3.3 LCD display messages (only for the model with)

Upper line message Lower line message	Indication
STARTING UP	The printer initialization phase is starting-up.
..INIT..	The printer initialization phase is ended
SP40plus Rel. xxx	The printer firmware release message
PRINTER READY **PROG1 DRAFT**	The printer is in normal ready status showing the current Program and the current Font.
PRINTER READY **HEX-DUMP MODE**	The printer is in normal ready status in hex dump mode.
PRINTER OFF-LINE **PUSH ON LINE**	The printer is in off-line status.
PAUSE ON PRINT **PUSH ON LINE**	The printer is going in off-line status while data are in the buffer and ready to be printed.
WAITING MEDIA **INSERT MEDIA**	Data are sent to the printer, the printer is waiting for the insertion of the paper.
PRINTER BUSY **EPSON PARALLEL**	The printer is currently printing showing the used Emulation and interface
SET UP	The printer is in Set Up status and is waiting for a blank sheet to be loaded See "Printer Setup" later in this manual.
SETUP PAG=CONF **ST1=PAG ST2=PRT**	The printer is waiting for a Set Up operation selection. See "Printer Setup" later in this manual.
NVM CHANGED	The firmware of the printer has been updated and the NVM values have been resored to the default parameters.

Table 3.3 LCD messages

3.4 Printer Setup

The Printer Setup is used to configure the printer parameters and to print a Self Test page, to check the settings and the printer installation, and to perform the Print Offset Tuning.
The default configuration of this printer matches most of the commonly used environments, but it may be necessary to change some printer parameters.
With this printer you print the forms for the setup, you fill them in, and then you insert them back into the printer for reading. Once the printer reads the form, the new values are set.
The following is the complete description of the Setup Procedure.

3.4.1 Entering the Printer Setup Mode

To enter the Printer Setup Mode press and hold the READY key pressed for at least 1 second while powering the printer on. The printer enters the Setup Mode.
The leds ST1, ST2 and READY are unlit, the fourth led Θ/DATA is flashing.

You can now:

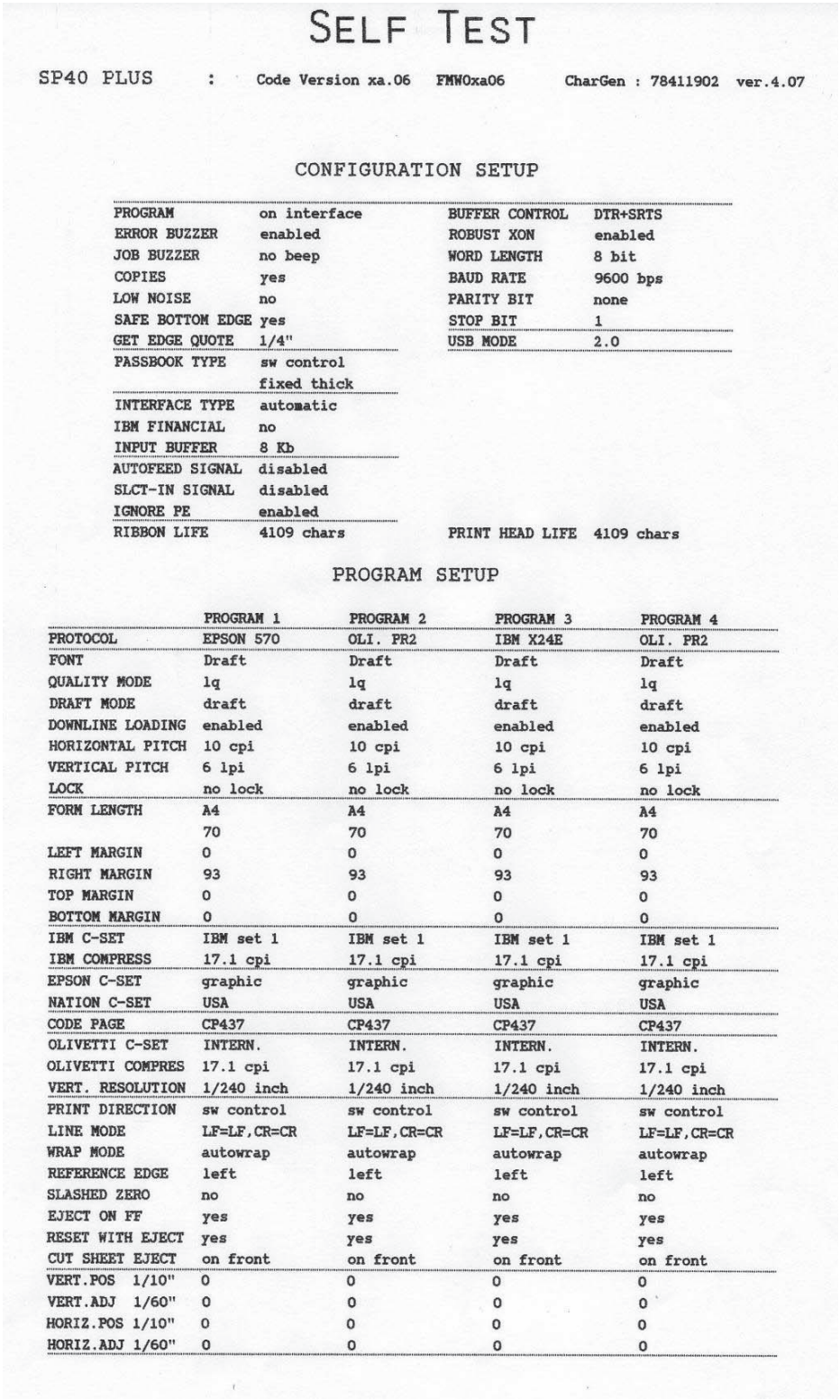
1. Print the Self Test.
2. Print one of the Printer Setup Forms (Configuration Menu or Program1 – Program2 – Program 3 - Program4 Menu) or the Offset Tuning Form.
3. Insert a filled-in Printer Setup Form to set the corresponding Setup values.

3.4.2 Printing the Test Page

The Self Test page is useful to test, if the printer has been correctly installed, and allows to see the current parameter settings.

1. With the printer in the Setup Mode, insert a single sheet in A4 or Letter format.
2. The printer loads the sheet and stops.
3. Press the READY key again.

The printer prints the Self-Test page. Check that the printout is correct. The following printout example shows the Printer Setup default values.
Once the self-test is finished, the printer remains in Setup Mode.



SELF TEST

SP40 PLUS : Code Version xa.06 FMW0xa06 CharGen : 78411902 ver.4.07

CONFIGURATION SETUP

PROGRAM	on interface	BUFFER CONTROL	DTR+SRTS
ERROR BUZZER	enabled	ROBUST XON	enabled
JOB BUZZER	no beep	WORD LENGTH	8 bit
COPIES	yes	BAUD RATE	9600 bps
LOW NOISE	no	PARITY BIT	none
SAFE BOTTOM EDGE	yes	STOP BIT	1
GET EDGE QUOTE	1/4"	USB MODE	2.0
PASSBOOK TYPE	sw control		
	fixed thick		
INTERFACE TYPE	automatic		
IBM FINANCIAL	no		
INPUT BUFFER	8 Kb		
AUTOFEED SIGNAL	disabled		
SLCT-IN SIGNAL	disabled		
IGNORE PE	enabled		
RIBBON LIFE	4109 chars	PRINT HEAD LIFE	4109 chars

