IMPACTO TEXTO

INTERPOINT BRAILLE EMBOSSER

USER'S MANUAL

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Introduction

Congratulations for having purchased an Impacto Texto embosser! The Impacto Texto is a high quality, industrial interpoint Braille embosser.

The embosser features simultaneous embossment of Braille dots on both sides of the paper as well as spoken messages such as *"Load paper tray"* for significantly greater user convenience.

The embosser consists of the following components, all installed in a soundproof console:

- An embossing module housed in the upper console.
- A power supply unit housed in the lower left console.
- A PC that processes the data to be embossed and interfaces with other devices, housed in the lower right console.

Embosser mechanics are reduced to a minimum. The entire unit has a modular design that calls for very little maintenance. The use of modern CAD/CAM techniques and very innovative electronics ensure high embossing performance as well as guaranteed durability and quality.

The Impacto Texto package includes embosser configuration and text and graphic embossing software.

We trust that the Impacto Texto will meet all your expectations and provide you with high quality embossing for many years to come.

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Chapter 1

Embosser

1.1 Specifications

Embossing

- Maximum embossing speed: 800 pages per hour.
- Interpoint embossing.
- Adjustable dot height.
- Up to 42 characters per line.
- Maximum paper width: 360 mm.
- Paper height between 6 and 13 inches.
- Variable line spacing.
- 6 or 8 dot characters.
- Customer defined character sets.
- Unlimited number of character tables.

Other features

- Noise level: 68 dB (A) with cover on.
- Dimensions: 85 cm wide; 50 cm deep; 134 cm high.

- Weight: 130 kg.
- Spoken messages in Spanish and English

1.2 SYSTEM REQUIREMENTS

- IBM-PC 286 or later, or compatible.
- Operating system: MS-DOS, Microsoft Windows or compatible.
- CD-ROM drive.

1.3 CAUTION

The Impacto Texto operates at a very high voltage. Do not touch the inside components. Any maintenance or repair work should be entrusted to qualified engineers.

1.4 MAIN COMPONENTS

The Impacto Texto consists of five basic components: the console, in turn divided into an upper and a lower unit, the power supply unit, the Impacto PC and the embossing module.

The Impacto PC interfaces with other hardware, stores incoming data, controls the embossing module and plays spoken messages as appropriate, etc.

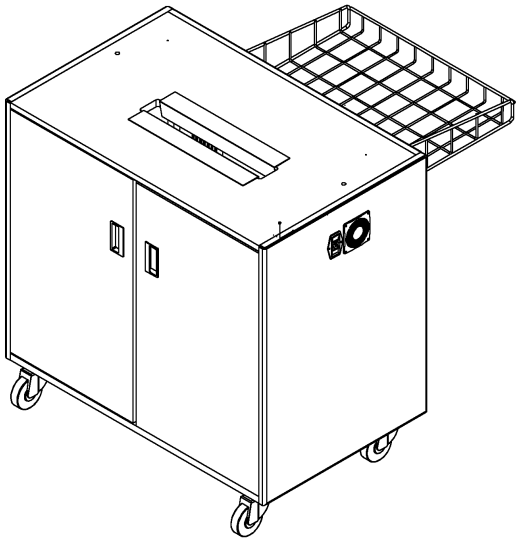
The embossing module is housed in the upper console. This component, the mechanical part of the embosser, contains both the hammers that generate the Braille dots and the paper feed driver rollers.

1.4.1 Lower console

The lower console contains both the power supply unit and the Impacto PC, set on top of two separate compartments accessible from the rear; each compartment is closed off from the exterior with a protective cover, screwed to the console. The embosser communication ports are to be found on the cover protecting the Impacto PC compartment. The fasteners for attaching the paper tray are also located at the rear of the console.

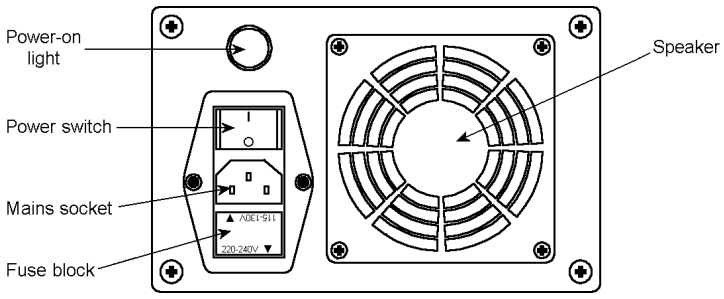
After embossing, the paper is stacked in the compartments behind the two doors at the front of the console.

The paper drops into these compartments through the slot in the lid to the lower console, through which the data and electrical wiring is also run.



Lower console and paper tray

The patch board on one of the sides of the console houses the embosser power switch, the mains socket, a fuse block, the printer power-on light and the speaker for spoken messages.



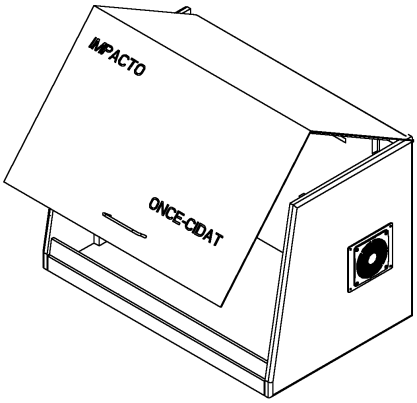
Detail of the patch board

1.4.2 Upper console

This part of the console comprises a soundproof hood that covers the embossing module to reduce the noise level to under 68 dB (A).

The entire front side opens upward and backward to access the embossing module. The inside of the console is cooled by fans, which are covered by vents. The paper is fed to the embossing module through the slot at the rear.

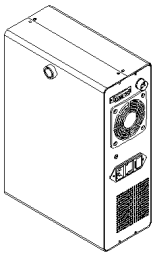
When the hood is open you can see the acoustic insulation on the inside. The power sockets for the fans are located on each side.



Upper console

1.4.3 Power supply unit

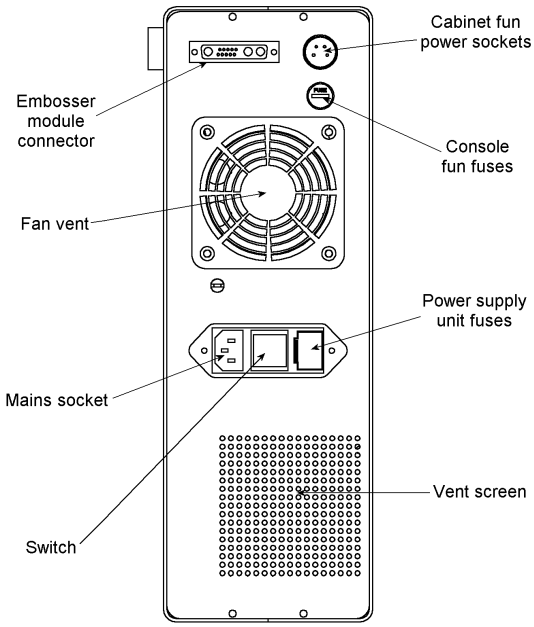
This is the unit that powers the embossing module. It has a sensor on one side that controls the paper height by means of a sensor located on one of the sides.



Power supply unit

The light at the front of the unit turns green when the power is on. When the power supply unit is inside the embosser console, the light is visible through a window at the front of the console where the embossed paper is stacked.

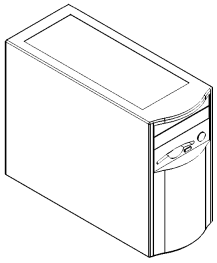
The OFF/ON switch and the various connectors and fuses are at the rear of the unit.



Detail of rear of the power supply unit

1.4.4 Impacto-PC

This PC interfaces with the user's computer and controls the embossing module. It is housed at the rear of the lower console.



Impacto-PC

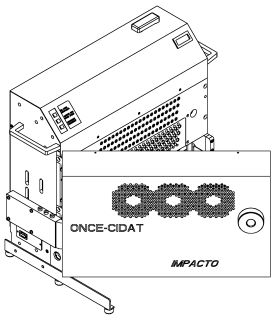
1.4.5 Mechanical module

The actual embossing and paper feed functions are performed by the mechanical module, the key component of the embosser.

The door at the front of this unit opens on to the embossing and paper feed mechanisms. The digital timer over the door to the right clocks the embosser operating time and the light-up buttons on the left are used both to operate the

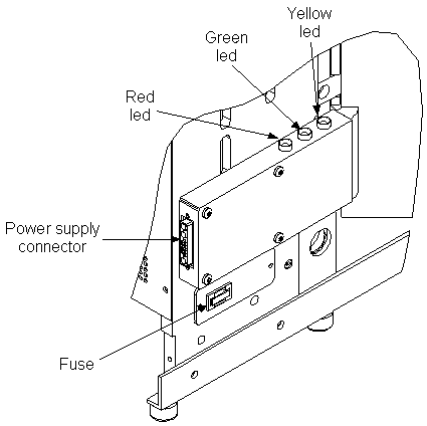
embosser and show the current status (on line, save paper, error). Chapter 4 contains detailed information on how to operate the embosser.

The paper sensor is positioned at the top of the mechanical module. The two small wheels on the right side of the unit are for adjusting the Braille dot height on the front and back sides of the paper.



Embossing module

The left side houses the connector for the power supply cord, three leds indicating the power supply status and a fuse.



Detail of left side of the embossing module

Chapter 2

Getting started

2.1 POSITIONING THE EMBOSSER

Before setting up the embosser, find an appropriate place for it.

- Choose a clean, dust-free area.
- The floor in this area should be shielded against static electricity, at least in the specific spot where the embosser is to be installed.
- The room temperature should be kept between 5ºC and 40ºC.
- The relative humidity should range from 10% to 90%.
- The sides of the embosser must not be obstructed to ensure that air can flow freely through the vents. A 30-cm clearance on both sides is recommended.

2.2 UNPACKING THE EMBOSSER

The Impacto Texto is delivered in four separate packages:

- Cardboard box containing the upper console.
- Cardboard box containing the lower console.
- Wooden or aluminium box containing the power supply unit.
- Wooden or aluminium box containing the embossing module.

Begin by unpacking the upper and lower console units: remove them from the cardboard boxes with care. Do not unpack the rest of the components until they are to be actually assembled, to prevent possible damage.

> ⚠ **Important:** Save the power supply unit and embossing module packaging for shipping, in case they have to be sent to the shop for repairs.

2.3 COMPONENTS SUPPLIED

Your embosser was checked before packing. Nonetheless, before proceeding to set it up, make sure that you have all the components and all are in proper working order. If any of them is missing or damaged, please contact the vendor.

The cover on the power supply unit must be removed to check the components housed in the unit. Use the screwdriver provided in the tool bag packed with the power supply unit to remove the four hex-head screws that secure the cover to the body.

The items supplied are listed below:

Box containing lower console.

- Console with PC.
- Paper tray.
- Two wheels with brakes.
- Two wheels without brakes.
- Four screws to attach the wheels.
- Four lock washers.
- No. 2 Allen wrench.
- Centronics parallel embosser interface (cable attached to console).

Box containing upper console.

- Upper console.

Box containing power supply unit.

- Power supply unit.
- Power cord for the embossing module.

- Centronics parallel interface.
- Null-modem serial cable.
- Tool bag containing.
    - Two hex screwdrivers.
    - Wrench.
    - Special screwdriver with a metallic rod for the hammers and the embosser pins.
    - Brush.
    - Two spare hammers.
    - 10 spare embossing pins.
- Spare fuse bag.
- User's manual.
- Set of diskettes and CD-ROM with embosser software.

Box containing embossing module.

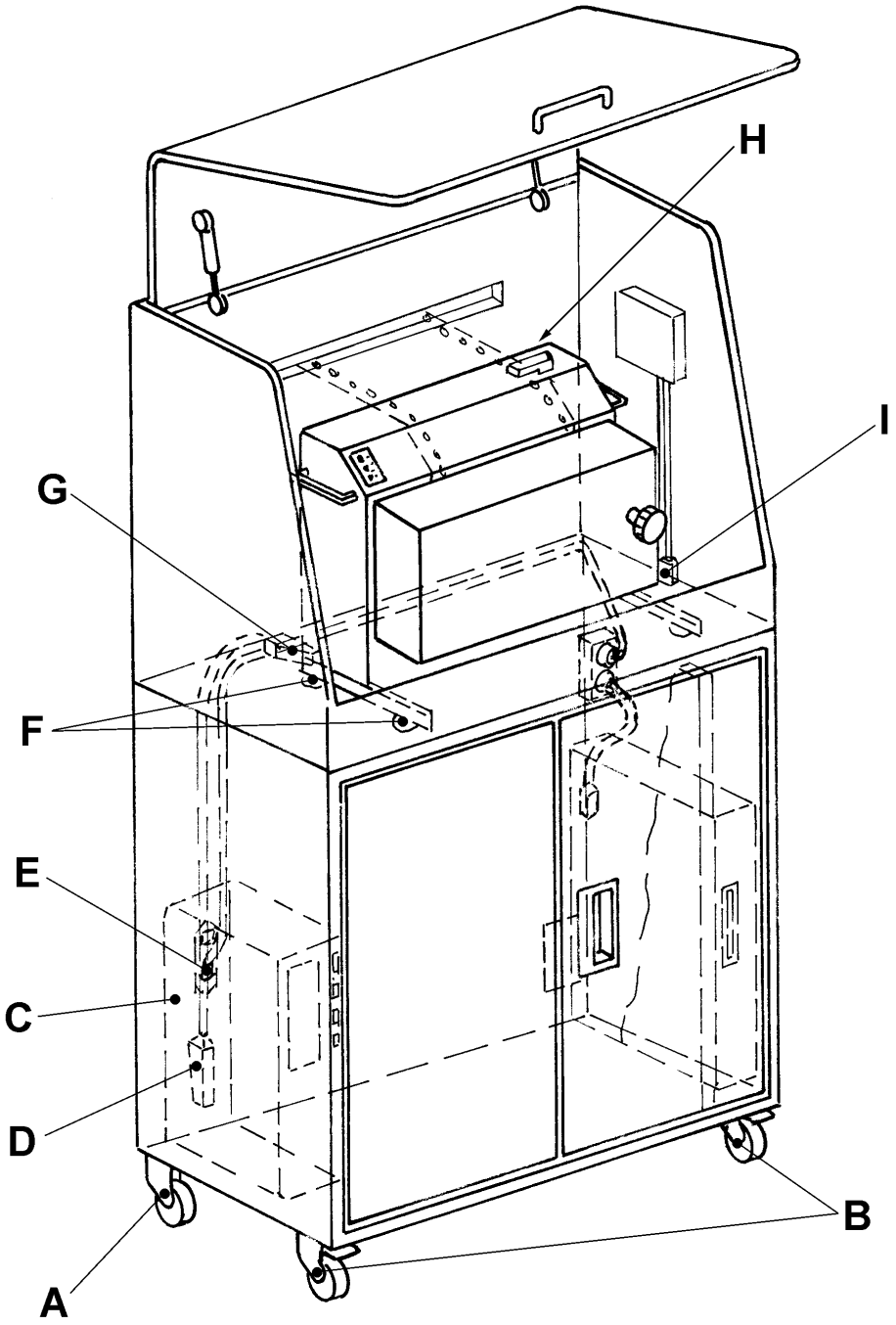
- Impacto Texto embossing module.

2.4 ASSEMBLING THE EMBOSSER

Follow the steps set out below to assemble the embosser, in the order listed. The letters used in the assembly instructions to refer to the various elements on the embosser are identified on the diagram below.

Note: It will take two people to assemble the embosser, because some of the component parts weigh over 25 kg.

1. Carefully place the lower console with the front side (the side with doors), or with the side opposite the side bearing the patch board, facing down.
2. Attach the two wheels without brakes (A) to the rear of the console with the screws and washers provided. Tighten the screws with the Allen wrench.



Impacto Texto embosser assembly diagram

3. Attach the two wheels with brakes (B) to the front part of console following the same procedure as above.
4. Stand the console in an upright position on the four wheels.
5. Pull the Centronics interface for connecting the Impacto-PC to the embossing module through the hole at the upper left.
6. Unpack the power supply unit and set it into the lower console (C).
7. Plug the embossing module power supply cord into the socket at the rear of the power supply unit (D).
8. Pull the other end of the power supply cord through the slot at the top of the console.
9. Plug the fan power supply cord into the socket on the upper rear of the power supply unit.
10. Plug the power cord for the embossing module into the power supply unit (E).
11. Make sure that the power supply switch is on.
12. Screw the protective cover for the power supply unit to the console.
13. Remove the embossing module from the container and set it on top of the lower console. Make sure that the front side of the embossing module is flush with the front side of the lower console (the side with the doors). Set the six legs to the embossing module on the supports on top of the console (F).
14. Plug the power supply cord into the embossing module (G).
15. Plug the Centronics interface attached to the Impacto PC into the port at the rear of the embossing module (H).
16. Set the upper console on the lower; make sure that the front sides of the two are flush (lettered side of the open-back hood on the upper console with doors on the lower console).
17. Plug the two fan cords into the connectors in the lower console on either side of the embossing module (I).
18. Attach the paper tray to the supports at the upper rear of the lower console.

2.5 CONNECTING THE EMBOSSER TO THE COMPUTER

2.5.1 Parallel connection

1. For this type of connection you will need the Centronics parallel interface cable supplied with the embosser.
2. Plug the 25-pin end of the interface into an LPT port on your computer.
3. Connect the other end of the Centronics cable to the port at the rear of the lower console and close the clamps for a tight fit.

2.5.2 Serial connection

1. For this type of connection you will need the Null-modem serial cable supplied with the embosser.
2. Plug one of the ends into a serial port on your PC.
3. Plug the other end into the port at the rear of the lower console.

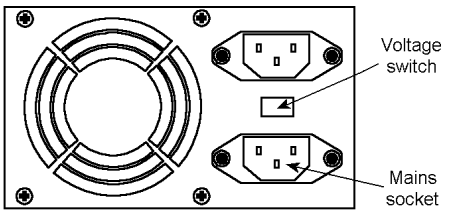
2.6 CONNECTING THE EMBOSSER TO THE MAINS

Before plugging the embosser into the mains you must first adjust it to the voltage and frequency used in your country.

