the AUTOEXEC.BAT file.

```
MODE COM1:9600,N,8,1,P  
MODE LPT1:,,P
```

3.1.7 Serial cable configuration.

There is a standard cable between the Everest and the PC. On the Everest side a 25 pin male D-sub and on the PC side a 25 or 9 pin female D-sub. Cable with the following wires.

Everest - 25p D-sub.

Everest - 9p D-sub.

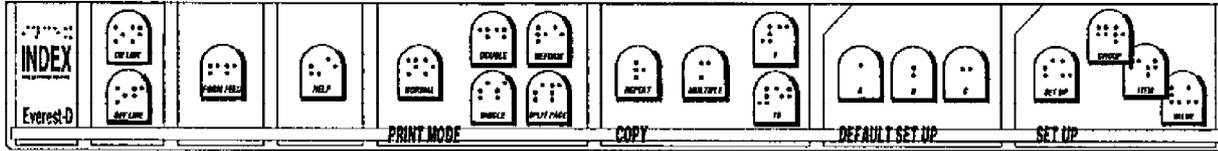
1-1, 2-3, 3-2, 4-5, 5-4, 6-20, 20-6, 7-7.

2-2, 3-3, 4-9, 5-7, 6-6, 7-5, 20-4.

For other configuration descriptions, see chapter 11.

3.2 Front panel.

The front panel and the user logic on the Everest is designed to make the use and installation of the printer as easy and efficient as possible. All the keys are marked both in Braille and ink print and are organized in clearly marked modules. All feedback is by digitized speech.



3.2.1 Training mode.

One easy and efficient way to learn how to use and setup the printer is to set the printer in TRAINING mode. Press the HELP key and turn on the printer. The commands on the Everest will now work as normal, the only difference is that nothing will be printed out or saved in printer memory. Use the tutor mode and let the speech guide you through all the different modules. When you understand how the printer is working, turn the printer off to end the TRAINING mode.

3.2.2 Parameter settings printout.

Make sure that the paper is loaded and that the power is on. Press HELP to get a printout of the test page. This test page will present the version number of the software, current printer settings, number of printed pages and the active Braille table.

3.2.3 Start printing.

Connect the printer to your computer, load the paper and turn it on. Everest will feed one page and echo INDEX EVEREST READY. Everest is ready for use with the default factory settings. If you need additional information to change the parameters, please refer to that section in the manual.

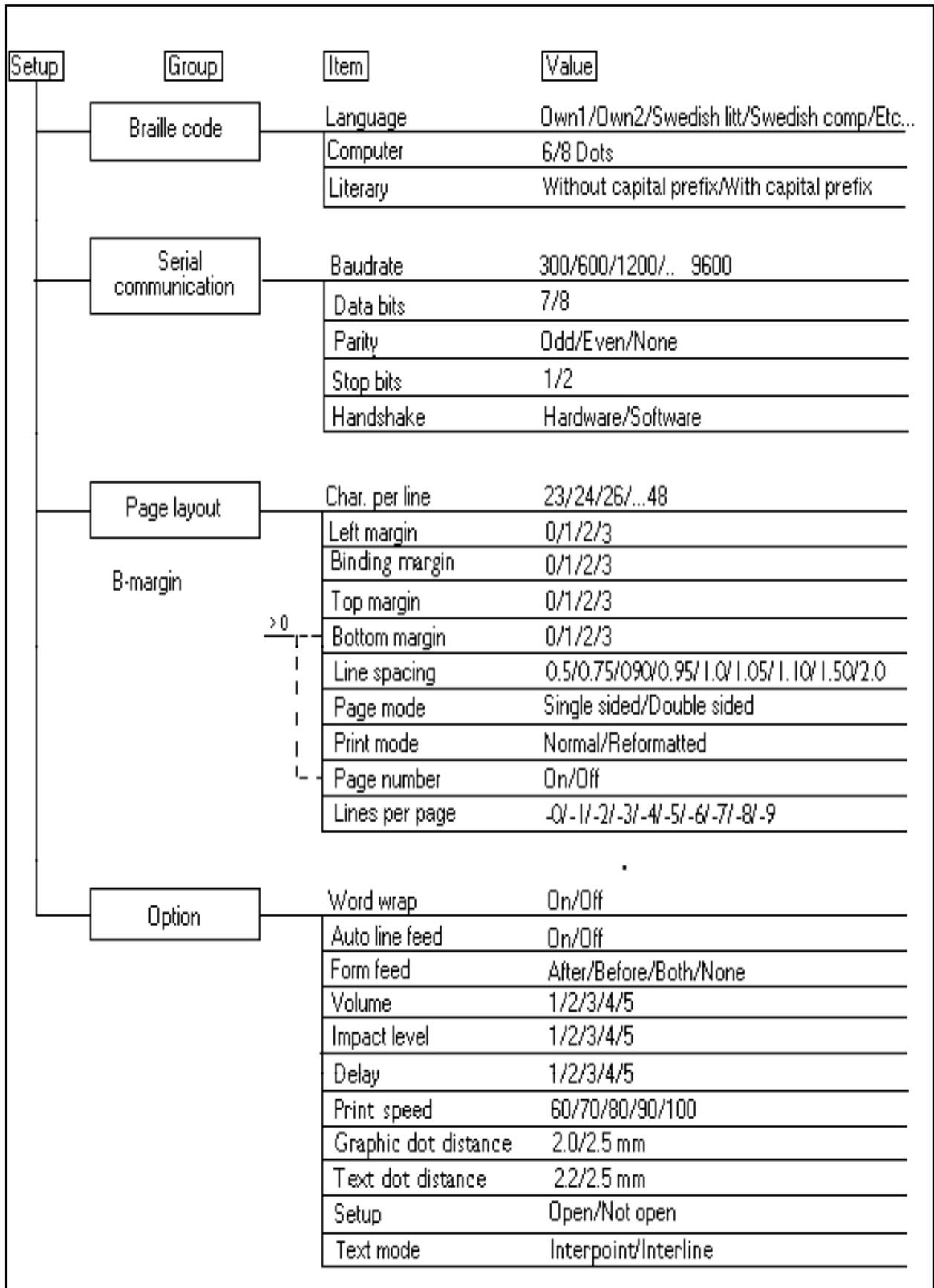
3.3 Default setup.

To change the active default setup between setup A, setup B and setup C, simply press the DEFAULT SETUP KEY A, B or C. If the setup is set NOT OPEN you must press A/B/C while you power up the printer. Everest will now work according to all the parameters stored in this setup. All changes that will be made in the parameter setting will be stored in the active default setup. To change active default setup press the default setup key A, B or C.

3.4 Setup.

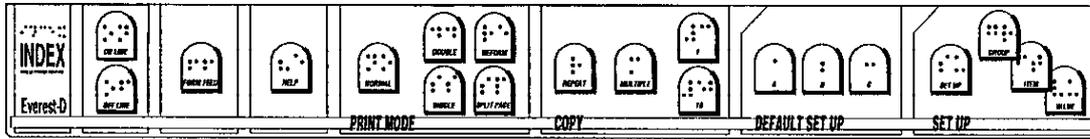
If you need to change the setup parameters you can do it from the front panel. To start the setup sequence press SETUP. If the printer echo "This key has no function", the setup is "not open". (To get access Setup, press Setup + power on.) The setup program is now available. In setup mode you can change and save all parameters in the group: BRAILLE CODE, SERIAL COMMUNICATION, PAPER LAYOUT and OPTION. All parameter changes will be stored in the active default setup A/B/C.

3.5 Flow schematic for Setup.



4. Front panel.

The front panel is designed to be easy to understand and use. All feedback uses digitized speech.



The keys are organized in five groups;

1. STANDARD COMMANDS; On Line, Off Line, Form Feed, Help.
2. PRINT MODE; Normal, Reform, Split Page, Double, Single.
3. COPY; Repeat, Multiple, 1, 10.
4. DEFAULT SETUP;
 - A = default setup A.
 - B = default setup B.
 - C = default setup C.
5. SETUP; Setup, Group, Item, Value.

4.1 Standard commands.

4.1.1 On/off line.

Connect/disconnect line to computer. Off line interrupts printout.

4.1.2 Form Feed.

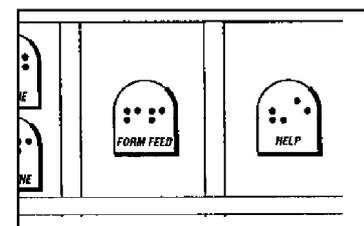
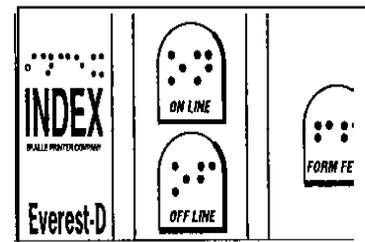
Form Feed will feed one sheet through the printer.

4.1.3 Help.

The HELP key, in the print mode, is used get a printout of active printer settings. The printout is two pages and includes the software version, Braille code, active setup parameters for Braille code, paper layout, serial communication and options.

Pressing the Help key in Setup mode, will give printout of the new settings in setup, even then the value is not stored. The Braille table will not be printed.

HELP + POWER ON starts the TRAINING mode on Everest. The HELP key, in SETUP mode, gives you a printout of the parameter setting you are working with.

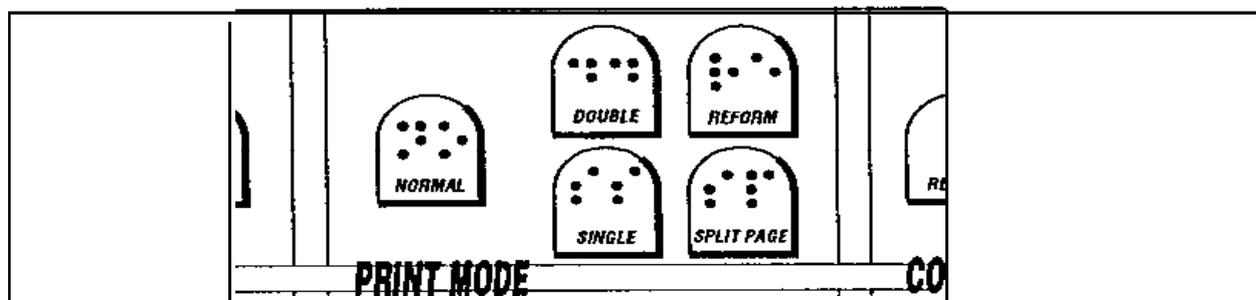


The Help key can also tell you at what page of a document you currently are printing, by pressing the sequence; Off line, Help. Echo "Page no.#". On line will re-start the printout.

4.2 Print mode.

Print mode includes keys for changing between the different print modes. You can choose between single and double sided printout and normal, reformatted or split page.