PROGRAM SETUP

	PROGRAM 1	PROGRAM 2	PROGRAM 3	PROGRAM 4
PROTOCOL	EPSON 570	OLI. PR2	IBM X24E	OLI. PR2
FONT	Draft	Draft	Draft	Draft
QUALITY MODE	lq	lq	lq	lq
DRAFT MODE	draft	draft	draft	draft
DOWNLINE LOADING	enabled	enabled	enabled	enabled
HORIZONTAL PITCH	10 cpi	10 cpi	10 cpi	10 cpi
VERTICAL PITCH	6 lpi	6 lpi	6 lpi	6 lpi
LOCK	no lock	no lock	no lock	no lock
FORM LENGTH	A4	A4	A4	A4
	70	70	70	70
LEFT MARGIN	0	0	0	0
RIGHT MARGIN	93	93	93	93
TOP MARGIN	0	0	0	0
BOTTOM MARGIN	0	0	0	0
IBM C-SET	IBM set 1	IBM set 1	IBM set 1	IBM set 1
IBM COMPRESS	17.1 cpi	17.1 cpi	17.1 cpi	17.1 cpi
EPSON C-SET	graphic	graphic	graphic	graphic
NATION C-SET	USA	USA	USA	USA
CODE PAGE	CP437	CP437	CP437	CP437
OLIVETTI C-SET	INTERN.	INTERN.	INTERN.	INTERN.
OLIVETTI COMPRES	17.1 cpi	17.1 cpi	17.1 cpi	17.1 cpi
VERT. RESOLUTION	1/240 inch	1/240 inch	1/240 inch	1/240 inch
PRINT DIRECTION	sw control	sw control	sw control	sw control
LINE MODE	LF=LF,CR=CR	LF=LF,CR=CR	LF=LF,CR=CR	LF=LF,CR=CR
WRAP MODE	autowrap	autowrap	autowrap	autowrap
REFERENCE EDGE	left	left	left	left
SLASHED ZERO	no	no	no	no
EJECT ON FF	yes	yes	yes	yes
RESET WITH EJECT	yes	yes	yes	yes
CUT SHEET EJECT	on front	on front	on front	on front
VERT.POS 1/10"	0	0	0	0
VERT.ADJ 1/60"	0	0	0	0
HORIZ.POS 1/10"	0	0	0	0
HORIZ.ADJ 1/60"	0	0	0	0

Fig. 3.3 Self Test Printout

3.4.3 Printing the Printer Setup Forms

If you already have the preprinted forms for the printer setup, go to next chapter.

1. With the printer in Setup Mode, insert a blank sheet in A4 or Letter format.
2. The printer loads the sheet and stops.
3. If you press the ST1 key, the three leds change and you can select the Setup Page you want to print as follows:

○ = unlit ● = lit ◐ = flashing

ST1	READY	/ DATA	ST2	SETUP STATUS
○	○	◐	○	Configuration Page
●	○	◐	○	Program 1 – Setup Page
○	○	◐	●	Program 2 – Setup Page
●	○	◐	●	Program 3 – Setup Page
○	●	◐	○	Program 4 – Setup Page
●	●	◐	○	Offset Tuning Set Up Page

Table 3.4 Led combination under Setup

Pressing the ST2 key, the printer prints the selected Setup Page, showed in next pages.
Only the Program 1 Setup Page printout is reported because the other are exactly the same except for the marker.

The printer setup forms contain all printer parameters and the values that can be set.
The current value is indicated by an asterisk (*).
For a detailed description of the parameters and the settings see Setup Parameters.

Each Setup form is identified by a marker in the upper left corner of the page as follows:

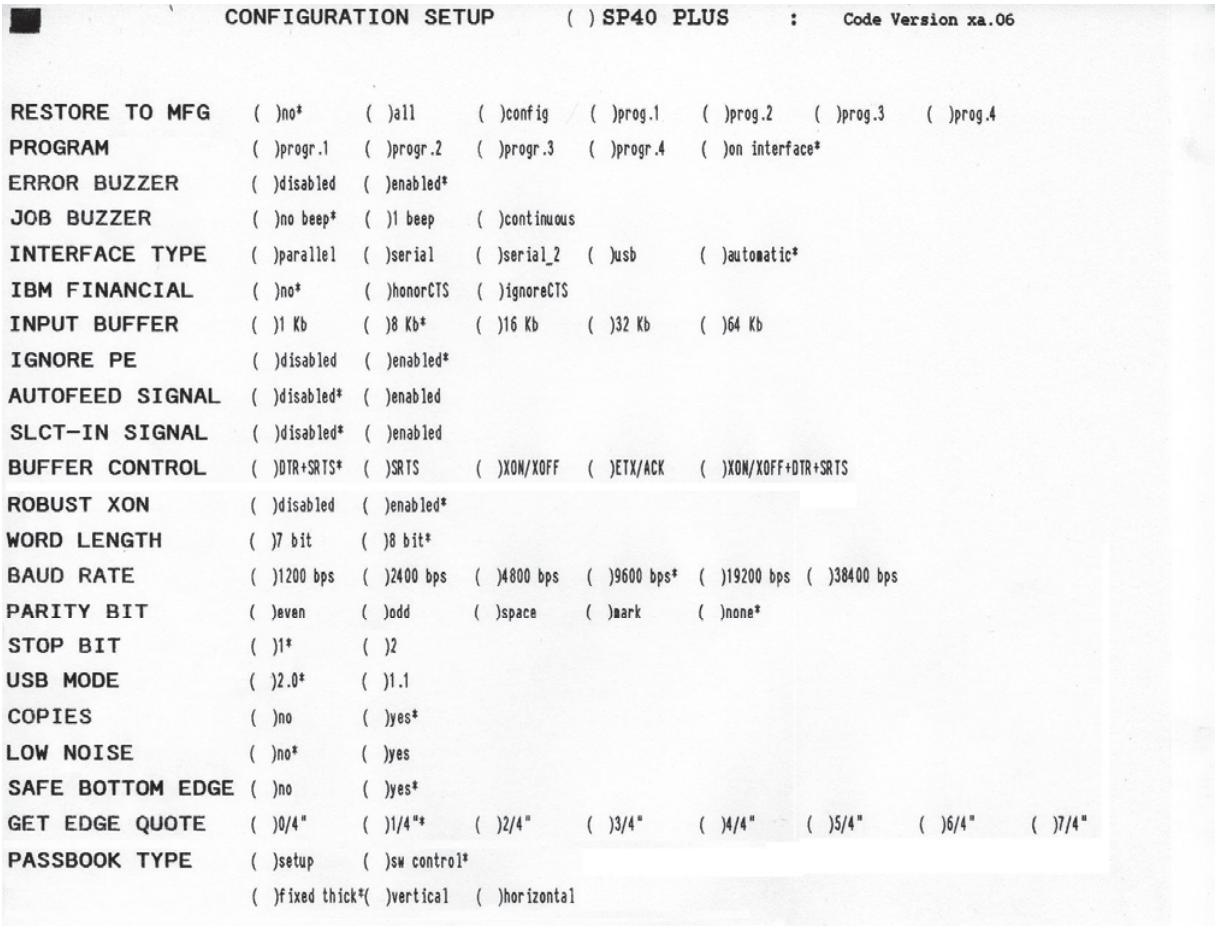
Configuration Setup	■
Program 1	■■
Program 2	■■ ■
Program 3	■■ ■■
Program 4	■■ ■■■
Offset Tuning Setup	■■■■

Table 3.5 Setup marker combination

In this first line an empty marker ( ) is printed within the printer model and the Code Version to be used for the white calibration check.

Remark: do not fill this empty marker

For the printer with operator panel with LCD, the SETUP operation are directly displayed on the LCD jointly with the above described leds combination.