⚠ **Very important:** **Connecting the embosser to the mains at the wrong voltage will severely damage the embosser.**

First adjust the Impacto PC voltage as follows:

1. Unscrew the cover that protects the Impacto PC at the rear of the console (the side with the connectors and ports).
2. The voltage switch is at the rear of the PC power supply unit, just above the power socket.



View of the Impacto PC power supply unit

English

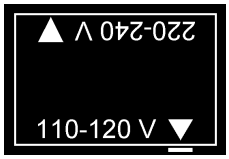
Move the switch to the left or right, as appropriate, to adjust the voltage to 115 V or 230 V, respectively.

Switch position for 115 V

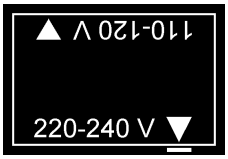
Switch position for 230 V

3. Plug the Impacto PC power supply cord into the socket on the Impacto PC power supply unit.
4. Screw the cover back on.

Now adjust the voltage on the embosser fuse block, located near the voltage socket. Two triangles preceded by voltage indications are printed on the fuse block cover. Check whether the triangle indicating the proper voltage is positioned just above the white rectangle printed on the lower right, under the line running around the outer edge of the fuse block. If this is not the case, remove the fuse block, turn it around to the proper position and put it back in.



Fuse block position for 115 V



Fuse block position for 230 V

Now plug the socket end of the power cord provided into the plug on the embosser and the plug end into a mains outlet.

English

Chapter 3

Paper

3.1 RECOMMENDED PAPER

The type of paper used in the embosser is of crucial importance, not only to guarantee high embossing quality but also to lengthen the service life of your embosser.

Although the Impacto Texto can emboss using a wide variety of paper types, the recommended procedure is to verify the results before purchasing large quantities of any given type.

The Impacto Texto uses perforated fanfold paper of sizes that may vary in height from 6 to 13 inches and in width to a maximum of 360 mm. It accommodates weights ranging from 100 to 175 g/m².

> ⚠ **Important:** Use recommended paper types only. The use of other types of paper may cause frequent jamming and damage the embosser.

Increase or decrease dot impact pressure depending on the type of paper used to obtain the dot quality desired (see section 4.4).

3.2 PAPER LOAD

Proceed as follows to load the paper in the embosser:

1. Place the stack of paper on the metal tray.
2. Use the metal guide to feed the paper through the slot at the rear of the upper console.
3. Open the upper console door.
4. Open the embossing module door.
5. Slide the paper underneath the "out of paper" sensor on the embossing module.
6. Open the flaps on the two form feed embosser tractors.
7. Position the paper on the right roller and close the flap.
8. If the left roller is not positioned to the proper paper size, release it by moving the flap to the intermediate position and then slide the roller horizontally to adjust it to the paper width. Then lock the roller in place by moving the flap upward or downward.
9. Position the paper on the left roller and close the flap.
10. Use the wheel on the left side of the embossing module to adjust the edge of the paper to the proper start position, ensuring that the perforation between sheets of paper coincides with the mark labelled "TOF".
11. Close the embossing module door and turn the wheel until it locks into position.

3.3 OUT OF PAPER

When the metal tray runs out of paper, the embosser continues to emboss up to the end of the last page, after which the spoken message *"Load paper tray"* is heard and the red *Continue* button on the front of the embossing module lights up.

Load more paper on to the embosser and press the *Continue* button to resume embossing.

3.4 MAXIMUM STACK HEIGHT OF EMBOSSED PAPER

When the stack of embossed paper exceeds the maximum height allowed, the embosser stops at the end of the page; the spoken message *"Remove embossed paper"* is heard and the red led on the side of the embossing module comes on.

Separate the embossed paper from the rest of the stack of fanfold paper along the perforated line, remove it from the Impacto Texto and press the *Continue* button to resume embossing.

3.5 PAPER JAM

If the paper jams, the embosser stops instantly and emits the spoken message *"Paper jam"*; the red *Continue* button lights up.

Open the embossing module, remove the jammed page and reposition the paper. Discard the page that jammed because it may contain embossing flaws.

Finally, press the red button to resume embossing. The embosser will repeat any pages that may be incomplete and continue from where it left off when it jammed.

Note: Very frequent paper jamming may be due to the use of poor quality paper. Use only high quality paper to avoid such inconvenience.

Chapter 4

Embosser controls

4.1 MAIN SWITCH

The main switch, located on the right side of the lower console, is used to turn the entire facility on and off.

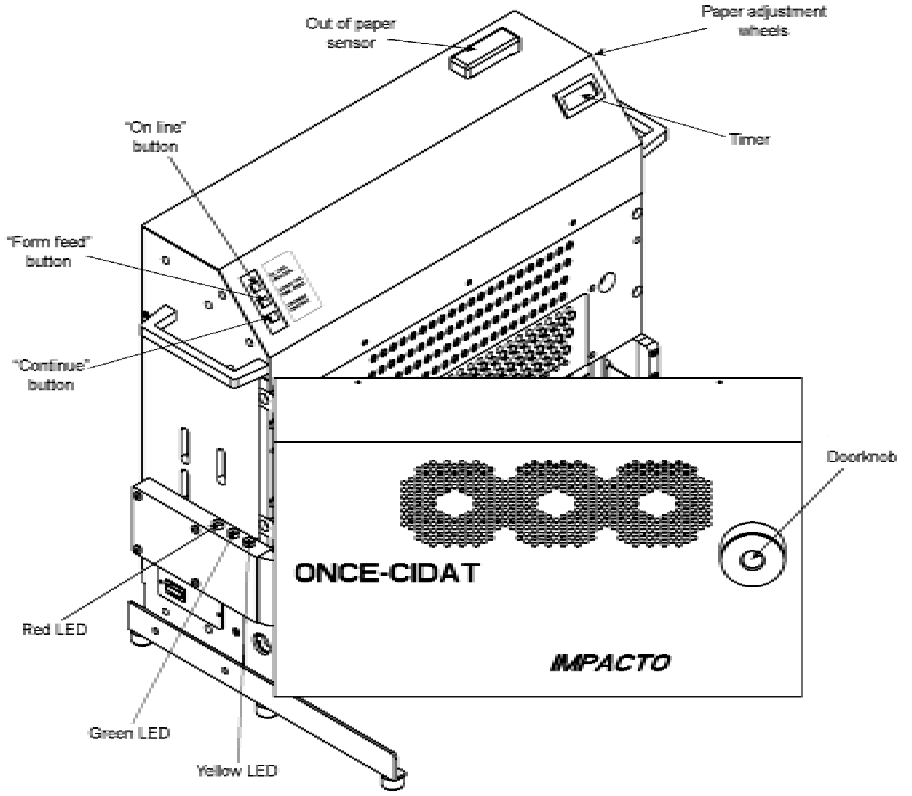
When on, a green led just over the switch lights up.

> **Note:** Do not use this switch to cancel a emboss job. To cancel the emboss jobs reset the embosser (see section 4.3.4).

4.2 EMBOSSER WARM-UP

When the embosser is turned on, it runs a routine hammer warm-up. The duration of this operation depends on the amount of time the facility has been off.

When a pause lasts for several minutes or more, the hammer warm-up function may also come on before embossing is resumed.



Impacto Texto embosser module

4.3 CONTROL PANEL

The control panel is on the top left of the embossing module and consists of three light-up buttons.

4.3.1 *On line* button

This is the green button at the top.

After embosser boot-up, it comes "on line" and the green light stays on. The spoken message, *"Embosser ready"*, is heard.

When the embosser is on line, it can receive and emboss data. Use the *On line* button to switch to local mode: the message *"Off line"* is heard. When in this mode, the embosser pauses. To resume embossing, press the *On line* button.

This button performs another function as well: if pressed when the embosser displays an error message, the audio message specifying the type of error is repeated.

4.3.2 *Form feed* button

The second of the three buttons, the yellow one, controls the *Form feed* and has two functions.

When the embosser is off line, the paper feeds a full page forward each time the button is pressed. To adjust the paper backward or forward by less than a full page, use the wheel located on the right side of the embosser.

When the *Save paper* function is on (which can be enabled using either the ImpactoDOS or the ImpactoWin programs) the yellow button lights up at the end of each embossing job, which means that the last page of the document will not be embossed until you press the yellow button, with the embosser in on line mode, or until the next embossing job starts.

4.3.3 *Continue* button

The *Continue* or red button is in the third position.

It lights up when some sort of error has been detected. When it comes on, the embosser stops and the spoken message specifying the type of problem is heard.

If the error persists, the message will be repeated when the *Continue* button –which stays lit– is pressed.

When the error is remedied embossing will be resumed from the last page the embosser is certain to have embossed correctly before the interruption. Nonetheless, the first page embossed after the pause may possibly be a repeat of the last page correctly embossed before the pause.

4.3.4 Embosser reset function

The Impacto embosser saves all completed jobs as well as the status of the work in progress. Should the embosser shut down unexpectedly for whatever reason, the jobs stored in its buffer are not lost and as soon as the embosser is ready to resume operation, it shows –as an error– that there are unfinished jobs in the buffer.

Consequently, the only way to cancel jobs sent to the embosser is with the reset function, since they remain in the buffer even when the main switch is turned off.

To reset the embosser, press and hold the *Continue* button; then press the *Form feed* button and hold both buttons together for a few seconds until the message *"Resetting embosser, please wait"* is heard. The Impacto Texto can only be reset when off line (i.e., in local mode). In other words, in the event of error, it may be reset directly; otherwise, use the *On line* button to place the embosser in local mode before proceeding to reset.

After resetting the Impacto Texto, wait a few seconds until it comes back on line and the spoken message *"Embosser ready"* is heard before sending it any new jobs.

4.4 BRAILLE DOT ADJUSTMENT

Braille dot height can be adjusted in the Impacto Texto with the two knobs on the right side of the embossing module.

These two knobs, with their dials numbered from 1 to 10, control hammer impact pressure. The one nearest to the door controls the front side hammers (odd pages in interpoint and odd and even pages both in single side embossing) while the one located further to the back controls the impact pressure of the rear hammers (even pages in interpoint embossing).

The optimum dot height values depend on the type of paper used. When trying out a new type of paper, it is advisable to run a few trials to adjust the Braille dots to the desired height. For example, a 80 gr/m^2 paper needs to be adjusted at 1 position and for a 110 gr/m^2 paper a 5-6 position is required.

4.5 POWER SUPPLY UNIT STATUS LEDS

The three leds on the left side of the embossing module indicate power supply unit status, as follows:

Yellow led

This led indicates the status of the power supply module for embosser electronics. It must be on whenever the embosser is on.

Green led

This led indicates the status of the power supply for the embossing hammers and paper feed motor. It must be on while embossing.

Red led

This led indicates that the stack of embossed paper is higher than allowed. If this led only comes on sporadically it is because the paper crosses the beam emitted by the optical sensor on the power supply unit as it drops into place.

When the led remains on continuously, the paper stack is too high. In this case the embosser will stop when it reaches the end of the page being embossed and emit the respective error message. To resume embossing remove the embossed pages and press the *Continue* button.

Chapter 5

Sensors

The Impacto Texto is equipped with several sensors to control embosser status at all times.

5.1 OUT OF PAPER

This optical sensor is located on the upper part of the mechanical module through which the paper feeds and is monitored.

When the embosser is out of paper, the spoken message *"Load paper tray"* is heard after the last page is embossed.

After loading more paper on the tray, press the red *Continue* button to resume embossing from the next page of the document.

5.2 PAPER FEED

This optical sensor, located towards the bottom of the right form feed embosser tractor, controls correct paper feed by checking whether the light reflected through the inter-page perforations is detected by the two parts of the sensor at regular intervals.

When the paper stops feeding across the sensor, the embosser stops and the *"Paper jam"* message is heard.

After removing the jammed paper press the *Continue* button to resume embosser operation.

5.3 EMBOSSING MODULE DOOR

The electromechanical switch aligned with the door hinges ensures that the door is closed during embossing.

If a file is sent for embossing while the door is open, the embosser will not start up and an error message will be received. If the door opens while the embosser is in operation, embossing will stop and an error message will be received.

In both cases the spoken message *"Embossing module open"* will be heard. Close the door and press the *Continue* button to resume embossing.

5.4 PAPER WIDTH

This is an electronic sensor that controls the position of the embosser tractors.

If the embosser detects more characters per line than can fit on the width of the paper in the embosser, the spoken error message *"Too many characters per line"* will be heard.

Once the error is remedied press the *Continue* button to emboss the document.

5.5 HEIGHT OF THE STACK OF EMBOSSED PAPER

This is an optical sensor on one side of the power supply unit that controls the height of the stack of embossed paper. The sensor beams its signal through the small window on the left side of the area where the embossed paper is stored, on to a reflecting surface located just opposite.

When the stack of paper exceeds the maximum height allowed, the red led on the side of the embossing module comes on. When the Impacto Texto finishes the page in progress, embossing is interrupted, the red button on the embossing unit control panel lights up and the spoken message *"Remove embossed paper"* is heard.

Press the *Continue* button to resume embossing after removing the paper.

Chapter 6
Using the embosser with MS-DOS

6.1 CONFIGURATION

The user can configure a number of Impacto Texto settings, such as paper size, 6 or 8 dot characters, automatic page numbering, etc., all with the software provided with the Impacto package.

All embosser settings can be configured with the aid of the ImpactoDOS software provided. An explanation of how to use this software can be found in Chapter 8.

Other computer applications may also be used to configure the embosser if a specific Impacto Texto driver is provided. Consult the application manual to configure the embosser correctly.

If the application has no Impacto Texto driver the embosser must be configured using escape sequences. (See section 10.2 of this manual).

6.2 TEXT EMBOSSING

Text can be sent to the embosser from MS-DOS with the aid of special software, such as the Impacto program supplied with the embosser, or directly by means of a DOS command line.

See Chapter 8 of this manual for instructions on how to emboss with MS-DOS supported Impacto software.

6.2.1 Embossing from an MS-DOS application

To send an emboss order from a program you must first select the right printer/embosser.

If you are using a specific program for Braille translation, first select the Impacto Texto from the list of available printers/embossers and define it as the one in use or the default unit. If the Impacto Texto is not on the list of printers/embossers ask the program vendor for a specific driver.

If you are using a standard word processor, select a text only printer from the list.

Note: Such programs can only be used to configure the Impacto Texto if control instructions can be inserted in the document.

Once you have selected the embosser, consult the program user manual or online help for file creation or downloading for embossing/printing.

Important: Working with word processing and printing applications not specifically designed for Braille may seriously limit use of your embosser or produce unexpected results. It is highly advisable to use applications specifically for Braille with the Impacto Texto driver.

Embossing from WordPerfect 6.0 for MS-DOS

If you wish to emboss from WordPerfect 6.0 for MS-DOS, install the driver supplied with the Impacto Texto embosser.

To install the driver go to *Print* (shift+F7) → *Select* → *Add printer*. Specify the drive and the path to the *Braille.all* file and select the *Impacto Braille Interpoint* embosser for installation. Once the embosser is installed, you must select it as the one to be used.

English

Read the information furnished with the driver (*Print* → *Select* → *Information*) to use it correctly.

6.2.2 Embossing from the command line

Use the PRINT or TYPE commands to send a file directly from the command line to the embosser.

To use a serial port, first configure the port as follows:

- 9600 Bauds.
- No parity bits.
- 8 data bits.
- 1 stop bit.

Using the following command:

```
MODE Port 96,N,8,1
```

where *Port* may be COM1, COM2, COM3 or COM4.

The PRINT command syntax is as follows:

```
PRINT /D:Device Filename
```

The optional setting /D is to specify the name of the printing device. The valid values for parallel ports are LPT1, LPT2 and LPT3. The valid values for serial ports are COM1, COM2, COM3 and COM4. If the device is omitted, the system will use the default device, i.e., LPT1, also known as PRN.

To redirect embossing from a parallel to a serial port you must use the MODE command as follows:

```
MODE LPTn=COMm
```

where *n* and *m* stand for the number of the parallel and serial ports, respectively.

The TYPE command syntax is as follows:

```
TYPE Filename >Device
```

The *Device* setting may be LPT1, LPT2, LPT3 or PRN for parallel ports and COM1, COM 2, COM3 or COM4 for serial ports.

Chapter 7
Using the embosser with Windows

7.1 EMBOSSING FROM WINDOWS

To be able to print/emboss in Windows, the operating system must be configured for the printer/embosser; in other words, the connection port as well as the characteristics of the peripheral must be entered in the system. Installing specific software known as a "driver" does this.

7.2 EMBOSSER DRIVERS

A driver is a micro program that controls a computer device or peripheral. Drivers interface between the operating system and computer hardware and contain detailed information on the characteristics of the devices they control.

The Impacto Texto comes with a disk that holds the driver for Windows operating systems 95/98/ME and NT/2000/XP. This driver contains information on embosser resolution, paper sizes accommodated, fonts, connection port, etc. It also contains embosser configuration functionality and controls the data flow from applications.

7.3 INSTALLING THE DRIVER IN THE SYSTEM

The driver for the Impacto Texto is on the CD-ROM supplied with the embosser. Insert the CD-ROM in your computer before beginning configuration procedures.

> **Note:** If you are connected to the Internet, check the ONCE-CIDAT website (www.once.es/cidat) for new driver updates. It is highly recommended to install the most recent version of the driver for best performance and correction of possible shortcomings in previous versions.

Use the "add printer" wizard to install the embosser driver. Access the system *Printers* folder by clicking *Start* → *Configuration* → *Printers* (*Start* → *Printers and Faxes* in Windows XP) or clicking the *Printers* icon in the *Control panel*. Then select the *Add printer* option to start the wizard.

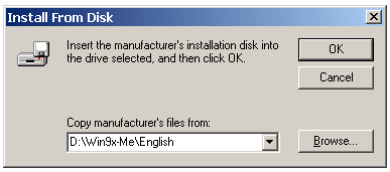
You will first be asked to specify whether the printer is local or remote. If it is connected to your computer directly, choose local. If it is connected to other hardware to which your computer is networked, choose remote.

For local embosser installation, follow the steps in section 7.3.1. For remote embossers, go to section 7.3.2.

