

Phoenix

Braille Embosser User's Manual

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INTRODUCTION

Congratulations on the purchase of your Phoenix Braille Embosser.

The following items are included in the box with your Phoenix:

- Power adapter with power cord
- USB interface cable
- Quick Setup Guide
- Product Registration Form
- CD-Rom that contains the Phoenix User Manual, Product Registration Form, Ethernet Setup Manual, and the Firebird Software Suite that includes the Firebird Graphics Editor program

We recommend that you verify that all of the items were received with your Phoenix, and that you review the Phoenix Braille Embosser User's Manual.

If you did not receive all of the above items or have questions on the operation of the Phoenix, please contact our Customer Support Group via email at support@brailleur.com.

Please be sure to complete and return the enclosed Product Registration Form at your earliest convenience.

We will use the contact information that you provide to send you notifications regarding available Firebird Graphics Editor software updates, service maintenance agreement information, as well as any other information and available updates to the Phoenix Braille Embosser.

SETTING UP THE PHOENIX

An overview of the Phoenix

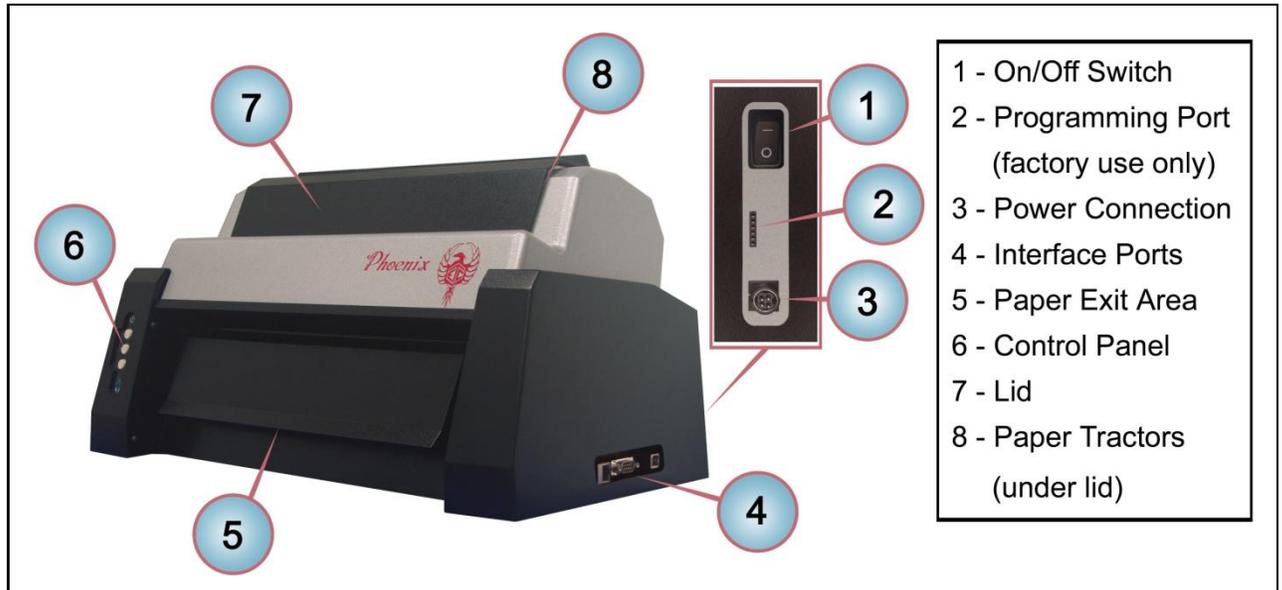


Figure 1

Figure 1 provides an overview of the location of controls and specific areas of the embosser referenced throughout this manual. For orientation purposes, the three button control panel is on the front left side of the embosser, and this should face you.