CONFIGURATION SETUP ( ) SP40 PLUS : Code Version xa.06

RESTORE TO MFG	( )no*	( )all	( )config	( )prog.1	( )prog.2	( )prog.3	( )prog.4
PROGRAM	( )progr.1	( )progr.2	( )progr.3	( )progr.4	( )on interface*		
ERROR BUZZER	( )disabled	( )enabled*					
JOB BUZZER	( )no beep*	( )1 beep	( )continuous				
INTERFACE TYPE	( )parallel	( )serial	( )serial_2	( )usb	( )automatic*		
IBM FINANCIAL	( )no*	( )honorCTS	( )ignoreCTS				
INPUT BUFFER	( )1 Kb	( )8 Kb*	( )16 Kb	( )32 Kb	( )64 Kb		
IGNORE PE	( )disabled	( )enabled*					
AUTOFEED SIGNAL	( )disabled*	( )enabled					
SLCT-IN SIGNAL	( )disabled*	( )enabled					
BUFFER CONTROL	( )DTR+SRTS*	( )SRTS	( )XON/XOFF	( )ETX/ACK	( )XON/XOFF+DTR+SRTS		
ROBUST XON	( )disabled	( )enabled*					
WORD LENGTH	( )7 bit	( )8 bit*					
BAUD RATE	( )1200 bps	( )2400 bps	( )4800 bps	( )9600 bps*	( )19200 bps	( )38400 bps	
PARITY BIT	( )even	( )odd	( )space	( )mark	( )none*		
STOP BIT	( )1*	( )2					
USB MODE	( )2.0*	( )1.1					
COPIES	( )no	( )yes*					
LOW NOISE	( )no*	( )yes					
SAFE BOTTOM EDGE	( )no	( )yes*					
GET EDGE QUOTE	( )0/4"	( )1/4"*	( )2/4"	( )3/4"	( )4/4"	( )5/4"	( )6/4" ( )7/4"
PASSBOOK TYPE	( )setup	( )sw control*					
	( )fixed thick*	( )vertical	( )horizontal				

Fig. 3.4 Configuration Form Printout

PROGRAM 1 ( ) SP40 PLUS : Code Version xa.06

PROTOCOL	( )EPSON 570* ( )IBM X24E ( )X24E AGM ( )IBM 2390 ( )OLI. PR40+ ( )OLI. PR2 ( )OLI. PR2845 ( )IBM 4722
	( )IBM 9068 ( )HPR 4915
FONT	( )Draft* ( )Courier ( )OCR-B ( )Gothic ( )Prestige ( )Present ( )OCR-A ( )Script
	( )Boldface
QUALITY MODE	( )lq* ( )nlq — DRAFT MODE ( )draft* ( )hsd ( )vhsd
DOWNLINE LOADING	( )disabled ( )enabled*
HORIZONTAL PITCH	( )10 cpi* ( )12 cpi ( )15 cpi ( )16.6 cpi ( )17.1 cpi ( )20 cpi
VERTICAL PITCH	( )5 lpi ( )6 lpi* ( )8 lpi
LOCK	( )no lock* ( )font ( )hor.pitch ( )font + hor.pitch
FORM LENGTH	( )#lines ( )A4* ( )letter ( )A5 ( )legal
	100 x ( )0 ( )1 ( )2
	10 x ( )0 ( )1 ( )2 ( )3 ( )4 ( )5 ( )6 ( )7 ( )8 ( )9 Minimum = 1
	1 x ( )0 ( )1 ( )2 ( )3 ( )4 ( )5 ( )6 ( )7 ( )8 ( )9 Maximum = 255 Current = 70
LEFT MARGIN	10 x ( )0 ( )1 ( )2 ( )3 ( )4 ( )5 ( )6 ( )7 ( )8 ( )9 Minimum = 0
	1 x ( )0 ( )1 ( )2 ( )3 ( )4 ( )5 ( )6 ( )7 ( )8 ( )9 Maximum = 90 Current = 0
RIGHT MARGIN	100 x ( )0 ( )1
	10 x ( )0 ( )1 ( )2 ( )3 ( )4 ( )5 ( )6 ( )7 ( )8 ( )9 Minimum = 0
	1 x ( )0 ( )1 ( )2 ( )3 ( )4 ( )5 ( )6 ( )7 ( )8 ( )9 Maximum = 190 Current = 93
TOP MARGIN	10 x ( )0 ( )1 ( )2 ( )3 ( )4 ( )5 ( )6 ( )7 ( )8 ( )9 Minimum = 0
	1 x ( )0 ( )1 ( )2 ( )3 ( )4 ( )5 ( )6 ( )7 ( )8 ( )9 Maximum = 90 Current = 0
BOTTOM MARGIN	10 x ( )0 ( )1 ( )2 ( )3 ( )4 ( )5 ( )6 ( )7 ( )8 ( )9 Minimum = 0
	1 x ( )0 ( )1 ( )2 ( )3 ( )4 ( )5 ( )6 ( )7 ( )8 ( )9 Maximum = 90 Current = 0
IBM C-SET	( )IBM set 1* ( )IBM set 2 — IBM COMPRESS ( )17.1 cpi* ( )20 cpi
EPSON C-SET	( )italic ( )graphic*
NATION C-SET	( )USA* ( )FRANCE ( )GERMANY ( )ENGLAND ( )DENMARK1 ( )SWEDEN ( )ITALY ( )SPAIN1
	( )JAPAN ( )NORWAY ( )DENMARK2 ( )SPAIN2 ( )LATIN A1
CODE PAGE	( )CP437* ( )CP437G ( )96GREEK ( )CP850 ( )CP851 ( )CP852 ( )CP853 ( )CP855
	( )CP857 ( )CP858 ( )CP860 ( )CP862 ( )CP863 ( )CP864 ( )CP865 ( )CP866
	( )CP867 ( )CP876 ( )CP877 ( )CP1098 ( )CP1250 ( )CP1251 ( )CP1252 ( )CP1257
	( )GOST ( )TASS ( )MAZOWIA ( )CP437SL ( )UKRAIN ( )KOI8-U ( )8859/1 ( )8859/2
	( )8859/3 ( )8859/4 ( )8859/5 ( )8859/6 ( )8859/7 ( )8859/8 ( )8859/9 ( )8859/15
	( )ROMAN-8 ( )ID 12 ( )CP874 ( )ID 14 ( )ID 17 ( )SANYO ( )KU ( )PHILIP
OLIVETTI C-SET	( )CODE PAGE ( )INTERN.* ( )GERMANY ( )PORTUGAL ( )SPAIN 1 ( )DEN/NORW ( )FRANCE ( )ITALY
	( )SWE/FIN ( )SWISS ( )G. BRITAIN ( )USA ASCII ( )GREECE ( )ISRAEL ( )SPAIN 2 ( )JUGOSLAVIA
	( )TCV 370 ( )CANADA ( )SDC ( )TURKEY ( )ARABIC ( )CIBC ( )PC-DEN/NORW ( )PC-DEN OPE
	( )PC-210 ( )PC-220 ( )OLI-UNIX
OLIVETTI COMPRES	( )17.1 cpi* ( )16.6 cpi — VERT. RESOLUTION ( )1/216 inch ( )1/240 inch*
CUT SHEET EJECT	( )on front* ( )on rear — PRINT DIRECTION ( )unidir. ( )bidir. ( )sw control*
LINE MODE	( )LF=LF,CR=CR* ( )CR=LF+CR ( )LF=LF+CR ( )LF&CR=LF+CR
WRAP MODE	( )truncate ( )autowrap* — REFERENCE EDGE ( )left* ( )right
SLASHED ZERO	( )no* ( )yes — EJECT ON FF ( )no ( )yes*
RESET WITH EJECT	( )no ( )yes*

Fig. 3.5 Program1 Form Printout

3.4.4 Filling in the Printer Setup Forms

To change the values of the parameters, fill in the marker ( ) beside the value you want to set with a black or blue pen or a fiber-pen. Do not use pencils.

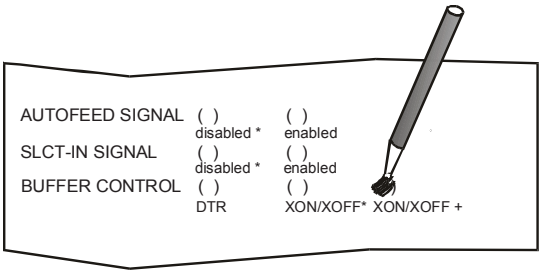


Fig. 3.6 How fill the marker

If more than one value is set for a parameter, the printer ignores these parameters and maintains the currently set value.
Do not fill in the marker beside the title of the preprinted form, otherwise the printer will not be able to read that page.
For a detailed description of the parameters and values contained in the Configuration and Program1, Program2, Program3 and Program4 Menus, see next chapter.
For a detailed description of the Offset Tuning procedure, see Offset Adjustment chapter later in this manual.

3.5 Reading the Pre-printed Forms

When the Printer Setup Forms have been filled in, insert them back into the printer, when the printer is in Setup Mode.
The printer is able to recognize the Setup Forms by means of the markers on these pages. The printer reads the values marked for the various parameters and configures the printer accordingly.
The settings are confirmed by a # symbol printed on the left of the corresponding marker.