7.3.1 Installing the embosser in local mode

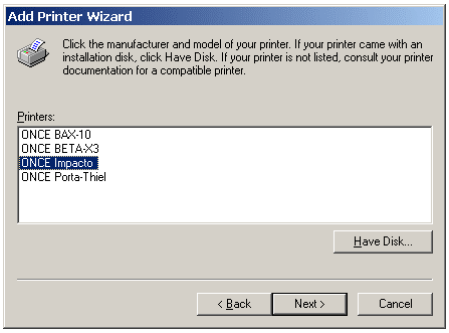
Windows 95/98/ME

Select *Local printer* and press the *Next* button. The window displayed shows the list of printers you can install in Windows. Click the *Have disk* button and, in the field provided, enter the drive where you inserted the disk with the driver files and the full path to access the *Oemsetup.inf* file, which is in the *\Win9x-ME\English* folder. Click *OK*.



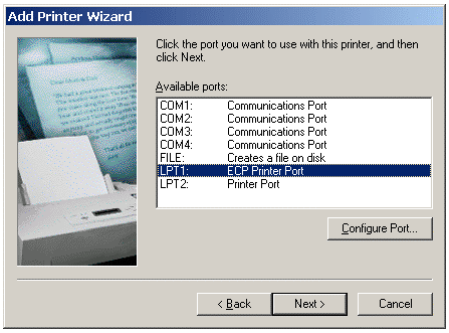
Install from disk dialog box

The next window shows all the embossers available on the disk. Select *ONCE Impacto* and click *Next*.



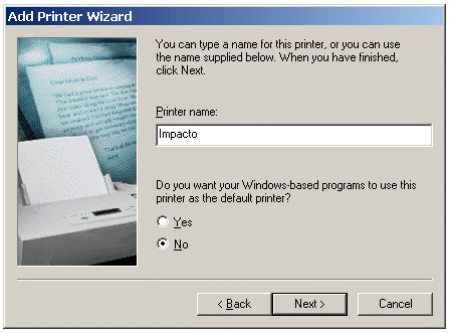
Dialog box to select an embosser on the disk

Next, select the port on your computer to which the embosser is connected.



Dialog box to select embosser port

Then type in a name to identify the embosser and specify whether it will be the default printer.



Window to name the embosser

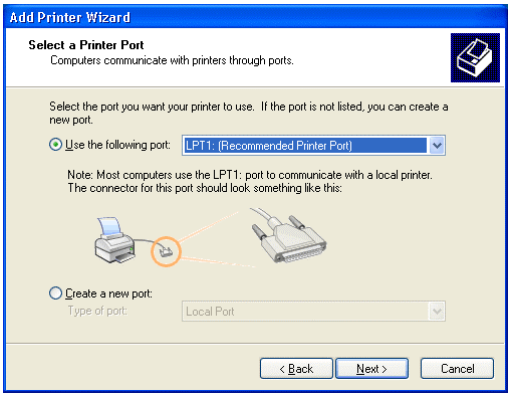
Finally, specify whether you wish to print a test page to check for proper operation and then click the *Finish* button.

English

Windows NT/2000/XP

The wizard for adding a new printer will guide you through a series of windows where you must enter the information about the embosser requested by the system, and then click *Next* to continue in each instance. In Windows XP uncheck the check box for automatically detection of plug and play printers.

In the first window select the option *Local printer* and press the *Next* button. Then select the computer port to which the embosser is connected.

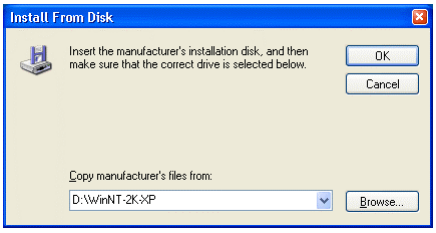


Port selection window in Windows XP

Important: You must have a system administrator permission to install an embosser on a computer running on Windows NT/2000 /XP.

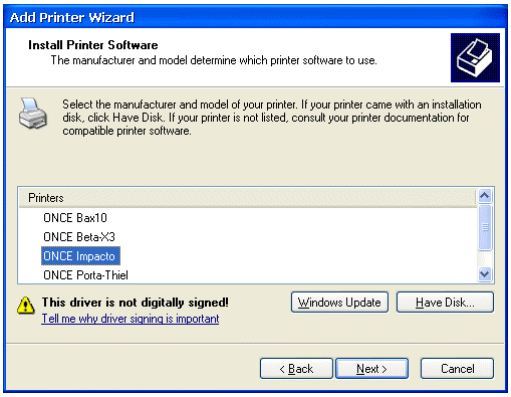
Click the *Have disk* button in the dialog box displayed.

In the following window enter the drive where you inserted the disk with the driver files along with the full path to the *Oemsetup.inf* file, which is in the *\WinNT-2K-XP\English* folder. Click *OK*.



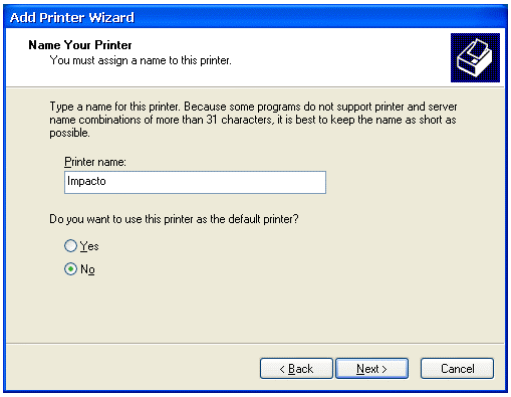
Install from disk window in Windows XP

Select the *ONCE Impacto* from the list of embossers displayed in the following window.



Embosser selection window in Windows XP

In the dialog box displayed next, type in a name to identify the embosser and specify whether it will be the default printer.



Window for naming printer in Windows XP

Specify whether the embosser is to be shared. If you share the embosser it will be accessible from other computers and the shared resource must be given a name.

Finally another dialog box will be displayed. Specify whether you wish to conduct a trial run to check for proper operation and then click the *Finish* button.

Note: In Windows 2000/XP a window may appear indicating that the software has not passed Windows Logo testing. In such event, press the *Continue Anyway* button to continue installing the driver.

English

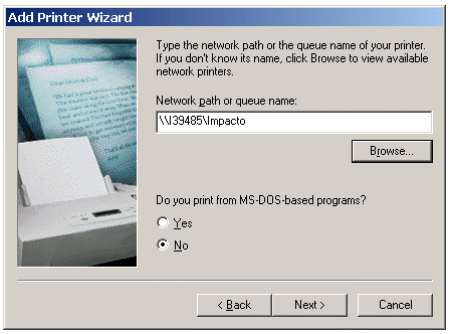
7.3.2 Installing the embosser in remote mode

If you install the embosser in remote mode it may be connected to a computer other than yours, provided both computers are connected to the same network.

To install the Impacto in remote mode you must first make sure that the other computer to which the embosser is connected has the driver installed and is configured to share the embosser. Proceed to check these requisite conditions before installing the embosser driver on your own computer, if you have not already done so. Follow the instructions in the preceding section to install the driver on a remote computer. See section 7.4 for instructions on how to share an embosser.

Windows 95/98/ME

Select *Network printer*. In the next window type in the access path to the print server or facility to which the embosser is connected and the name of the embosser (e.g.: \\Server\Impacto).



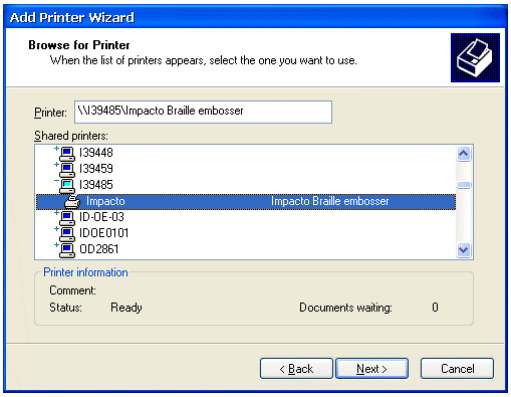
Window to add a network printer

Now enter the name to identify the embosser and specify whether it is to be the default printer.

Finally, specify whether you wish to print a test page to check for proper operation and then click the *Finish* button.

Windows NT/2000/XP

First select *Network printer*. Then, use the dialog box that opens to browse for the facility in the network to which the embosser is connected and then select the embosser.



Window to select a shared printer in Windows XP

Important: You must secure the permission of the system administrator or of the owner of the hardware to which it is connected, as well as administrator permission in your own system, to install a remote embosser on your computer

In the following window, specify whether this is to be the predefined embosser for the system.

Finally, specify whether you wish to conduct a trial run to check for proper operation and then click the *Finish* button.

7.4 SHARING A PRINTER

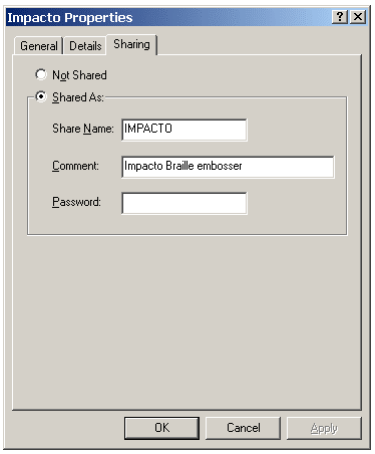
The Impacto, like all other printers, can work in remote mode and can be shared by many users in a network environment, if properly configured.

To share an embosser connected to another computer, open the *Printer* folder and right click on the embosser you wish to share. Choose the *Share* option on the pull down menu displayed.

Note: In Windows 95/98/ME, the Sharing tab only appears if the printer sharing option is activated. This can be done as follows: right click on the *Network* icon and the select the *Properties* option. Then press the *File and Print sharing* button and check-mark the *I want to be able to allow others to print to my printers* check-box.

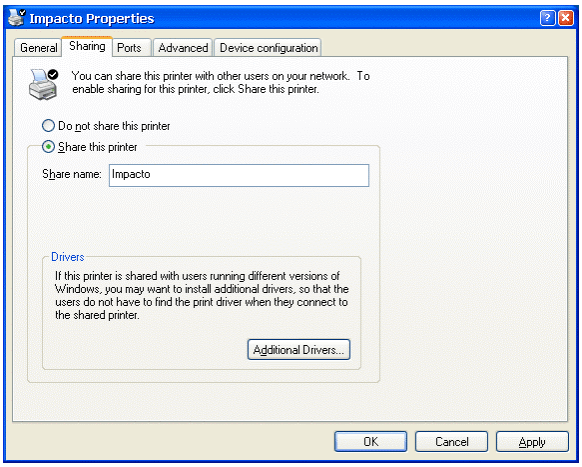
English

If you use Windows 95/98/ME, select the *Shared as* option in the *Sharing printer* dialog box and enter a name in the *Share Name* field to identify the embosser in the network; this is the name that all users should select when installing this remote embosser on their computers.



Sharing dialog box in Windows ME

If you use Windows NT/2000/XP, select the option *Share this printer* option and enter a share name to identify the embosser in the network.



Sharing dialog box in Windows XP

Now you may install the Impacto in other computers as a remote printer and share it with all network users.

7.5 DRIVER CONFIGURATION OPTIONS

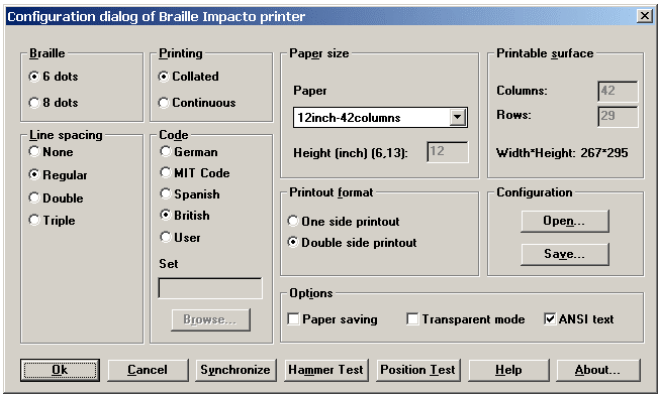
Use the embosser configuration dialog box found in the driver to configure embosser settings such as 6 or 8-dot Braille, single side or interpoint printing, etc. This box can be accessed either directly from the application in use or from the Windows *Printer* folder.

If accessed from an application, any settings defined will affect only the embossing instructions sent from the application in question and only during the present session. The settings will not be saved when you exit the application, but return to the system default settings the next time you start the program.

If the dialog box is accessed from the *Printer* folder, the settings defined will become the new default settings for the system, in other words, the settings for any application used from then on, unless specific settings are defined as described in the preceding paragraph. The new default settings will be automatically saved and in effect the next time the computer is booted.

To access the driver configuration dialog box from the *Printer* folder, right click on the Impacto and select *Properties*. Thereafter, the procedure differs depending on the version of Windows used:

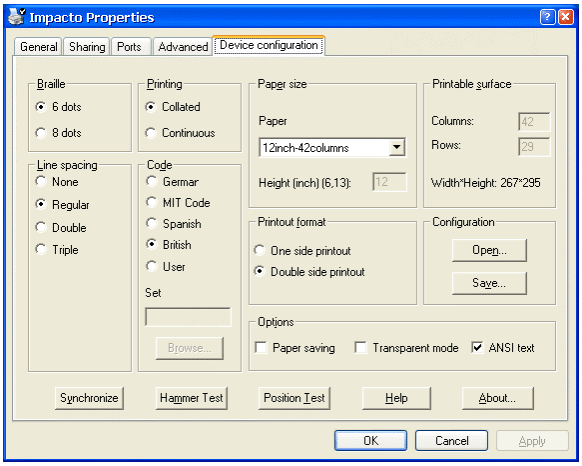
- **Windows 95/98/ME:** Open the *Details* tab and press the *Install* button.



Driver configuration dialog box in Windows ME

- **Windows NT/2000/XP:** Open the *Device configuration* tab.

English



Driver configuration dialog box in Windows XP

7.6 EMBOSSING FROM A DOS SESSION USING THE DRIVER

7.6.1 Windows 95/98/ME

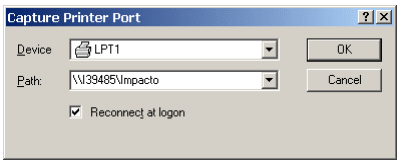
For snag-free embossing from a DOS session, the embosser must be shared over a network. See points 7.3.2 and 7.4 above for instructions on installing and sharing a network embosser.

Now, capture the computer port from which you wish to emboss as follows: open the *Printer* folder, right click on the Impacto, select *Properties*, open the *Details* tab and press the *Capture printer port* button.

Type in the parallel port in the *Device* field on the dialog box. This is now the port to which embossing jobs must be sent from any system application. Enter the path to the Impacto in the other text box, as follows:

\\ComputerName\SharedResourceName

If you want to capture the same port the next time you boot up the computer, check the Reconnect at logon box.



Capture printer port window

7.6.2 Windows NT/2000/XP

To emboss from a DOS session the embosser must be shared. See points 7.3.2 and 7.4 above for instructions on installing and sharing a network embosser.

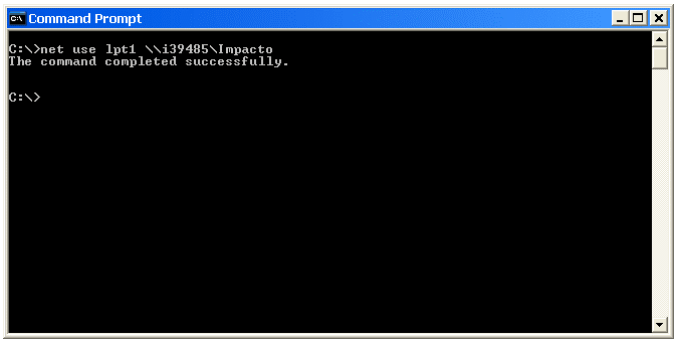
Now capture the computer port from which you wish to emboss, as follows: open the system symbol window and use the NET USE command. The syntax for this command is shown below:

`NET USE` *`Port`* `\\`*`Computer`*`\`*`SharedResource`*

Optional parameters:

`/PERSISTENT:YES` to make persistent the capture.

`/DELETE` to delete a persistent capture.



NET USE command in a Windows XP *Command Prompt* window

Chapter 8

ImpactoDOS program

The Impacto Texto embosser is supplied with a program called ImpactoDOS, an application for MS-DOS and compatible operating systems which enables you to completely configure the embosser, emboss texts and graphics, create graphics, create and modify character sets, etc.

The present chapter contains a detailed explanation of how to use this application.

Note: All the options referred to in this chapter as well as the pictures correspond to the latest version of the application available when this manual went to print. A later version may have since been released, however. See our web site (www.once.es/cidat) for updated versions of Impacto Texto software.

8.1 INSTALLATION

To install the ImpactoDOS program in your PC, insert the CD-ROM, go to the directory *\Impacto\Impacto Texto\ImpactoDOS* and execute *INSTALL.EXE*.

When the installation program boots up, use the *Installation path* text box to enter the full path (drive and directory) to where you want to install the Impacto program. For instance, if you want to install the program in a directory named *Impacto* in drive C, type:

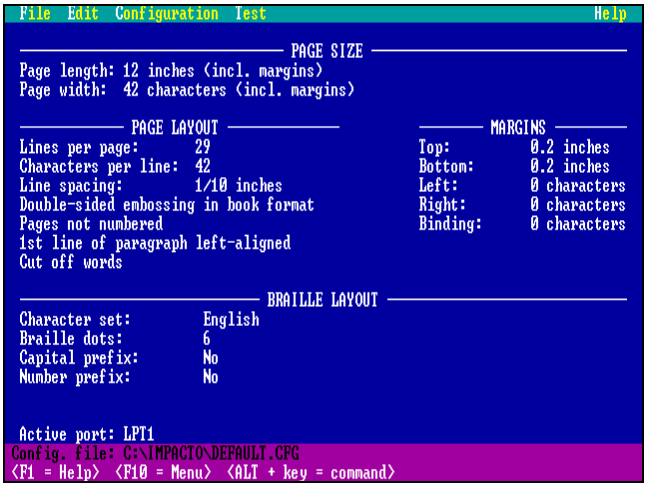
```
C:\IMPACTO
```

Once the software is installed, all you have to do to execute the application is to open the directory where it is installed and type *IMPACTO*.

8.2 APPLICATION ENVIRONMENT

The main ImpactoDOS screen is divided into three areas:

- The top of the screen displays the pull down menu bar. These menus contain all the options for using and configuring the embosser.
- The middle area of the screen shows all the information on the current embosser configuration, i.e., the parameters that will be used to emboss any file selected for embossing.
- The status bar is at the bottom of the screen. It shows the configuration file presently loaded, along with a brief description of the option on the menu bar that is currently highlighted.