4.2.1 Double sided.



In double-sided print the first page will appear on the underside of the paper and the second on the upper side of the paper. Odd pages 1,3,5,7... on the underside of the sheet and even pages 2,4,6,8.... on the top of the page. After printing a document you can take the whole printed package and put it in a file without any additional work.

In the SETUP/PAGE LAYOUT/PAGE MODE it is possible to select single or double-sided print mode.

Graphic printout will always be printed in the single sided mode, on the odd pages (1,3,5,7...). even if the printer is set for double sided printout. If a graphic picture is included in a text file, Everest will automatically change the page formatting so that the graphic and necessary connection pages will be in single sided mode.

4.2.2 Single sided.

In the single sided mode Everest will print out the text on the under side of the paper. It is possible to change to the upper side of the printer in setup with the module SETUP/PAGE LAYOUT/PRINT SIDED 1/2 (default 1= down).

4.2.3 Normal.

In the normal print mode the Everest will print the Braille as it is formatted in the text file, The text has to be formatted with the correct characters per line according to the setup on the printer.

4.2.4 Reformatted.

In reformatted print mode the Everest is formatting the text so that it erase space in the text file, like multiple space, FF (Form Feed) and CR/LF (New line). This function is very useful when printing a text file made for ink print in Braille or normal literary (grade 1) Braille. The text is reformatted according to the installed character/line in active setup.

Reformatting function works in the following way:

Auto linefeed and word wrap is automatically set ON.

1 or more space substitute with 1 space.

1 CR/LF erase.

2 CR/LF substitute with 1 CR/LF

3 CR/LF substitute with 1 CR/LF followed by two space.

>3 CR/LF substitute with 2 CR/LF.

1 FF erase.

>1 FF substitute with 1 FF.

4.2.5 Split page.

The SPLIT PAGE print mode prints out information in Braille with more characters per line. Split page is similar to "sideway" print on normal printers. In SPLIT PAGE mode the printout will always be in singlesided mode word wrap off, even if the printer is installed in double-sided mode and word wrap on. Maximum line length in split page mode is 328 character, with a line length of 42 characters.

Split page printout will always have the line mark and page number. If there is a text-file with 123 characters per line and the printer is installed on a 42 character per line, the following printout sequence will appear:

Page 1.1	Sign 1-41	Line 1-28	Page 1.2	Sign 42-83	Line 1-28	Page 1.3	Sign 83-123	Line 1-28
Page 2.1	Sign 1-41	Line 29-56	Page 2.2	Sign 42-83	Line 29-56	Page 2.3	Sign 83-123	Line 29-56
Page 3.1	Sign 1-41	Line 57-84	Page 3.2	Sign 42-83	Line 57-84	Page 3.3	Sign 83-123	Line 57-84
Page 4.1	Sign 1-41	Line 85-110	Page 4.2	Sign 42-83	Line 85-110	Page 4.3	Sign 85-110	Line 85-110

When the printer is installed for 42 characters per line, you will have 41 characters per line in the split page mode and one character is used as the line marker.

4.3 Multiple copy.

With the copy function you can produce large quantities of Braille without using your computer during the printout. Printer buffer is 400K = 400 pages of Braille. It is also possible to copy a part of your text file. When using the COPY function you will be guided by the speech feedback.

Copy function includes the following keys REPEAT, MULTIPLE, 1 and 10. With REPEAT and MULTIPLE you can choose between the different copy functions and with "1" and "10" you select the number of copies or what part of a document to print.

4.3.1 Repeat.

REPEAT is used when Everest produces to copy a part of or all of the last printed document. When pressing REPEAT once completed by the number 1+10 to select from page, REPEAT 1 + 10 to select to page. REPEAT again, and Everest will print one copy of the selected part of the document.

Note! Repeat command is not accessible if the loaded file is exceeding the size of the buffer! Error message "Failure 170" will be given.

REPEAT x 2 prints a copy of the complete document.

Example: Print pages 13 to 25 of the last document in singlesided mode.

+ = and/or.

x = times.

Command, REPEAT 1 x 10 + 1 x 1 (from page 13), REPEAT 1 x 10 + 1 x 1 (until page 25), REPEAT. Everest will now print page 13-25 of the last document.

Double-sided mode.

Choose an odd side as first page using the repeat command in double-sided mode. The REPEAT command will always start with an odd and end with an even page, even if the last page of the document is odd.

Note! Every "1" gives 1 paper (2 printed pages) in double-sided mode. (1-2,3-4,5-6 etc.)

Example 1: Choose page 14 to 25, REPEAT 1 x 10 + 2 x 1 (from page 13 (frontside to 14)), REPEAT 2 x 10 + 3 x 1. (to page 26 (backside to 25))
Echo: "Print from page 13 to page 26".

Example 2: Print page 3 and 4 = REPEAT 2 x 1, REPEAT + REPEAT.

When pressing REPEAT two times Everest will print one copy of latest document. After the Repeat function is completed, Everest will automatically be in print mode, similar as after power on.

4.3.2 Load buffer.

Repeat can even be used to download a file to the printer buffer, without immediately printout.

Use the following commands;

Press the repeat key - Index echo "File to buffer"

Send the file to Index - When the file is completely received Index echo "from page".

Give number of the first page to print by pressing the 1 and/or 10 keys.

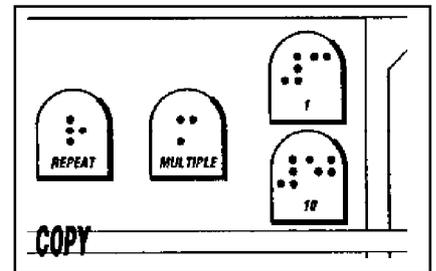
Press the REPEAT key - Index echo "To page".

Give number of the last page to print by pressing the 1 and/or 10 keys.

Press the REPEAT key again - Index echo "Print from page # to page #".

To print the complete file, press REPEAT x 2. Echo: "Print file".

Note! If the loaded file is exceeding the size of the buffer, of the buffer, the error message "fail 170" will be given and the file from the computer will be cut off. The remaining part of the file will be removed from the transmission. It is then possible to select a printout of the received part of the file. After the printout is completed, the REPEAT function is not accessible.



4.3.3 Multiple.

MULTIPLE is used to select number of copies, either in advance or with the buffer already loaded.

Example 1: Make 54 copies of the **next document**. MULTIPLE + 5 x 10+ 4 x1 + MULTIPLE. Then press REPEAT once. Echo "File to buffer". Send the file. When the file is completely received the printer will Echo "From page". Select page where to start printout, (see 4.3.1) then press repeat again, Everest Echo: "to page". Select last page of printout, then press REPEAT, echo: "print from page # to page #". Printout starts.

To print the complete file, just press REPEAT x 2.

Example 2: Make 54 copies of the **last printed document**.

MULTIPLE + 5 x 10+ 4 x1 + MULTIPLE + 2 X REPEAT.

After the copy procedure is completed, Everest will return to the print mode.

4.3.3.1 Multiple copies selection by ESC sequences

Choose number of copies by sending the following ESC sequence in the beginning of the file, like a driver:

[ESC][^R], xxx,[ESC][^R]

Note! If the printer is pre-setted in "multiple copy mode", that will override the software command!

4.4 Remaining copies to print

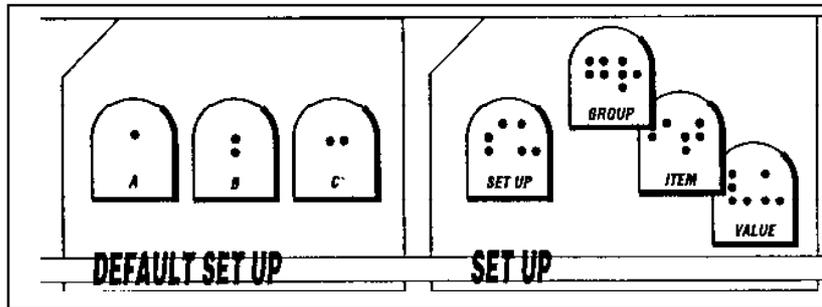
While printing multiple copies of a document, it is possible to get a message of the number of copies left to print by the following command:

1. Press Off line.
2. Press Help. The printer will echo the remaining number of copies to print, and at what page the printout was interrupted: Number of copies #, page #.

Example: Print a document of 10 pages, interrupt in copy no 3 at page no 6:

ECHO: Number of copies 7, page 6.

5. Setup commands.



5.1 Default setup = A/B/C.

Everest has three different setup parameter settings stored as DEFAULT SETUP A,B and C.

To select DEFAULT SETUP press A,B or C. If Setup is set NOT OPEN, press A,B or C while you power up the printer. Everest will echo SETUP A LOADED. All changes that are made in the setup is stored in the active default setup.

5.2 Setup.

The group of setup keys includes four keys SETUP, GROUP, ITEM and VALUE.

5.2.1 Change Setup.

To activate SETUP, press SETUP, Everest will echo CHANGE SETUP A. (A referring to active setup, A,B or C.)

The changes you make in the printer setting will be stored in the active DEFAULT SETUP A,B or C. It is not possible to change in a non active default setup. If you want to interrupt without saving your changes in the setup, just turn off the printer before you end the setup mode.

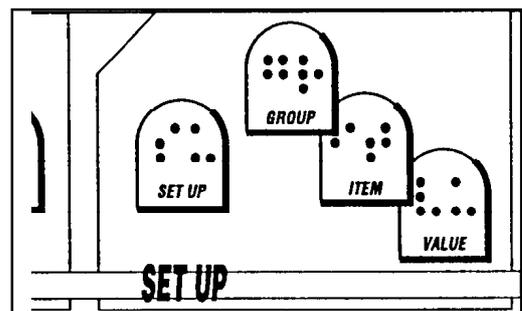
The keys GROUP, ITEM and VALUE are organized in a tree structure where GROUP is the selection of four major groups, ITEM is the different items to change in each group and VALUE is the value that is possible to select in each item. (See also 5.8)

Pressing the Help key in Setup mode, will give printout of the new settings in setup, even then the value is not stored. The Braille table will not be printed.

5.2.2 Setup keys.

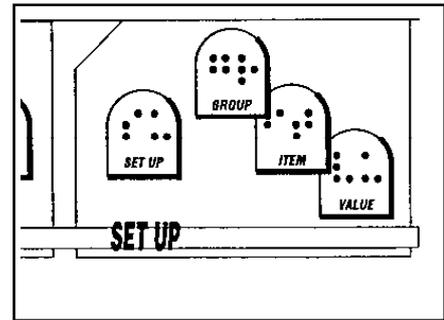
5.2.2.1 Group.

GROUP includes four different groups of parameters, BRAILLE CODE, SERIAL COMMUNICATION, PAGE LAYOUT and OPTION. When pressing GROUP several times you will toggle between these four groups, in a similar way as in ITEM and VALUE.