3.5 Setup Parameters Details

- **Configuration Setup ( ) SP40 PLUS : Code Version xxxx**

Setup Parameter	Values	Description
RESTORE TO MFG	No* all config prog. 1, prog. 2 prog. 3, prog. 4	The selected values are not set to factory defaults. The values set in all printer setups are reset to factory defaults. The values set in the configuration setup are reset to factory default values
PROGRAM	prog. 1, prog. 2 prog. 3, prog. 4 on interface(*)	Defines the default Program Setup. Selecting prog.1, prog. 2, progr 3 or progr.4 the setup parameters set in the corresponding Program Setup are set. Selecting on interface the printer matches the Program 1 settings with the data arriving on the Centronics interface, the Program 2 settings with the data it receives from the serial interface, Program 3 settings with the data from USB interface and Program 4 setting for any other optional interface. When changing from one interface to the other, the default values are set for the corresponding Program Setup.

Table 3.6 Setup Parameters Details

Setup Parameter	Values	Description
ERROR BUZZER	Disable, enable*	Enables or disables the buzzer in case of an error.
JOB BUZZER	no beep*, 1 beep, continuous	Selects the behavior of the buzzer when a new print job starts: no signal (no beep), one beep (1 beep) or a continuous signal (continuous).
INTERFACE TYPE	parallel, serial, opt, usb, automatic*	Selects the interface type. In case of printer with optional interface ports are installed, they are listed to be selected. Choosing 'automatic' the interface type is selected between all the available interface ports depending on data coming from host. Note: opt. can be dual serial, dual USB, LAN according to the currently installed optional interfaces
IBM FINANCIAL	No* honorCTS, ignoreCTS	Disables the Financial protocol if IBM 4722 or IBM 9068 emulation is selected Enables the IBM FINANCIAL for the IBM 4722 and 9068 protocols. Considers (handles) or ignores the CTS signal received from host for the control of the data stream from host
INPUT BUFFER	1 Kb, 8 Kb*, 16 Kb, 32 Kb, 64 Kb	Selects the buffer size. When the 'financial' interface is selected, this setting is ignored.
IGNORE PE	Enabled, disable*	Selects whether the printer signals the paper empty condition (disabled) or not (enabled) on the busy line.
AUTOFEED SIGNAL	Disable*, enabled	The parallel interface uses (enabled) or does not use (disabled) the AUTOFEED signal.
SLCT-IN SIGNAL	Disable*, enabled	The parallel interface uses (enabled) or does not use (disabled) the SELECT-IN signal.
BUFFER CONTROL	DTR+SRTS*, SRTS, XON/XOFF, ETX/ACK, XON/XOFF+DTR+SRTS	Selection of the buffer protocol. When the 'financial' interface is selected, this setting is ignored.
ROBUST XON	Enabled*, disabled	Perform the Robust XON (enabled) or not (disabled).
WORD LENGTH	7 bit, 8 bit*	Sets the number of the data bits. When the 'financial' interface is selected, this value is always set to 8 bits.
BAUD RATE	1200, 2400, 4800, 9600*, 19200, 38400 bps	Sets the data transfer rate.
PARITY BIT	even, odd, space, mark, none*	Selects the parity control for the data.
STOP BIT	1*,2	Selects the number of stop bit.
USB MODE	2.0*, 1.1	Select the USB specification level
COPIES	no, yes*	Selects the printing on normal paper (no) or on multicopy format paper (yes)
LOW NOISE	No*, yes	Disables/enables the low noise function
SAFE BOTTOM EDGE	no, yes*	Distance from the bottom of the last printer line . Yes = 5,8 mm from bottom edge no = 1,5 mm from bottom edge
GET EDGE QUOTE	0/4", 1/4"*, 2/4", 3/4", 4/4", 5/4", 6/4", 7/4	Sets the position in which the left paper edge is checked. If set to 0, the check is performed at the first line. The other values correspond to the physical distance from the first line.
PASSBOOK TYPE	Setup sw control* Fixed thick* Vertical Horizontal	Enables the setting made in the current PASSBOOK TYPE section and the specific Escape command is not actives. Enables the specific ESCape command. Printing a document with fixed thickness. Printing of passbooks with vertical binding . Printing of passbooks with horizontal binding
PROTOCOL	EPSON 570*, IBM X24E* X24E AGM, IBM 2390, OLI. PR40+, OLI. PR2*, OLI. PR2845, IBM 4722, IBM 9068, HPR 4915	Defines the printer protocol. NOTE: For the IBM 4722 and 9068 protocols, if the software driver uses the controlled link of the IBM financial driver, set the IBM FINANCIAL item in the Configuration Menu. The default value is EPSON 570 for Program1, IBM X24E for Program 3, OLI. Pr2 for Program 2 and 4.

Table 3.6 Setup Parameters Details cont'd

Setup Parameter	Values	Description
FONT	Draft*, Courier, OCR-B, Gothic, Prestige, Present, OCR-A, Script, Boldface	Selects the font.
QUALITY MODE	LQ*, NLQ	Select the level of quality font.
DRAFT MODE	DRAFT*, HSD, VHSD	Select the level of draft font.
DOWNLINE LOADING	disabled, enabled*	Disable or enable the font downloading
HORIZONTAL PITCH	10 cpi*, 12 cpi, 15 cpi, 16.6 cpi, 17.1 cpi, 20 cpi	Selects the character spacing in characters per inch (cpi).
VERTICAL PITCH	5 lpi, 6 lpi*, 8 lpi	Selects the line spacing in lines per inch (lpi).
LOCK	no lock*, font, hor. pitch, font+hor.pitch	The following selections made in the printer setup may be locked: font, horizontal pitch (hor.pitch), or both the font and horizontal pitch (font+hor. pitch). The locked settings cannot be changed via software commands.
FORM LENGTH	# lines, A4*, letter, A5, legal	Sets the page length in number of lines or standard formats A4, Letter, A5 or Legal. If you select # lines, you must indicate the number of lines you want to set in the scheme below this selection. The values range between 0 and 255. To set the values combine the numbers considering that the first line corresponds to the hundreds, the second line to the tens and the third line to the units. See the example below.

Example:
How to set the form length to 82 lines:
FORM LENGTH

■ #lines	( )A4	( )Letter	( )A5	( )Legal					
100x	( )0	( )1	( )2						
10x	( )0	( )1	( )2	( )3	( )4	( )5	( )6	( )7	■ 8	( )9
1x	( )0	( )1	■ 2	( )3	( )4	( )5	( )6	( )7	( )8	( )9

Setup Parameter	Values	Description
LEFT MARGIN	10 x 1 x	Sets the left margin in number of columns. The values range between 0 and 90. To set the values combine the numbers considering that the first line corresponds to the tens, the second line to the units. See the example below.

Example:
How to set the Left Margin to 20.
LEFT MARGIN

10x	( )0	( )1	■ 2	( )3	( )4	( )5	( )6	( )7	( )8	( )9
1x	■ 0	( )1	( )	( )3	( )4	( )5	( )6	( )7	( )8	( )9

Setup Parameter	Values	Description
RIGHT MARGIN	100 x 10 x 1 x	Sets the right margin in number of columns. The values range between 0 and 190. The physical position of margin depends on the current character spacing. To set the values combine the numbers considering that the first line corresponds to the hundreds, the second line to the tens and the third line to the units. See the example below:

Table 3.6 Setup Parameters Details cont'd

Example:
How to set the Right Margin to 101.
RIGHT MARGIN

100x ( )0 ■1

10x ■0 ( )1 ■2 ( )3 ( )4 ( )5 ( )6 ( )7 ( )8 ( )9

1x ( )0 ■1 ( ) ( )3 ( )4 ( )5 ( )6 ( )7 ( )8 ( )9

Setup Parameter	Values	Description
TOP MARGIN	10 x 1 x	Sets the top margin in number of lines. The values range between 0 and 90. To set the values combine the numbers considering that the first line corresponds to the tens, the second line to the units. See the example below.