1. On/Off Switch. Facing the front of the embosser, this switch is located on the right back side of the embosser.
2. Programming Port. Facing the front of the embosser, this port is located directly below the On/Off switch. Please Note: the programming port is for factory use only.
3. Power Connection. The power connection is located directly below the programming port.
4. Interface Ports. Facing the front of the embosser, the interface ports are located on the lower right end of the embosser. From front to back, the ports are as follows: Ethernet, Serial, USB.
5. Paper Exit Area. Facing the front of the embosser, the paper exit area is the lower middle part of the embosser.
6. Control Panel. Facing the front of the embosser, the control panel is located on the left front side of the embosser.
7. Lid. Facing the front of the embosser, the lid is located in the top center of the embosser.
8. Paper Tractors. Facing the front of the embosser, the paper tractors are located under the lid.

Unpacking

First, check the embosser and accessories carefully for damage. If any damage is apparent, notify the shipper immediately. Also, check the contents against the packing list, and if you find a discrepancy, let us know as soon as possible.

IMPORTANT! Remove the cardboard shiplock (see Figure 2), and save it, along with the carton and other packing material. You will need them should you ever have to return the embosser for service.



Figure 2

Place the embosser near the front edge of a flat, stable surface with the button control panel facing you. Next, check to be sure the embosser is off by making sure the power switch is in the down position. Then, connect the power supply to the embosser by orienting the flat edge of the connector towards the left side of the embosser, where the control panel is located, gently turning the connector against the embosser's power receptacle, as needed, until it drops into place. Next, plug the grounded power cord to the power supply, and plug it into a grounded outlet. See Figure 3. (The embosser's power requirements are listed under "Electrical" in the "Technical Specifications" section later in this manual.)

IMPORTANT! The power supply's connector only fits into the embosser's power receptacle one way. Never try to force the connection. Otherwise, you could damage the connector.

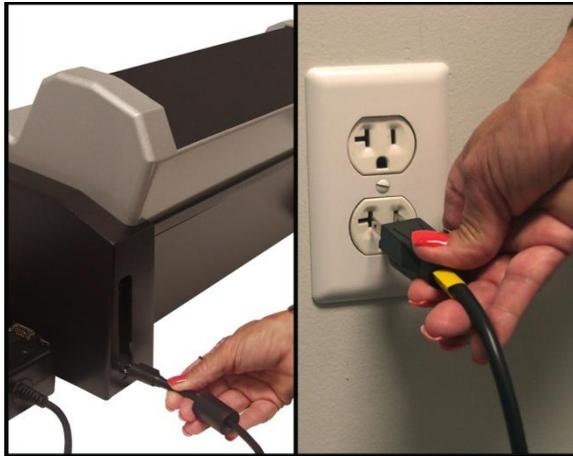


Figure 3

The Control Panel

The control panel is a small 3 button panel located on the left front side of the embosser. Each button on the control panel performs a different function. Figure 4 below shows the layout of the control panel.

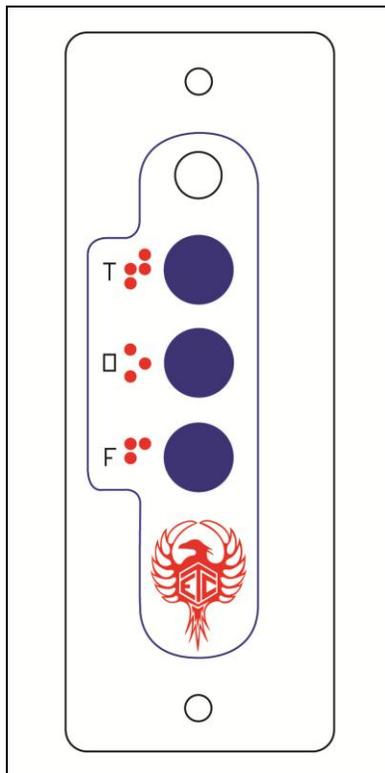


Figure 4

Red and Green LED

The Red and Green LED at the top of the control panel will provide you with the current status of the embosser. The Red LED means the embosser is off-line and not ready to receive data. The Green LED means the embosser is on-line and is ready to receive data. To change from on-line to off-line, or vice versa, press the O-Button, which is the middle button on the control panel