5.2.2.2 Item.

ITEM is the selection available within one GROUP. For example in the GROUP; PAGE LAYOUT you can select between the following ITEM: Characters per line, left margin, Binding-margin, top margin, bottom margin, line spacing, page mode, print mode, page number and print sided.



5.2.2.3 Value.

VALUE is the actual value that you can select in any item. For example left margin 0,1,2 or 3 characters.

5.2.2.3.1 Page layout information.

Pressing value with the printer in stand by mode, gives the active number of lines per page and characters per line.

5.3. Change Setup.

This is a command sequence that changes stop bit in serial communications from 1 bit to 2 bits.

1. Press SETUP while power on.
2. Press GROUP until the printer echo SERIAL COMMUNICATION
3. Press ITEM until the printer echo STOP BITS
4. Press VALUE until the printer echo TWO
5. Press SETUP to save the change in DEFAULT SETUP A

To abandon the setup, simply turn off the printer.

5.3.1 Braille Code.

In this group the following items can be changed; Language, Computer or Literary (grade 1) Braille, 6 or 8 dot Braille in computer Braille and with or without capital prefix in Literary (grade 1) Braille. When a user defined Braille table is used it can be changed to all combinations between literary and computer Braille with no system limitations.

- Language -(OWN ONE, OWN TWO and Language comp./litt. defined in prom Braille table).
- Computer - 6/8 dots Braille.
- Literary (grade 1) - with or without capital prefix.

Flowshematic for setup

Setup	Group	Item	Value
Braille code		Language	Own1/Own2/Swedish litt/Swedish comp
		Computer	6/8 Dots
		Literary	Without capital prefix/With capital prefix
Serial communication		Baudrate	300/600/1200/.. 9600
		Data bits	7/8
		Parity	Odd/Even/None
		Stop bits	1/2
		Handshake	Hardware/Software
Page layout	B-margin	Char. per line	23/24/26/...48
		Left margin	0/1/2/3
		Binding margin	0/1/2/3
		Top margin	0/1/2/3
		Bottom margin	0/1/2/3
		Line spacing	0.5/0.75/0.90/0.95/1.0/1.05/1.10/1.50/2
		Page mode	Single sided/Double sided
		Print mode	Normal/Reformatted
		Page number	On/Off
		Lines per page	-0/-1/-2/-3/-4/-5/-6/-7/-8/-9
Option		Word wrap	On/Off
		Auto line feed	On/Off
		Form feed	Alter/Before/Both/None
		Volume	1/2/3/4/5
		Impact level	1/2/3/4/5
		Delay	1/2/3/4/5
		Print speed	60/70/80/90/100
		Graphic dot distance	2.0/2.5 mm
		Text dot distance	2.2/2.5 mm
		Setup	Open/Not open
Text mode	Interpoint/Interline		

5.3.2 Serial Communication.

In this group all the parameters referring to serial communication can be changed.

Baud rate	300/600/1200/2400/4800/9600.
Serial data	7/8.
Parity	Odd/Even/None.
Stop Bit	1/2.
Handshake	Hardware/Software.

5.3.3 Page Layout.

The page layout contains the following options:

Characters per line	23-48
Left margin	0/1/2/3.
B-margin	0/1/2/3.
Top margin	0/1/2/3.
Bottom margin	0/1/2/3.
Line spacing	0.5/0.75/0.90/0.95/1.0/1.05/1.10/1.50/2.0 mm
Page mode	Single/Double.
Print mode	Normal/Reformatted.
Page number	On/Off.
Lines per page	-3/-2/-1/normal/+1/+2/+3

5.3.3.1 Characters per line.

With item *characters per line* you select the value for # of characters per line.

Max char/lilne: Interpoint is 42
iterline is 48

5.3.3.2 Left margin.

The option *left margin* gives the width of your margin. Select # of lines.

Note! The items B-margin and Left margin decreases the # of characters per line.

5.3.3.3 B-margin.

Binding-margin is used to get an extra width on your margin if you like to bind it in to a file or as a book. Moves the text blocks on both sides simultaneously.

5.3.3.4 Top margin.

Top margin gives empty space in the top of each page. Select # of lines.

5.3.3.5 Bottom margin.

Bottom margin gives empty space in the bottom of each page. Select # of lines.

NOTE! Minimum value 1 is necessary to set page number on.

5.3.3.6 Line distance

Line distance sets the size of the distances between the lines.

5.3.3.7 Page mode.

With the option *page mode*, select between single- or double-sided. Default is double-sided.

5.3.3.8 Print mode.

With the option *print mode*, select between normal and reformatted printout.

5.3.3.9 Page number.

With the option *page number*, select page numbering - On/Off.

NOTE! Minimum bottom margin value 1 is necessary to set page number on.

5.3.3.10 Page and margin layout

To decide the layout of an interpoint printout, there is a few things to be aware of.

5.3.3.11 Line per page

Select *Number of Lines per page* according to the installed page format.

Normal is 29 lines per page for an A4 page.

It is possible to choose + / - 3 lines according to the normal value.

5.3.3.12 Page layout Guideline

Line length

Maximum number of characters should never exceed the paper size, even if the file is correctly formatted, otherwise parts of the text on the even pages will start to be printed outside the paper and therefore be lost.

Use the following setting of the characters per line in *interpoint/interline 2,5 mm* mode.

8½" width = max 32 char/line
 12" width = max 42 char/line

In Japanese standard *interline, 2,2 mm dot distance*, use the following setting

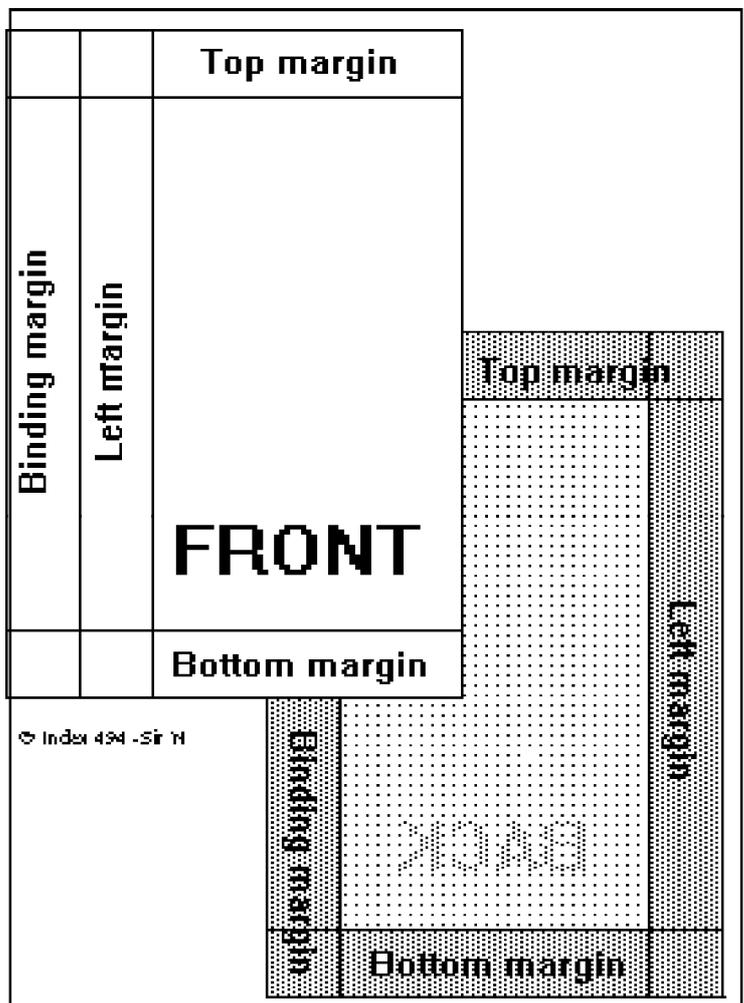
8½" width = max 36 char/line
 12" width = max 48 char/line

Margins

See the description on the picture beside.

On the front-page all margins are at the given position.

The left margin and the binding margin is both to the left of the page.



On the back-page the left margin has "moved" to the opposite side, viewed from the front, and the binding margin remains on the same position.
 When changing the size of the binding margin, the text-block's on both sides moves simultaneously in the same direction, but when changing the left margin, the text-block's moves in the opposite directions.

5.3.4 Option.

The following options are available:

Word wrap	On/Off.
Auto Line-feed	On/Off.
Form feed	After/Before/Both/None.
Volume	1/2/3/4/5.
Impact level	1/2/3/4/5.
Delay	1/2/3/4/5.
7/Printing Speed	60/70/80/90/100 cps
8/Dots	2.0/2,5 mm
9/Text mode	2.2/2.5 mm
Setup	Open/Not open
Line Type	1/2 (Interpoint/Inteline)

5.3.4.1 Word wrap.

Select between split the to long words or to wrapping the last word of the line to the next line.

5.3.4.2 Auto linefeed.

Select if you like to have an automatic linefeed together with a carriage return.
 Some word processors and other computer programmes gives a linefeed automatically.

5.3.4.3 Form Feed.

Selects when you like a form feed according to the file.

5.3.4.4 Volume.

Selects the volume of the speech feedback.

5.3.4.5 Impact level.

Selects the impact level on the hammers. Select impact level according to paper quality.

5.3.4.6 Delay.

Selects the delay time for the printer to wait for more information after a file.

Note! Using a computer with a slow disc-drive requires a longer delay time in the printer.

5.3.4.7 7 - Printing speed.

Selects the printing speed. Value 60/70/80/90/100 cps/second.

5.3.4.8 8 - Graphic dot distance.

Selects resolution in graphic mode. Select between 2.0 or 2.5

5.3.4.9 9 - Text dot distance.

Selects resolution in *text mode*. Select between 2.2 or 2.5

Note! 2.2 mm gives automatically Line type *Interline* - Japanese standard. Maximum number of **characters per line** in Japanese mode is 48.

5.3.4.10 Set up.

Selects access to setup. NOT OPEN gives access only by the command "power on + Setup key". OPEN gives access by pressing the Setup key when printer is stand by.

Note! Changing of access to Set up (Open/Not open) will effect all three setup's, A/B/C.

5.3.4.11 Line Type.

Select *Interpoint (1)* or *Interline (2)* printout. Interline is Japanese standard. Interpoint gives automatically 2.5 mm text resolution.

5.4 Selftest.

Command: on line + power.

This command starts a self test of printing quality on all needles, interpoint dot quality and long time durability. The first page will print a pattern of all hammers according to the active page layout setting with the number for each hammer. After page five it will return to page one and then continuously repeat the same sequence in a never ending printout.

5.5 Factory setting.

Command: group + power.

The printer will reload all parameter settings except operation defined Braille code OWN ONE and OWN TWO. The factory setting will activate setup A.

To make a system reset, press GROUP + POWER ON.

After the system reset, the printer will echo "SETUP 000, Index Everest ready".