ImpactoDOS main menu screen

The program can be operated with either the keyboard or the mouse. If you use the mouse, left click on the screen elements. To use the keyboard, consult the table below for keys and functions:

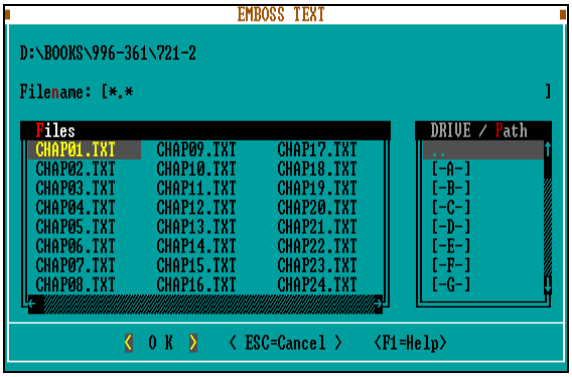
KEY	FUNCTION
Arrow keys	Highlight different menu options. Move the dot from one option to another in groups of option buttons.
Page Up and Page Down	Move the screen one page forward or backward in a list of options.
Tab	Moves the insertion point to the next option in a dialog box.
Shift + tab	Moves the insertion point to the preceding option in a dialog box.
Enter	Selects the option specified Presses the button selected.
Esc	Cancels changes and closes dialog box or menu.
Alt + KEY	Selects the option on the menu whose highlighted letter coincides with the key pressed.
Space	Inserts or deletes a check mark in a check box.

The application also has several keyboard shortcuts for speedy access to certain program options. These shortcuts use the function keys either alone or in combination with the *Shift* and *Control* keys. The key combinations for the different functions are shown to the right of each on the pull down menus.

The program features a help function as well. For a detailed description of any program function, press *F1* and a help window will be displayed containing information on the dialog box selected, along with links to other help pages. Use the mouse or the *Page up* and *Page down* keys to move around the help screen, the *Tab* key to change the reference item and the *Enter* key to display the text corresponding to the reference item selected.

8.3 EMBOSSING TEXT

To emboss text using the Impacto application, select the *File → Emboss text* option. Then type in the path (if necessary) and the name of the file to be embossed in the *Filename* field. You may also select the file with the aid of the *Drive / Path* and *Files* boxes. Now press the *OK* button.

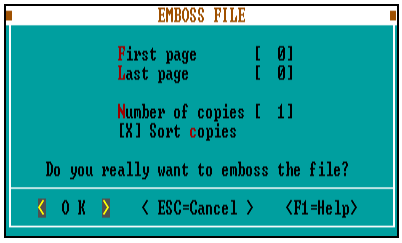


Emboss text dialog box

Now the *Emboss file* dialog box will be displayed. If you do not want to emboss the entire file, specify the first and last pages to be embossed.

Also type in the number of copies you want and specify whether they should be sorted. If the *sort copies* check-box is on, the first copy of the full document will be embossed at a time, then the second full copy, the third, and so on. If *sort copies* is off, first all the copies of the first sheet of the document will be embossed at a time followed by all the copies of the second sheet, then the third, and so on.

Then press *OK*. The screen will display the following message: *Transmitting data to embosser!* Shortly thereafter the embosser will begin to emboss the file to the options defined on the main screen.



Emboss file dialog box

Text may also be embossed with the Impacto without having to open the environment screen. This is done from the command line, typing the following command:

```
IMPACTO Filename
```

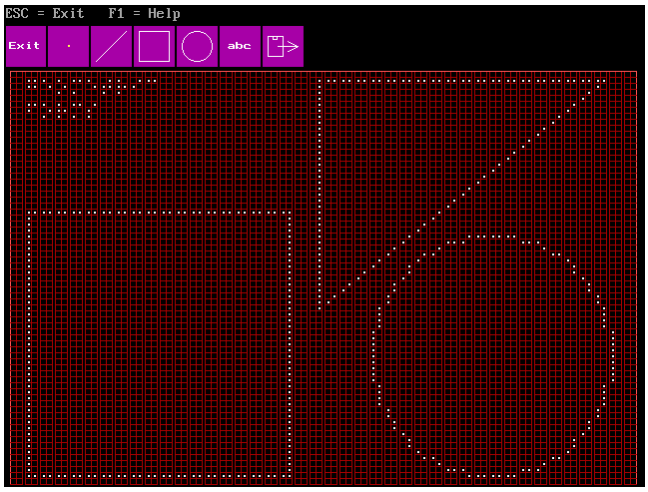
This command sends the file specified for embossing directly, using the default options.

8.4 CREATING AND EMBOSSING GRAPHICS

The Impacto Texto embosser has a mode for embossing graphics generated using Braille characters up to 84 dots wide by 130 dots high.

ImpactoDOS has a simple graphics editor to create and edit graphics in Braille format. Use the *Edit → Create new graphic* option to create a graphic.

A graphics environment will be displayed, with a grid of up to 84x130 dots depending on the paper size, which can be used to draw any type of graphic. The icons at the top of the screen are for drawing and deleting dots and simple geometric shapes or inserting Braille text.



ImpactoDOS graphic editor

These icons, with their respective functions and instructions on how to use them, are shown below:

Inserts and deletes dots on the screen. Click on an empty cell to add a dot. Click on a cell with a dot to delete it.

Draws a line. Click the start point and then drag the pointer to the stop point. Click again to fix the line on the grid.

Draws a square or rectangle. Click a cell to establish the start corner. If you left click the mouse will draw a rectangle and if you right click it will draw a square. Then drag the pointer to the cell where you want to place the opposite corner, and click again to fix the figure on the grid.

Draws a circle or oval. Click the cell to define where the centre of the figure will be. If you left click, the mouse will draw an oval, whereas if you right click it will draw a circle. Then drag the mouse to define the radius and click to fix the figure on the grid.

Inserts text with the keyboard. Several lines can be inserted. Press ESC to return to the normal graphics mode after entering the text.

Inserts text from a text file. When you click on a drawing, a dialog box will open that will enable you to browse for the file containing the text to be inserted in the drawing. Then drag the text to the position where you want it to appear and click to fix the text on the grid.

When you finish creating or modifying a drawing, press *ESC* or click the *Exit* icon. The *Save graphic* dialog box will be displayed, from which you can store the graphic for subsequent embossing or re-editing.

To modify a pre-existing graphic, select *Edit → Edit graphics*.

To emboss graphics go to the option *File → Emboss graphics*, select the file to be embossed and enter the number of copies you need.

8.5 TEXT PREVIEW

The ImpactoDOS program features an option that shows you exactly what your documents will look like on paper. To use it, go to *File → Text preview*.

Then select the type of preview you prefer, *ASCII* or *Braille*. If you choose ASCII, the text will display on the screen as normal text. If you choose Braille, the text will appear on the screen with Braille characters.

In both cases, the text displayed is a sample of what will be embossed on the page. The lines and pages are laid out as shown, the number and capital prefixes are shown, as well as page numbers if enabled, etc.

Don't forget that in ASCII previews, the ASCII code page loaded in the system affects the appearance of the characters displayed.

ASCII format preview

Similarly, in the Braille preview the Braille characters are shown according to the Braille character set selected. In this case, the screen display is an exact replica of what will be embossed on paper.

Preview of the same text in Braille format

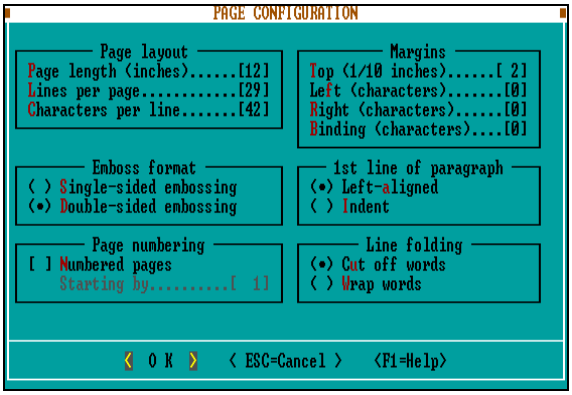
Use of the text preview option is highly recommended to detect possible flaws before embossing a document, particularly if it is lengthy. This may prevent having to re-do embossing jobs, with the concomitant savings in time and paper.

8.6 CONFIGURATION OPTIONS

All the embosser configuration parameters may be modified with the ImpactoDOS program. You may change the size of the page, margins, choose the Braille character set, enable or disable prefixes, and so on. You may also change the language used in the application environment and spoken messages. All these options can be found in the *Configuration* pull-down menu on the menu bar.

You may also save your configurations in special files that can later be retrieved.

8.6.1 *Page configuration* dialog box



Page configuration menu dialog box

This dialog box contains the following options:

Page layout

- **Page length:** Specifies the page length in inches. Upper and lower limits are 6 and 13 inches, respectively.
- **Lines per page:** Number of lines that will be embossed on each page. The minimum is 1 and the maximum depends on the page length. If the number of lines entered does not fit on the page, the setting will automatically adjust to the maximum possible.
- **Characters per line:** Establishes the maximum number of characters that will be embossed on each line, including margins and binding. The maximum number depends on the paper width, with a ceiling of 42 characters. If the number entered does not fit on the page, an error message will be displayed on the Impacto before embossing begins.

English

Emboss format

- **Single-sided embossing:** The document will be embossed on only one side of the paper.
- **Double-sided embossing:** The document will be embossed on both sides of the paper.

Page numbering

- **Numbered pages:** If you want the embosser to automatically number the pages on your emboss jobs, enable this option. The numbers are embossed on the upper right corner of the page. Bear in mind that the page number takes up a full line.
- **Starting by:** This option, only valid if the pages numbered option is enabled, defines the number appearing on the first page embossed.

Margins

- **Top:** Specifies the space, expressed in tenths of an inch, between the top of the page and the first line of dots.
- **Left:** Specifies the space between the left edge of the embossable surface and the first column of dots. This value is given in number of Braille characters.
- **Right:** Same as for the left margin but referred to the space between the right edge and the last column of dots.
- **Binding:** Space, on the left on odd pages and on the right on even pages, in addition to the margin, for binding. The binding, like the left and right margins, is expressed in number of characters.

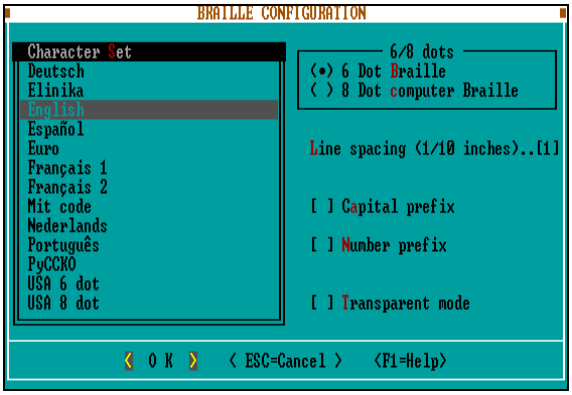
1st line of paragraph

- **Left-aligned:** If this option is enabled, the first line is embossed as shown on the original document.
- **Indent:** If this option is enabled, the first line of each paragraph is indented two characters to the right of the rest of the paragraph.

End of line

- **Cut off words:** The words that do not fully fits at the end of the line are cut off at the last character that fits and the rest of the word is embossed on the following line.
- **Wrap words:** Words that do not fully fit on the line are embossed on the following line.

8.6.2 *Braille configuration* dialog box



Braille configuration menu dialog box

Character set

This table shows the character sets presently installed in the application. You may choose the Braille character set you wish to use to emboss your documents from this list box. See section 8.7 for instructions on how to add or modify character sets.

6/8 dots

Select the option for the number of dots you want the Braille characters to have. If you choose 6 dots, the characters will be embossed in literary Braille and if you enable the 8-dot option, the characters will be embossed in "computer Braille".

This choice, of course, affects the number of lines that will fit on a page.

Line spacing

Specifies the space, in tenths of an inch, between two lines of text. The upper and lower limits are 0 and 3, respectively.

Capitalization prefix

If you enable this option, a special character will precede all capital letters in your documents. This prefix character may be defined using the *Edit → Edit character set* option.

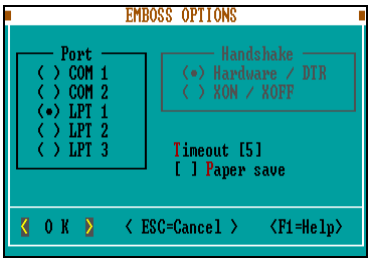
Number prefix

When this option is enabled, a special character will precede all numbers in your documents. This prefix character may be defined using the *Edit → Edit character set* menu.

Transparent mode

Enable this option if you want to emboss in transparent mode. Since the character set is irrelevant in transparent mode, when this option is enabled the character set selection box, as well as the capital and number prefix options, are disabled. See section 10.3 for further information on transparent mode embossing.

8.6.3 *Emboss options* dialog box



Emboss options menu dialog box

Port

Select the embosser connection port. Don't forget that once you work with the Impacto, it must be reset to change the communications port.

Handshake

If you connect the embosser to the RS-232 port, you may choose one of the two data flow control options available on the Impacto.

Timeout

This option tells the embosser how many seconds it should wait after no further data are received before automatically finishing the emboss job in progress.

Paper save

When this option is enabled, the embosser saves one page in each emboss job.

The embossing head on the Impacto Texto is so large that the first page of each emboss job comes out blank. To avoid this, the Impacto Texto has a feature to save paper.

When this feature is enabled, the embosser pauses when it reaches the last page of the document in progress and the yellow led comes on. This last page of the document is not embossed until a new emboss job is sent to the Impacto.

If you are not going to emboss any more documents, press the *Form feed* button on the embossing module to finish the emboss job in progress and cut the paper.

> **Note:** Don't forget that when the yellow led on the embossing module is on, this means that not all the dots have been embossed; do not cut the paper or turn the Impacto off when the yellow light is on, because the emboss job is not finished and your document is still incomplete.

8.6.4 *Send configuration to embosser* option

When you choose this option on the configuration menu, the Impacto program will send all the parameter settings to the embosser.

This option is unnecessary when embossing from the program itself, since the application automatically sends all the configuration parameters to the Impacto before sending the emboss job. The purpose of this option is to configure the embosser from a program that does not support Impacto options.

If you enable the *Save configuration in embosser* option, the configuration settings received will be saved, even after it is turned off. Therefore, even though you send documents from a program that does not support the Impacto, you need not re-configure the embosser each time you intend to use it, but only when you want to change a setting. If you disable this option the settings sent to the embosser will only be effective until the embosser is turned off.

8.6.5 *Set default values* option

This option restores the program configuration to the settings in the *DEFAULT.CFG* configuration file.

8.6.6 Configuration files

The ImpactoDOS program lets you create files with the configurations you use most often; in other words, it saves having to modify all the settings one by one.

To save a configuration file, enter the settings you want to save and select *File → Save configuration* if you want to overwrite the configuration file presently in use, or select *File → Save configuration as* if you wish to create a new configuration file. In the latter case a dialog box will be displayed to name the new configuration file.

Subsequently, you can retrieve the configuration saved simply by opening the *Load configuration* dialog box from the *File* menu and selecting the configuration file of your choice. The status bar on the main screen shows the configuration file presently in use.

The configuration that ImpactoDOS always loads when the application is booted is in a file named *DEFAULT.CFG*. If you want the ImpactoDOS program to start up with other default settings, save them in the above file.

Don't forget that these files are for the ImpactoDOS program only and the not the embosser per se, which continues to emboss with the configuration last used until a new command is received.

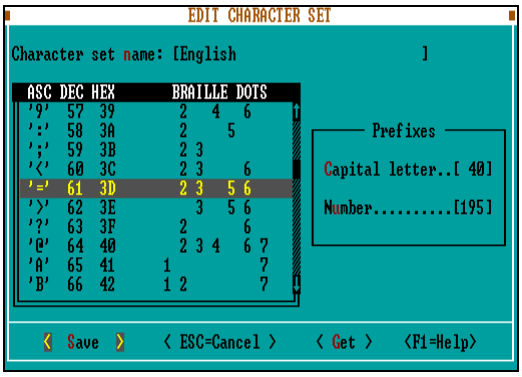
8.7 CREATING AND MODIFYING CHARACTER SETS

The Impacto Texto has four basic Braille character sets: Spanish, English, MIT and German. These four sets are write-protected and cannot be modified.

But the Impacto accommodates the addition of new character sets, as many as you like, which can be modified. The embosser comes with several language character sets that may be modified at your discretion.

8.7.1 Editing a character set

If none of the character sets installed on the embosser suits your needs, you can create your own. To do so, go to the *Edit* menu and select *Edit character set*.



Edit character set dialog box

Character set name

This box displays the name of the character set you are editing. This is the name that appears in the character set window on the *Braille configuration* dialog box. You can choose a name at your discretion with a maximum of 30 characters, blank spaces included.

List of characters

This window displays a list of the 256 ASCII characters and their respective Braille codes. To modify a character, scroll up or down the list of characters, select the character to be changed and press the *Enter* key or double click on it.

Capital letter

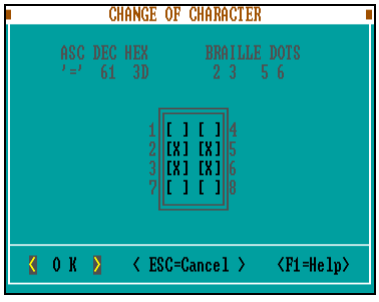
This option specifies the number of the character used as a prefix for capital letters, if the respective option is enabled.

Number

This option specifies the number of the character used as a prefix for numbers, if the respective option is enabled.

8.7.2 Modifying a character

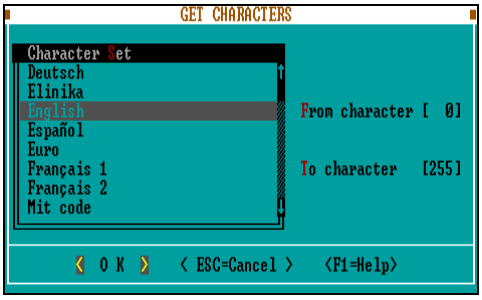
When you select a character to modify, a window will be displayed that lets you change the status of the points for that character. If you wish to enable a dot, check the respective checkbox; if you wish to disable it, leave the checkbox blank. When you finish, press *OK*.