Example:
How to set the Top Margin to 15.
TOP MARGIN

10x ( )0 ■1 ( )2 ( )3 ( )4 ( )5 ( )6 ( )7 ( )8 ( )9

1x ( )0 ( )1 ( ) ( )3 ( )4 ■5 ( )6 ( )7 ( )8 ( )9

Setup Parameter	Values	Description
BOTTOM MARGIN	10 x 1 x	Sets the bottom margin in number of lines. The values range between 0 and 90. To set the values combine the numbers considering that the first line corresponds to the tens, the second line to the units. See the example below.

Example:
How to set the bottom margin to 34 lines:
BOTTOM MARGIN

10x ( )0 ( )1 ( )2 ■3 ( )4 ( )5 ( )6 ( )7 ( )8 ( )9

1x ( )0 ( )1 ( ) ( )3 ■4 ( )5 ( )6 ( )7 ( )8 ( )9

Setup Parameter	Values	Description
IBM C-SET	IBM set 1*, IBM set 2	Selects the IBM character set.
IBM COMPRESS	17.1 cpi*, 20 cpi	Selects the pitch for the compressed mode printing in IBM emulation.
EPSON C-SET	Italic, graphic*	Selects italic or graphic Epson character set.
NATION C-SET	USA*, FRANCE, GERMANY, ENGLAND, DENMARK1, SWEDEN, ITALY, SPAIN1, JAPAN, NORWAY, DENMARK2, SPAIN2, LATIN A1	Selects the national character sets.
CODE PAGE	CP437*, CP437G, 96GREEK, CP850, CP851, CP852, CP853, CP855, CP857, CP858, CP860, CP862, CP863, CP864, CP865, CP866, CP867, CP876, CP877, CP1098, CP1250, CP1251, CP1252, CP1257, GOST, TASS, MAZOWIA, CP437SL, UKRAIN, KOI8-U, 8859/1, 8859/2, 8859/3, 8859/4, 8859/5, 8859/6, 8859/7, 8859/8, 8859/9, 8859/15, ROMAN-8, ID 12, CP874, ID 14, ID 17, SANYO, KU, PHILIP	Selects the code page for both the IBM and the EPSON emulations.

Table 3.6 Setup Parameters Details cont'd

Setup Parameter	Values	Description
OLIVETTI C-SET	CODE PAGE, INTERN.*, GERMANY, PORTUGAL, SPAIN1, DEN/NORW, FRANCE, ITALY, SWE/FIN, SWISS, G. BRITAIN, USA ASCII, GREECE, ISRAEL, SPAIN 2, JUGOSLAVIA, TCV 370, CANADA, SDC, TURKEY, CIBC, PC-DEN/NORW, PC-DEN OPE, PC-210, PC-220, OLI-UNIX	Selects the character sets for the OLIVETTI protocol. Selecting CODE PAGE, it is possible to select one of the above Code Pages to be used with the OLIVETTI protocol.
OLIVETTI COMPRES	17.1 cpi*, 16.6 cpi	Selects the compressed pitch in OLIVETTI protocol.
VERT. RESOLUTION	1/216 inch, 1/240 inch*	Sets the vertical character resolution. Setting used for the OLIVETTI protocols.
CUT SHEET EJECT	on front*, on rear	Selects whether the cut sheet loaded into the printer is ejected towards the front or the rear of the printer.
PRINT DIRECTION	unidir., bidir., sw control*	Selects the printing direction of the print head: unidirectional (unidir.), bidirectional (bidir.) or selected via software (sw control).
LINE MODE	LF=LF, CR=CR*	If the printer receives a LF code (LF), it only performs a line feed. If the printer receives a CR code (CR), it only performs a carriage return.
	CR=LF+CR	If the printer receives a CR code (CR), it performs a carriage return followed by a line feed. If the printer receives a LF code (LF), it performs a line feed.
	LF=LF+CR	If the printer receives a LF code (LF), it performs a line feed followed by a carriage return. If the printer receives a CR code (CR), it only performs a carriage return.
	LF&CR=LF+CR	If the printer receives a LF code (LF) or a CR code (CR), it performs both a line feed and a carriage return.
WRAP MODE	truncate, autowrap*	The data exceeding the line length are truncated (truncate) or printed on the following line (autowrap).
REFERENCE EDGE	Left*, right	Document reference on left or right, for software compatibility.
SLASHED ZERO	No*, yes	Selects the printing character for zero, with a slash (yes) or without (no).
EJECT ON FF	no, yes*	Performs a form feed according to the selected page format (no) or ejects a cut sheet loaded into the printer (yes).
RESET WITH EJECT	no, yes*	When the printer receives a reset command, if this item is set to yes the paper inserted in the printer is ejected. If the item is set to no the printer performs only the reset command.
CUT SHEET EJECT	On front*, on rear	Selects wheter the cut sheet loaded into the printer is ejected toward the front or the rear of the printer.

Table 3.6 Setup Parameters Details cont'd

3.6 Offset Adjustments

For a precise adjustment of the position of the printed characters on a preprinted form, the printer allows to easily adjust the first line and the first printing column as follows:

1. When the printer is in Setup Mode, insert a blank sheet into the printer press the ST1 key until the leds are in the configuration showed in previous SETUP STATUS table.
2. Press ST2 key, the following sheet will be printed:
3. Fill in the marker corresponding to the value you want to set .

