# SP40 User Manual





Rev. 002

## **Compuprint Products Information**

Thanks for choosing the Compuprint SP40 printer.

Your printer is a reliable working equipment that will be very useful in your daily job.

Our printers have been designed to be compact and respectful of the work environment. They offer a wide range of features and multiple functions that confirm the high technological level reached by the SFERAL WWT printers with Compuprint brand.

To maintain these printing performances unchanged in the long run, SFERAL WWT has developed specific Compuprint branded consumables for each printer type (for example: ribbon cartridges for dot matrix printers, toner and OPC cartridges for laser printers, bubble ink jet cartridges for inkjet printers) that assure an excellent operation with high printing quality level reliability.

Sferal WWT recommends to use only its original Compuprint branded consumables with original packaging (identified by its holographic label). In this way, a proper use of the printer at quality level stated in the product characteristics can be assured. All typical usage problems related to not certified consumables may be avoided, such as an overall quality print level degradation and, often, the reduction of the product life due to the fact that the proper working conditions for the print heads, OPC cartridge and other printer parts are not assured.

Moreover, Sferal WWT does not only certify its consumables in terms of working conditions but also carefully controls their compliance with the international standard rules concerning:

- no cancerous materials;
- no flammability of the plastic materials;
- other standards

Sferal WWT advises the customers not to use products for which the compliance to this safety rules are not warranted. Finally seek your dealer or contact a Sferal WWT office and be sure that are provided you the original Compuprint branded consumables.

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#### FCC Notes

This equipment has been tested and found to comply with the limits for a Class B digital device, pursuant to Part 15 of the FCC Rules. These limits are designed to provide reasonable protection against harmful interference when the equipment is operated in a commercial environment. This equipment generates, uses and can radiate radio frequency energy and, if not installed and used in accordance with the instruction manual, may cause harmful interference to radio communications. However, there is no guarantee that interference will not occur in a particular installation. If this equipment does cause harmful interference to radio or television reception, which can be determined by turning the equipment off and on, the user is encouraged to try to correct the interference by one or more of the following measures:

- Reorient or relocate the receiving antenna.
- Increase the separation between the equipment and the receiver.
- Connect the equipment into an outlet on a circuit different from that to which the receiver is connected
- Consult the dealer or an experienced radio/TV technician for help.

A shielded Centronics IEEE1284 compliant bi-directional parallel cable, maximum length 3 meters (10 feet), and a shielded RS-232 serial cable, maximum length 15 meters (50 feet), are necessary for this device to meet the requirements of a Class B digital device pursuant to part 15 of the FCC rules.

The above specified cables are readily available as Personal Computer or Peripheral accessories from multiple retail outlets. Please consult your dealer for details concerning such cables and also for information about FCC rules for digital devices. Changes or modifications to the device covered by this manual, which are not expressly approved by the party responsible for compliance, could void the user's authority under the FCC rules to operate the equipment.

#### **Canadian D.O.C. Radio Interference Regulation**

This digital apparatus complies with the Canadian ICES-003 Class B limits for radio frequency emissions.

Cet appareil numérique est conforme aux limites de Classe B de la norme NMB-003 du Canada.

#### **EEC Regulations**

This equipment conforms to the EEC Directive 89/392 (the sound pressure, measured according to ISO 7779, does not exceed 70 dBA).



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# **Printer Presentation**

This dot-matrix printer is a multi-purpose printer for front office applications. Its compact structure is designed for integration in an ergonomic environment. The printer provides a high level of reliability, form-handling accuracy and data integrity. Its main features are:

- Printing on a **wide range of paper** media: different types of cut sheets, multi-parts and passbooks.
- High print pressure for **multi-parts documents**
- **High print quality** supplied by a 24 wire print head
- **High reliability paper handling** The straight paper path allows the printing on particular documents such as envelopes, multipart forms and passbooks.
- Automatic paper thickness adjustment The print head detects the paper thickness for correct printing on any type of document. This printer can print also on documents with a variable thickness, such as passbooks.
- Easy paper handling

The operator places the paper on the front table and the printer loads it without any other user intervention. The paper ejection towards the front or the rear of the printer allows an easy access to the printed document.

• Automatic document alignment feature

The printer checks automatically the alignment of the top margin of the document and adjusts it, if necessary. The printout is therefore performed correctly independently from the paper loading position.

- Standard parallel and serial interface and automatic switch-over function.
- Easy printer setup through an optically managed menu.
- Supported **emulations**: Epson 570, IBM Proprinter XL24E, XL24E AGM, IBM 2390+, 4722, 9068 and Olivetti PR40+, PR2, 2845.

# **Unpacking the Printer**

Together with the printer the following items are included in the shipment box:

Notify any damage to your supplier.

- Ribbon cartridge
- Power cable
- CD-ROM with the printer documentation and drivers.



Always keep the packing material in a safe place as you must repack the printer into it, when you need to move it.

# **Printer Parts**

#### Never remove any printer part unless it is expressly indicated in this manual.

#### **Front View**



## **Inside View**



## **Rear View**



Parallel Interface Cable Connecto

# **Printer Installation**

#### **Choosing a Suitable Location**

Consider the following points when you choose the location for your printer:

- The distance between the printer and the host computer must not exceed the length of the interface cable;
- The location must be sturdy, horizontal and stable;
- Your printer must not be exposed to direct sunlight, extreme heat, cold, dust or humidity;
- When printing on standard paper formats, the paper comes out partially on the rear side of the printer. Make sure that behind the printer there is sufficient clearance to correctly move the paper.