5.6 Training mode.

Command: help + power.

One easy and effective way to learn how to use and setup the printer is to set the printer in TRAINING mode. Press the HELP key and turn on the printer. The commands on the Everest will now work as normal. The only difference is that you will not be able to print out and your changes in Setup will not be stored in memory. Test this mode and let the speech guide you through all the different modules. When you understand how the printer is working, just turn it off to end the TRAINING mode.

5.7 Braille manual printout.

Command: off line + power.

This command starts a printout of a Braille manual for Everest. The manual is formatted to be printed in A4 format, (32 characters per line, 29 lines per page).

If you like the manual to be printed with an other paper length, you will get the failure message "PAPER LENGTH FAILURE". Press OFF LINE again after the failure message to continue printing with the chosen paper format.

Note! The number of characters per line will remain as value 32.

5.8 Transportation mode.

Command: Form Feed + power.

To find the correct position for the printinghead in order to get the transportation lockings on their places, press the Form Feed key while you power up the printer. The printinghead will find the correct center position, and then echo: "Index Everest ready". Turn the printer off again and insert the lockers by pressing them downwards at the edge of each side in the sheetfeeder.

Note! It is very important to install the printinghead transportation lockings before you pack the printer in the original box. Ignoring this can cause major damages to the printer.

5.9 Flow schematic for setup.

Setup	Group	Item	Value
	Braille code	Language	Own1/Own2/Swedish litt/Swedish com
		Computer	6/8 Dots
		Literary	Without capital prefix/With capital pret
	Serial communication	Baudrate	300/600/1200/.. 9600
		Data bits	7/8
		Parity	Odd/Even/None
		Stop bits	1/2
		Handshake	Hardware/Software
	Page layout	Char. per line	23/24/26/...48
		Left margin	0/1/2/3
		Binding margin	0/1/2/3
		Top margin	0/1/2/3
		Bottom margin	0/1/2/3
		Line spacing	0.5/0.75/0.90/0.95/1.0/1.05/1.10/1.50*
		Page mode	Single sided/Double sided
		Print mode	Normal/Reformatted
		Page number	On/Off
		Lines per page	-0/-1/-2/-3/-4/-5/-6/-7/-8/-9
	Option	Word wrap	On/Off
		Auto line feed	On/Off
		Form feed	After/Before/Both/None
		Volume	1/2/3/4/5
		Impact level	1/2/3/4/5
		Delay	1/2/3/4/5
		Print speed	60/70/80/90/100
		Graphic dot distance	2.0/2.5 mm
		Text dot distance	2.2/2.5 mm
		Setup	Open/Not open
		Text mode	Interpoint/Interline

5.10 Fault messages.

5.10.1 Failure "100" - No reference-pulse.

Major fault. Turn the printer off/on. If you still get the same message, check the reference-pulse sensor on the printinghead board and the magnet on the centre plate and the fuses on the mainboard.

5.10.2 Failure "Front panel open".

Close the front panel cover and give ON LINE.

5.10.3 Failure "Paper length fault".

This fault appears when the paper is too short comparing to the measured paper length. If the paper is dark, for example with a dark picture, this fault can appear. Give ON LINE to continue printout on the current page. Give REPEAT to continue printing a new copy of the current page

5.10.4 Failure "Paper jam".

This fault appears when the paper is too long comparing to the measured paper length. Give ON LINE to continue printing with the current page. Give REPEAT to continue printing a new copy the next page.

5.10.5 Failure "140".

Not valid command when selecting A, B or C from computer.

5.10.6 Failure "150".

Fault in setup file, a non numeric value.

5.10.7 Failure "160"

Major fault in EEPROM. Contact your service agent!

5.10.8 Failure "170"

Error message if pressing REPEAT key if file is larger than the available buffer. Repeat command is not accessible.

5.11 Reference pulse offset.

If the printinghead reference pulse is improperly setted, it will effect the vertical alignment on the first line of braille.

The problem is simply corrected by the following sequence: Turn the printer on, while you are pressing the value key. Everest echo ; Change # (0-40, steps of 2). Press the value key again until you get the new required value. The printing head should be 2-3 mm from the left side plate. Exit the command by pressing the Setup key. Echo: "Saving value #".

Note! While changing the values for reference pulse offset, the new value for every keystroke will be stored directly into the EEPROM. Even if the you turn the printer off, the new value will be stored.

6 Everest Support disc

Together with the printer documentation, you will find a disc libelled BRLED. The disc contents all the required support software for Everest.

6.1 Installation of support programs

The support programs are not copy protected, therefore it is easy to make a backup copy and to copy it to the hard disk. We recommend that you make a backup copy before using any of the software's.

Type `INSTALL` to install the support programs in the directory `BRLED` on you hard disk. The Installation program will create a new directory called `BRLED411`. A number of sub-directories will also be created.

6.2 Open the main menu

When the installation is ready, change directory using the command (example) `CD C:\BRLED411`. Type `EVEREST` to open the menu program that displays all the different support programs for Everest.

The main menu will now appear on the screen:

```
Brled  
Setup  
Volt  
Manual  
Draw  
Letter  
Exit
```

6.3 Run programs

Place the cursor on the selected program, example `BRLED` and press enter.

6.4 Edit a Braille table.

The Edit Braille program (`BRLED.EXE`) can be used on all PC's (MS-dos). It can edit the Braille table and save the user defined Braille table on disk and in the printer. Everest and the `BRLED` program can save two user defined Braille tables like `OWN ONE` and `OWN TWO`. You can select these tables by choosing `OWN ONE` or `OWN TWO` in the `SETUP/BRAILLE CODE/LANGUAGE` from the front panel.

If requested an owner defined Braille table can be implemented in the printer and in the `BRLED` program by `Index`.

6.4.1 Different types of Braille.

Before you start to work with Everest we would like to tell you more about different types of Braille and how they works.

There are three types of Braille, computer, literary (Grade 1) and contracted Braille (Grade 2).

Computer Braille.

In computer Braille there are always a one to one relation between the ASCII sign and the Braille sign, one ASCII sign will generate one Braille cell. Computer Braille will maintain the original formatting of the textfile.

Computer Braille can be with 6 or 8 dots Braille. Dot 7&8 in the 8 dots code are normally used to create capital letters and different types of control characters.

Literary Braille (Grade 1)

In Literary Braille (always 6 dots) most ASCII-sign are represented by one Braille cell, but there are a small number of characters that are represented with 2-4 Braille cells normally different types of mathematics's and control sign. All figures will be printed with a number prefix.

The Everest literary Braille have an option to select between capital prefix on/off. Capital prefix on will generate the capital prefix sign (256, 257 in BRLED program) before a capital letter or a string of capital letters.

In a printout in literary Braille the page formatting will be changed depending on the prefix and multiple Braille cells. Therefore there is a recommendation to select reformatted printout on Everest or format the text in the computer with a shorter line length than the active line length on Everest, this will give space for "random" extra Braille characters.

Contracted Braille (Grade 2)

Contracted Braille are normally created with a Grade 2 translation program such as Duxbury or similar. This program can be implemented in the computer or in Everest (Telesensory Everest-DT). Grade 2 can be generated by a Braille specialist direct on the computer.

All grade 2 translation program are re-formatting the text to Braille page format. When Grade 2 are active in Everest it will automatically set reformatted = ON, Word wrap = ON, Auto LF = ON.

Own tables - OWN1/OWN2

Everest can store two user defined Braille tables. The source for this tables can be computer or literary Braille, but the user will have the possibility to select between the options in both COMPUTER and LITERARY Braille.

Type of Braille - Computer/Literary (Literary generates number prefix.)

Type of computer Braille - 6/8 dots

Type of literary Braille - capital prefix Y/N

User edited multiple Braille cells.

6.4.2 Start BRLED program

Place the cursor on the selected program line BRLED, and press enter.

The program will give you the following options:

- | | |
|------------------------------------|--|
| 1. Create a new code | (OWN ONE or OWN TWO) |
| 2. Edit existing code | (OWN ONE or OWN TWO) |
| 3. Send an Braille code to EVEREST | (OWN ONE & OWN TWO) |
| 4. Status printout | (from EVEREST help key) |
| 5. Test program | (to EVEREST) |
| 6. Communication parameters | (Option to choose communication parameters.) |
| 7. End | |

6.4.3 Keyboard control.

To control the program use the following keys:

6.4.3.1 Cursor position.

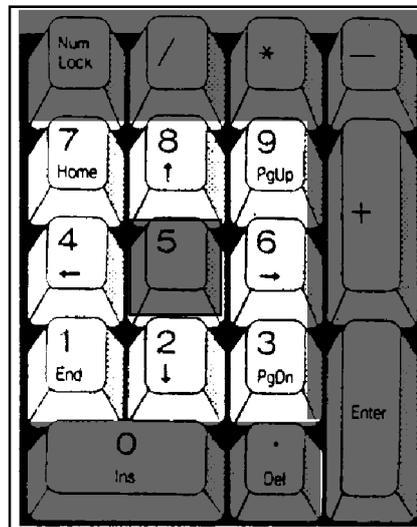
Letter (ex A) = move the cursor to position ex A -
(ASCII 65) - all ASCII signs can be used.

Down = move the cursor to next page

Home = move the cursor to the top of the page

End = move the cursor to the bottom of page

ESC / F10 = end the editing - back to main menu



6.4.3.2 Edit Braille keys.

F1 = Help

F2 = Edit Braille cell

F3 = Capital letter Y/N

F4 = Figure Y/N

F5 = Cut figure string Y/N

F6 = Not in use

F7 = Not in use

F8 = Print current Braille table on LPT1 to a DOSTEXT printer.

F9 = Gives you an information screen, version, approved by etc.

F10 = End the program.

INS = Insert multiple cell.

ESC = Stops a command

DEL = Deleting Braille cell verify by CR

CR = Verify a command

6.5 What you can edit.

When you edit an operator defined Braille table you are free to edit all positions in the Braille cell, number prefix, capital prefix and prefix for a string of capital letters. It is also possible to edit 2 or more Braille cells that corresponds to one ASCII sign. (Max. 15 characters)

In addition and for use in literary (grade 1) Braille, you can edit;

- if a Braille sign is capital letter
- if a Braille sign is a figure (number)
- if a Braille sign will cut a figure string. (Gives a new *number prefix* in front the of next number).

6.5.1 Edit a Braille cell.

Place the cursor on the sign that you like to edit. Press F2 and the cursor will move to the position dot combination for the selected character. Figure 1-8 corresponds to the position in the Braille cell. Pressing one of the figures 1-8 will toggle that dot between active and not active. All changes to the Braille cell will be saved with Enter. If the same combination already exists on another position in the Braille table, a warning will be given. Verify your change with Enter or amend with ESC.