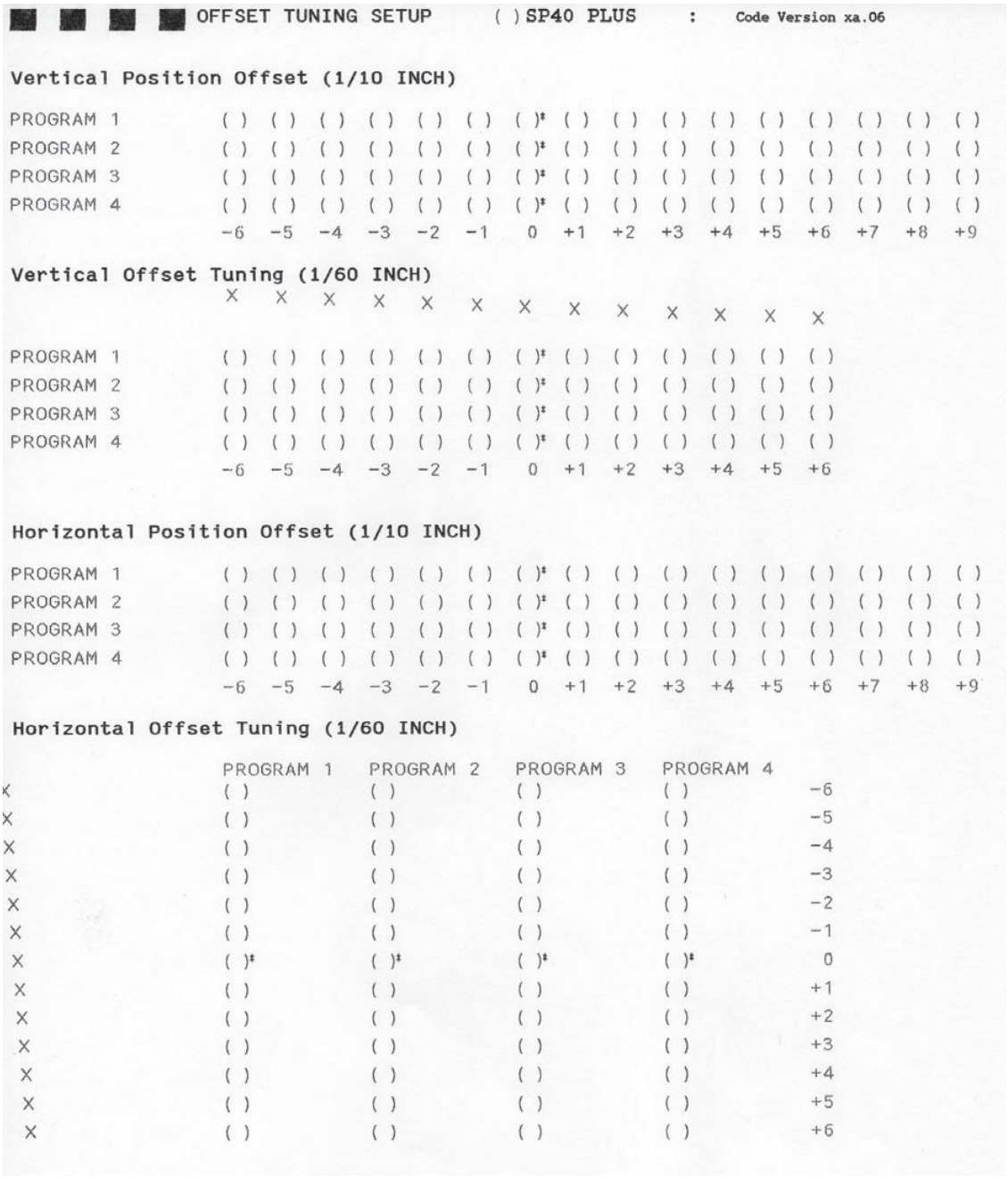


Fig. 3.7 Offset Tuning Form Printout

The Vertical Offset Tuning values correspond to 1/60 inches and set the vertical offset of the first print line starting from the default standard position at 1 mm from the upper paper margin.
The Horizontal Offset Tuning values correspond to 1/60 inches and set the horizontal offset of the first print line starting from the default standard position at 3 mm from the left paper margin.
If you need to change the default position of the first print line the vertical offset can be set in the Vertical Position Offset lines and/or the horizontal offset in the Vertical Position Offset lines. Both these values correspond to 1/10 inch values.

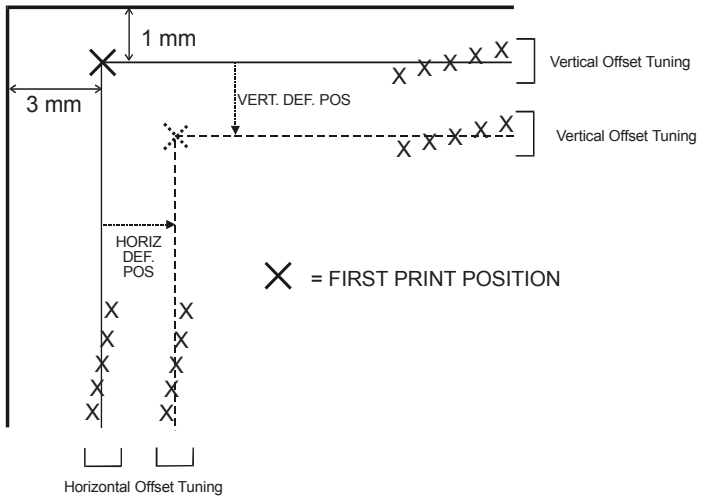


Fig. 3.8 Offset Tuning Example

3.7 Printer Setup Flow Chart

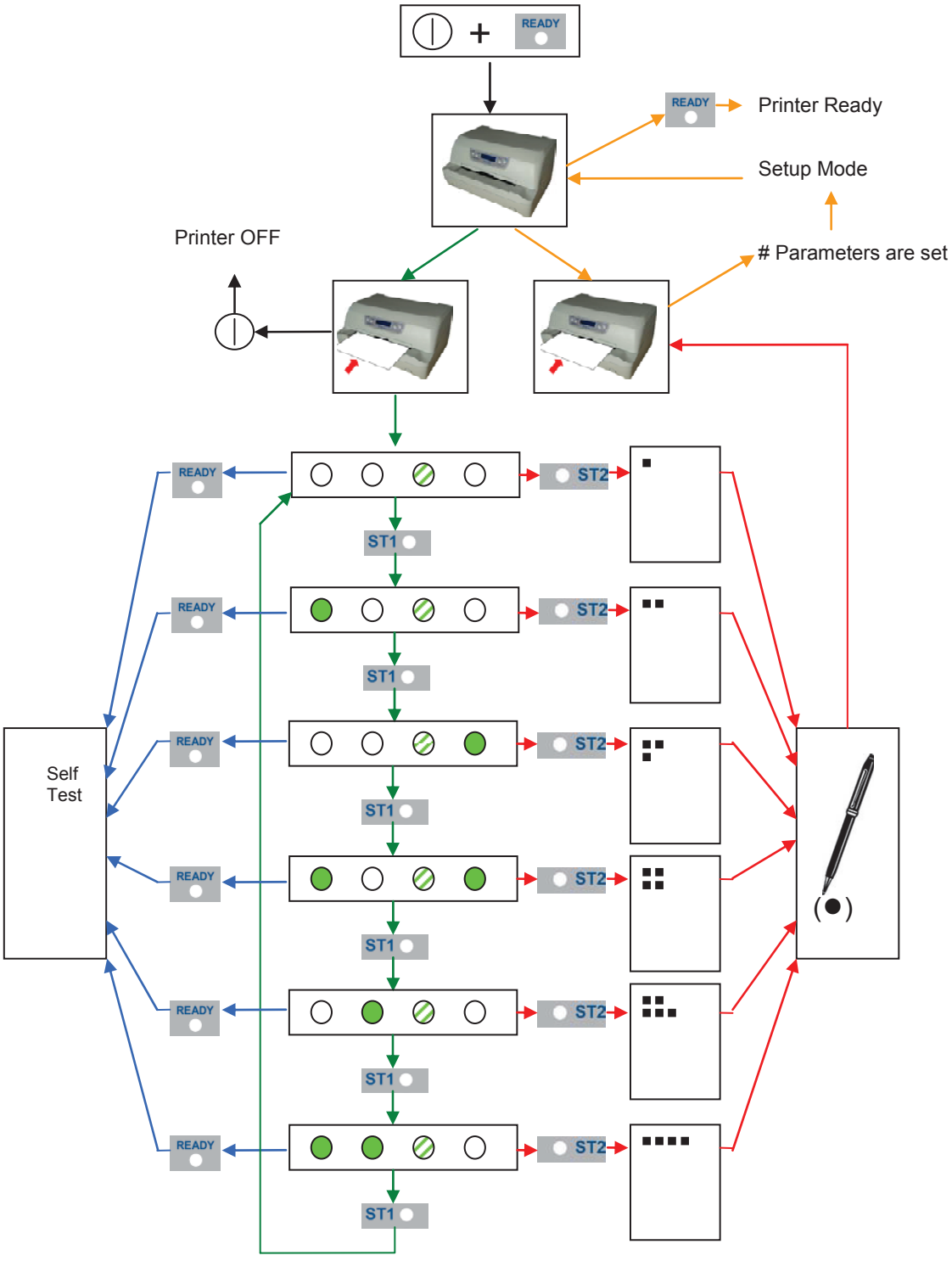


Fig. 3.9 Setup Flow Chart

3.8 Printer Setup through USB and RS232/C Ports

The printer Setup parameters can be changed through normal Setup as described in previous chapter or through USB or Serial 232/C port.

For this purpose is necessary install the ”**Compuprint CDC RS-232 Emulation**” driver creating a virtual serial port and the “**SP40Setup”** software, Windows based utility able to configures the printer through USB (directly) or RS232/C Serial connection (directly or via a serial/USB adapter).
This chapter described how to install the driver and the utility.
This utility can be used also for the Firmware downloading. See chapter 4 for details.

3.8.1 Compuprint CDC RS-232 Emulation Driver installation

If the printer is connected through the USB interface and the Setup mode is running, the Windows gives a message for “founds a new hardware, Compuprint CDC RS-232 Emulation”.
Follow the steps displayed in the below masks in order to correctly install the driver.