Change of character window

8.7.3 Importing characters from another character set

You may also import characters from other sets to your own, using the *Get* button. In the window displayed, select the character set from which you wish to import characters and use the *From character* and *To character* fields to define the range of characters to be imported.



Get characters window

8.7.4 Saving a character set

When you finish modifying all the characters you want to change, save the character set using the *Save* button.

If you wish to replace the current character set, save the file with the same name by simply pressing the *Save* button. If you wish to create a new character set, change the name of the character set and the file before saving it.

The Impacto must be on line to save a character set in the embosser. Don't forget that protected character sets cannot be overwritten.

File name

This field is to name the file in which the character set will be saved on the hard disk. You can choose a name at your discretion, with a maximum of 8 characters and subject to DOS system file name rules. The program assigns the file extension (CHR).

Overwrite protection

When this option is selected, the character set is protected against possible modifications. No changes made in a protected character set can be saved, although the modifications may be made and the character set saved under a different name.

8.8 EMBOSS TEST

The two options for checking proper operation of the embosser hammers are on the *Test* menu. If you find that a dot is missing in your emboss jobs, it may be due to a faulty hammer. These two options enable you to locate the defective hammers and replace them, as well as to check for proper connection of new hammers.

8.8.1 Hammer test

This test enables you to readily determine if any of the embosser hammers is faulty and if so, to locate it quickly.

The test consists of an embossed page with dots on both sides, arranged in exactly the same order as the embosser hammers. If any dot is missing –there should be 8 rows with 21 dots each– on the page, your embosser has a faulty hammer. See section 11.2 for detailed instructions on how to replace defective hammers.

8.8.2 Connection test

This test enables you to check whether the hammers are connected in the right order. See section 11.2.4 on page 81 of this manual for further information.

Chapter 9

ImpactoWin program

Your Impacto Texto embosser comes with a program for the Windows environment that enables you to completely configure the embosser, emboss texts and graphics, create graphics, create and modify character sets, etc.

The present chapter contains a detailed explanation of how to use this application.

Note: All the options referred to in this chapter as well as the pictures correspond to the latest version of the application available when this manual went to print. A later version may have since been released, however. See our web site (www.once.es/cidat) for updated versions of Impacto Texto software.

You will not be able to emboss with the ImpactoWin program unless an Impacto embosser is installed in your Windows operating system, because ImpactoWin uses the Impacto embosser driver. If no Impacto embosser is installed in your system, install one now. See Chapter 7 for instructions on how to install or configure the embosser driver.

9.1 INSTALLATION

To Install the ImpactoWin program in your PC, insert the CD-ROM provided with the embosser, open the folder *\Impacto\ImpactoWin\English* and execute *Setup.exe*.

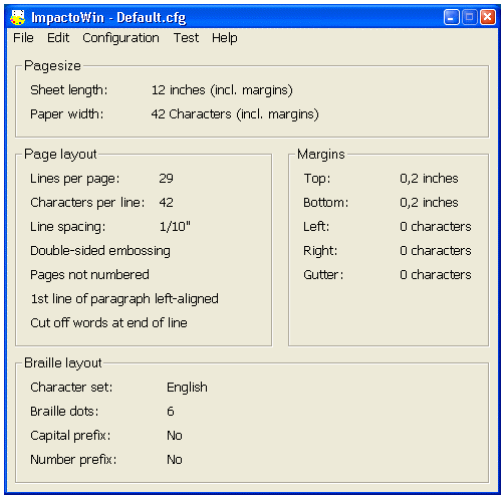
The installation program will display a dialog box on which you must choose the folder where you want to install the application. Then you will be asked to name the program folder and finally whether the installation data are correct. After you confirm, the installation program will proceed to install all application components.

9.2 APPLICATION ENVIRONMENT

The main ImpactoWin screen is divided into two areas.

The pull down menu bar is displayed at the top of the screen. These menus contain all the options for using and configuring the embosser. Most of the application options also have keyboard shortcuts. The key or key combination is shown to the right of each option.

The rest of the screen shows all the information on the current embosser configuration, i.e., the parameters that will be used to emboss any file selected for embossing.



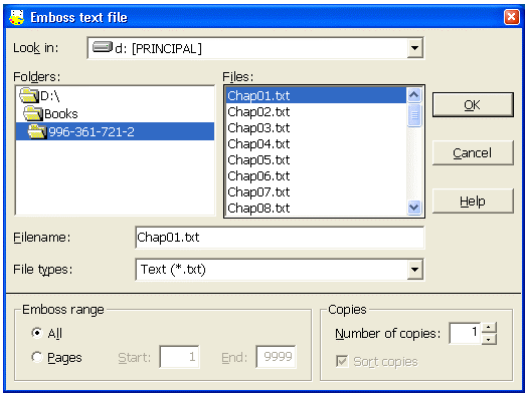
Main screen, ImpactoWin application

The program features a help function as well. For a detailed description of any program function, press *F1* and a help window will be displayed containing information on the dialog box selected, along with links to other help pages.

> ⚠ **Important:** ImpactoWin can only be used if you have an Impacto embosser installed in Windows. If no Impacto embosser is installed in your operating system, ImpactoWin will display an error message.

9.3 EMBOSSING TEXT

To emboss text using the Impacto application, select the *File → Emboss text* option or the *F2* keyboard shortcut. Then type in the path on the field at the top of the screen (if necessary) and the name of the file to be embossed in the *Filename* field. You may also select the file with the aid of the *Search*, *Folder* and *Files* boxes.



Emboss text file dialog box

If you do not want to emboss the entire file, select the *Pages* option in the *Emboss pages* box and specify the first and last pages to be embossed in the *Start* and *End* fields.

Also type in the number of copies you want and specify whether they should be sorted. If the *sort copies* check-box is on, the first copy of the full document will be embossed at a time, then the second full copy, the third, and so on. If *sort copies* is off, first all the copies of the first sheet of the document will be embossed at a time followed by all the copies of the second sheet, then the third, and so on.

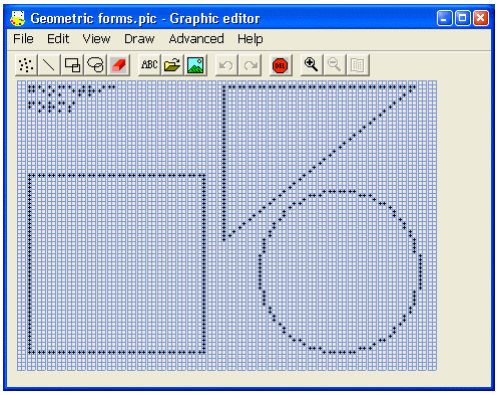
Then press *OK*. Shortly thereafter the embosser will begin to emboss the file to the options defined on the main screen.

9.4 CREATING AND EMBOSSING GRAPHICS

The ImpactoWin application has a simple graphics editor to create and edit graphics. Use the *Edit → Graphic editor* option or the *F5* keyboard shortcut to create a graphic.

With the graphic editor, you may create a new graphic or retrieve a graphic saved on some previous occasion. All these options are in the *File* menu. To create a new graphic go to *File → New graphic*.

A graphics environment will be displayed, with a grid of up to 84x130 dots depending on the paper size, which can be used to draw any type of graphic.



ImpactoWin graphic editor

All the functions may be selected in the tool bar located on the top of the window.

The buttons and their respective functions are shown below:

Inserts and deletes dots on the screen. Click on the button and then on an empty cell to add a dot. Click on a cell with a dot to delete it. Drag the pointer to draw a line of dots. Click on a cell with a dot to delete it.

Draws a line. Click on the button and then the start point drag and then the pointer to the stop point. Release the pointer to fix the line on the grid.

Draws a rectangle. Click on the button and then on a cell to establish the start corner and drag the pointer to the cell where you want to place the opposite corner. Release the pointer to fix the rectangle on the grid. Use the right button on the mouse to draw a square.

Draws a circle or oval. Click the button and then the cell where the centre of the figure will be. Drag the pointer to establish the radius. Release the pointer to fix the figure on the grid. Use the right button on the mouse to drag the button if you want to draw a circle.

Deletes dots. Click a cell that contains a dot to delete it. To delete a line of dots, drag the pointer across the respective cells.

Inserts text with the keyboard. Select the place where you want to insert text. You may use several lines. Press ESC to return to the normal graphics mode after entering the text.

Inserts text from a text file. Click the icon and the cell that marks the position of the upper left corner of the text. A dialog box will be displayed that will allow you to choose the file you want to insert.

Imports a graphic in BMP, JPG, GIF, CUR, ICO, WMF, EMF or DIB format and converts it to a Braille dot graphic. This button opens a dialog box where you can select the graphic file and adjust the contrast before inserting the graphic.

Undoes the last action. This button undoes the last operation performed on the graphics grid, reverting to the previous status. You may undo as many actions as you wish.

Redoes the last operation cancelled with the undo button. This option is only enabled when the "undo" operation has been used on the graphic. You may redo as many actions as have been undone.

This icon deletes the entire content of the graphic you're working on. You will be asked to confirm this action.

Enlarges the graphic. It magnifies the area of the graphic to visualise and work in greater detail. You may enlarge the graphic up to a magnifying power of 16:1.

Shrinks the graphic. It has the opposite effect of a magnifying glass, reducing the graphic previously enlarged to see more of the graphic.

See whole graphic. This button adjusts the zoom to normal size (1:1).

When you finish creating or modifying a drawing, go to *File → Save graphic as*. *The Save graphic as* dialog box will be displayed, from which you can store the graphic for subsequent embossing or re-editing.

To modify a pre-existing graphic, select *File → Open graphic (Impacto format)*.

To emboss graphics in Impacto format, go to *File → Emboss graphics* in the ImpactoWin application, select the file to be embossed and enter the number of copies you need.

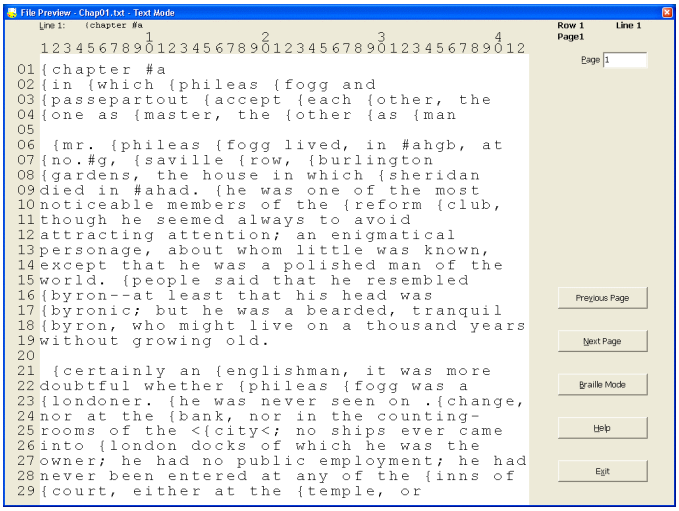
You may also edit a graphic in Braille format (consisting of Braille characters), modify it from the graphic editor, and save it in Impacto format. In this case use the *File → Open graphic (Braille format)* option.

9.5 TEXT PREVIEW

The Impacto program features an option that shows you exactly what your documents will look like on paper. To use it, go to *File → Text preview* or press *Shift + F2*.

A window will be displayed to select the file text you wish to preview. After you select the document, the screen will display an image of a page of document text, exactly as it will appear on paper.

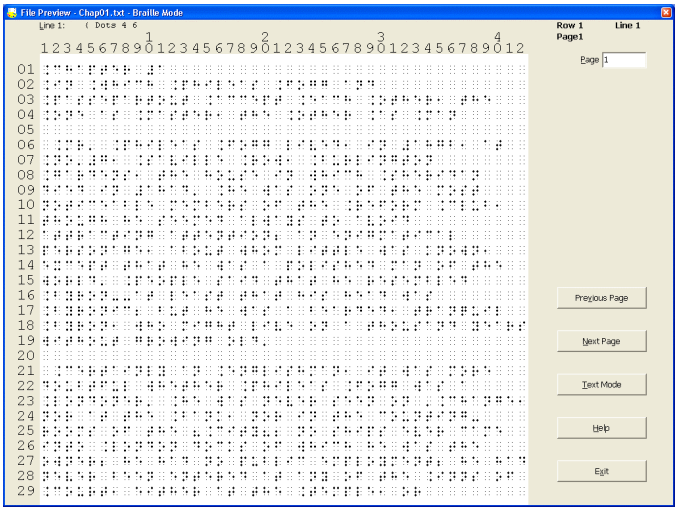
In text preview, the lines and pages of a document are laid out exactly as they will be on the embossed page, the number and capital prefixes are shown, as well as page numbers if enabled, etc.



Text preview of a text in text mode

You may visualise all the pages of a document. To move from page to page, use the *Previous page* and *Next page* buttons or the *Page up* and *Page down* keys. Or you may enter the page number you want to visualise in the *Page* field.

You may also change to the Braille preview mode. Here the characters are shown as Braille dots in the Braille alphabet character set chosen. In this case, the screen display is an exact replica of what will be embossed on paper.



Text preview of the same text in Braille mode

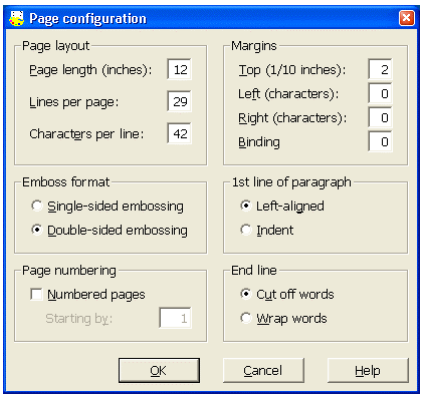
Use of the text preview option is highly recommended to detect possible flaws before embossing a document, particularly if it is lengthy. This may prevent having to re-do embossing jobs, with the concomitant savings in time and paper.

9.6 CONFIGURATION OPTIONS

All the embosser configuration parameters may be modified with the ImpactoWin program. You may change the size of the page, margins, choose the Braille character set, enable or disable prefixes, and so on. You may also change the language used in the application environment and spoken messages. All these options can be found in the *Configuration* pull-down menu on the menu bar.

You may also save your configurations in special files that can later be retrieved.

9.6.1 *Page configuration* dialog box



Page configuration menu dialog box

This dialog box contains the following options:

Page layout

- **Page length:** Specifies the sheet length in inches. Upper and lower limits are 6 and 13 inches, respectively.
- **Lines per page:** Number of lines that will be embossed on each page. The minimum is 1 and the maximum depends on the page length. If the number of lines entered does not fit on the page, the setting will automatically adjust to the maximum possible.
- **Characters per line:** Establishes the maximum number of characters that will be embossed on each line, including margins and binding. The maximum number depends on the paper width, with a ceiling of 42 characters. If the number entered does not fit on the page, an error message will be displayed on the Impacto before embossing begins.

Emboss format

- **Single-sided embossing:** The document will be embossed on only one side of the paper.
- **Double-sided embossing:** The document will be embossed on both sides of the paper.

Page numbering

- **Numbered pages:** If you want the embosser to automatically number the pages on your emboss jobs, enable this option. The numbers are embossed on the upper right corner of the page. Bear in mind that the page number takes up a full line.

- **Starting by:** This option, only valid if the number pages option is enabled, defines the number appearing on the first page embossed.

Margins

- **Top**: Specifies the space, expressed in tenths of an inch, between the top of the page and the first line of dots.
- **Left**: Specifies the space between the left edge of the embossable surface and the first column of dots. This value is given in number of Braille characters.
- **Right:** Same as for the left margin but referred to the space between the right edge and the last column of dots.

> **Note:** ImpactoWin deduces the bottom margin from the other configuration parameters (page length, lines per page, line spacing, top margin and number of dots programmed in the Braille sign).

- **Binding:** Space, on the left on odd pages and on the right on even pages, in addition to the margin, for binding. The gutter, like the left and right margins, is expressed in number of characters.

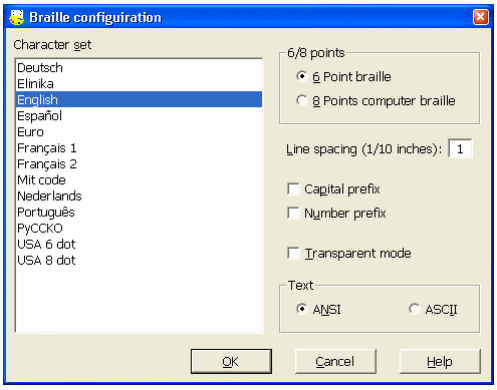
1st line of paragraph

- **Left-aligned:** If this option is enabled, the first line is embossed as shown on the original document.
- **Indent:** If this option is enabled, the first line of each paragraph is indented two characters to the right of the rest of the paragraph.

End line

- **Cut off words:** The words that do not fully fits at the end of the line are cut off at the last character that fits and the rest of the word is embossed on the following line.
- **Wrap words:** Words that do not fully fit on the line are embossed on the following line.

9.6.2 *Braille configuration* dialog box



Braille configuration menu dialog box

Character set

You may choose the Braille character set you wish to use to emboss your documents from this list box. See section 9.7 for instructions on how to add or modify character sets.

6/8 dots

Select the option for the number of dots you want the Braille characters to have. If you choose 6 dots, the characters will be embossed in "literary Braille" and if you enable the 8-dot option, the characters will be embossed in "computer Braille".

This choice, of course, affects the number of lines that will fit on a page.

Line spacing

Specifies the space, in tenths of an inch, between two lines of text. The upper and lower limits are 0 and 3, respectively.

Capital prefix

If you enable this option, a special character will precede all capital letters in your documents. This prefix character may be defined using the *Edit → Edit character set* option.

Number prefix

When this option is enabled, a special character will precede all numbers in your documents. This prefix character may be defined using the *Edit → Edit character set* menu.

Transparent mode

Enable this option if you want to emboss in transparent mode. Since the character set is irrelevant in transparent mode, when this option is enabled the character set selection box, as well as the capitalisation and number prefix options, are disabled. See section 10.3 for further information on transparent mode embossing.

9.6.3 *Paper save* option

When this option is enabled, the embosser saves one page in each emboss job.