6.5.2 Create a multiple Braille sign.

Place the cursor on the position where you want to create a multiple cell. Press INSERT and the cursor will move to the position to edit the Braille cell on the created multiple cell. The editing of a multiple sign works the same as the editing of a normal Braille cell. It is possible to create a multiple cell with up to 15 Braille cells. The way to create it is to repeat the INSERT command the number of times you have multiple cells.

6.5.3 Edit a multiple cell.

Editing a Braille cell in multiple Braille works in a similar way as editing a normal cell. The only difference is that it is not possible to change the control prefix. For a multiple cell the keys F3, F4, F5, have no function.

6.5.4 Edit a prefix.

In all Braille tables the prefix for figures, capital prefix and prefix for many capital figures is placed above the normal Braille table on position 256,257,258. This prefix can be edited as all normal Braille cells.

6.5.5 Edit information screen.

To ensure a good quality Braille table, it is important to know the background and the creator of the Braille table. On the information screen, you can always see what Braille table it is, and the source table that has been used.

When you edit OWN ONE or OWN TWO it is possible to add the following information to the information screen (F9). Approved by: organization, name (editor) and date and four lines for comments. Select 1-7 to edit the line that you have selected.

When INDEX BPC is implementing a user defined Braille table into the printer program and the setup disc, it is a demand from us that the table must be approved by an authorized person in the organization.

6.7.6 Save the Braille table.

The edit Braille table will automatically be saved on disk when ending the program. For sending OWN ONE/OWN TWO to Everest, select 3 at the main menu and choose LPT1/LPT2/Com1 or Com2.

You need to have the printer connected and on line to send the Braille table to the printer.

6.5.7 Status printout.

This option displays the same information on the PC screen, as the help key do in Braille. Connect Everest to the Com1 port.

Press the HELP key on EVEREST and you will see the status on the screen and it will even be automatically saved as an ascii-file with the name STATUS.EVP in the BRLED disc/directory.

Note! If the program runs on floppy-disc, there can be problem to receive the complete file, then it requires more time to store the information on disc. We recommend to run the program from a hard disc.

6.6 Test program.

Connect Everest to the Com1 and centronics port LPT1 to run the complete testing program.

Switch off Everest and open the sheet feeder.

Press 5 in the BRLED menu.

On the screen a new menu will appear:

1. Filename: *.EVP (Extension is automatically created.)
2. Date: Testing date.
3. Name: Name of operator.
4. Serial no: (Displayed on the back of the printer.)
5. Board no: (Displayed on the mainboard & the manufacturing document.)
6. Printinghead no: (Displayed on the lower part of printinghead front.)

Note! No 1-3 must be edited in order to create the Everest protocol file *.EVP.
It is also possible to run the test without enter those lines, but no protocol will then be saved.
Press ENTER

On the screen you will now see : **"Press ITEM during power on."**

Power up INDEX while pressing the ITEM key.

The program will automatically test position 1-7.

Test 1: Serial Port		OK/Fail	
Test 2: RAM memory	Y/N	OK/Fail	Note! This test requires 20 seconds.
Test 3: Parameter EEPROM	Y/N	OK/Fail	Note! This test requires 2 minutes.
Test 4: PROGRAM PROM	Version and no.		
Test 5: Speech PROM	Version and no.		
Test 6: Table PROM	Version and no.		
Test 7: Number of pages	#		

For each test the program runs the activated function until you have confirmed with an Y (yes) or N (No).

Test 8: Speech	Y/N	Printer speaks every 10th word in wordlist.
Test 9: Sentences	Y/N	Printer speaks all sentences according to software.
Test 10: Feeder motor	Y/N	(Sheet feeder motor is running).
Test 11: Fan motor	Y/N	(Fan is running. You can feel it blowing at the bottom of the left hand leg).
Test 12: Paper motor	Y/N	(Paper feed motor is running, observe the rolls).
Test 13: Printing head	Y/N	(Printinghead moves).
Test 14: Keyboard	Y/N	(Press all keys and get the right speech feedback)

Close the sheet feeder!

Test 15: Paper indicator	Y/N	(Inserts paper automatically, Y finish sequence).
Test 16: Front cover indicator	Y/N	(Open the front panel get the message displayed).
Test 17: Centronics	Y/N	(Automatically confirmed with "OK" or "Fail").

Press any key to return to main menu.

6.7 Setup program for Index Everest-D

At the support disk you will find a setup-program, to simply create ESC-sequences for permanently or temporary changes in the setup.

To use the program, see the description below:

6.7.1 Run SETUP

Place the cursor at the line SETUP in the Everest support program main menu. Press Enter.

You will first see a presentation menu. Press any key.

In the bottom of the screen you will now see the Function keys configuration:

**F1=Help F2=Load F3=Printscreen F4=Send F5=All Unchanged F6=Free
F7=Append to file F8=Free F9=Free Esc=Quit**

F1 will displays a help-text for each option that you choose to chance and inform you if there is any limitations or other options that is connected to it.

F2 will open a new menu where you can select what type of file and what file you like to work with.

F3 will make a print screen. Choose port with the function keys F1-F4.

F4 will send the setup file to Everest. Choose port with the function keys F1-F4.

F5 will set all positions to unchanged

F7 Will append a text file to a temporary driver

F10 will open a new menu, where you can save the file in the same or in a new name.

6.7.2 Load Setup file.

Press F2 to load a Setup file.

You can now first choose what type of file you like to load; example *.TXT, *.IND or *.*

To create a permanent file, load the file called SETUP.IND. The file is a source file, to create new files. It contents the default settings of the printer. The file SETUP.IND is not possible to overwrite, it must be stored in a new name.

To create a temporary file, load the source file called TEMP.IND.

Move the cursor to the selected file and press ENTER.

The Setup A of the selected file will now be displayed on the screen. If you intend to change the values for any of the other Setup's B or C, press enter at the first position, SETUP, and then select (A), B or C.

6.7.3 Change SETUP values.

Place the cursor at the selected Item that you like to change.

Press ENTER . A new menu with the different values for each item will now appear.

Place the cursor at the selected value and press ENTER. You will now automatically return to the main menu.

Continue and change all the values that is required.

6.7.4 Save Setup values

When all the changes is done, save the file by pressing the F10 key.
A new menu will now appear:

F10 Save *.* (active file) F9 Save with a new filename

Note! When you are using the file SETUP.IND the F10 option will not be displayed.

Press F9 and type the name of your file or press F10 to save your file in the same name.
You will now automatically return to the main menu.

6.7.5 Print screen

If you require a print screen of your settings press the F3 key, and a menu to select what port you like to use as follows:

CHOOSE PORT F1 = LPT1 F2 = LPT2 F3 = COM1 F4 = COM2 ESC = MAIN MENU

Press the selected key to send the file to your printer.

6.7.6 Set all positions to unchanged

Press F5 to set all positions to *Unchanged*. That feature is required if there is only a single or a few positions that has to be changed in a driver.

Do the following operation 1. Press F5 to set all for Unchanged. 2. Change the required items.

6.7.7 Append driver to text

To append a text to a driver, do the following operation.

Load the **temporary** driver that you intend to use.

Press F7

Choose file-type and press Enter, then choose directory and file and press enter again.

The temporary driver will now appear on the screen, but with the filename of the textfile.

Press F 10 to save.

6.7.8 Send file to Everest.

Press the F4 key, and a menu to select what port you like to use as follows:

CHOOSE PORT F1 = LPT1 F2 = LPT2 F3 = COM1 F4 = COM2 ESC = MAIN MENU

NOTE! Make sure that Everest is on line.

Press the selected key to send the file to Everest.

When the file is transmitted to the printer, an empty sheet will be fed trough the printer.

6.7.9 Send file from DOS

It is also possible to send the Setup-file to the printer from dos level. Simply use a Print or Copy command.

6.7.10 Exit

To exit the Setup program, press ESC in the main menu.

6.8 Voltage compensation.

If the main power supply is incorrect, it can cause the vertical lines not to be straight. To override this, it is possible to adjust the timing of the hammer activity.

Index provide Everest users with a software, that creates an ESC-sequence to adjust the vertical alignment, in order to override problems with the main power supply.

Place the cursor at the line Volt in the EVEREST support program main menu. Press Enter.

6.8.1 Run Volt

Place the cursor on the selected program, example BRLED and press enter.

On the screen this menu will now appear:

```

General Parameter settings
Advanced parameter setting
Send file to Everest
Help
Exit

```

Choose any of the options above, by using the arrow keys + Enter or use the key representing the inverse letter on each line.

6.8.2 General parameter settings

Normally we recommend that you change all the different printing speeds for the same adjustment, why it is easiest to choose the general parameter settings option.

Place the cursor at the line GENERAL PARAMETER SETTINGS and press enter.

A new menu will now appear, as follows:

```

+5 steps
+4 steps
+3 steps
+2 steps
+1 step
+0 step
-1 step
-2 steps
-3 steps
-4 steps
-5 steps

```

Every step in compensation = 0,15mm

Choose the required adjustment value by using the arrow keys and press the Enter key.

6.8.3 Advanced parameter settings

Select the option "Advanced parameter settings" in the menu.
The following menu will now appear:

60 cps
70 cps
80cps
90cps
100cps
2.5mm graphic
2.0mm graphic
Return to main menu

Choose an option according to the installation of your printer, ex. 100cps. from the menu above, by using the arrow keys + Enter or the key representing the inverse letter on each line.:

+5 steps
+4 steps
+3 steps
+2 steps
+1 step
+0 step
-1 step
-2 steps
-3 steps
-4 steps
-5 steps

Every step in compensation = 0,15mm

Choose the required adjustment value by using the arrow keys and press the Enter key.
You will then automatically return to the previous menu, where you can choose either to change an other option or return to main menu.

6.8.4 Send file to Everest

Choose "Send file to Everest". The following menu will appear:

Send file to LPT1
Send file to LPT2
Send file to Com1
Send file to Com2
Exit

Choose the connected port by using the arrow key or the inverse letter in each line.
When the Esc-sequence is transferred to Everest, you will automatically return to the main menu.

Note! It is also possible to send the file VOLT.TXT, with the ESC-sequence to the printer by a copy or print command from DOS level.

6.8.5 Help

Place the cursor on the line HELP and press Enter to display the help text.

6.8.6 Exit the Volt program

Place the cursor on the line EXIT and press Enter to exit the program.

6.9 Display the on-screen manual

6.9.1 Open the main menu

Type EVEREST to open the menu program that displays all the different support programs for Everest.

Place the cursor on the line MANUAL, and press Enter.

The manual will now be displayed on the screen.

Note! Only the text of the manual will be displayed.

6.9.2 Find your way in the on-screen manual

When the manual is displayed on the screen, you will first see the table of contents. You can now use the arrow keys to move the cursor. Place the cursor on the selected headline in the table of contents, and press Enter. The cursor will move to the selected item.

6.9.3 Print the manual

The manual can also be printed on your Everest. It is formatted to be printed with the following settings of the printer.