The information file for the driver is : Compuprint-CDC.inf

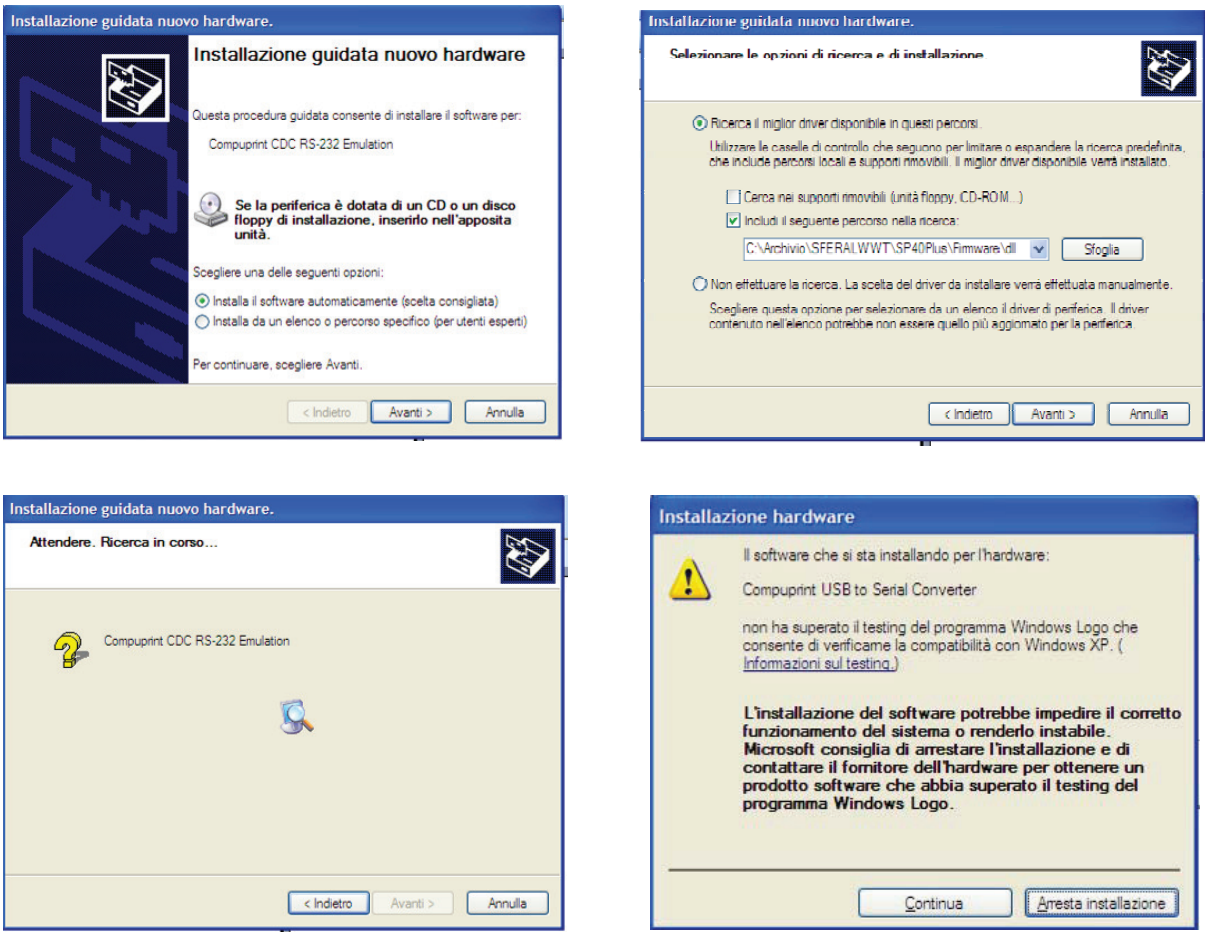
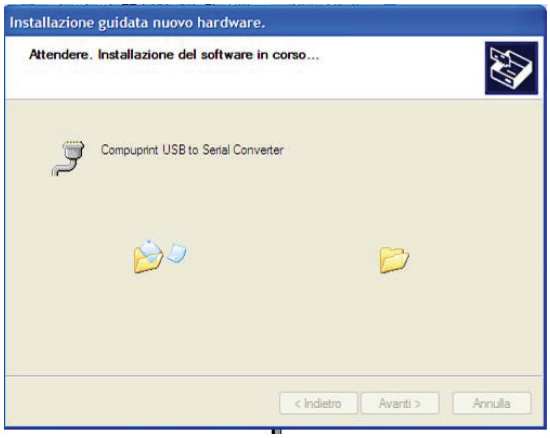
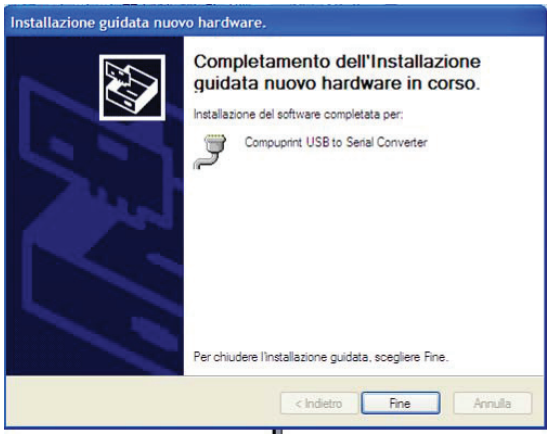


Fig. 3.10-3.11-3.12-3.13 Compuprint CDC-RS232 Installation masks





If the installation is positively ended, in the Windows hardware resources a new COM*n* port will be found. The example below shown COM10.

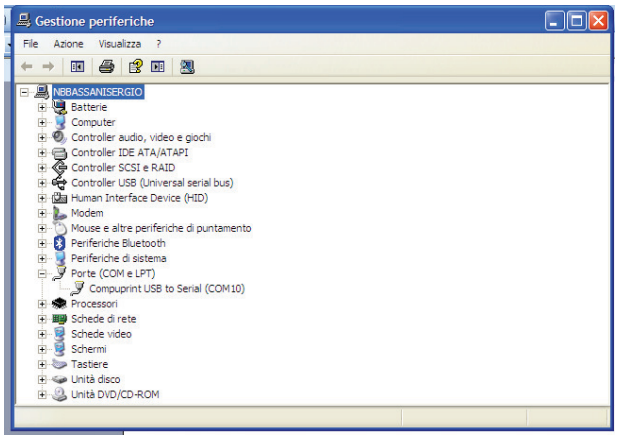
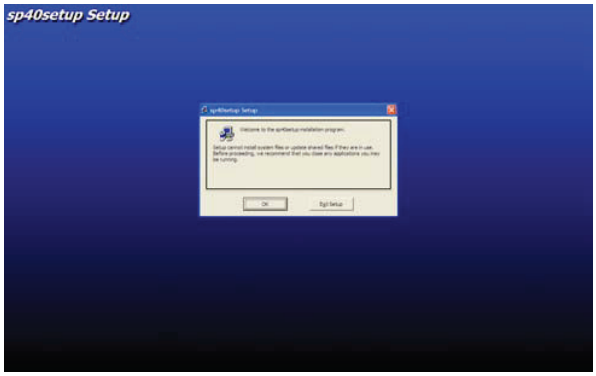


Fig. 3.14-3.15-3.15 Compuprint CDC-RS232 Installation masks

3.8.2 SP40Setup utility installation

Once the Compuprint CDC RS-232 Emulation driver has been installed, found the Setup.exe file and double click on it.
Follow the steps displayed in the below masks in order to correctly install the utility.
The utility will ask where install the program and choose the program group.



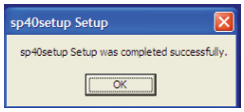


Fig. 3.16-3.17 SP40Setup Installation masks

If the installation is positively ended, in the program pop-up window, the SP40Setup icon will appear.
Double click on it and the SP40Setup utility will be run.
See next chapter for details.

3.8.2.1 Remote Setup

When this utility is running, the following home mask will be displayed.