The embossing head on the Impacto Texto is so large that the first page of each emboss job comes out blank. To avoid this, the Impacto Texto has a feature to save paper.

When this feature is enabled, the embosser pauses when it reaches the last page of the document in progress and the yellow led comes on. This last page of the document is not embossed until a new emboss job is sent to the Impacto.

If you are not going to emboss any more documents, press the *Form Feed* button on the embossing module to finish the emboss job in progress and cut the paper.

> ⚠ **Important:** Don't forget that when the yellow led on the embossing module is on, this means that not all the dots have been embossed; do not cut the paper or turn the Impacto off when the yellow light is on, because the emboss job is not finished and your document is still incomplete.

9.6.4 *Send configuration to embosser* option

When you choose this option on the configuration menu, ImpactoWin will send all the parameter settings to the embosser.

This option is unnecessary when embossing from the program itself, since the application automatically sends all the configuration parameters to the Impacto before sending the emboss job. The purpose of this option is to configure the embosser from a program that does not support Impacto options.

If you enable the *Save configuration in embosser* option, the configuration settings received will be saved, even after it is turned off. Therefore, even though you send documents from a program that does not support the Impacto, you need not re-configure the embosser each time you intend to use it, but only

when you want to change a setting. If you disable this option the settings sent to the embosser will only be effective until the embosser is turned off.

9.6.5 *Set default settings* option

This option restores the program configuration to the settings in the *DEFAULT.CFG* configuration file.

9.6.6 Configuration files

ImpactoWin lets you create files with the configurations you use most often; in other words, it saves having to modify all the settings one by one.

To save a configuration file, enter the settings you want to save and select *File → Save configuration* if you want to overwrite the configuration file presently in use, or select *File → Save configuration as* if you wish to create a new configuration file. In the latter case a dialog box will be displayed to name the new configuration file.

Subsequently, you can retrieve the configuration saved simply by opening the *Load configuration* dialog box from the *File* menu and selecting the configuration file of your choice. The status bar on the main screen shows the configuration file presently in use.

The configuration that Impacto software always loads when the application is booted is in a file named *DEFAULT.CFG*. If you want the Impacto program to start up with other default settings, save them in the above file.

9.7 CHARACTER SETS

The Impacto Texto has four basic Braille character sets: Spanish, English, MIT and German. These four sets are write-protected and cannot be modified.

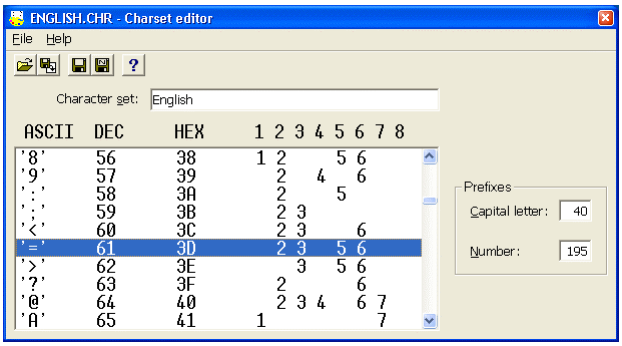
But the Impacto accommodates the addition of new character sets, as many as you like, which can be modified. The embosser comes with several language character sets that may be modified at your discretion.

9.7.1 Editing a character set

If none of the character sets installed on the embosser suits your needs, you can create your own. To do so, go to the *Edit* menu and select *Edit character set* or press *F4*.

A list of the 256 characters in the character set will appear, with their respective ASCII representation, decimal number, hexadecimal number and Braille code.

To modify a character, scroll up or down the list of characters to select the character to be changed and press the *Enter* key or double click on it.



Character set editor

At the top of the window there is a series of buttons that you can use to open a character set, import characters from another set or save the character set.

The following options also appear:

Capital prefix

This option specifies the number of the character used as a prefix for capital letters, if the respective option is enabled.

Number prefix

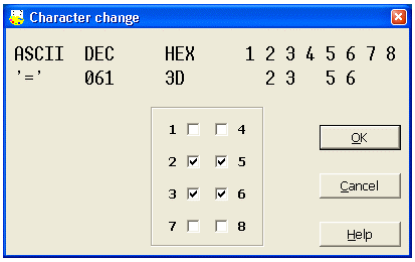
This option specifies the number of the character used as a prefix for numbers, if the respective option is enabled.

Character set

This box displays the name of the character set you are editing. This is the name that appears in the character set window on the *Braille configuration* dialog box. You can choose a name at your discretion with a maximum of 30 characters, blank spaces included.

9.7.2 Modifying a character

When you select a character to modify, a window will be displayed that lets you change the status of the points for that character. If you wish to enable a dot, check the respective checkbox; if you wish to disable it, leave the checkbox blank. When you finish, press *OK*.

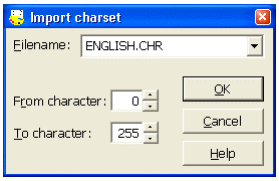


Character change window

9.7.3 Importing characters from another character set

You may also import characters from other sets to your own using the *Import character set* option on the *File* menu or pressing the respective button on the toolbar.

Select the character set from which you wish to import characters in the window displayed and define the range of characters you wish to import by entering the first character in the *From character* field and the last in the *To character* field.



Import character set window

9.7.4 Saving a character set

When you finish modifying all the characters you want to change, save the character set. If you wish to replace the current character set, save the file with the same name by simply pressing the *Save* button. If you wish to create a new character set, select *Save as* to change the name of the character set.

You may also enable the *Overwrite protection* checkbox to protect the character set against possible modification. No changes made in a protected character set can be saved, although the modifications may be made and the character set saved under a different name.

The Impacto embosser must be on line to save a character set in the embosser.

9.8 EMBOSS TEST

The two options for checking proper operation of the embosser hammers are on the *Test* menu. If you find that a dot is missing in your emboss jobs, it may be due to a faulty hammer. These two options enable you to locate the defective hammers and replace them, as well as to check for proper connection of new hammers.

9.8.1 Hammer test

This test enables you to readily determine if any of the embosser hammers is faulty and if so, to locate it quickly.

The test consists of an embossed page with dots on both sides, arranged in exactly the same order as the embosser hammers. If any dot is missing –there should be 9 rows with 21 dots each– on the page, your embosser has a faulty hammer. See section 11.2 for detailed instructions on how to replace defective hammers.

9.8.2 Connection test

This test enables you to check whether the hammers are connected in the right order. See section 11.2.4 on page 81 of this manual for further information.

Chapter 10

Control commands

10.1 BASIC CONTROL COMMANDS

Two types of characters are sent to the embosser: normal and control.

Normal characters are any that, when received, prompts the embosser to punch a series of Braille sign dots on the paper, as defined by the character set in use.

Control characters, in turn, are not embossed on the paper, but fulfil a specific purpose. The control commands for the Impacto Texto are as follows.

Control commands

ASCII	Dec	Hex	Function
HT	09	09	Tab
LF	10	0A	Line feed
FF	12	0C	Form feed
CR	13	0D	Ignored
SUB	26	1A	End of document
ESC	27	1B	Escape sequence

10.2 ESCAPE SEQUENCES

Escape sequences are a special group of characters interpreted by the Impacto Texto as control codes that serve to configure the embosser.

They constitute a string of one or more characters that is always preceded by the Escape command (27).

The Escape sequences appear at the beginning of an embossing job (except **"ESC T"** and **"ESC @"**), preceding the first character to be embossed. They may affect subsequent jobs, even after the embosser is turned off.

If an ESC command is followed by a non-valid escape sequence, the sequence is ignored. Two consecutive ESC commands are treated like an ESC data byte.

The following is a full list of escape sequences accepted by the Impacto Texto. They must be entered exactly as shown, with no spacing between characters and no carriage returns at the end unless otherwise indicated.

The meanings of the parameters shown in italics are as follows:

c = Alphanumerical character

b = Binary. 0 = No. 1 = Yes.

n = Number. Any integer from 0 to 32767.

s = String of text.

Full list of Impacto Texto escape sequences

ASCII	Decimal	Hexadecimal	Function
<ESC> "	27 34	1B 22	German character set
<ESC> #	27 35	1B 23	USA-MIT character set
<ESC> $	27 36	1B 23	English character set
<ESC> %	27 37	1B 24	Spanish character set
<ESC> (	27 40	1B 28	ASCII mode
<ESC>)	27 41	1B 29	Transparent mode
<ESC> *	27 42	1B 2A	6-dot matrix
<ESC> +	27 43	1B 2B	8-dot matrix
<ESC> . *c*	27 46 *c*	1B 2E *c*	Page length in inches *
<ESC> / *c*	27 47 *c*	1B 2F *c*	Line spacing in tenths of an inch
<ESC> 0 *c*	27 48 *c*	1B 30 *c*	Characters per line *
<ESC> 1 *c*	27 49 *c*	1B 31 *c*	Lines per page *
<ESC> 2	27 50	1B 32	Wrap words
<ESC> 3	27 51	1B 33	Cut off words

English

ASCII	Decimal	Hexadecimal	Function
<ESC> 4	27 52	1B 34	XON/XOFF
<ESC> 5	27 53	1B 35	DTR
<ESC> @	27 96	27 60	Reset embosser
<ESC> P	27 80	1B 50	One-sided embossing
<ESC> Q	27 81	1B 51	Double-sided embossing(interpoint)
<ESC> T	27 84	1B 54	End of embossing job
<ESC> , C P *b* <LF>	27 44 67 80 *b* 10	1B 2C 43 50 *b* 0A	Use capital prefix
<ESC> , C S *s* <LF>	27 44 67 83 *s* 10	1B 2C 43 53 *s* 0A	Character set
<ESC> , E P *n* <LF>	27 44 69 50 *n* 10	1B 2C 45 50 *n* 0A	Number of last page to emboss
<ESC> , F P *n* <LF>	27 44 70 80 *n* 10	1B 2C 46 50 *n* 0A	Start numbering at
<ESC> , G U *n* <LF>	27 44 71 85 *n* 10	1B 2C 47 55 *n* 0A	Gutter
<ESC> , H T *n* <LF>	27 44 72 84 *n* 10	1B 2C 48 54 *b* 0A	Hammer test *
<ESC> , I N *b* <LF>	27 44 73 78 *b* 10	1B 2C 49 4E *b* 0A	Indent 1st line of paragraph
<ESC> , L G *n* <LF>	27 44 76 71 *n* 10	1B 2C 4C 47 *n* 0A	Language for spoken messages *
<ESC> , M B *n* <LF>	27 44 77 66 *n* 10	1B 2C 4D 42 *n* 0A	Bottom margin in tenths of an inch
<ESC> , M L *n* <LF>	27 44 77 75 *n* 10	1B 2C 4D 4C *n* 0A	Left margin in characters
<ESC> , M R *n* <LF>	27 44 77 82 *n* 10	1B 2C 4D 52 *n* 0A	Right margin in characters
<ESC> , M T *n* <LF>	27 44 77 84 *n* 10	1B 2C 4D 54 *n* 0A	Top margin in tents of an inch
<ESC> , N C *n* <LF>	27 44 78 67 *n* 10	1B 2C 4E 43 *n* 0A	Number of copies
<ESC> , N P *b* <LF>	27 44 78 80 *b* 10	1B 2C 4E 50 *b* 0A	User number prefix
<ESC> , P M *b* <LF>	27 44 80 77 *b* 10	1B 2C 50 4D *b* 0A	Embossing mode *
<ESC> , P N *b* <LF>	27 44 80 78 *b* 10	1B 2C 50 4E *b* 0A	Number pages
<ESC> , P I *b* <LF>	27 44 80 73 *n* 10	1B 2C 50 49 *n* 0A	Parameter influence *
<ESC> , P S *b* <LF>	27 44 80 83 *b* 10	1B 2C 50 53 *b* 0A	Save paper
<ESC> , S C *b* <LF>	27 44 83 67 *b* 10	1B 2C 53 43 *b* 0A	Collate copies *
<ESC> , S M *b* <LF>	27 44 83 77 *b* 10	1B 2C 53 4D *b* 0A	Error report
<ESC> , S P *n* <LF>	27 44 83 80 *n* 10	1B 2C 53 50 *b* 0A	Number of first page to emboss
<ESC> , T O *n* <LF>	27 44 84 79 *n* 10	1B 2C 54 4F *n* 0A	Timer

* See detailed explanation below

Valid codes for page length (ESC .)

Page length	6	7	8	9	10	11	12	13
ASCII character	6	7	8	9	:	;	<	=
Decimal number	54	55	56	57	58	59	60	61
Hexadecimal number	36	37	38	39	3A	3B	3C	3D

Valid codes for number of characters per line (ESC 0)

Characters per line	12	13	14	15	16	17	18	19	20	21	22	23	24	25	26	27
ASCII character	<	=	>	¿	@	A	B	C	D	E	F	G	H	I	J	K
Decimal number	60	61	62	63	64	65	66	67	68	69	70	71	72	73	74	75
Hexadecimal number	3C	3D	3E	3F	40	41	42	43	44	45	46	47	48	49	4A	4B

Characters per line	28	29	30	31	32	33	34	35	36	37	38	39	40	41	42
ASCII character	L	M	N	O	P	Q	R	S	T	U	V	W	X	Y	Z
Decimal number	76	77	78	79	80	81	82	83	84	85	86	87	88	89	90
Hexadecimal number	4C	4D	4E	4F	50	51	52	53	54	55	56	57	58	59	5A

Valid codes for number of lines per page (ESC 1)

Lines per page	12	13	14	15	16	17	18	19	20	21	22	23	24	25	26	27
ASCII character	<	=	>	¿	@	A	B	C	D	E	F	G	H	I	J	K
Decimal number	60	61	62	63	64	65	66	67	68	69	70	71	72	73	74	75
Hexadecimal number	3C	3D	3E	3F	40	41	42	43	44	45	46	47	48	49	4A	4B

Lines per page	28	29	30	31	32	33	34	35	36	37	38	39	40	41	42	43
ASCII character	L	M	N	O	P	Q	R	S	T	U	V	W	X	Y	Z	[
Decimal number	76	77	78	79	80	81	82	83	84	85	86	87	88	89	90	91
Hexadecimal number	4C	4D	4E	4F	50	51	52	53	54	55	56	57	58	59	5A	5B

Hammer test (ESC,HT)

This sequence can be used for both hammer tests. The values are:

0 → Hammer status test.

1 → Hammer connection test.

Message language (ESC,LG)

This escape sequence specifies the language in which the embosser will emit spoken messages. The values allowed are:

0 → Spanish

1 → English

Parameter influence (ESC,PI)

This escape sequence can be used to specify which jobs will be affected by the escape sequences sent with this command. Regardless of the setting used for this sequence, the escape sequences **"ESC)", "ESC,EP", "ESC,HT" "ESC,NC", "ESC,PM",** and **"ESC,SP"** will only affect the present job.

0 → Will only affect the present job.

1 → Will affect all the jobs until the embosser is reset.

2 → Will affect all jobs even after the embosser is reset.

Emboss mode (ESC,PM)

This command tells the embosser what kind of data it is going to receive.

0 → The Impacto goes into text embossing mode.

1 → The embosser will emboss the next job as a graphic.

50 → Means that a character set is being sent (CHR).

100 → Means that the data sent are Impacto software update files.

101 → Means that the data sent are system update files.

110 → Request for the version number of the embosser software. When the Impacto receives this order, it sends the versions of the PC internal software and the embosser module firmware.

Collate copies (ESC,SC)

0 → Multiple copies of each page are embossed together, in other words, first all the copies of the first sheet of the document are embossed – on one or two sides – followed by all the copies of the second sheet, then the third, and so on.

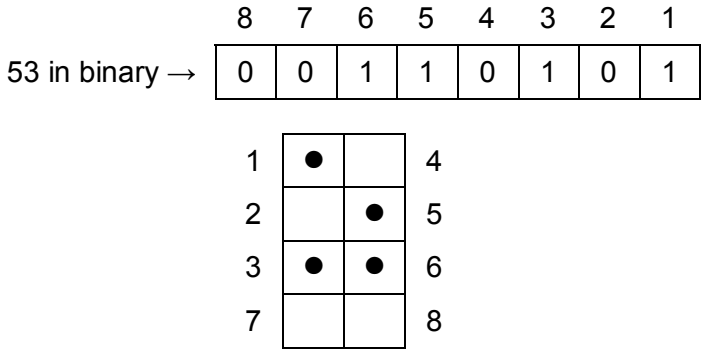
1 → The document is embossed one full copy at a time, i.e., the first copy of the full document is embossed, then the second full copy, the third, and so on.

10.3 TRANSPARENT EMBOSSING

In transparent mode, the Impacto embosses each character in accordance with its value on the ASCII table, so that the Braille character dots whose bit corresponds to the active character code are the ones embossed. The bit with the least weight in the character (i.e., the bit on the extreme right) corresponds to dot 1 on the full sign whilst the bit with the greatest weight (i.e., on the extreme left) corresponds to dot 8 on the Braille sign.

Note: Automatic prefix options are disabled when the embosser is in transparent mode.

For example, if the embosser receives the character '5', whose code on the ASCII table is 53 (00110101 in binary), the Impacto Texto will emboss the symbol 'z' (dots 1, 3, 5 and 6 on the Braille sign.



A series of commands perform certain actions when the embosser is in transparent mode. These commands consist of 2 bytes, the first of which is always ESC whilst the second may be any of the characters in the following table.

Transparent mode commands

ASCII	Dec	Hex	Function
HT	09	09	Ignored
LF	10	0A	Line feed
FF	12	0C	Form feed
CR	13	0D	Ignored
SUB	26	1A	Ignored
ESC	27	1B	Emboss an ESC

Chapter 11

Maintenance

The Impacto Texto calls for very little routine maintenance, other than the upkeep specified below. In the event of failure or damage, the embosser should be repaired by our own engineers.

> ⚠ **Important:** This embosser has a two-year warranty. Please read the terms of the warranty set out in appendix III.3. The guarantee will not be valid if security labels are removed, replaced, broken or damaged.

11.1 CLEANING THE EMBOSSER

After long embossing jobs, paper shavings may stick to the embossing module.

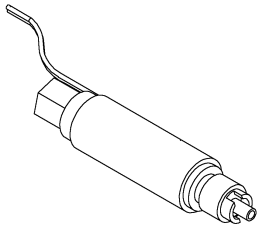
When this happens, open the door to the embossing unit and clean the hammer area with the brush provided in the maintenance bag or with a vacuum cleaner.