32 characters per line.
29 lines per page.
6 dot computer Braille.

To print the manual, make a copy or print command of the file HELP.TXT.

Example: **Copy C:\BRLED411\MANUAL\HELP.TXT :LPT1**

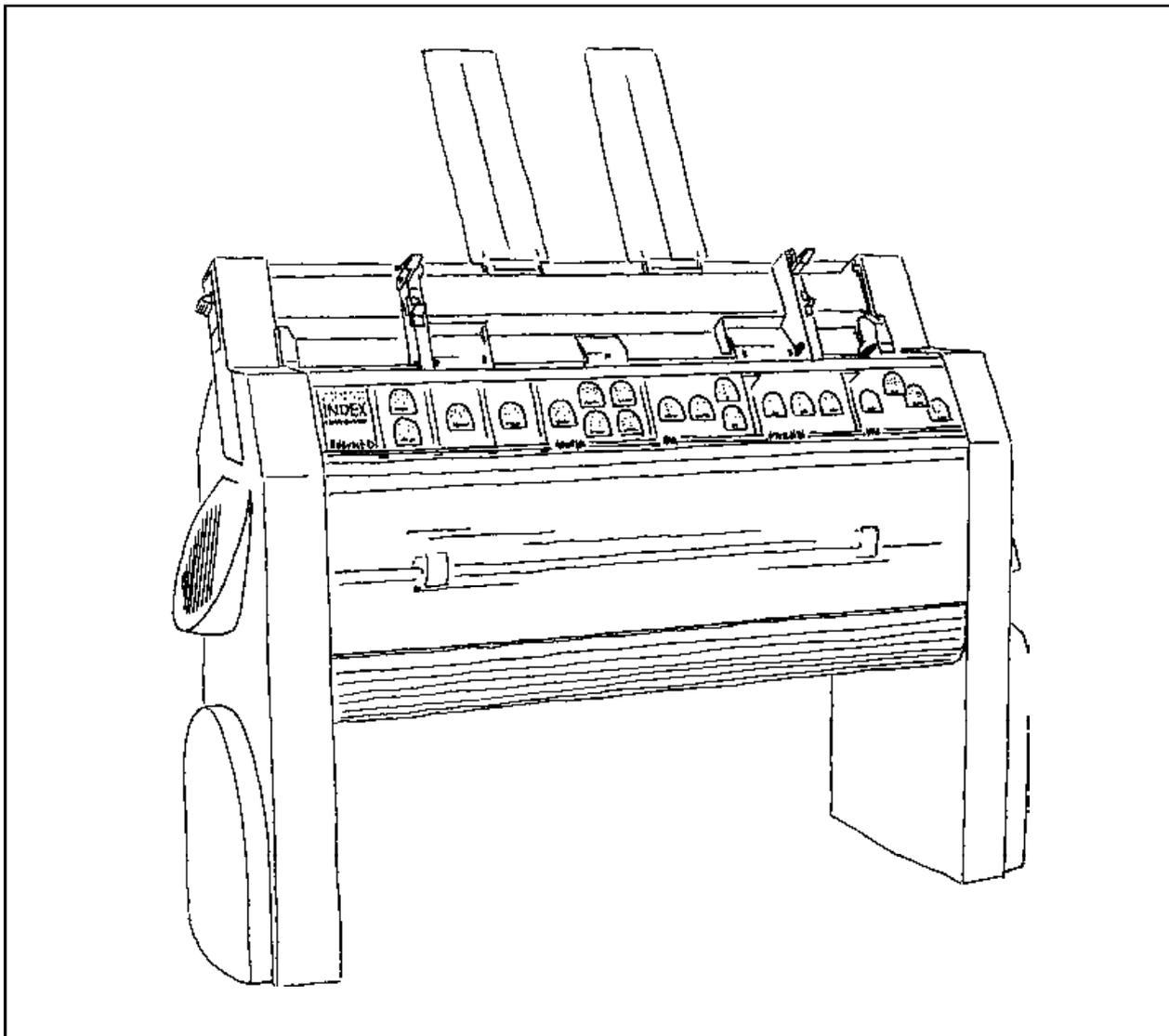
6.10 Graphic programs.

The Graphics programs Draw and Letter is described in the chapter 8.2 and 8.3.

7. Using the sheet feeder.

7.1 Load paper.

Make sure that the paper is neither curled, nor damaged, or a mix between different kinds of paper. The paper should be well fanned before stacking it into the feeder. Align its edges by tapping the sides and the bottom of the paper stack on a flat surface. Open the paper feeder, using the feeder lever located on the feeder side. Unlock the left paper guide by lifting up the locking lever. Slide the left margin guide to match the width of your paper stack. Place the stack of paper into the feeder until it rests firmly on the base. Push the paper stack with the left hand paper guide so that it is evenly aligned against the right hand margin guide. The paper stack must be held neither too tight nor too loose in the feeder. Lock the left hand paper guide and close the paper feeder. Your sheet feeder is now ready for use.



7.2 Problem solving.

If you encounter any problem when using the sheet feeder, reading this section should help you to solve it. There may be more than one cause and remedy to a problem.

PROBLEM: THE FEEDER DOES NOT OPERATE (NO PAPER FEED).

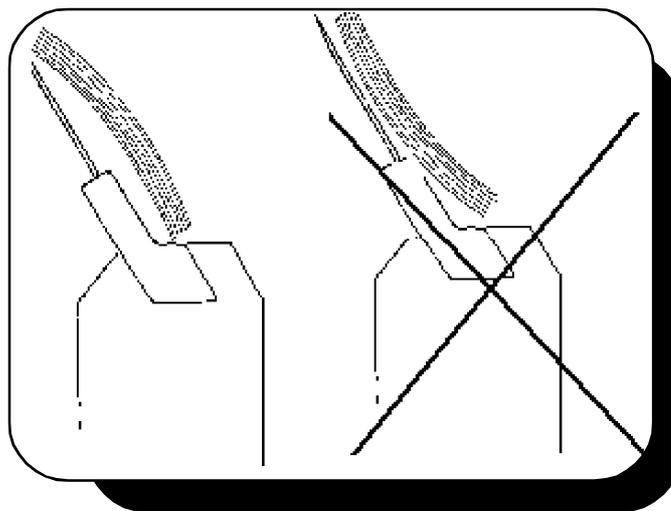
- Cause: Paper feeder is not in the operating position.
- Remedy: Set paper bin to correct operating position.
- Cause: The sheet feeder is out of paper.
- Remedy: Reload the paper bin.
- Cause: There is a paper jam.
- Remedy: Remove the jammed paper and restack the paper.

PROBLEM: MORE THAN ONE SHEET OF PAPER FEEDS AT A TIME.

- Cause: The paper separation lever of the bin is in the card position.
- Remedy: Pull the buttons upwards to the sheet position.
- Cause: The paper is not sufficiently fanned.
- Remedy: Fan the paper and reload paper stack.
- Cause: The paper is damaged.
- Remedy: Replace the paper.
- Cause: Paper is loaded incorrect.
- Remedy: Turn around the paper stack (see picture on this side).
- Cause: The sheet feeder supports is not in use.
- Remedy: Place them in the right position on the sheet feeder.

PROBLEM: PAPER GOES ASKEW.

- Cause: The paper is damaged.
- Remedy: Remove paper from the bin and replace it with new paper.
- Cause: The paper bin is misaligned.
- Remedy: Re-adjust the paper bin.
- Cause: Feeder pick-up rollers are not gripping the paper properly.
- Remedy: Check paper surface for defects. Clean the pick-up rollers.



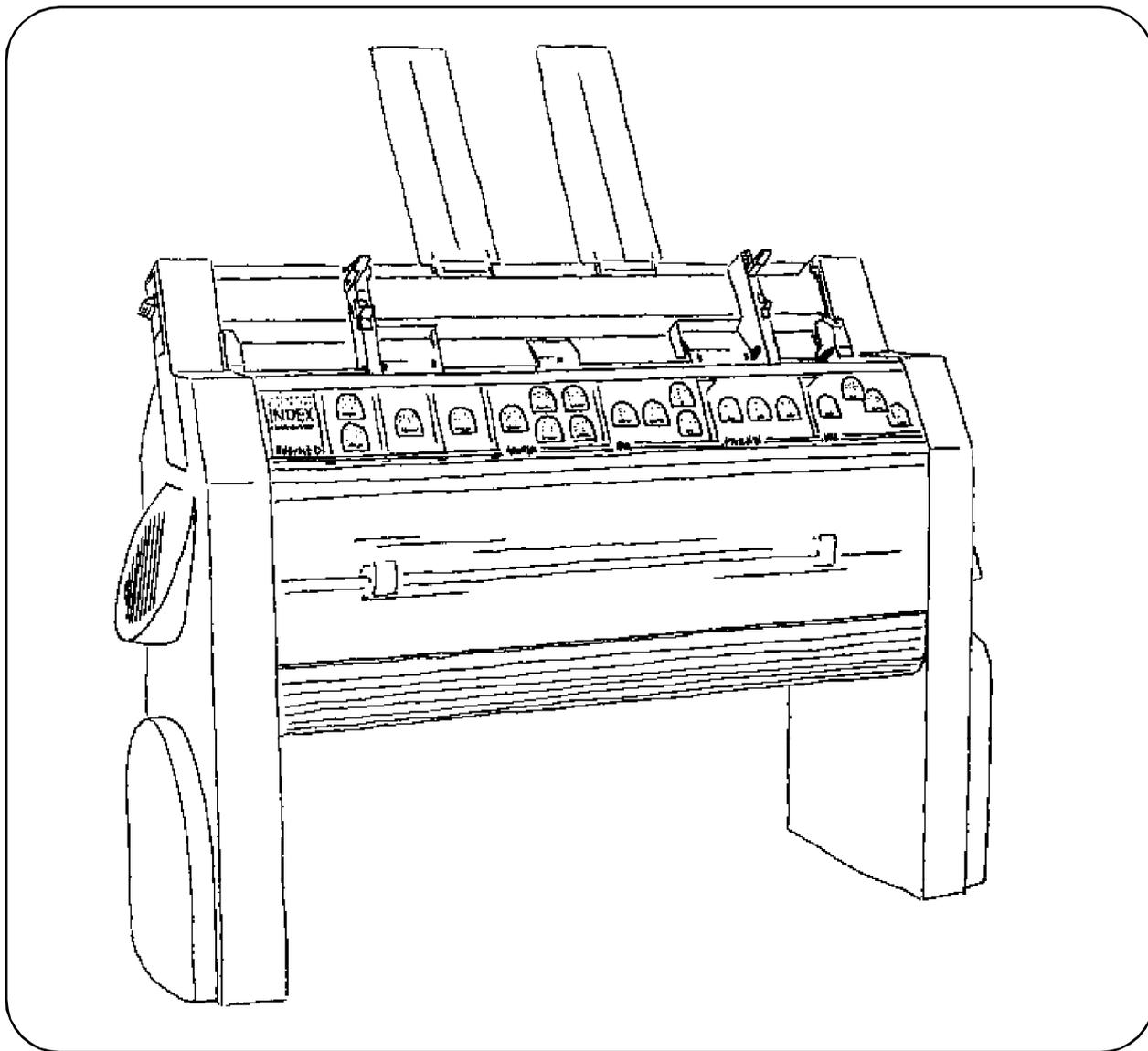
7.3 Maintenance.