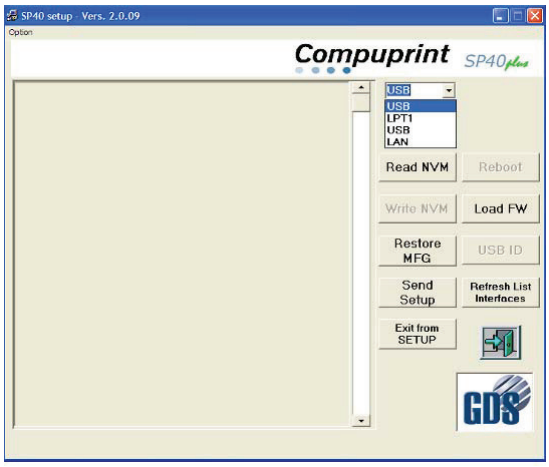


Fig. 3.18 SP40Setup Opening Mask

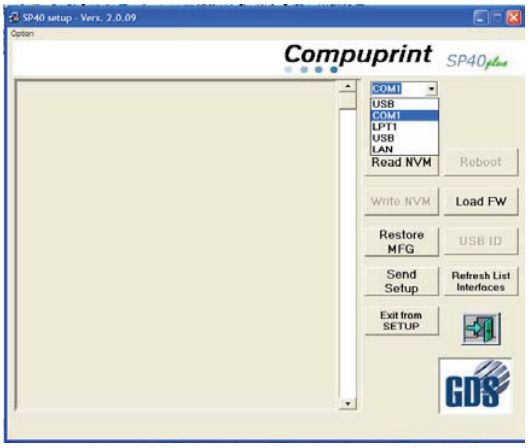
In the left top side, under Option, there is the choice of the SP40 and SP40plus Program Setup selection.
In the right to side there are the following selection window:

1) port selection choice (*)

The following action keys:

2) NVM choices for Read, Write, Send Setup, Restore MFG and Exit from Setup for Setup Parameters
3) Refresh List Interfaces
4) Load FW
5) Other selection keys are currently disables (Reboot and USB ID).

Note (*)
The utility automatically converts the first available COM*n* into USB name, therefore in the previous example, the COM10 in the system registry is now named USB if the printer is directly connected to this interface.
If another Serial-USB adapter is connected to the printer, it will be possible to see another COM*n* port.
In the example below, a Serial-USB adapter is connected to the serial line of the printer; it has been seen by the host as COM4 port and this port will be displayed and selected in the Setup port selection.



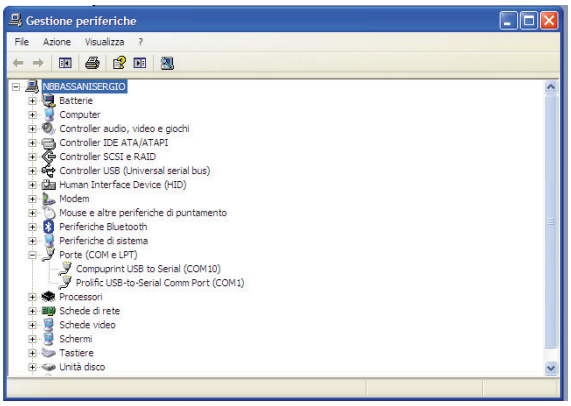


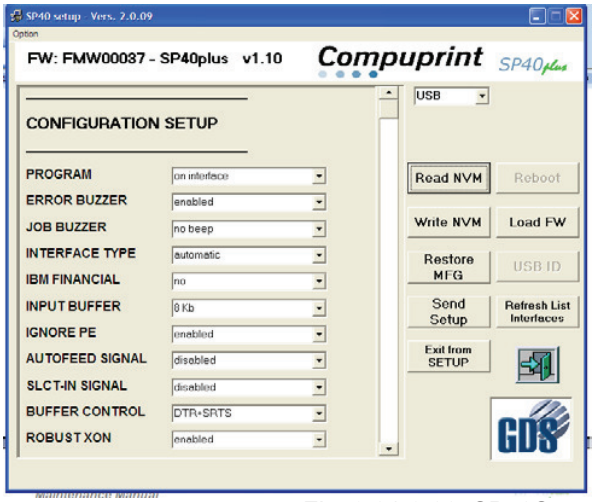
Fig. 3.19-3.20 SP40Setup Port selection masks

When the Read/Write/Restore MFG action will be run, the following message will be displayed by the operator panel LCD :

REMOTE SETUP FROM: USB	REMOTE SETUP FROM: SERIAL

3.8.2.1.1 Read NVM

In the left part are displayed the current Setup parameters when the Read NVM selection are done.
The parametes are read from the selected port.
Through the vertical cursor it is possible to change each of them for all the Setup selection pages (Configuration, Program 1 to 4, Offset Tuning) and write using the selected port.



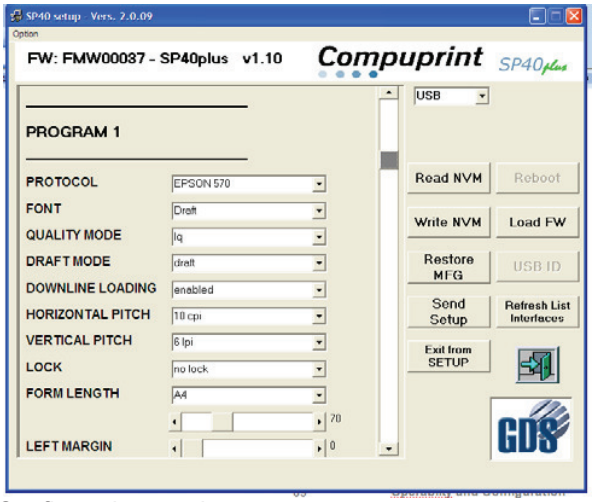


Fig. 3.21-3.22 SP40Setup Configuration masks

3.8.2.1.2 Write NVM

After reading the configuration, it is possible to do all the possible changes simply select the new values.
When all modification are done, the new configuration can be stored in the printer NVM pressing the **Write NVM** action key.
The utility will show the “save as name” mask.
The new configuration can be saved in a specific file and path (default name is ***wnvm.dmp*** and default path is where the SP40Setup utility is stored) to be used for future configuration with a simply copy file action.
After that the printer will reboot.

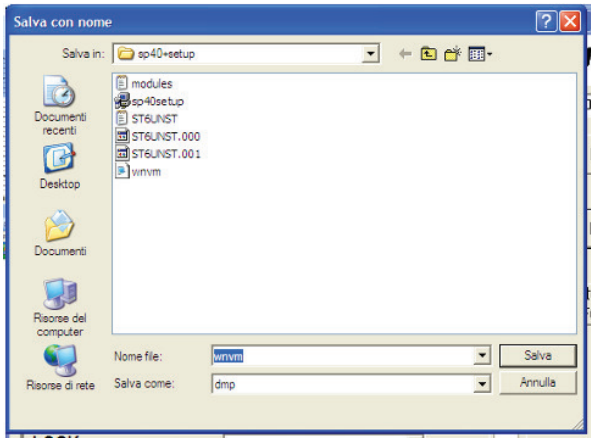


Fig. 3.23 SP40Setup file saving masks

The configuration ***file.dmp*** can be simply used to duplicate the same configuration on more printers.
SP40plus unit has to be powered on in normal mode, connected to the PC through any active interface (Centronics or Serial port) and prompt: **copy *file.dmp* lpt1: /b** command from a DOS shell,
After that the printer will reboot.

3.8.21.3 Send Setup

When **Send Setup** action key is activated, the host will displayed the stored configuration ***files.dmp***; select one and then click on open to immediate send it to the printer.
After that the printer will reboot.

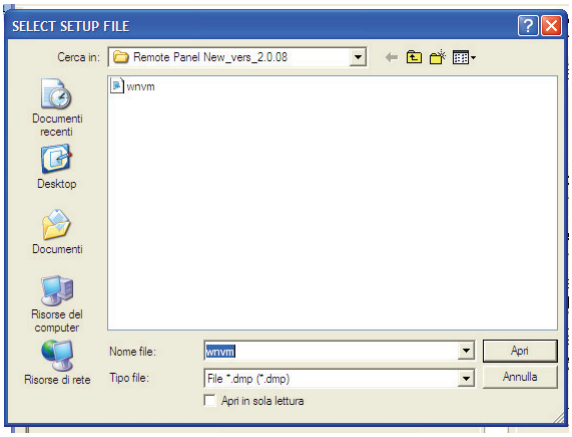


Fig. 3.24 SP40Setup file sending mask

Restore MFG

If the restore of the manufacturing values must be done, press the proper key: all the parameters will be set immediately to the default values.
After that the printer will reboot.