T-Button (Top-of-Form)

The T-Button, the very top button on the control panel, sets the top-of-form on your paper. Top-of-form tells the embosser where the paper starts and where to begin the Braille. You need to tell the embosser to reset top-of-form whenever you remove an emboss job, change paper or clear a paper jam. Pushing the T-button one time will set the top-of-form. When the top-of-form is found you will hear a low/high tone and the LED will glow green.

O-Button (On-Line/Off-Line)

The O-Button, the middle button on the control panel, takes the embosser on-line and off-line. The embosser must be on-line to receive and print data from a computer.

Press the O-Button one time to take the embosser from on-line (ready to receive and print data) to off-line (not ready to receive and print data). Press it again to return on-line. Take note of the high/low tones when pressing the O-Button, along with the color of the LED. When you press the O-Button to take the embosser off-line, you'll hear a high/low tone, and the LED will turn red. When you press the O-Button again to return on-line, you'll hear a low/high tone, and the LED will turn green.

If you press the O-Button while embossing, the embosser will pause. Any data left in the buffer remains, and embossing will resume as soon as you press the O-Button again.

F-Button (Form-Feed)

The F-Button is the bottom button on the control panel.

When Off-Line, the F-Button will allow you to form-feed one sheet of paper through the embosser each time this button is pressed.

When On-Line, the F-Button becomes the view button. While embossing, if you press the F-Button the page currently being embossed will feed out of the embosser for you to preview the document. Pressing the F-Button a second time will feed the paper back in and resume embossing.

Installing Paper

Your embosser was manufactured to produce good quality Braille and high resolution tactile graphics on 100-pound traditional Braille paper.

To install the paper, first remove the paper from the box by turning the box upside down and stack the paper neatly on the floor in back of the table.

IMPORTANT! If you place your stack of Braille paper on top of the table, behind the Phoenix, then make sure the height of the paper is well below the top edge of the embosser. If it is not, then your paper may not feed properly into the embosser.

Then, remove the lid of the embosser by grasping it along the front edge, opening it and then lifting it upwards. Open the embosser's paper tractors by lifting on the inside edge of each tractor door. They will stay open until closed by hand. See Figure 5.

From the back of the machine, gently thread the paper into the embosser, lining up the perforation between the first two sheets with the top of the tractors. Next, insert the paper into the paper tractors, starting at the second hole from the perforation on the first sheet. Position the tractors so that the tractor pins line up with the holes on the edges of the paper (making sure the paper is straight and level, left to right). See Figure 5.