## **Installing the Power Cable**

1. Find the power cable connector and the rating plate on the rear side of the printer.

Always use a grounded outlet.

2. Insert the power cable into the connector on the printer and the other end into a convenient mains outlet.



3. Press the  $\circ$  key on the left side of the printer front to power the printer on.



#### Installing the Ribbon Cartridge

In order to avoid damaging the print head assembly, this printer accepts only original Compuprint ribbon cartridges. Therefore, if you install a not original cartridge, the printer may not work.

1. Remove the cartridge from its bag. Turn the tension knob in the direction of the arrow to tighten the ribbon.





3. Open the print head assembly pushing the two green levers towards the rear of the printer. The print head assembly moves up.



4. Move the print head to the middle of the print carriage bar.



5. Insert the upper cartridge pins (1) onto the corresponding groove on the print head assembly. Then push the lower pin (2) into the corresponding lower groove until it clicks into place.



6. Insert the ribbon mask onto the print head: match the two grooves (1) on both sides of the ribbon mask with the pins (2) on both sides of the print head.

7. Push the mask up until it clicks into place.







8. Turn the tension knob in the direction of the arrow to tighten the ribbon.

9. Push down on the green label "PUSH TO CLOSE" present in the print head assembly until it clicks into place.

# If you do not close the print-head assembly correctly, the printer does not print and you may damage the printer cover.

10. Close the printer cover.





#### **RESET the Ribbon Counter**

Two procedures are available for this operation:

a) With the printer in Power On, open the cover and, holding all three Operator Panel keys down.

or

b) With the printer in Set up Mode, select the item RIBBON REPLACED = yes (see the PRINTER SETUP section of this manual)

# **Paper Handling**

This printer is designed for versatile and reliable paper handling. The flat-bed mechanism allows the *handling of special documents*, such as multiple invoices, postcards, labels, passbooks and tickets.

The print head detects the *paper edges* automatically, the sheet can therefore be inserted in any position within the detection area according to the rules described in the following paragraph.

The *paper alignment sensors* determine the alignment of the upper paper margin, adjusting it if necessary.

#### **Loading Paper**

• The inserted documents must not have folds, tears, pins, clips, staples or any foreign material.



If you insert damaged documents or paper with foreign material, you can seriously damage the printer.

• Before inserting a passbook into the printer, open it and crease it in both directions along the binding stitch, so that the passbook lays flat on the paper stand when it is inserted into the printer.



• The document may not exceed the limits of the paper stand.





# **The Operator Panel**

The operator panel is located on the front right side of the printer and is composed of function keys and leds with which you can easily check the printer status and select the functions as described below:



## **Function Keys**

<u>EJECT</u> S1	Pressing this key, when the printer is offline, or when the printer is online and no print data are in the buffer, the printer ejects the paper, if inserted (EJECT function). In the Olivetti emulation, the EJECT function may be performed only if the printer is offline. When the Printer is in the Printer Setup mode, pressing this key the operator selects the Configuration Page to be printed. See "Printer Setup" later in this manual. When using the IBM 4722, IBM 9068 and the Olivetti protocols in two operators ("booking") mode, the application software determines the function of this key.
LQ S2	When the printer is offline or when the printer is online and no print data are in the buffer, pressing this key, the printer toggles between Letter Quality and Draft printing mode. When the Printer is in the Printer Setup mode, pressing this key the Configuration Page selected with the S1 key will be printed. See "Printer Setup" later in this manual. When pressed while powering the printer on, selects the HEX_DUMP mode. When using the IBM 4722, IBM 9068 and the Olivetti protocols in two operators ("booking") mode, the application software determines the function of this key.
<u>ON-OFF</u> LINE	Toggles the printer between online and offline status. When pressed while powering the printer on, selects the Printer Setup Mode. See "Printer Setup" later in this manual. If pressed in the Printer Setup mode, the printer prints the Self Test Page. See "Printer Setup" later in this manual.

## Leds

Ó	On, if the printer is powered on.	
	Off, if the printer is powered off.	
	Blinks if the printer is in Setup Mode.	
•	Lit, when the printer is on line.	
	Unlit, when the printer is off line.	
ON+OFF LINE	Blinks, when data are present in the printer buffer and the printer is not ready (offline or paper out condition).	
	If the printer is in Setup Mode, this led indicates which setup page is selected for printing. See "Printer Setup" later in this manual.	
	When using the IBM 4722, IBM 9068 and the Olivetti protocols in two operators	
("booking") mode, the S1 led is under software control. If the printer is in Setup Mode, this led indicates which setup page is set printing. See "Printer Setup" later in this manual.		
	Blinks, together with the other operator panel leds, if a printer error occurs.	
	Lit when the Letter Quality print mode is selected.	
LQ S2	When using the IBM 4722, IBM 9068 and the Olivetti protocols in two operators ("booking") mode, the S2 led is under software control.	
	If the printer is in Setup Mode, this led indicates which setup page is selected for printing. See "Printer Setup" later in this manual.	
	Blinks, together with the other operator panel leds, if a printer error occurs.	

# **Software Driver Selection**

At this point it is necessary to configure your printer for your application package. The installation procedures depend upon the host environment.

Together with the printer you receive a CD-ROM containing the printer drivers for the Windows environment. This printer supports the Plug&Play facility in the Windows 95 / 98 / NT4.0 / Millennium® environment / 2000 / XP.

If you want to install the printer in the Windows environment, insert the CD-ROM and follow the instructions given.