7.3.1 General maintenance.

The printer shouldn't be placed near an open window or a heating source. That may cause dust or moisture to enter the printer where it can damage both the electronic and the mechanic parts. If it is necessary you can wipe off the printer with a lint free cloth, moistened in a soap solution.

7.3.2 Cleaning the sheet feeder.

You should remove dust and paper particles from the sheet feeder with a soft brush. The pick-up rollers and printer platen may become slightly less efficient after some time of use, therefore they must be cleaned periodically by a lint free cloth and a suitable platen cleaner.



8. Graphic.

8.1 Graphic modes.

With the EVEREST it is possible to produce graphic printouts. There are three different graphic modes in EVEREST. The modes are 4-dot graphic mode, 6-dot graphic mode, general graphic mode and printout for graphic files, created for VersaPoint printers. The printer is set in graphic mode by an ESC sequence. The ESC sequences for each graphic mode are described later in this chapter.

Note! Graphic printout will be printed in singlesided mode. If a textfile contents a graphic picture, Everest will automatically reformat the connecting pages.

8.1.1 4-dot graphic mode.

In this mode the 4 least significant bits in the ASCII-code are translated to a graphic matrix, containing 4 dots. This table shows the translation between the ASCII-code and the graphic matrix.

To activate: ESC Ctrl G.

The printer is now set in 4-dot graphic mode.

All characters are translated according to the 4-dot table.

To deactivate: ESC Ctrl F

Dec. ASCII	64	65	66	67	68	69	70	71
Character	space	A	B	C	D	E	F	G
Graphic matrix	○	●	○	●	○	●	○	●
	○	○	●	●	○	○	●	●
	○	○	○	○	●	●	●	●
	○	○	○	○	○	○	○	○
Dec. ASCII	72	73	74	75	76	77	78	79
Character	H	I	J	K	L	M	N	O
Graphic matrix	○	●	○	●	○	●	○	●
	○	○	●	●	○	○	●	●
	○	○	○	○	●	●	●	●
	●	●	●	●	●	●	●	●

8.1.2 6-dot graphic mode.

The printer uses the character representation in US computer Braille. A number of programs on the US market are designed for production of Braille graphics based on US computer Braille. Index 6-dot mode works in a similar way based upon the 6 dot US computer Braille but with graphic distance between the Braille cells.

To activate: ESC Ctrl A

The printer is now set in 6-dot graphic mode.

All characters are translated according to the US computer Braille table.

To deactivate: ESC Ctrl B

8.1.3 General graphic mode.

When the general graphic mode is set, the printer uses the Braille table that is activated and sets the character distance to the pre-installed graphic distance 2.0/2,5 mm. EVEREST has no limitations in using Braille tables when the general graphic mode is activated. You can create an OWN graphic table or use one of the standard tables of the printer.

Activate: ESC Ctrl C

The printer is now set in general graphic mode. All characters are translated according to the activated Braille table.

Deactivate: ESC Ctrl D

8.1.4 High resolution graphic.

A high resolution Braille graphic mode is available with 2.0 mm dot distance, comparing to the normal dot distance of 2.5 mm in normal graphic mode.

Change to high resolution graphic. In the SETUP/group OPTION/ item OPTION 2.0/2.5 (2,0=high resolution graphic, 2.5=normal graphic,).

The relation of number of dots per line in graphic mode is the following:

2.0mm is 1.5 = A4 paper (32 char/line in text mode) gives 48 char/line in graphic mode.

2.5mm is 1.18 = A4 paper (32 char/line in text mode) gives 37 char/line in graphic mode.

8.1.5 Versapoint graphic files printout.

To print graphic files, created for Versapoint, use the following commands:

ESC I Start 6-dot Braille printout for Versapoint files
 ESC J End 6-dot Braille printout for Versapoint files

8.2 Graphic programs.

On a disk together with the printer the following graphic programs are delivered.

A:\DRAW\DRAW.EXE Program for producing graphic pictures.
 A:\LETTER\LETTER.EXE Program for producing graphic printouts of upper case letters.
 A:\PICTURE\XXXX.GRA A selection of graphic pictures.

A detailed description of each program follows below.

8.2.1 Draw.

The program DRAW makes it possible to produce graphic pictures with your printer. With the direction keys or a mouse you can control the cursor on the screen and create a line art picture that can be printed on the Braille printer.

8.2.2 Open the main menu

Type EVEREST to open the menu program that displays all the different support programs for Everest.

8.2.3 Start and install Draw

a. Place the cursor on the selected program DRAW, and press enter.

The program will give you the following options:

b. Select paper size from the table on the screen:

- 1= A4 12" Horizontal Graphic mode 2.0
- 2= A4 11" Horizontal Graphic mode 2.5
- 3= A4 12" Vertical Graphic mode 2.5

c. Select type of monitor:

- 0=EXIT
- 1=HERCULES (720 x 348)
- 2=EGA (640 x 350)
- 3=VGA (640 x 480)

After choosing the monitor the following is displayed:

8.2.2.4 Draw function keys.

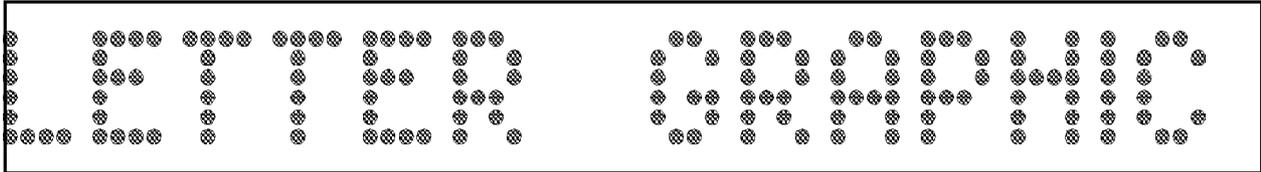
F1: DRAW	Draw.
F2: ERASE	Erase
F3: MOVE THE CURSOR	Move the cursor without drawing.
F4: SAVE/LOAD	DOS format : A:\directory\filename.filetype directory max 8 characters, file name max 8 characters, filetype (extension) 3 characters.
F5 : PRINT	The picture will be printed on LPT1.
F6: TEXT	Type text (upper cases) or Braille in the picture.
F7: CLEAR	Clear screen.
F8 : DIR	List directory.
F9: SETUP	Change setup patameters and restart the program.
F10: QUIT	Quit the program

Note! Save the picture before printing!

8.3 Letter.

The program LETTER makes it possible to produce alphabetical text in graphic Braille printout, with two different text heights. The program can be used to label documents for sighted people that are handling, but are not familiar are with the Braille system.

The picture below is created by the letter program.



8.3.1 Open the main menu

Type EVEREST to open the menu program that displays all the different support programs for Everest.

8.3.1.2 Start letter

Place the cursor on the selected program Letter, and press enter.

8.3.1.3 How to use Letter.

- a. Insert the disk in the disk drive, for example drive A.
- b. Press A:\LETTER and ENTER
- c. Start the program by typing LETTER and press the ENTER key.
- d. Select text height from the table on the screen:
 1. Character set 1 SMALL.- height 6 dots, that means approximately 13.7mm.
 2. Character 2 LARGE. height 8 dots, that means approximately 18.0 mm.
- e. Select paper width from the table on the screen:
 1. Paper width A4/210mm.
 2. Paper width A3/280mm.
- d. Letter is ready to use.

The letter program can print the following letters:
 ABCDEFGHIJKLMNOPQRSTUVWXYZÄÄÖ1234567890.
 It will not display lower case or other country specific characters.

8.3.1.4 Letter function keys.

F1 :	HELP	Short description of the commands.
F2 :	SAVE	Save the text.
F3 :	APP.	Append the text.
F4 :	PRINT	Print graphic text to the printer.
F5 :	WIDTH	Change paper width.
F6 :	DIR	List directory.
F7 :	Not in use	
F8 :	End	Exit LETTER
F9 :	Not in use.	
F10:	MENU	Back to menu for changing text height and width.

Note! All functions are initiated by the sequence: F(x) + ENTER

9 Control sequences.

9.1 Pro-printer emulation.

The easiest method of installing an application program with the INDEX is to select IBM PRO-PRINTER X24 when installing the program in the computer. The INDEX utilizes and interprets the control commands in a similar way to the IBM-PROPRINTER X24. The control commands which are only applicable to inkprinters will automatically be removed by the printer.

Note! Some of the command strings contents even additional variables. Refer to the IBM Proprinter X24 Mode Commands.

Table of ESC Sequences

* ESC A	65	Text Line Spacing
* ESC B	66	Vertical Tabs.
* ESC C	67	Form Length
* ESC D	68	Horizontal Tabs
* ESC E	69	Emphasized Print
* ESC F	70	Cancel Emphasized Print
* ESC G	71	Near Letter Quality
*ESC H	72	Cancel Near Letter Quality
* ESC I	73	Font Selection
* ESC J	74	Variable Line Space
* ESC K	75	Normal Density Bit Image Graphics
* ESC L	76	Dual Density Bit Image Graphics
* ESC N	78	Automatic perforation Skip
* ESC O	79	Cancel Automatic perforation skip
* ESC P	80	Proportional Space Mode
* ESC Q	81	Deselect Proprinter XL
* ESC R	82	Reset Tabs
* ESC S	83	Super/Subscript Print
* ESC T	84	Cancel Sub/Superscript Print
* ESC U	85	Uni-directional Print
* ESC W	87	Double Wide Print
* ESC X	88	Set Horizontal Margins
* ESC Y	89	Dual Density Bit-Image Graphics
* ESC Z	90	High Density Bit-Image Graphics
* ESC 0	48	1/8 Inch Line Spacing
* ESC 1	49	7/72 Inch Line Spacing
* ESC 2	50	Start Text Line Spacing
* ESC 3	51	Graphic Line Spacing
* ESC 4	52	Set Top of Form
# ESC 5	53	Automatic Line feed
ESC51		Auto Line Feed ON
ESC50		Auto Line Feed OFF
# ESC 6	54	Select Character set 2
* ESC 7	55	Select Character set 1
* ESC _	95	Continuous Overscore
* ESC -	196	Continuous Underscore
* ESC :58	12	CPI Print
* ESC ^N	14	Sets single line double width printing
* ESC ^O	15	17 CPI print
* ESC ^R	18	Realease compress printing
* ESC =	61	Font Image Download
* ESC [+@	91,64	Double height printing
# ESC \	92	Select all Characters Chart
ESC\n1(n2x256)		Transparent mode where n1 and n2 (Hex) are the number of characters in the transparent string. In the string there is no translation "bit 1" corresponds to "dot", "bit 2" to "dot 2" and so on.
* Esc^	94	Prints 1 character from all character chart.
* ESC k	107	Selects print font style
* ESC *	42	Sets bits image mode selection
* ESC [+g	91,103	Sets bits image mode selection
* ESC [+\ # Esc d	91,92	Selects the base line feed unit
* Esc d	100	Sets relative position
* Esc j	106	Sets off line mode