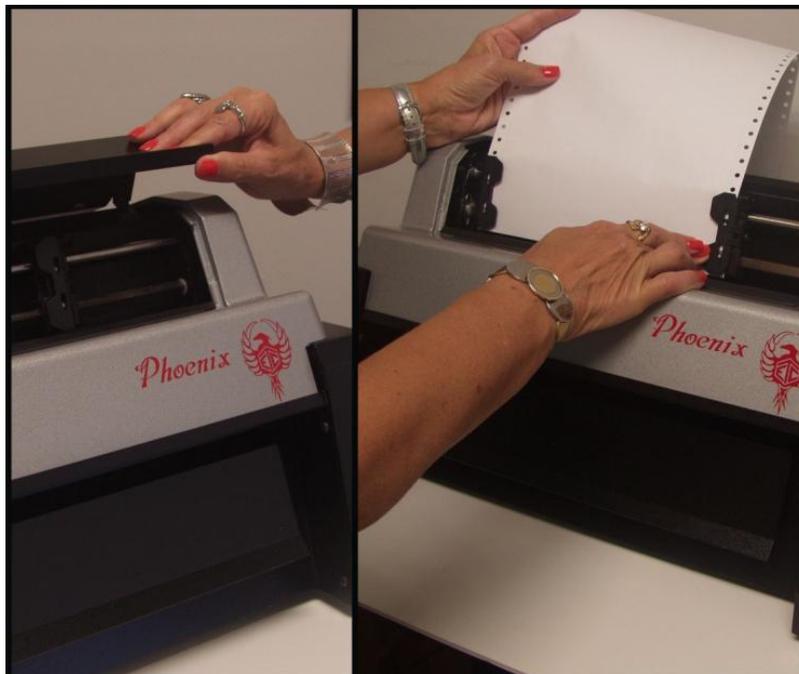


Figure 5

To move the tractors from side to side, push the small release handles, located near the outside edge of each tractor, toward you. (They may be a little stiff at first.) Although both tractors are able to move, generally it is the right tractor that needs to be moved more often because that is how you adjust for differences in paper width.

After your paper is installed, make sure the paper is flat across and is not bowed. If the paper is bowed, then move the right tractor to the right to remove any slack.

Close the tractors to grip the paper and tighten the release handles back down to lock the tractors themselves in position. Check to be sure that the embosser is positioned near the front edge of the work surface, so that the embossed pages can stack on the floor in front of it. Replace and close the lid of the embosser to cover the paper tractors. Turn the power switch on and press the T-Button to set top-of-form.

IMPORTANT! There are two sensors located to the immediate right of the left tractor. These are the paper-out sensor and top-of-form sensor. Always make sure the paper covers both sensors. If the paper does not cover both sensors then the unit will not function properly.

Setting Top-of-Form

Once the paper has been installed in the tractors, press the T-Button one time to set your paper to the top-of-form position.

After pressing the T-Button, an automatic sensor inside the embosser seeks the edge of the paper, so the paper should begin to move back and forth until the sensor fixes the location of the paper's edge in the embosser's memory. After setting top-of-form, the embosser returns on-line automatically.

IMPORTANT! The embosser's sensor *must* find the paper's edge to set top-of-form, which makes pages break in the right places. When you reset top-of-form in the middle of a printing session, remove any finished pages before pressing the T-Button. Every time you install paper or press the F-Button, you must reset the top-of-form.

Advancing Paper

If you need to advance paper through the Phoenix, you may do so by pressing the O-Button to go Off-Line, then press the F-Button. The paper will advance through the embosser one page for each time you press the F-Button. When finished press the O-Button again to go back On-Line.

Setting Up The Phoenix With Your Computer

Through the USB Port (default)

The Phoenix Braille Embosser was shipped from the factory with a USB cable.

To connect the embosser to your computer, first connect a USB cable to the embosser's USB port. Then connect the flat end of the USB cable to one of the open USB ports on your computer. It does not matter which USB port you select. The embosser is compatible with either USB 1.1 or 2.0 specifications. Once connected, your Windows XP or higher computer should install the printer as USB Printing Support and should assign a USB Virtual Printer Port number.

Please refer to the document titled Read Me First found on the CD-ROM for current instructions on installing the Windows Driver.

Through the Serial Port

The Phoenix has a serial port for you to use with your computer. You must use a null modem serial cable.

Set your computer for: 9600 baud, no parity, eight data bits, one stop bit and hardware handshaking. Please refer to the document titled Read Me First found on the CD-ROM for current instructions on installing the Windows Driver, and replace the steps for selecting a USB port with selecting a serial port.