The printer drivers of all Compuprint printers can be found at the Internet Address http://www.compuprint.com

# **Connection to the Host**

This printer can be connected to the host by means of a parallel standard Centronics or bidirectional IEEE 1284 type interface or by means of the serial RS-232/C interface. Proceed as follows:

- 1. Make sure that both the host and the printer are turned off.
- 2. With the help of the following figure identify the connector for the interface you want to connect and insert the cable firmly into it.
- 3. Fix the parallel interface cable by means of the corresponding hooks or the serial cable tightening the screws on either side of the connector.



Parallel Interface (line 1)



Serial Interface (line 2)

## Setting the Interface Parameters Parallel Interface

The parameters set for the parallel interface match most of the most common environments and the printer can be used immediately after the connection to the host.

In case you need to modify the standard parameters see "Printer Setup" later in this section.

#### **Serial Interface**

Because of the great variety of the possible connection configurations, when you use the serial interface you will need to set the parameters accordingly.

To assure a correct functioning of the printer connected through the serial interface, the transmission parameters set for the printer must match the values set for the host.

For a complete description of the printer setup procedure see the paragraph "Printer Setup" later in this manual.

# **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.

#### **Entering the Printer Setup Mode**

To enter the Printer Setup Mode press and hold the ON LINE key pressed for at least 1 second while powering the printer on. The printer enters the Setup Mode.

The three lower leds are unlit:



You can now:

- Print the Self Test. See "Printing the Self Test" later in this manual.
- Print one of the Printer Setup Forms (Configuration Menu or Program1/Program2 Menu) or the Offset Tuning Form. See "Printing the Printer Setup Forms" later in this manual
- Insert a filled-in Printer Setup Form to set the corresponding Setup values.

#### **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 ON LINE 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 : Code Version Vx.x xxxxxxx CharGen:xxxxxxx ver. x.xx

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

#### CONFIGURATION SETUP

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

#### PROGRAM SETUP

#### **Printing the Printer Setup Forms**

If you already have the preprinted forms for the printer setup, go to "Filling in the Printer Setup Forms" later in this manual.

- 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 S1 key, the three lower leds change and you can select the Setup Page you want to print as follows:
- $\bigcirc$  = lit  $\bigcirc$  = unlit



**Configuration Page** 

Program 1 – Setup Page

Program 2 – Setup Page

Offset Tuning Setup Page

4. Pressing the S2 key, the printer prints the selected Setup Page.

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" later in this manual.

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

Configuration Setup	
Program 1	
Program 2	
Offset Tuning Setup	

## **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 ball-point pen or a fiber-pen.



For a detailed description of the parameters and values contained in the Configuration and Program1/Program2 Menus, see "Setup Parameters" later in this manual.

For a detailed description of the Offset Tuning procedure, see "Offset Adjustment" later in this manual.

## **Setup Parameters**

The following is a listing of the setup parameters.

#### Configuration Sheet

Setup Parameter	Values	Description
RESTORE TO MFG	no all config	The selected values are not set to factory defaults. The values set in all printer setups are reset to factory default values. The values set in the configuration setup are reset to factory default values.
	prog. 2	The values set in the corresponding program setup are reset to the factory default values.
RIBBON REPLACED	yes	Sets the ribbon life counter to zero .
	no	Leaves the ribbon life counter at the current state
PROGRAM	progr. 1, progr. 2, on interface	Defines the default Program Setup. Selecting progr.1 or progr.2 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, and the Program 2 settings with the data it receives from the serial interface. When changing from one interface to the other, the default values are set for the corresponding Program Setup.
ERROR BUZZER	enable, disable	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, lan*,	Selects the interface type. Selecting 'automatic' the interface

Setup Parameter	Values	Description
	automatic	type is selected between serial and parallel by the printer depending on data coming from host.
		*It is reported if the LAN option is installed. For details refer to the LAN manual
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, disabled	Selects whether the printer signals the paper empty condition (disabled) or not (enabled) on the busy line.
AUTOFEED SIGNAL	disabled, enabled	The parallel interface uses (enabled) or does not use (disabled) the AUTOFEED signal.
SLCT-IN SIGNAL	disabled, 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 – 38400 bps	Sets the data transfer rate.
PARITY BIT	even, odd, space, mark,	Selects the parity control for the data.
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Setup Parameter	Values	Description
	none	
STOP BIT	1,2	Selects the number of stop bit
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
EDGE DETECTION	Normal Safe	Detects the left and the right edge of the form Detects only the left edge of the form
SAFE BOTTOM EDGE	no, yes	Distance from the bottom of the last printer line yes= 6,6 mm from bottom edge no= 2,2 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	Enables the setting made in the current PASSBOOK TYPE section and the specific ESCape command is not actives. Enables the specific ESCape command.
	Fixed thick Vertical Horizontal	Printing a document with fixed thickness. Printing of passbooks with vertical binding . Printing of passbooks with horizontal binding.