> ⚠ **Important:** Be sure to turn the embosser off before cleaning. The hammers should never be cleaned with compressed air.

The dust or smudges on the small sensor on the right embosser tractor should be wiped off with a soft clean cloth. Open the flap on the roller to access the sensor.

11.2 REPLACING A FAULTY HAMMER

When a column of dots is missing in your printouts, the most likely cause is a faulty hammer that should be replaced.



Drawing of an embosser hammer

> ⚠ **Important:** Replacing a faulty hammer involves working on the inside of the embossing module. This operation should only be performed by qualified staff.

11.2.1 Locating a faulty hammer

To ascertain whether a hammer is flawed, run the hammer test from the ImpactoDos or ImpactoWin application. When you conduct the test, all the dots will appear on the paper just as they are arranged in the Impacto Texto embossing area.

The following figure shows a diagram of the result of the hammer test. The dots labelled 1 correspond to the hammers that emboss the front side of the paper (embossing module door) and the ones labelled 2 to the hammers that emboss the back-side (body of the embossing module).

If any of the hammers is not working, there will be an empty space where the respective test dot should be.

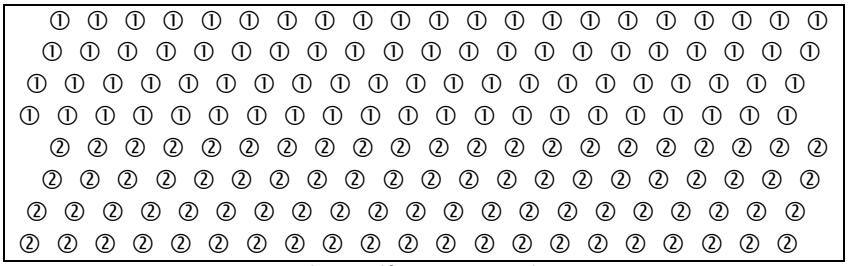


Diagram of **hammer test** results

Using the page with the hammer test results like a template, place it over the embossing area to locate the faulty hammer. Once located, mark it and proceed to replace it with one of the spare hammers provided, following the instructions set out below.

11.2.2 Replacing a front side hammer

1. Turn the main switch off.
2. Remove the doorknob by loosening the bolt on the inside of the door with the help of the wrench supplied in the maintenance bag.
3. To remove the door leaf, loosen the two screws at the bottom of the door by hand. Three or four full turns should suffice. Then grab the bottom and pull first outward and then upward.
4. Loosen the faulty solenoid by turning it clockwise with the special screwdriver provided in the maintenance bag.
5. Mark the wiring and the pin positions and then disconnect the hammer.
6. Position the new hammer by turning it counter-clockwise. Tighten it with the special screwdriver. Never apply a wrench to the plastic body of the hammer.
7. Connect the hammer wires in their respective positions. Take special care to wire them properly.
8. Put the door leaf back on the embossing unit and tighten the screws at the bottom.
9. Re-position the doorknob and tighten the inside bolt.
10. Re-run the hammer test and make sure that all hammers are now in proper working order.

11.2.3 Replacing a back side hammer

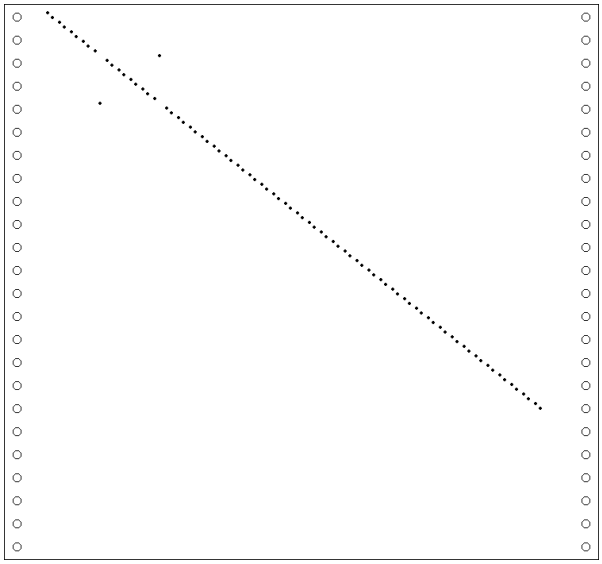
1. Turn the main switch off.

2. Unplug the fans at the top of the console.
3. Withdraw the upper part of the console.
4. Remove the screws on the back cover of the embossing unit and lift the cover off the unit.
5. Loosen the faulty solenoid by turning it clock-wise with the special screwdriver provided in the maintenance bag.
6. Mark the wiring and the pin positions and then disconnect the hammer.
7. Position the new hammer by turning it counter-clockwise. Tighten it with the special screwdriver. Never apply a wrench to the plastic body of the hammer.
8. Connect the hammer wires in their respective positions. Take special care to wire them properly.
9. Place the rear cover back on the embossing unit and tighten the screws.
10. Put the upper part of the console back in place.
11. Plug the side fans back in.
12. Re-run the hammer test and make sure that all hammers are now in proper working order.

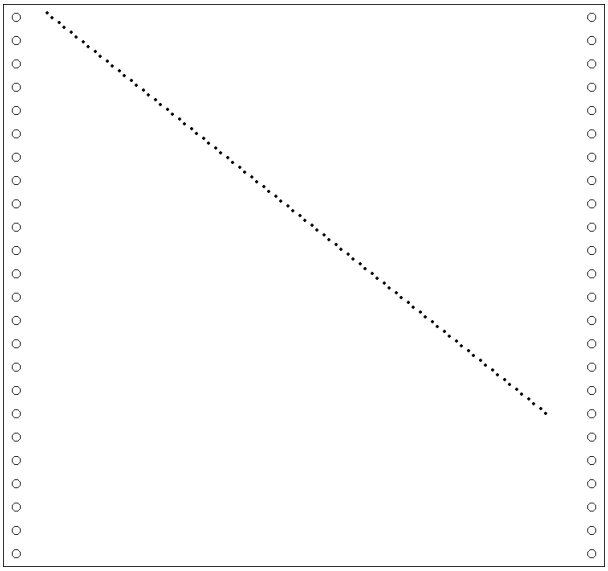
11.2.4 Checking connections

If a hammer is not properly wired when replaced, printouts will be flawed. To ensure that all hammers are connected as they should be, run this hammer connection test from the Impact application for MS-DOS or Windows, or from the Windows printer driver.

The result should be two (slightly staggered) diagonal lines, one on each side of the paper. If any of the dots falls outside the line, it is because the connections of two or more hammers have been switched.



Result of front side connection test, in which the
connections for hammers 10 and 20 have been switched.



Result of rear connection test, in which all hammers are properly wired.

11.3 REPLACING AN EMBOSSING PIN

The embossing pins are the small semi-spherical steel male dies that the hammers strike to form dots.

These pins become worn with use and must be replaced. If the contour of any of the dots is blurred or flawed, the respective embossing pin may be worn.

11.3.1 Locating a worn embossing pin

Run the hammer test from the ImpactoDOS or ImpactoWin application to locate the embossing pin for a given dot.

When you conduct the test, all the dots will appear on the paper just as they are arranged in the Impacto Texto embossing area.

The following figure shows a diagram of the result of the hammer test. The dots labelled 2 correspond to the hammers that emboss the backside of the paper (body of the embossing module) and the ones label1ed 1 to the hammers that emboss the front side (embossing module door).

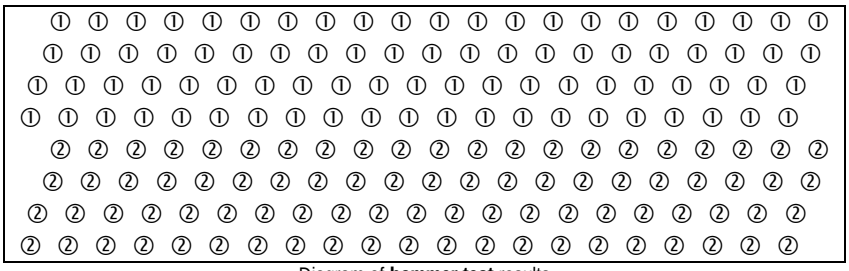


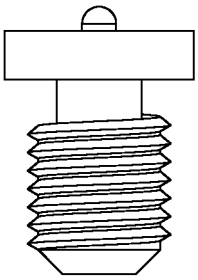
Diagram of **hammer test** results

Then set the hammer test sheet over the embossing area, matching the dots on the paper to the embossing pins. After the worn pin is located, mark it and replace it with a new one as specified in the following section.

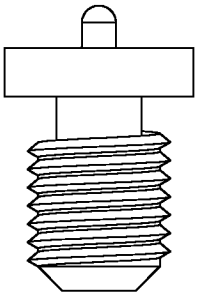
11.3.2 Replacing a worn embossing pin

Use the special screwdriver supplied in the embosser maintenance bag to remove the worn embossing pin. Lock the spanner in the holes on the embossing pin and turn it counter-clockwise until it comes completely off.

Then take a new pin from the spare parts bag. There are two types of pins, depending on whether they go in the body or the door of the embossing unit. The pins positioned on the door are a little longer than the ones in the embossing module.



Front side embossing pin



Back side embossing pin

Place the pin in the space left by the one removed and tighten it clockwise with the special screwdriver until it locks in place.

11.4 REPLACING A FUSE

The Impacto Texto has a total of 6 fuses, located on the power supply unit, the embossing module and the console. If any of these fuses blows, replace it with a new one from the set of spare fuses supplied with the embosser.

> ⚠ **Important:** When you replace a fuse, make sure that the new fuse is for the same characteristics as the one removed. Using the wrong type of fuse may severely damage the embosser.

11.4.1 Console fuses

These two fuses are housed in a fuse block located next to the main switch and the embosser power inlet at the rear of the console.

> ⚠ **Important:** The console fuse block may be set in two different positions depending on the voltage for which the embosser is prepared. Check the position before removing it.

Before removing the fuse block **unplug the embosser power cord**. Then insert a flat screwdriver in the slot at the top and push the fuse block forward to release it; then pull outward.

There are two cylindrical fuses, one on each side of the fuse block. The fuse on the side with the 220-240 V mark (white triangle) is a 20x5-mm 3.15 A, 250 V quick-break fuse. The fuse on the side with the 110-120 V mark is a 32x6 mm 6.3 A, 250 V fuse.

Check which of the two fuses is blown and replace it.

When putting the fuse block back in place make sure you put it in the right position (see section 2.6 of the manual). Lock the fuse block back into place and turn the embosser back on.

11.4.2 Power supply unit fuses

If the blown fuse is in the power supply unit, you must first unscrew and remove the rear console cover. The power supply unit does not have to be removed for this operation, since the fuse block is in plain sight.

The unit has two cylindrical quick-break 32x6.3 mm 6.3 A, 250 V fuses. They are housed in a fuse block next to the main switch on the unit. To remove it, press the fuse block flap and pull outward. Replace the blown fuse and put the fuse block back in place, pushing it in until you hear it click.

It is recommendable to check the embosser for proper operation before putting the console cover back on.

11.4.3 Fan fuses

A fuse located on the power supply unit protects the fans located on the sides of the console. If the fans don't come on when the embosser is turned on, it may be because this fuse has blown.

To replace this cylindrical 20x5 mm 1 A, 250 V slow-blow fuse, remove the console cover over the power supply unit. The fuse is located just underneath the power outlet for the fans (see section 1.4.3).

To remove the fuse turn the fuse block counter-clockwise and take out the blown fuse. Place a new fuse in the block, set the block back in place and turn clockwise until it locks at place. Finally, put the cover back on the console.

11.4.4 Embossing module fuse

Use the plastic tweezers supplied in the tool bag to remove this fuse. This is a 10-A automatic fuse. To position the new fuse, simply push it in until it locks into the space provided.

Chapter 12

Trouble shooting

Having trouble with the Impacto? Read below:

- If the embosser doesn't seem to turn on, or it turns on but doesn't come on line and doesn't respond (no spoken messages, no response from any of the buttons), see section 12.1.
- If the embosser comes on line and responds when the control buttons are pressed (it comes on and off line and the paper feeds), but it doesn't emboss, see section 12.2.
- If the Impacto embosses when it receives a job but the printout is apparently flawed or isn't what you were expecting, see section 12.3.

These sections contain a series of checklist questions. If the reply to the question is affirmative, read the text to the right of "YES"; otherwise, read the text to the right of "NO".

Begin at question 1 and keep reading until you find the answer that solves your problem. If you don't find the solution below, call your vendor for assistance.

12.1 IMPACTO TEXTO FAILS TO RESPOND

1. Is the green light next to the main switch on the console on?

YES Go to point 2.

NO Make sure the power cord plugs are firmly connected to both the mains and the embosser.

Make sure the switch is in the ON position.

Make sure the mains outlet is powered.

Check the two main fuses next to the switch (see section 11.4.1).

2. **Is the green led on the power supply unit on?**

YES Go to point 3.

NO Make sure the power supply unit power cord is firmly plugged in at both ends.

Make sure the unit on/off switch is ON.

Check the two power supply unit fuses (see section 11.4.2).

3. **Is the yellow led on the side of the embossing module on?**

YES Go to point 4.

NO Check both plugs on the cable between the power supply unit and the embossing module for good connections.

4. **Do the leds on the front side of the embosser flash on and off?**

YES Got to point 5.

NO Check both plugs on the cable between the power supply unit and the embossing module for good connections.

Check the mechanical module fuse (see section 11.4.4).

5. **Does the Impacto-PC beep when it is turned on?**

YES Go to point 6.

NO Make sure the Impacto-PC is connected and the PC power cord is firmly plugged in at both ends.

Make sure that the PC off/on switch is in the ON position.

Make sure the voltage converter for the PC power supply unit is in the right position (see section 2.6).

6. **Is the *On line* led on?**

YES The embosser is ready for operation.

NO Make sure the Centronics cable is plugged into the PC parallel port and the Centronics connector on the embossing module.

Check the Impacto-PC start-up sequence. First, remove the cover at the rear of the console to access the PC and plug a monitor into the PC's VGA out port. Check the PC for normal boot-up.

7. **Is the "Embosser ready" message heard over the loudspeaker?**

   YES The embosser is ready for operation.

   NO Check the loudspeaker cable. First remove the cover at the rear of the console to access the PC and check whether the loudspeaker's 3.5-mm jack is plugged into the Impacto-PC sound card out port.

12.2 IMPACTO TEXTO FAILS TO EMBOSS

1. **Have you checked to see if the embosser is ready?**

   YES Go to point 2.

   NO Go to section 12.1.

2. **Does the form feed advance during embossing?**

   YES Go to point 4.

   NO Go to point 3.

3. **Are you receiving a message over the embosser's loudspeaker?**

   YES Solve the problem referred to in the message and continue to emboss. For further information on embosser errors, see Chapter 5 of the manual.

   If the embosser detects a paper jam and the problem persists, go to point 4.

   NO Go to point 5.

4. **Does the green led on the side of the embosser fail to come on while the Impacto detects a paper jam before starting to emboss?**

   YES Check the fuse in the mechanical module (see section 11.4.3).

   The temperature inside the power supply unit may have exceeded 50ºC. Under these circumstances, the unit pauses for safety reasons. Wait for the unit to cool off and then continue embossing.

   NO Go to point 5.

5. **Are you using the computer's parallel port?**

   YES Check the Centronics cable connections at computer ports LPT1, LPT2 or LPT3 on the one hand and the embosser's Centronics connector on the other.

   Make sure that the parallel port number in the application you're using matches the number of the port that the Impacto is plugged into.

   NO Check the RS-232 cable connections to computer ports COM1 or COM2 port at one end and the embosser's RS-232 connector at the other.

   Make sure that the serial port number in the application you're using matches the number of the serial port that the Impacto Texto is plugged into.

6. **Can you run the hammer test?**

   YES Reset the embosser (see section 4.3.4) and try to emboss the document again.

   NO The hammer impact pressure knobs may be set too low for the kind of paper you're using, so the dots don't show. Turn both knobs up.

12.3 FAULTY EMBOSSING

1. **Are the dots too faint?**

   YES The knobs that regulate the height of the Braille dots are set too low. Turn the knobs up to an optimum value.

   Check the embossing pins. If any are overly worn, replace them (see section 11.3).

   NO Go to point 2.

2. **Does the embosser raise the dots too high, perhaps even perforating the paper?**

   YES The knobs that regulate the height of the Braille dot are too high for the type of paper. Turn the knobs down as necessary.

   NO Go to point 3.

3. **Is the paper torn?**

   YES One or several of the hammers may be faulty, causing it/them to jam. Run the hammer test to locate the hammer that's ripping the paper

(see section 11.2.1) and make sure that it rebounds as it should. Replace the hammer (see sections 11.2.2 and 11.2.3).

NO Go to point 4.

4. Do you use the RS-232 interface?

YES Check the port configuration (9600 bauds, no parity bit, 8 data bits and one stop bit).

Make sure the serial port on your PC is working properly.

NO Make sure the Centronics cable is no longer than the recommended 3 metres.

5. Does none of the characters emboss as it should and are there no line breaks?

YES Make sure you're not embossing in transparent mode.

NO Go to point 7.

6. Are some of the Braille characters coming out wrong?

YES You're not using the character set for your language. Select the right character set. If you don't find an appropriate set, you can create your own. For more information on Braille character sets, see section 8.7. If you're using a preformatted Braille text, disable the "use prefix" options.

Run the hammer test and make sure none of the hammers is faulty (see section 11.2.1).

Run the connections test and check all connections (see section 11.2.4).

NO Go to point 7.

7. Is the text format wrong?

YES The embosser formats the text as specified in the default settings and, if it receives them, the settings in the driver program. If you're embossing a text pre-formatted in Braille, you have to adjust the embosser settings to coincide with the text parameters and disable any options that may be redundant, such as the use of prefixes and page numbers. Instructions on how to configure the Impacto Texto can be found in Chapter 6.

NO Go to point 8.

8. Does the Impacto emboss the whole document?

YES Embosser is operating properly.

NO If you're not using the Impacto application, you have to send the end of job control command (ESC T) or enable the timer so the Impacto will automatically finalise the embossing job.