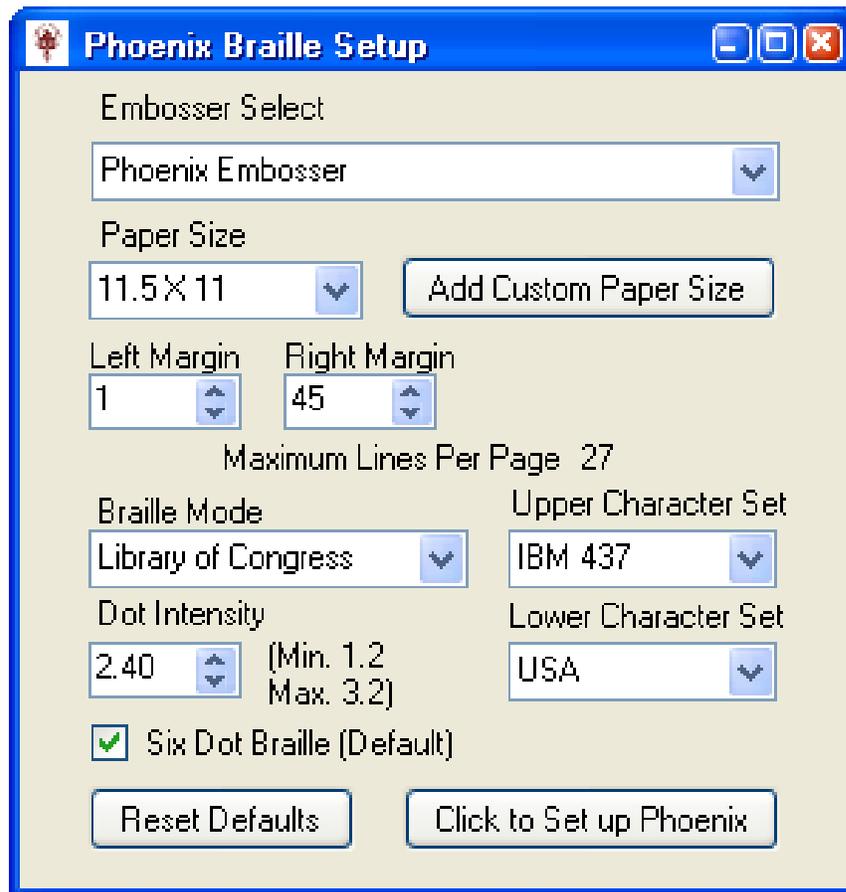
Through the Ethernet Port

The Phoenix has a built-in Ethernet port for you to use with your computer.

For instructions on how to properly set up the Ethernet port, please refer to the Phoenix Ethernet Setup Manual included on the CD-ROM that you received with your Phoenix Braille Embosser.

EMBOSSER SETUP UTILITY

The Embosser Setup Utility is included on the CD-ROM that you received with your Phoenix Braille Embosser. This utility allows you to set page sizes, Braille characters per line and lines per page and transmits the settings you select to your embosser when you click Submit. See Figure 6.



The screenshot shows a window titled "Phoenix Braille Setup" with a blue title bar and standard Windows window controls. The window contains the following settings:

- Embosser Select:** A dropdown menu set to "Phoenix Embosser".
- Paper Size:** A dropdown menu set to "11.5 X 11" and a button labeled "Add Custom Paper Size".
- Left Margin:** A spinner box set to "1".
- Right Margin:** A spinner box set to "45".
- Maximum Lines Per Page:** A text field set to "27".
- Braille Mode:** A dropdown menu set to "Library of Congress".
- Upper Character Set:** A dropdown menu set to "IBM 437".
- Dot Intensity:** A spinner box set to "2.40" with a range of "(Min. 1.2 Max. 3.2)".
- Lower Character Set:** A dropdown menu set to "USA".
- Braille Style:** A checked checkbox labeled "Six Dot Braille (Default)".
- Buttons:** "Reset Defaults" and "Click to Set up Phoenix".

Figure 6

MULTI-FUNCTION EMBOSSING SYSTEM

Your Phoenix Braille Embosser has the World's first multi-function Braille and Tactile Graphics Embossing System. One side produces high quality single-sided Braille text and low resolution tactile graphics. The other side produces super high resolution tactile graphics up to 25 DPI.

The Phoenix automatically knows which side of the multi-function embossing system to use based on the type of files you send to it.

Documents produced using your Braille translation program or Braille graphics program will automatically be embossed on the single-sided Braille text side of the Phoenix.