#### PROGRAM 1 PROGRAM 2

Setup Parameter	Values	Description								
PROTOCOL	EPSON 570, IBM X24E, X24E AGM, IBM 2390, OLI. PR40+, OLI. PR2, OLI. PR2845, IBM 4722, IBM 9068	Defines the printer protocol. <b>NOTE</b> : 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.								
FONT	Draft, Courier, OCR-B, Gothic, Prestige, Present, OCR-A, Script, Boldface	Selects the 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								
Setup Parameter	Value	es		De	scription					
----------------------------	--------------------------------------	--------------------	--------------------------------------	---------------------------	--	--	---	---	---------------------------------------	----------------------------
				uni	ts. See the	example	below.			
Example:										
How to set the	form le	ength to	82 lines:							
FORM LENGTH	<b>#</b> #li	() nes A4	() letter	( ) A5	() legal					
100 *	$\begin{pmatrix} 0 \\ \end{pmatrix}$	1	$\begin{pmatrix} 2 \\ \end{pmatrix}$	3	4	5	6	7	8	9
100 x 10 x	()	()	( ) ( )	()	()	()	()	()	<b>#</b>	()
1 x	()	()	<b>, (11)</b>	()	()	()	( )	()	()	()
Setup Parameter		Values		De	scription					
LEFT MARGIN		10 x 1 x		Set bet cor line	ts the left n ween 0 an isidering th to the uni	hargin in r d 90. To s hat the firs ts. See the	number of co set the value t line corres e example b	olumns. Thes combine ponds to to pelow.	ne values e the num he tens, tł	range bers ne second
Example:										
How to set the LEFT MARGIN	Left M	argin to	20.							
0 10 x () 1 x	1 ) () ) ()	2 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

See the example below:	hundreds, the second line to the tens and the third line to the units.
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### Example:

How to set the Right Margin to 101.

	0	1	2	3	4	<b>5</b>	6	$\overline{7}$	8	9
100 x	()									
10 x		()	( )	()	()	()	()	()	()	()
1 x	()		()	()	()	()	()	()	()	()

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

	0	1	2	3	4	<b>5</b>	6	7	8	9
10 x	()		()	()	()					
1 x	()	()	()	()	()		()	()	()	( )

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

	0	1	2	3	4	<b>5</b>	6	$\overline{7}$	8	9
10 x	()	()	()		()					
1 x	()	()	()	()		()	()	()	()	()

Setup Parameter	Values	Description
IBM C-SET	IBM set 1, IBM set 2	Selects the IBM character set.
IBM COMPRESS	17.1 срі, 20 срі	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.

Setup Parameter	Values		Description			
CODE PAGE	CP437, CP437G, 96 CP851, CP852, CP8 CP858, CP860, CP8 CP865, CP866, CP8 CP1098, CP1250, C CP1257, GOST, TAS CP437SL, UKRAIN, 8859/2, 8859/3, 8859 8859/7, 8859/8, 8859 ROMAN-8, ID 12, CF SANYO, KU, PHILIP	GREEK, CP850, 53, CP855, CP857, 62, CP863, CP864, 67, CP876, CP877, P1251, CP1252, SS, MAZOWIA, KOI8-U, 8859/1, 9/4, 8859/5, 8859/6, 9/9, 8859/15, P874, ID 14, ID 17,	Selects the code page for both the IBM and the EPSON emulations.			
OLIVETTI C-SET	CODE PAGE*, INTE PORTUGAL, SPAIN FRANCE, ITALY, SV G. BRITAIN, USA AS ISRAEL, SPAIN 2, JI TCV 370, CANADA, CIBC, PC-DEN/NOR PC-210, PC-220, OL	ERN., GERMANY, 11, DEN/NORW, VE/FIN, SWISS, SCII, GREECE, UGOSLAVIA, SDC, TURKEY, RW, PC-DEN OPE, II-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.			
VERT. RESOLUTION	1/216 inch, 1/240 inc	ĥ	Sets the vertical character resolution. Setting used for the OLIVETTI protocols.			
PRINT DIRECTION	unidir., bidir., sw con	trol	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 the printer receives a return.	a LF code (LF), it only performs a line feed. If CR code (CR), it only performs a carriage			
		36				

Setup Parameter	Values	Description
	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, rigth	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 whether the cut sheet loaded into the printer is ejected towards the front or the rear of the printer.

### **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 S1 key until the leds are lit in the following configuration:



2. . Press S2 key, the following sheet will be printed:

	- 011011	L TOUTUO DE	101			
Vertical Position Offset (1/10 INCH)						
PROGRAM PROGRAM	1 () () 2 () () -6 -5	() () () () () () -4 -3 -2	() ()* () ()* -1 0	( ) ( ) ( ) ( ) ( ) ( ) ( ) ( ) +1 +2 +3 +4	) ( ) ( ) ) ( ) ( ) +5 +6	( ) ( ) ( ) ( ) ( ) ( ) +7 +8 +9
Vertica	l Offset I	uning (1/60 ]	INCH)			
	X y	X X X	X X	x x x	х х	X X
PROGRAM PROGRAM	2 () ( 1 () ( -6 -	) () () ) () () 5 -4 -3	() () () () -2 -1	()* () () ()* () () 0 +1 +2	() () () () +3 +4	( ) ( ) ( ) ( ) +5 +6
Horizon	tal Positi	on Offset (1/	/10 INCH)			
PROGRAM PROGRAM	1 () () 2 () () -6 -5	() () () () () () -4 -3 -2	() ()* () ()* -1 0	( ) ( ) ( ) ( ) ( ) ( ) ( ) ( ) +1 +2 +3 +4	) ( ) ( ) ) ( ) ( ) +5 +6	( ) ( ) ( ) ( ) ( ) ( ) +7 +8 +9
Horizontal Offset Tuning (1/60 INCH)						
Horizon	tal Offset	Tuning (1/60	) INCH)			
Horizon F	ital Offset PROGRAM 1	Tuning (1/60 PROGRAM 2	) INCH)			
Horizon E X (	ntal Offset PROGRAM 1 ( )	Tuning (1/60 PROGRAM 2 ( )	) INCH) -6			
Horizon F X ( X (	tal Offset PROGRAM 1 ( ) ( )	Tuning (1/60 PROGRAM 2 ( ) ( )	D INCH) -6 -5			
Horizon X ( X ( X ( X (	tal Offset PROGRAM 1 ( ) ( ) ( )	Tuning (1/60 PROGRAM 2 ( ) ( ) ( )	D INCH) -6 -5 -4			
Horizon X ( X ( X ( X ( X (	ntal Offset PROGRAM 1 ( ) ( ) ( ) ( )	Tuning (1/60 PROGRAM 2 ( ) ( ) ( ) ( )	-6 -5 -4 -3			
Horizon X ( X ( X ( X ( X ( X (	tal Offset PROGRAM 1 ( ) ( ) ( ) ( )	Tuning (1/60 PROGRAM 2 ( ) ( ) ( ) ( ) ( )	-6 -5 -4 -3 -2			
Horizon X ( X ( X ( X ( X ( X ( X ( X ( X (	tal Offset PROGRAM 1 ( ) ( ) ( ) ( ) ( )	Tuning (1/60 PROGRAM 2 ( ) ( ) ( ) ( ) ( ) ( )	-6 -5 -4 -3 -2 -1			
Horizon X ( X ( X ( X ( X ( X ( X ( X ( X ( X (	<pre>htal Offset PROGRAM 1 ( ) ( ) ( ) ( ) ( ) ( ) ( ) ( ) ( ) ( )</pre>	Tuning (1/60 PROGRAM 2 ( ) ( ) ( ) ( ) ( ) ( ) ( ) ( ) ( ) *	-6 -5 -4 -3 -2 -1 0			
Horizon X ( X ( X ( X ( X ( X ( X ( X ( X ( X (	<pre>htal Offset PROGRAM 1 ( ) ( ) ( ) ( ) ( ) ( ) ( ) ( ) ( ) ( )</pre>	<pre>Tuning (1/60 PROGRAM 2 ( ) ( ) ( ) ( ) ( ) ( ) ( ) ( ) ( ) ( )</pre>	-6 -5 -4 -3 -2 -1 0 +1			
Horizon X ( X ( X ( X ( X ( X ( X ( X ( X ( X (	<pre>utal Offset PROGRAM 1 ( ) ( ) ( ) ( ) ( ) ( ) ( ) ( ) ( ) ( )</pre>	<pre>Tuning (1/60 PROGRAM 2 ( ) ( ) ( ) ( ) ( ) ( ) ( ) ( ) ( ) ( )</pre>	-6 -5 -4 -3 -2 -1 0 +1 +2 +3			
Horizon X ( X ( X ( X ( X ( X ( X ( X ( X ( X (	<pre>utal Offset program 1 ( ) ( ) ( ) ( ) ( ) ( ) ( ) ( ) ( ) ( )</pre>	<pre>Tuning (1/60 PROGRAM 2 ( ) ( ) ( ) ( ) ( ) ( ) ( ) ( ) ( ) ( )</pre>	-6 -5 -4 -3 -2 -1 0 +1 +2 +3 +4			
Horizon X ( X ( X ( X ( X ( X ( X ( X ( X ( X (	<pre>htal Offset PROGRAM 1 ( ) ( ) ( ) ( ) ( ) ( ) ( ) ( ) ( ) ( )</pre>	<pre>Tuning (1/60 PROGRAM 2 ( ) ( ) ( ) ( ) ( ) ( ) ( ) ( ) ( ) ( )</pre>	-6 -5 -4 -3 -2 -1 0 +1 +2 +3 +4 +5			

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.



3. Fill in the marker corresponding to the value you want to set.

### **Reading the Preprinted 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.

The following page shows the printer setup flow-chart.

For further details concerning the parameters that can be set in the Configuration Setup, Program 1 and Program 2, see "Setup Parameters" before in this manual.

For further details on how to adjust the offset with this printer, see "Offset Adjustments" before in this manual.



**Printer Setup Overview** 

# Troubleshooting

### **Paper Problems**

The straight paper path of this printer is designed for trouble-free handling of a great variety of documents.

### Paper Jam

In case a paper jam condition occurs, proceed as follows:

- 1. Open the printer cover.
- 2. Open the print-head assembly pushing the green levers towards the rear of the printer. The print-head assembly moves up.



3. Remove the jammed paper, pulling it towards the front of the printer.

4. In case it is not possible to remove the jammed paper because you cannot reach it with your hand or it is embedded so that you cannot move it, rotate the cog-wheel beside the paper path lever to free the paper.



5. Push down on the green label "PUSH TO CLOSE" present in the print head assembly until it clicks into place.



If you do not close the print-head assembly correctly, the printer does not print and you may damage the printer cover.

6. Close the printer cover.

### Paper Damaged after Printing

If the paper damaged after printing , it probably does not correspond to the specifications given in this manual or was not loaded according to the indications given.

Verify that the paper corresponds to the specifications (see "Paper Specifications" later in this manual) and has been loaded according to the indications given (see "Paper Handling" before in this manual).

## **Ribbon Cartridge Problems**

The following table is useful to identify and solve print quality problems.

Problem	Cause	Solution
Fading print	The ribbon is not fed	Check that the ribbon is correctly inserted (see "Installing the Ribbon Cartridge".
		Turn the ribbon tension knob to verify, that the ribbon is not blocked. If the problem is not solved, change the ribbon cartridge.
	The ribbon is used up or torn	Change the ribbon cartridge.
The printer does not print	The ribbon cartridge is not an original Compuprint cartridge.	The printer checks the inserted cartridge, to avoid damaging the print head assembly due to incorrect ribbon feeding.
		Insert an original Compuprint ribbon cartridge.