Appendix I

Code pages in MS-DOS

The MS-DOS operating system features a series of code pages that enable you to configure the system in the language of your choice. The code pages determine how each character is displayed on the screen. What characters look like on the screen depends on the page loaded in your system.

Each code page consists of 256 characters, numbered from 0 to 255 (0 to FF in hexadecimal code). The first 128 characters constitute the standard ASCII code and are the same on all pages. The rest, comprising extended ASCII code, may vary from one page to the next.

Note: In ASCII code, the first 32 characters are control codes and therefore not embossable. The Impacto Texto, however, only has 6 control codes; the rest are embossable characters. See section 10.1 for the Impacto Texto control codes.

Consequently, the way one and the same text document in MS-DOS (or in an MS-DOS window in Windows) is displayed may vary depending on the code table loaded in the system, if the document contains extended ASCII code characters.

Use the *MODE* command to change the code loaded in your system.

Please note that although the code pages determine the appearance of a character on the screen, they have no effect on embosser printouts. To change

the appearance of embossed characters, you must modify the embosser character sets (see Chapter 8).

I.1 MOST COMMON PAGES

The code page tables with the most common character sets are given below.

To find the value of a given character in both decimal and hexadecimal code, add the values in the respective row and column. For instance, if you want to know the decimal value of the character '{' on page 850, add the value at the bottom of the respective column (112) to the number at the end of the row (11). The result, 123 (112 + 11 = 123) is the decimal code number for that character. Find the hexadecimal value the same way, but using the hexadecimal row and column reference values (left and top, respectively).

Code page 437. USA.

Hex	0	10	20	30	40	50	60	70	80	90	A0	B0	C0	D0	E0	F0	
0		▶		0	@	P	`	p	Ç	É	á	░	└	╨	α	≡	0
1	☺	◀	!	1	A	Q	a	q	ü	æ	í	▒	┴	╤	ß	±	1
2	☻	↕	"	2	B	R	b	r	é	Æ	ó	▓	┬	╥	Γ	≥	2
3	♥	‼	#	3	C	S	c	s	â	ô	ú	│	├	╙	π	≤	3
4	♦	¶	$	4	D	T	d	t	ä	ö	ñ	┤	─	╘	Σ	⌠	4
5	♣	§	%	5	E	U	e	u	à	ò	Ñ	╡	┼	╒	σ	⌡	5
6	♠	‾	&	6	F	V	f	v	å	û	ª	╢	╞	╓	µ	÷	6
7	•	↨	´	7	G	W	g	w	ç	ù	º	╖	╟	╫	τ	≈	7
8	◘	↑	(	8	H	X	h	x	ê	ÿ	¿	╕	╚	╪	Φ	°	8
9	○	↓	)	9	I	Y	i	y	ë	Ö	⌐	╣	╔	┘	Θ	•	9
A	◙	→	*	:	J	Z	j	z	è	Ü	¬	║	╩	┌	Ω	·	10
B	♂	←	+	;	K	[	k	{	ï	¢	½	╗	╦	█	δ	√	11
C	♀	∟	,	<	L	\	l	|	î	£	¼	╝	╠	▄	∞	n	12
D	♪	↔	-	=	M	]	m	}	ì	¥	¡	╜	═	▌	ø	²	13
E	♫	▲	.	>	N	^	n	~	Ä	₧	«	╛	╬	▐	ε	■	14
F	☼	▼	/	?	O	_	o	⌂	Å	ƒ	»	┐	╧	▀	∩		15
	0	16	32	48	64	80	96	112	128	144	160	176	192	208	224	240	Dec

English

Code page 850. Multilingual (Latin).

Hex	0	10	20	30	40	50	60	70	80	90	A0	B0	C0	D0	E0	F0	
0		▶		0	@	P	`	p	Ç	É	á	░	└	ð	Ó	-	0
1	☺	◀	!	1	A	Q	a	q	ü	æ	í	▒	┴	Ð	ß	±	1
2	☻	↕	"	2	B	R	b	r	é	Æ	ó	▓	┬	Ê	Ô	‗	2
3	♥	‼	#	3	C	S	c	s	â	ô	ú	│	├	Ë	Ò	¾	3
4	♦	¶	$	4	D	T	d	t	ä	ö	ñ	┤	─	È	õ	¶	4
5	♣	§	%	5	E	U	e	u	à	ò	Ñ	Á	┼	ı	Õ	§	5
6	♠	¯	&	6	F	V	f	v	å	û	ª	Â	ã	Í	µ	÷	6
7	•	↨	´	7	G	W	g	w	ç	ù	º	À	Ã	Î	þ	¸	7
8	◘	↑	(	8	H	X	h	x	ê	ÿ	¿	©	╚	Ï	Þ	°	8
9	○	↓	)	9	I	Y	i	y	ë	Ö	®	╣	╔	┘	Ú	¨	9
A	◙	→	*	:	J	Z	j	z	è	Ü	¬	║	╩	┌	Û	·	10
B	♂	←	+	;	K	[	k	{	ï	ø	½	╗	╦	█	Ù	¹	11
C	♀	∟	,	<	L	\	l	|	î	£	¼	╝	╠	▄	ý	³	12
D	♪	↔	-	=	M	]	m	}	ì	Ø	¡	¢	═	¦	Ý	²	13
E	♫	▲	.	>	N	^	n	~	Ä	×	«	¥	╬	Ì	¯	■	14
F	☼	▼	/	?	O	_	o	⌂	Å	ƒ	»	┐	¤	■	´		15
	0	16	32	48	64	80	96	112	128	144	160	176	192	208	224	240	Dec

Code page 852. Slavic (Latin II).

Hex	0	10	20	30	40	50	60	70	80	90	A0	B0	C0	D0	E0	F0	
0		▶		0	@	P	`	p	Ç	É	á	░	└	đ	Ó	-	0
1	☺	◀	!	1	A	Q	a	q	ü	Ĺ	í	▒	┴	Đ	ß	˝	1
2	☻	↕	"	2	B	R	b	r	é	Í	ó	▓	┬	Ď	Ô	˛	2
3	♥	‼	#	3	C	S	c	s	â	ô	ú	│	├	Ë	Ń	ˇ	3
4	♦	¶	$	4	D	T	d	t	ä	ö	Ą	┤	─	ď	ń	˘	4
5	♣	§	%	5	E	U	e	u	ů	Ľ	ą	Á	┼	Ň	ň	§	5
6	♠	¯	&	6	F	V	f	v	ć	ľ	Ž	Â	Ă	Í	Š	÷	6
7	•	↨	´	7	G	W	g	w	ç	Ś	ž	Ě	ă	Î	š	¸	7
8	◘	↑	(	8	H	X	h	x	ł	ś	Ę	Ş	╚	ě	Ŕ	°	8
9	○	↓	)	9	I	Y	i	y	ë	Ö	ę	╣	╔	┘	Ú	¨	9
A	◙	→	*	:	J	Z	j	z	Ő	Ü	¬	║	╩	┌	ŕ	˙	10
B	♂	←	+	;	K	[	k	{	ő	Ť	ź	╗	╦	█	Ű	ű	11
C	♀	∟	,	<	L	\	l	|	î	ť	Č	╝	╠	▄	ý	Ř	12
D	♪	↔	-	=	M	]	m	}	Ź	Ł	ş	Ż	═	Ţ	Ý	ř	13
E	♫	▲	.	>	N	^	n	~	Ä	×	«	ż	╬	Ů	ţ	■	14
F	☼	▼	/	?	O	_	o	⌂	Ć	č	»	┐	¤	■	´		15
	0	16	32	48	64	80	96	112	128	144	160	176	192	208	224	240	Dec

English

Code page 860. Portuguese.

Hex	0	10	20	30	40	50	60	70	80	90	A0	B0	C0	D0	E0	F0	
0		►		0	@	P	`	p	Ç	É	á	░	└	╨	α	≡	0
1	☺	◄	!	1	A	Q	a	q	ü	À	í	▒	┴	╤	ß	±	1
2	☻	↕	"	2	B	R	b	r	é	È	ó	▓	┬	╥	Γ	≥	2
3	♥	‼	#	3	C	S	c	s	â	ô	ú	│	├	╙	π	≤	3
4	♦	¶	$	4	D	T	d	t	ã	õ	ñ	┤	─	╘	Σ	⌠	4
5	♣	§	%	5	E	U	e	u	à	ò	Ñ	╡	┼	╒	σ	⌡	5
6	♠	‾	&	6	F	V	f	v	Á	Ú	ª	╢	╞	╓	µ	÷	6
7	•	↨	´	7	G	W	g	w	ç	ù	º	╖	╟	╫	τ	≈	7
8	◘	↑	(	8	H	X	h	x	ê	Ì	¿	╕	╚	╪	Φ	°	8
9	○	↓	)	9	I	Y	i	y	Ê	Õ	Ò	╣	╔	┘	Θ	•	9
A	◙	→	*	:	J	Z	j	z	è	Ü	¬	║	╩	┌	Ω	·	10
B	♂	←	+	;	K	[	k	{	Í	¢	½	╗	╦	█	δ	√	11
C	♀	∟	,	<	L	\	l	|	Ô	£	¼	╝	╠	▄	∞	ⁿ	12
D	♪	↔	-	=	M	]	m	}	ì	Ù	¡	╜	═	▌	ø	²	13
E	♫	▲	.	>	N	^	n	~	Ã	₧	«	╛	╬	▐	ε	■	14
F	☼	▼	/	?	O	_	o	⌂	Â	Ó	»	┐	╧	▀	∩		15
	0	16	32	48	64	80	96	112	128	144	160	176	192	208	224	240	Dec

Code page 863. Canadian (French).

Hex	0	10	20	30	40	50	60	70	80	90	A0	B0	C0	D0	E0	F0	
0		►		0	@	P	`	p	Ç	É	¦	░	└	╨	α	≡	0
1	☺	◄	!	1	A	Q	a	q	ü	È	´	▒	┴	╤	ß	±	1
2	☻	↕	"	2	B	R	b	r	é	Ê	ó	▓	┬	╥	Γ	≥	2
3	♥	‼	#	3	C	S	c	s	â	ô	ú	│	├	╙	π	≤	3
4	♦	¶	$	4	D	T	d	t	Â	Ë	¨	┤	─	╘	Σ	⌠	4
5	♣	§	%	5	E	U	e	u	à	Ï	¸	╡	┼	╒	σ	⌡	5
6	♠	‾	&	6	F	V	f	v	¶	û	³	╢	╞	╓	µ	÷	6
7	•	↨	´	7	G	W	g	w	ç	ù	¯	╖	╟	╫	τ	≈	7
8	◘	↑	(	8	H	X	h	x	ê	¤	Î	╕	╚	╪	Φ	°	8
9	○	↓	)	9	I	Y	i	y	ë	Ö	⌐	╣	╔	┘	Θ	•	9
A	◙	→	*	:	J	Z	j	z	è	Ü	¬	║	╩	┌	Ω	·	10
B	♂	←	+	;	K	[	k	{	ï	¢	½	╗	╦	█	δ	√	11
C	♀	∟	,	<	L	\	l	|	î	£	¼	╝	╠	▄	∞	ⁿ	12
D	♪	↔	-	=	M	]	m	}	_	Ù	¾	╜	═	▌	ø	²	13
E	♫	▲	.	>	N	^	n	~	À	Û	«	╛	╬	▐	ε	■	14
F	☼	▼	/	?	O	_	o	⌂	§	ƒ	»	┐	╧	▀	∩		15
	0	16	32	48	64	80	96	112	128	144	160	176	192	208	224	240	Dec

Appendix II
Interfaces

The embosser has two inlets at the rear to connect it to a PC or any other data transmission hardware.

The larger of the two is the Centronics connector (parallel transmission) and the smaller the RS-232 connector (serial transmission). The Impacto embosser can work with either of these two interfaces. If your facility has both a parallel and a serial port free, it's preferable to use the Centronics connection, since parallel is much faster than serial transmission.

Once the embosser is receiving data through one of the two ports, the other is automatically disconnected. After the embosser is reset, both connections are ready for use until data starts to flow through one of them.

II.1 THE CENTRONICS INTERFACE

The Centronics interface transmits 8 bits (1 byte) in parallel, i.e., simultaneously.

Use a standard Centronics cable –in other words, one with a 25-pin plug on one end and a plug for a 36-pin male connector on the other– to connect the embosser to a parallel port on the PC. This cable should not be more than 3 metres long.

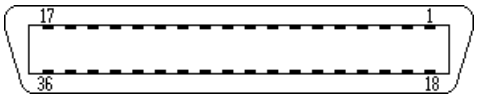


Diagram of the Centronics connector on the embosser

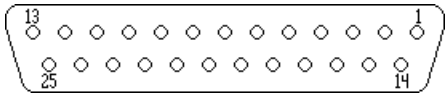


Diagram of the female DB-25 parallel port connector on a computer

Table1. Parallel Centronics cable connection between computer and embosser

Pin DB-25 (PC)	Direction	Centronics pin (embosser)	Signal type	Signal
1	→	1	–	Strobe
2-9	→	2-9	+	Data 0-7
10	←	10	–	Acknowledge
11	←	11	+	Busy
12	←	12	+	Paper End
13	←	13	+	Select In
14	→	14	–	Auto Feed
15	←	32	–	Error
16	→	31	–	Init
17	→	36	–	Select
18-25	↔	19-30, 33	+	Ground

II.2 THE RS-232/V24 INTERFACE

The RS-232 interface transmits data in series, i.e., each bit sequentially, one by one.

The embosser is equipped with a male DB-9 type connector that interfaces with the computer via a Null-modem type cable. If the computer port has 9 pins, the cable should have two female DB-9 plugs; if the computer port has 25 pins, it should have a female DB-9 plug on one end and a female DB-25 plug on the other.

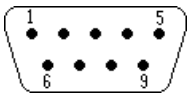


Diagram of male DB-9 connector for the RS-232 interface between the embosser and the computer

English

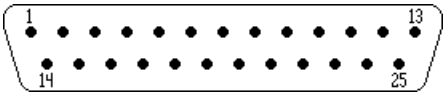


Diagram of male DB-25 connector on the computer for the RS-232 interface cable

Table2. Null modem 9-9 cable for RS-232 serial connection between computer and embosser

Signal	Pin on the PC's DB-9	Direction	Pin on the embosser's DB-9	Signal
RXD	2	←	3	TXD
TXD	3	→	2	RXD
DTR	4	→	6	DSR
GND	5	—	5	GND
DSR	6	←	4	DTR
RTS	7	→	8	CTS
CTS	8	←	7	RTS

Table3. Null modem 25-9 cable for RS-232 serial connection between computer and embosser

Signal	Pin on the PC's DB-25	Direction	Pin on the embosser's DB-9	Signal
TXD	2	→	2	RXD
RXD	3	←	3	TXD
RTS	4	→	8	CTS
CTS	5	←	7	RTS
DSR	6	←	4	DTR
GND	7	—	5	GND
DTR	20	→	6	DSR

The transmission parameters are: 9600 bauds, no parity bit, 8 data bits and 1 stop bit.

The flow control methods that can be used are *Xon / Xoff* (software) and *DTR* (hardware). You may use the Impacto program (see Chapter 8) or an escape sequence (see section 10.2) to change the flow control.

Appendix III
Specifications and standards

III.1 TECHNICAL SPECIFICATIONS

Embossing method

Hammer impact.

Paper

TYPE	Continuous, fanfold.
WEIGHT	100-175 g/m$^{2.}$
WIDTH	Up to 360 mm.
LENGTH	6-13 inches.

Embossing speed

800 double-sided pages per hour.

Buffer

1 gigabyte (RAM + hard disk).

Characters per line

Up to 42.

Line height point

0.1 inches.

Character embossing

6- and 8-dot matrix.

Character sets

Unlimited number of user-defined tables.

Interfaces

Centronics (parallel).
RS-232 (serial).

Serial data transmission

SPEED	9600 bauds.
PARITY	No.
DATA BITS	8.
STOP BITS	1.
SYNCHRONISATION	Positive DTR. Xon / Xoff.

Weight

CONSOLE	70 kg.
COVER	25 kg.
EMBOSSING MODULE	30 kg.
POWER SUPPLY UNIT	7 kg.

Dimensions

LENGTH	500 mm.
WIDTH	830 mm.
HEIGHT	1360 mm.

Noise level.

68 dB (A) with the cover on.

Electric power

115 V (±10%), 60 Hz.
220 V (±10%), 50 Hz.

Power demands

STAND-BY	50 W.
IN OPERATION	350 W.

Environmental conditions

TEMPERATURE	From 5ºC to 40ºC.
HUMIDITY	From 5% to 95%.

III.2 SAFETY AND COMPATIBILITY STANDARDS

The Impacto Texto is compliant with the following standards:

Safety

EN60950

Electromagnetic compatibility

EN55022
EN55014
EN61003-2,3
EN55024, EN61000-4-2,3,4,5,6,8

> ⚠ **Important:** This is a CLASS A equipment. In domestic environments it may cause radio interference, which may require the user to take appropriate remedial measures.

III.3 WARRANTY TERMS

The manufacturer's warranty covers any possible manufacturing or assembly flaws for two years from the date of purchase.

The warranty covers the costs of parts and labour for repairs and shipping costs from the customer's premises to our shop.

Embosser or component failure are not covered under any circumstances whatsoever if due to any of the following causes:

- Misuse.
- Inappropriate handling of embosser or components.
- Defective operation due to failure to follow the instructions in the user's manual.
- Manipulation of internal embosser parts.
- Failure caused by ill use or impact.
- Failure caused by undue connection of embosser or devices.

The warranty will not cover claims relating to any of the following:

- Embossers sent to our workshop in other than the original packaging.

- Embossers that have been repaired, modified or adapted by anyone besides the CIDAT technical service or official dealers.
- Embossers in which the model and serial number are modified, damaged or otherwise unidentifiable.
- Embossers in which the security labels are broken, missing or in poor condition.

The following consumables are not covered by the warranty:

- Embossing pins (ITX-032, ITX-033).
- Solenoids(SOL50002-C).

Glossary

CENTRONICS	Parallel interface for connection to external PC, parallel data transmission.
OFF LINE	Embosser in local mode. Cannot receive data and does not emboss.
ON LINE	Embosser on line. The Impacto is ready to receive data.
TOF	Mark indicating initial page position.
TRACTOR	Paper feed mechanism.
RS-232/V24	Interface for serial data transmission.