* = This ESC sequence is removed from the text file by EVEREST
 # = This ESC sequence controls EVEREST in a similar way to the IBM Proprinter
Bold text= Used in other own commands by Everest

9.2 Defined codes.

Decimal	ctrl.char	Function
*8	^H	Backspace
*9	^I	Horizontal Tab. skip
#10	^J	Linefeed
*11	^K	Vertical Tab.skip
#12	^L	Formfeed
#13	^M	Carrige return
*14	^N	Double with (for 1 line only)
*15	^O	17 CPI (condensed)
*17	^Q	Print suppress OFF
*18	^R	10 CPI (pica)
*20	^T	Double with OFF (Before end of line)
#24	^X	Clear Buffer
#27	ESC	ESC - before codes
#32	Space	Space

* = This ESC sequence is removed from the text file by INDEX

= This ESC sequence controls INDEX in a similar way to the IBM Proprinter

9.3 ESC Sequences - Index commands.

ESC ^C	Select 6-dot braille cell
ESC ^D	Select 8-dot braille cell
ESC 1	Start 6-dot graphic
ESC]	End 6-dot graphic
ESC ^G	Start 4 dot graphic
ESC ^F	End 4 dot graphic
ESC ^A	Start 6-dot braille printout for Versapoint files
ESC ^B	End 6-dot braille printout for Versapoint files
ESC ^O	Start/End Setup sequence from computer

9.4 VersaPoint graphic.

ESC ^A	Start 6-dot braille printout for Versapoint files
ESC ^B	End 6-dot braille printout for Versapoint files

9.5 Changes in setup from computer.

To change the values in one of the three setups permanently:

Code [Esc][^O][^A]A[*,*],[Esc][^O]. (A is the chosen setup to change)

To change the value in the active setup temporary (for 1 file)

Code [Esc][O^]B^[*,*],[Esc][^O].

To change between the different setups:

Permanently:

Code [Esc][O^][^C]A(B or C)[Esc][^O]

Temporary:

Code [Esc][O^][^D]A(B or C)[Esc][^O].

* = 40 different values, see 9.5.1 and Setup program, 6.6

Position 3 - Capital prefix.

1 = Capital prefix
0 = No capital prefix

Position 4 - Baudrate.

0 = 300 baud
1 = 600 baud
2 = 1200 baud
3 = 2400 baud
4 = 4800 baud
5 = 9600 baud

Position 5 - Number of databits.

0 = 7 databits
1 = 8 databits

Position 6 - Parity.

0 = Odd
1 = Even
2 = None

Position 7 - Number of stopbits.

0 = 1 stopbit
1 = 2 stopbits

Position 8 - Handshake.

0 = Hardware
1 = Software

Position 9 - Characters per line.

0 = 23 character per line ...
1 = 24 character per line and so on until
26 = 48 characters per line.

Position 10 - Left margin.

0/1/2/3 = characters in margin

Position 11 - B-margin.

0/1/2/3 = characters in B-margin

Position 12 - Top margin.

0/1/2/3 = lines in top margin

Position 13 - Bottom margin.

0/1/2/3 = lines in bottom margin

Position 14 - Line spacing.

0 = 0.5 mm
1 = 0.75 mm
2 = 0.90 mm
3 = 0.95 mm
4 = 1.0 mm
5 = 1.05 mm
6 = 1.1 mm
7 = 1.50 mm
8 = 2.0 mm

Position 15 - Pagemode.

0 = Single side
1 = Double side

Position 16 - Print mode.

0 = Normal
1 = Reformatted
2 = Split page

Position 17 - Page number.

0 = Off
1 = On

Position 18 - Print Sided

0 = side 1 (Odd page)
1 = side 2 (even page)

Position 19 - Word wrap.

0 = Word wrap off
1 = Word wrap on

Position 20 - Auto line feed.

0 = Auto linefeed off
1 = Auto linefeed on

Position 21 - Formfeed.

0 = After
1 = Before
2 = Both
3 = None

Position 22 - Volume.

0 = volume 1
 1 = volume 2
 2 = volume 3
 3 = volume 4
 4 = volume 5

Position 23 - Impact level.

0 = Impact level 1
 1 = Impact level 2
 2 = Impact level 3
 3 = Impact level 4
 4 = Impact level 5

Position 24 - Delay.

0 = Delay 1
 1 = Delay 2
 2 = Delay 3
 3 = Delay 4
 4 = Delay 5

Position 25 - Printing speed.

0 = 60 cps
 1 = 70 cps
 2 = 80 cps
 3 = 90 cps
 4 = 100cps

Position 26 - Grafic dot distance.

0 = Grafic mode 2.0 mm
 1 = Grafic mode 2.5 mm

Position 27 - Text dot distance.

0 = Text mode normal, 2.5 mm.
 1 = Text mode Japan, 2.2 mm.

Position 28 - Setup.

0 = Setup closed
 1 = Setup open

Position 29 - Line type

0 = Interpoint
 1 = Interline

Position 30 - Lines per page

0 = - 0 line
 1 = - 1 lines and so on until...
 9 = - 9 lines

Position 31-39.

Position 30 - 39 position is all set 0
 in main software.
 0 = IDLE.

9.6 Page numbering selection by ESC sequences

While printing several documents, that should be connected to each other as one document, it is possible to select continius page numbering.

To choose continuing number from the of the previous document, send the following ESC-sequence in the beginning of the file, like a driver:

ESC^Q,0,ESC

To choose a certain page number from the first page of the next document, send the following ESC-sequence in the beginning of the file, like a driver:

ESC^Q,xxx,ESC

9.7 Multiple copies selection by ESC sequences

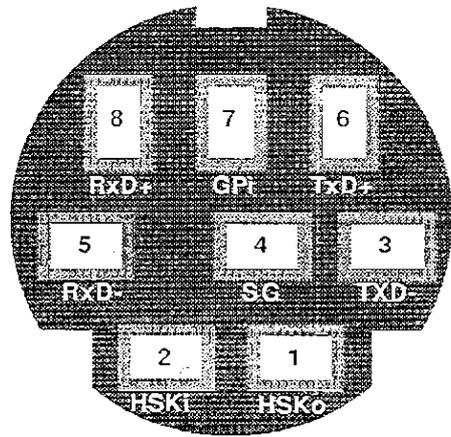
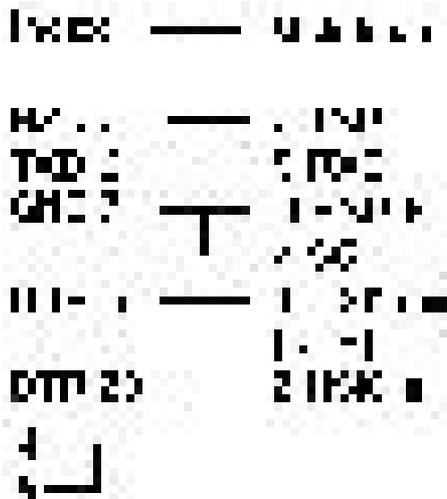
Choose number of copies by sending the following ESC sequence in the beginning of the file, like a driver:

ESC^R, xxx,ESC^R

Note! If the printer is pre-setted in "multiple copy mode", that will override the software command!

10 Serial communication cables

10.1 Cable configuration Index - Apple McIntosh



11 ASCII-table

Dec Value	Hex Value	0	16	32	48	64	80	96	112	128	144	160	176	192	208	224	240	
0	0	NUL	SOH	STX	ETX	0	@	P	p	Ç	É	á	█	-	-	α	≡	
1	1	SOH	STX	ETX	0	1	A	Q	a	q	ü	æ	í	█	⊥	∫	β	±
2	2	STX	ETX	0	1	2	B	R	b	r	é	Æ	ó	█	⊥	∏	Γ	≥
3	3	ETX	0	1	2	3	C	S	c	s	â	ô	ú		-	⊥	π	≤
4	4	0	1	2	3	4	D	T	d	t	ä	ö	ñ	-	-	⊥	Σ	∫
5	5	1	2	3	4	5	E	U	e	u	à	ò	Ñ	-	+	F	σ	J
6	6	2	3	4	5	6	F	V	f	v	á	û	≡	-	⊥	∏	μ	÷
7	7	3	4	5	6	7	G	W	g	w	ç	ù	≡	∏	⊥	∏	τ	∞
8	8	4	5	6	7	8	H	X	h	x	ê	ÿ	¿	⊥	⊥	-	Φ	°
9	9	5	6	7	8	9	I	Y	i	y	ë	Ö	∫	=	∫	∫	θ	•
10	A	6	7	8	9	:	J	Z	j	z	è	Ü	-		∫	∫	Ω	•
11	B	7	8	9	:	;	K	[k	{	í	é	½	∫	∫	█	δ	√
12	C	8	9	:	;	<	L	\	l		î	£	¼	∫	∫	█	∞	η
13	D	9	:	;	<	=	M		m	}	ï	¥	∫	∫	∫	█	o	ε
14	E	:	;	<	=	>	N	^	n	~	Ä	Pl	«	-	∫	█	c	█
15	F	;	<	=	>	?	O	_	o	△	Å	¡	»	∫	∫	█	o	∫

Control-codes

NUL = Null
 SOH = Start Of Heading
 STX = Start Of Text
 ETX = End Of Text
 EOT = End Of Transmission
 ENQ = Enquiry
 ACK = Acknowledge
 BEL = Bell
 BS = Backspace
 HT = Horizontal Tabulation
 LF = Line Feed
 VT = Vertical Tabulation

FF = Form Feed
 CR = Carriage Return
 SO = Shift Out
 SI = Shift In
 DLE = Data Link Escape
 DC1 = Device Control 1 (XON)
 DC2 = Device Control 2
 DC3 = Device Control 3 (XOFF)
 DC4 = Device Control 4
 NAK = Negative Acknowledgement
 SYN = Synchronous Idle

ETB = End Of Transmission
 Block
 CAN = Cancel Line
 EM = End Of Medium
 SUB = Substitute (even used as EOF = End Of File)
 ESC = Escape
 FS = File Separator
 GS = Group Separator
 RS = Record Separator
 US = Unit Separator
 SP = Space

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