# **Paper Specifications**

The documents must all guarantee the following characteristics:

- Use paper matching the *indicated characteristics*.
- They must have well defined top and left *edges*, with a square *angle tolerance* of 0.1° on all edges.
- The paper must *not have holes, perforations, folds or tears* anywhere within the print area of the document.
- The *radius on a corner* of the form must be within 9.5 mm from the left or right edge.
- The form to be printed must not contain *foreign material*.
- Form *opacity* must be at least 75%. Forms with a lower opacity may cause feed errors.
- Never print on documents with *metallic or hard plastic fasteners or staples*, they may damage the printer. Use only *sewn* passbooks.
- To get the maximum *print contrast* you should print on white or light colored paper. You may overstrike to improve the low contrasting paper.
- It is preferable to use single and multiple documents with the *fibre* running in the insertion direction of the printing unit.
- *Recycled* paper is permitted on principle.
- It is preferable to print on multiple forms with *a narrow glue strip or top-gluing*. The gluing must not cause waving in the set of forms.

### **Cuts Sheets**



	Dimensions	Maximum	Minimum
А	Form width	244 mm	65 mm
В	Form length	470 mm	70 mm
С	Distance between dot	-	3.0 mm
	position and left or right		
	paper edge		
D	Distance between top of the	-	1 mm
	first printed line and top		
	margin of the document		
Е	Distance between the lower	-	6.6 mm
	margin and the lower part		
	of the last printed line		
	Weight (original)	$200 \text{ g/m}^2$	$40 \text{ g/m}^2 4$ (With paper <60 g/m <sup>2</sup> set the
			item PASSBOOK TYPE = horizontal
	Weight	$1^{ m st}~75~ m g/m^2$	$1^{\mathrm{st}}$ 55 g/m <sup>2</sup>
	(original + 1 to 5 copies)	other $75 \text{ g/m}^2$	other 45 g/m <sup>2</sup>
		carbon 35 g/m <sup>2</sup>	carbon 14 g/m <sup>2</sup>
	Thickness	Form thicker than 0,35 mm	may cause print quality degradation.

### Passbooks

	Minimum	Maximum
Paper Weight	75	$120 \text{ g/m}^2$
Thickness		
Multiple Page Passbooks		
Horizontal Fold	0.28 mm (0.011 in.)	1.80 mm (0.071 in.)
Thickness difference across the fold of an ope	en passbook	
Horizontal Fold	-	1.52 mm (0.059 in.)
Vertical Fold	-	1.52 mm (0.059 in.)
Single Page Passbook or Ledger Cards	0.18 mm (0.0071 in.)	0.28 mm (0.011 in.)
Covers	0.18 mm (0.0071 in.)	0.46 mm (0.018 in.)

- Passbooks with torn, folded, creased, incomplete or warped pages or covers should not be used.
- Printing on or across holes, edges, cut outs or folds is not permitted.
- Passbook covers must be of uniform thickness under the printing area.
- The fold of all pages and the stitching must coincide with the cover fold. The stitches should be spaced at 6 to 10 stitches per inch.
- Fiber flow on the inner sheets should be parallel to the center fold.
- The cover bulge and stitches (spine) must not exceed the following dimensions:



### **Passbooks with Horizontal Fold**



### **Passbooks with Vertical Fold**

	Dimension	Maximum	Minimum
	50		

А	Passbook width	$241~{ m mm}$	110 mm
В	Passbook length	220  mm	$85~\mathrm{mm}$
С	Distance for the dot	-	3,0 mm
	position nearest to the left		
	or right edge		
D	Distance from the top	-	1 mm
	edge of the document to		
	the top edge of the first		
	printed line		
Е	Distance from the bottom	-	6,6 mm
	of the last printed line to		
	the bottom edge of the		
	document		
F	Outer corner radius	9,35 mm	-
G	Distance from the fold to	-	6,87 mm
	the first character		
	position beside the fold.		
Н	Distance from the fold to	-	6,87 mm
	the first character		
	position beside the fold.		
K-L	Short Page Offset	-	0,0 mm
	Book thickness, while	1,8 mm	0,28 mm
	open		

## **Technical Specifications**

#### **Printing Technology**

Print head:	ER24S
	24 pin – Ø 0,25 mm
Print head life	400 million characters
Resolution:	360 x 360 dpi (HxV)

#### Line Length (@ 10 cpi)

94 columns (cut sheets)

#### **Printing Speed**

400 cps @ 10 cpi (Draft) 133 cps @ 10 cpi (LQ)

#### Emulation

IBM ® Personal Printer 2390+, Proprinter XL24E, Proprinter XL24AGM, IBM 4722, 9068, Epson 570 and Olivetti PR40+, PR2, 2845