Documents produced using the Firebird Graphics Editor in 20 DPI or 25 DPI will automatically be embossed on the super high resolution tactile graphics side of the Phoenix.

CREATING YOUR DOCUMENTS

Many people think that a Braille embosser automatically prints "in Braille" from your computer files by substituting Braille letters for print ones. Although publishing in Braille gets easier all the time, it's not quite that simple yet. Therefore, included on the CD-ROM with your Phoenix Braille Embosser is the Firebird Graphics Editor, which will allow you to produce tactile graphic documents.

To produce Braille text please use your existing Braille translation program. Be sure to set up your Braille translator according to the manufacturer's instructions, so that your Braille documents are sent to the Phoenix using the proper interface port.

Tactile Graphic Documents

The **Firebird Graphics Editor** will allow you to produce tactile graphic documents in 17, 20 or 25 DPI. Documents created in 20 or 25 DPI will be sent to the high resolution graphics side of the Phoenix. Documents created in 17 DPI will be sent to the standard text side of the Phoenix.

Please Note: In order to produce a document in 20 or 25 DPI, you **MUST** use the Firebird Graphics Editor and emboss on 100-pound Braille paper. Also, graphics containing large solid areas of dots should be created and embossed at a lower DPI. Refer to the program's Help section for additional information.

CLEARING A PAPER JAM

If you experience a paper jam in your Phoenix, please review Steps 1 - 8 below BEFORE attempting to remove the paper jam.

IMPORTANT! If you have any questions about the steps outlined below, please contact our Customer Support Group by phone at (800) 777 3687 or via email at support@brailier.com for assistance, BEFORE you attempt to remove the paper jam.

Step 1. Turn OFF the power to the Phoenix.

Step 2. Unplug the power cord from the power receptacle located in the back of the embosser. This is for safety purposes so the unit cannot accidentally be turned on while the front cover is removed.

CAUTION! DO NOT continue to Step 3 until the power cord is removed from the power receptacle located in the back of the embosser, or injury may occur.

Step 3. With the power cord removed from the power receptacle, remove the two black Philips head screws, one located on the left side of the paper exit area and one located on the right side of the paper exit area, and put them in a safe place. (See Figure 7 below.) Also, remove the lid that covers the paper tractors.



Figure 7

Step 4. After removing the two Philips head screws, carefully remove the paper exit cover by pulling it towards you and removing it, exposing the jammed paper.

Step 5. At this point the power cord should be unplugged, the paper exit cover should be removed, and you should be able to see the jammed paper. See Figure 8.



Figure 8

Next, remove the paper from the paper tractors at the top of the embosser. Then, carefully try to pull the jammed paper out of the paper exit area, making sure that all pieces of paper are removed.

Step 6. After the paper has been removed, replace the paper exit cover and install the two Philips head screws.

Step 7. Install paper in the paper tractors and reinstall the lid of the embosser.

Step 8. Plug the power cord into the embosser's power receptacle. Then, turn on the embosser and set top-of-form.

If the top-of-form is found, you may begin using your embosser. If the top-of-form is not found, or the paper jams again, then repeat steps 1 - 8 above. Be sure to unplug the power cord from the power receptacle before removing the paper exit cover.

If after repeating Steps 1 - 8 again, the paper continues to jam, please contact our Customer Support Group for assistance.

TECHNICAL SPECIFICATIONS

Printing

Printing Method: Impact.

Printing Speed Text Side: Single-sided up to 50 characters per second.

Printing Speed High Resolution Graphics Side: Up to two pages per minute.

Actual printing speeds may vary based on paper grade setting, page layout, and data format.

Line Width: 45 characters (maximum).

Paper Feed: Sprocket.

Graphics Resolution: Up to 25 DPI

Printing Direction: Bidirectional.

Paper Width: Adjustable 1.5 to 12 inches (3.8 to 30.5 cm).