#### **Resident Fonts**

Draft, Courier, Gothic, Prestige, Presentor, Script, OCR-A, OCR-B, Boldface

#### Character Sets (IBM and Epson protocols)

PC standard set (CS1-CS2) - 13 National Epson sets - CP437 (USA) - CP437G (Greek) - CP850 (Multilanguage) – CP851 (Greek) - CP852 (Latin 2) - CP853 (Turkish) - CP855 (Russian) - CP857 (Turkish) - CP 858 (Euro) - CP860 (Portuguese) - CP862 (Hebrew) - CP863 (French/Canadian) - CP864 (Arabic) - CP865 (Norwegian) - CP866 (Cyrillic) - CP867 (Turkish) – CP876 (OCRA) - CP877 (OCRB) – CP1098 (Farsi Arabic) - CP1250 (Central Europe) – CP1251 (Cyrillic) – CP1252 (Windows Latin1 Ansi) – CP1257 (Baltic Rim) - Gost - Tass – Mazowia – CP437 Slavic - ISO 8859/1/2/3/4/5/6/7/8/9/15 - 96GREEK- Ukrainian – KOI8-U - ID 12 – CP874 - ID 14 – ID 17 – Roman-8 – Sanyo – Ku – Philip

#### Character Sets (OLIVETTI protocols)

CS000 – CS010 International, CS020 Germany, CS030 Portugal, CS040 Spain1, CS050 Denmark/Norway, CS060 France, CS070 Italy, CS080 Sweden/Finland, CS090 Switzerland, CS100 Great Britain, CS110 USA ASCII, CS140 Greece, CS150 Israel, CS170 Spain 2, CS200 Jugoslavia, CS410 Olivetti TCV 370, CS510 SDC, CS520 Turkey, CS540 CIBC, CS680 OLI-UNIX, CS701 PC-220 Spain2, CS711 PC-Denmark/Norway, CS712 PC-Denmark OPE, CS771 PC-210 Greek

#### Barcodes

UPC/A, UPC/E, EAN8, EAN13, Code 39, Code 128, Postnet, Codabar, ADD-ON 2, ADD-ON 5, Code 11, Code 93, BCD, MSI, 2/5 Interleaved, 2/5 Matrix, 2/5 Industrial

#### Interfaces



Auto Border Recognition

<b>Ribbon Life</b> 4 million characters (black)	
MIBE: 10,000 nours	
Duty cycle	
28000 pages/month	
Physical Dimensions & W	/eight
400 (W) x 295 (H) x 200 (D)	) mm
< 12 Kg	
Power Supply	
Туре	Universal - autoswitching
Power consumption:	< 60 W (printing ISO/IEC 10561)
<b>Environmental conditions</b>	
Temperature:	working +10 to +40 °C
Humidity:	working 40% to 60% RH (without condensation)
Noise Level	
<u>&lt;</u> 54dbA	
Environment	
Energy star compliant	
Compliances	
120 VAC, 60 Hz	UL 60950, CSA C22.2 No.60950, IEC 60950, FCC CFR 47 (DoC), CSA C108.8, EPA ENERGY STAR
230 VAC, 50 Hz	CE Marking, EN 60950, IEC 60950, EN 55022, EN 55024, EN 61000-3-2, EN 61000-3-3, EPA ENERGY STAR

# MSRW – MICR ADDENDUM

### **MAGNETIC STRIP READER/WRITER**

The horizontal magnetic strip reader/writer is used to read and write data on the magnetic stripe of bank passbooks.

Magnetic stripe has to be placed horizontally on the booklets, according to the print line direction, to be properly managed by the magnetic option.

Here below are reported the device specifications for details.

Recording code:		BCD binary coded decimal 4 data bits, 1 VRC parity control bits
Recordable characters:		ASCII table $30 - 3F$ code
Recordable formats:		DIN 32774, ANSI, IBM 3604
Recorded track width	7 mm	
Read track width		2 mm
Speed of medium		340 mm/second
Displacement		Standard Standard + 10 mm Standard + 20 mm
Field duplication		YES or NO
Number of retry		1 - 3

#### DIN 32774 standard

Bit density	210 Bit Per Inch $\pm 5\%$
Preamble	20 "zero" bits
Postamble	20 "zero" bits
Start sentinel (SOM)	D
End sentinel (EOM)	$\mathbf{F}$

Recordable characters	0-9 and "E"
Recording direction	Left to Right
Center of vertical position	13,9 mm
Horizontal start position	9.5 mm. from the left edge
Recordable characters number	45 max with field duplication
Recording capacity	108 char. Max (control codes and separator included)

### ANSI standard

Bit density	210 Bit Per Inch ± 5%
Preamble	20 "zero" bits
Postamble	20 "zero" bits
Start sentinel (SOM)	В
End sentinel (EOM)	F
Recordable characters	0-9 and "E"
Recording direction	Left to Right
Center of vertical position	13,9 mm
Horizontal start position	9.5 mm. from the left edge
Recordable characters number	45 max with field duplication
Recording capacity	108 char. Max (control codes and separator included)

#### IBM 3604 standard

Bit density	210 Bit Per Inch ± 5%
Preamble	20 "zero" bits
Postamble	20 "zero" bits
Start sentinel (SOM)	В
End sentinel (EOM)	F or C
Recordable characters	0-9 and "E"
Recording direction	Left to Right
Center of vertical position	10,4 mm
Horizontal start position	10,4 mm. from the left edge
Recordable characters number	36 max with field duplication
Recording capacity	104 char. Max (control codes and separator included)

### Bourroughs standard

Bit density	161, 210 Bit Per Inch ± 5%
Preamble	25 "zero" bits
Postamble	25 "zero" bits
Start sentinel (SOM)	В
End sentinel (EOM)	А
Recordable characters	0-9 and "E"
Recording direction	Left to Right
Center of vertical position	12,01 mm
Horizontal start position	15 mm. from the left edge
Recordable characters number	30 max (161 BPI), 40 max (210 (BPI)

#### Code conversion table

The following table illustrates how ASCII line codes are converted to recording codes for the three standards: DIN/ISO, IBM, ANSI:

Crt Line code		Function			Recording codes						
	DIN/ISO	IBM	ANSI	DIN/ISO	IBM	ANSI	VRC	BIT 4	BIT 3	BIT 2	BIT 1
0	30	-	-	crt	crt	crt	1	0	0	0	0
1	31		3	crt	crt	crt	0	0	0	0	0
2	32	-	-	crt	crt	crt	0	0	0	1	0
3	33			crt	crt	crt	1	0	0	1	1
4	34	24	-	crt	crt	crt	0	0	1	0	0
5	35			crt	crt	crt	1	0	1	0	1
6	36	7 <u>2</u> 1	2	crt	crt	crt	1	0	1	1	0
7	37		+	crt	crt	crt	0	0	1	1	1
8	38	×	12	crt	crt	crt	0	1	0	0	0
9	39		di e	crt	crt	crt	1	1	0	0	1
А	ЗA		-	crt	crt	crt	1	1	0	1	0
В	3B	"B"	3B	crt	SOM	crt	0	1	0	1	1
С	3C	"C"	3C		EOM	crt	1	1	1	0	0
D	"D"	3D	"B"	SOM	crt	SOM	0	1	1	0	1
Е	3E	3E	3E	crt		crt	0	1	1	1	0
F	"F"	"F"	"F"	EOM	EOM	EOM	1	1	1	1	1

crt = character; SOM = Start of sentinel; EOM = End of sentinel

#### Stripe recording lay-out

DIN/ISO/ANSI standard lay-out



### 4 End sentinel

8 20 zero bit end characters

#### IBM 3604 standard lay-out



Bourroughs standard lay-out



### MAGNETIC INK CHARACTER RECOGNITION

The horizontal MICR option is used to read and decode bank cheque code-line. Herebelow are reported detailed specifications.

Standards supported: Reading speed:	CMC7 and E13B 0.7 m/sec. (27 ips)			
Character recognition throughput:	CMC7: 0.9 sec. E13B: 4 sec.			
Missed recognition error rate	CMC7 E13B	1/10.000 characters 1/5.000 characters		



### PRINTER SET UP

Following the "printing self test" instructions reported on the user manual, the printer status page obtained reports also the actual settings for magnetic strip reader device.

Printing the setup forms and then filling the selected configuration choice box, according to the user manual instructions, it is possible to change the magnetic strip reader configuration.

Here below is reported the Self Test Configuration Page with the magnetic strip reader configuration parameter and all the possible choices.



#### Self lest

The configuration setup page reports all the possible selectable choices. To print configuration setup page see the *Printer Setup* section of this manual.

Setup parameter	Values	Description
MSRW STANDARD	IBM3604	Magnetic stripe standard selection
	DIN32744	
	ANSI	
	BURR. 1	
	BURR. 2	
END SENTINEL	F	End sentinel symbol, valid only for IBM3604
	С	
DISPLACEMENT	STANDARD	Allows to select the displacement of the
	+10	magnetic stripe
	+20	
DUPLICATE	NO	Field duplicate attribute. When ON, data are
	YES	recorded in duplicated way
DBL FIELD CHECK	NO	When YES check is done to verify the same
	YES	information on duplicated fields.
MSRW RETRY	1	Number of retries before operation failure.
	2	_
	3	

# DUAL COLOR SCANNER ADDENDUM

The dual scanner is located at the rear of the printer.

The *paper alignment sensors* provide to align the paper and adjust it if necessary.

The print detects the *paper edges* automatically, the sheet can therefore be inserted in any position within the detection area according to the rules described at page 15 of this document.

The maximum size of document scanned is 216 mm x 330 mm.

Put the sheet to scan on left side of paper stand for maximum with scanning.

Item	Specification
Application	Single-Pass Dual-side colour scanner
Туре	Color Contact Image Sensor module ( Color CIS )
Scanning Width	216 mm
Density	100 - 200 - 300 - 400 - 500 - 600 DPI
Monochrome mode	Black/White $-$ 16 grayscale levels $-$ 256 grayscale levels
Monochrome source	LED green – LED red – LED blue – White Light
Color mode	24 Bit RGB
Scanning Speed	Max 12 " inch/sec - 7.5 " inch/sec full color
Output Format	BMP - JPG - TIFF
Interface	USB 2.0 high-speed

### Install USB Driver procedure.

- 1. Insert Compuprint documentation CD.
- 2. Insert USB cable
- 3. Power on the printer.
- 4. After few seconds System pops up the interface [Found New Hardware Wizard], for install software about "SFERAL WWT LS A4 USB",select "Install from a list specific location (Advanced)" and click "Next" to continue .
- 5. Push Browse Button and select on Compuprint CD the path : Source\drivers\Compuprint SP40\USB\Driver"
- 6. Then follow the instructions up to the end of installation software.
- 7. Next a second System pops up [Found New Hardware Wizard] request installation software for "Compuprint SP 40" driver.
- 8. select "Install from a list specific location (Advanced)" and click "Next" to continue .
- 9. Push Browse Button and select on Compuprint CD the path : Source \drivers Compuprint SP40 USB PrtDrv Win2000\_XP"
- 10. Then follow the instructions up to the end of installation software.

If the procedure has been correctly complete, on the list of hardware devices appear , under "Universal Serial Bus Controllers" the follows three devices:



NOTE : to develop a user scanner applications refer to the appropriate dlls provide by SFERAL WWT