Page Length: Selectable 3.0 to 14 inches (7.6 to 35.6 cm).

Paper Weight: 100 lb. traditional Braille paper (recommended).

Text buffer: 1 MB (1,000,000 characters).

Default spacing (Library of Congress): Dot spacing: Alpha 0.090 inch, Graphics 0.080 inch standard, 0.060 inch high. Dot Height: 0.020 inch. Character spacing: 0.240 inch. Line spacing: 6 dot 0.400 inch, 8 dot 0.490 inch. Other spacing formats selectable: Regular (Library of Congress), California sign, Jumbo, Regular with relaxed line spacing, Petite (Japanese), and Petite with relaxed line spacing for interline printing.

Physical Description

Width: 21.5 inches (55 cm). Depth: 10.7 inches (27 cm). Height: 11 inches (28 cm). Weight: 25 pounds (11.34 kg). Case Style: Desktop.

Environmental

Temperature: Operating or Storage 35 F to 100 F (2 C to 37.8 C).

Humidity: Operating or Storage 10% to 95% (noncondensing).

Electrical

Line voltage: Universal 105 to 260 VAC.

Interface

Port 1: Ethernet Network. Port 2: Serial EIA-232D (DTE). Port 3: USB.

Service

User maintenance: None required. MTBF (excluding print head): 50,000,000 characters. Print head life: 100,000,000 characters.

Accessories

Standard: Line cord, 3 wire (USA). USB cable.

Optional: Special interface cables. Special line cords.

Special Features

1. Fully configurable communications
2. 17, 20, 25 DPI graphics capability
3. Six or eight dot Braille codes
4. Eight Braille character sets
5. 1 MB text buffer
6. Paper-out detector
7. No user maintenance required
8. All modular construction
9. Dynamic Braille Scaling allows size adjustment in Braille cell size and spacing from Regular Library of Congress (default) to California Sign, Jumbo, Regular with Relaxed Line Spacing, Petite (Japanese), and Petite Relaxed (Japanese Interline)

WARRANTY, SUPPORT & SERVICE

Enabling Technologies Company warrants all parts and workmanship of the Phoenix Braille Embosser to be free of defects for a period of one year (365 days) or 75,000 pages, whichever comes first, from date of delivery. This limited warranty is extended only to the original purchaser.

If the embosser requires service within the warranty period, Enabling Technologies provides our customers located in the United States with complimentary round trip shipping, via ground service, to and from our factory in Jensen Beach, Florida USA for any eligible warranty repairs. In order to qualify for complimentary round trip shipping you must have the original carton and packing material.

This limited warranty does not extend to defects resulting from improper use or unauthorized service by the purchaser. Also, the warranty is invalid if any of the instructions accompanying the product are not carefully followed.

This limited warranty is made in lieu of all other warranties, expressed or implied, and is limited to the repair or replacement of the product. No warranty, expressed or implied, is extended concerning the completeness, correctness, or suitability of the Enabling Technologies Company equipment for any particular application. There are no warranties which extend beyond those expressly stated herein.

Enabling Technologies Company offers an Extended Warranty Program. For further details, contact:

Enabling Technologies Company
Service Contract Administrator
1601 Northeast Braille Place
Jensen Beach, Florida 34957

For support and service within the United States, contact our Customer Support Group toll free at (800) 777 3687 or (772) 225 3687. For customers outside the United States contact your local Enabling Technologies distributor. They may be able to resolve your problem quickly on the phone. You may also contact us via email at: support@brailleur.com.

If your problem cannot be resolved on the phone, request a Return Authorization (RA) number from the Customer Support Group. You **MUST** have an RA number before you can return your embosser to us for service. This number is necessary for us to schedule service time for your embosser.

After you obtain a Return Authorization number from Customer Support, pack your embosser in the original carton and packing material. If the original carton was discarded then call us to purchase new packing materials.

Include a letter inside the package containing the following information:

1. Your name.
2. Your company name (if applicable).
3. Your shipping address and zip code.
4. Your mail drop code (if applicable).
5. Your RA number.
6. A description of the trouble you are experiencing. Please include as much information as possible about the problem and the conditions under which it occurs.

Please have your RA number printed clearly on the outside of the carton so we can begin work on your embosser as quickly as possible. Address the box containing your embosser to the location below for quickest service:

Enabling Technologies Company
Customer Support
1601 Northeast Braille Place
Jensen Beach, Florida 34957 USA

Finally, before you ship your embosser, insure the package. We are not responsible for shipping damage, and the carrier is not responsible if the package is not properly packaged and insured. You could be charged for shipping damage if the embosser was not properly packed.

FREQUENTLY ASKED QUESTIONS

We get some of the same questions repeatedly, so we've included them below. If you have a problem not covered here, call our Customer Support phone number at 1 (800) 777 3687 or 1 (772) 225 3687. You may also contact Customer Support by e-mail at Support@brailier.com. We will be equally pleased to help you OR to learn from your experience.

Q. My embosser's margins won't stay set and/or change sporadically. What could be the problem?

A. Some translators, such as the Duxbury Braille Translator, can remember document-specific embosser settings. If your translator associates embosser settings with documents you save in its native format, check the Document Embosser Setup before you emboss your document to be sure that your embosser settings are what you expect and make any necessary changes to your margin settings. Then, save the document so that the correct settings will be associated with the document the next time you open it.

Q. How do I switch from wide to narrow paper, and vice versa?

A. Leave the left tractor in its current position and move the right tractor to fit the width of your paper. Then, select the desired form size and set the desired line length in the Embosser Setup Utility or your Braille translator.

Q. When I try to emboss a document, I receive one of these error messages, "Error -1" or "Embossing failed due to an error at line XXXX of the file dxemb_job.c: The system cannot find the file specified."

A. This is a communications error that is specific to the Duxbury Braille Translator. It usually occurs when DBT is not configured to emboss through the correct port. To resolve the problem, check the Global Embosser Setup to be sure that the correct port or Windows printer driver is selected.

Q. Could it be that this Braille embosser doesn't understand contracted Braille? The words have no contractions, and the punctuation doesn't look right.

A. The embosser prints exactly what the computer sends. Most Braille translators have both a Print and an Emboss command. Be sure that your file is translated into Braille, and that you are using the translator's Emboss command.

Q. How do I cancel an emboss job?

A. You can abort the print job by taking the embosser off-line. When embossing stops, simply turn off the embosser. Then, check any Windows printer drivers that are mapped to the port to which your embosser is connected. If any jobs are in the print queue, clear these before turning your embosser back on.

Q. What causes the embosser to skip a blank page after each full page?

A. This problem may occur if your Braille translator is set to interpoint mode.

Q. My embosser won't find top-of-form. What could be the problem?

A. In order for your embosser to find top-of-form, the top-of-form sensor must detect the paper. Make sure that your embosser's left tractor is all the way to the left, and the right tractor is properly adjusted for your paper size. Also, before issuing the top-of-form command, make sure that no more than a page is sticking out the front of the embosser.

If all these check out and you are still having problems, please contact our Customer Support Group for assistance.

Q. My embosser is making an insistent, monotone beeping sound, and the LED is flashing. What's happening, and how can I get it to stop?

A. Your embosser is having trouble detecting your paper. If the embosser were to continue to emboss without paper installed, damage to the embosser could occur. If the embosser is having trouble detecting the paper, there may be some reason why the paper sensor is being uncovered during embossing. Check your paper path. The stack of paper should be taken out of the box and stacked on the floor behind and below the embosser. Your embosser's left tractor should be all the way to the left, and the right tractor should be adjusted for the proper paper width, so that the paper lies flat between the two tractors. Finally, the paper should flow smoothly into and out of the embosser; it should not bunch up.

If all these check out and you are still having problems, please contact our Customer Support Group for assistance.