The PowerBraille

REFRESHABLE BRAILLE DISPLAY User's Guide

BLAZIE ENGINEERING

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Introduction

Welcome

Welcome to the PowerBraille family of refreshable Braille displays from Blazie Engineering.

The PowerBraille 40 (PB40), the PowerBraille 65 (PB65), and the PowerBraille 80 (PB80) enable any Braille reader to use off-the-shelf PC software efficiently. Braille readers can use the PowerBraille in the same way that a sighted user views the work on a computer screen. The PowerBraille user can read material line-byline in Grade 2 or 8-dot Computer Braille. To jump directly to a particular screen location, you just press a key on the PowerBraille. You can use software that supports the PowerBraille to have it automatically move the display to a particular screen location.

The PowerBraille's slim, lightweight design lets it slip easily beneath a notebook computer or desktop keyboard. Its one parallel and two serial ports guarantee that you can connect it to any PC. The location of its buttons makes it easy to remember which keys control specific features. And, the PowerBraille 40's ability to recharge its nickel-cadmium batteries keeps it available for the long haul.

The PowerBraille works with or without speech access. If you have trouble understanding speech synthesizers, and would rather work exclusively with Braille, the PowerBraille gives you complete access to the PC without speech. But, if you enjoy using speech to access a PC, you will find that the PowerBraille enables you to speedily skim material or proofread documents with accuracy.

What Can You Do With The PowerBraille?

Here are a few examples of how people are using PowerBraille:

A writer uses his PowerBraille to work efficiently in WordPerfect. While he uses a speech synthesizer to read the text, he uses PowerBraille to keep track of the formatting information in the reveal codes window.

A **programmer** writes software that prints graphs for her company. Without her PowerBraille, she would need sighted assistance to check that the columns in the onscreen charts are lined up. Because she has a PowerBraille, she can independently design visually oriented screens.

A travel agent checks several sources to locate the least expensive flight from Denver to Miami. With her new PowerBraille she can take on a heavier client load without additional stress. The PowerBraille enables her to work with even the most complex and visually oriented screen layouts.

A fifth-grader needs to learn more about iguanas for a school science project. Using his PowerBraille and his dad's CD-ROM encyclopedia, he does his research on the family computer.

Manual Organization

This PowerBraille User's Guide includes a description of each of the PowerBraille models and tells how each is used.

Chapter 1 deals with the PowerBraille 40.

Chapter 2 deals with the PowerBraille 65 and the PowerBraille 80.

Appendix A deals with troubleshooting.

Appendix B deals with the PowerBraille models' self-testing capability.

Appendix C deals with Blazie's warranty for the three PowerBraille models.

This PowerBraille User's Guide is available in Braille, in print, and on disk.

Typographical Conventions

This PowerBraille Documentation uses the following typographical conventions:

PB40 refers to the PowerBraille 40, PB65 refers to the PowerBraille 65, and PB80 refers to the PowerBraille 80. When no model name is mentioned, PowerBraille refers to all models.

PowerBraille front panel keys are in uppercase, such as LEFT ROCKER.

Computer keyboard names are italicized and in uppercase. For example, ESC represents the Escape key.

When two keys must be pressed simultaneously, the keys are shown in uppercase and are separated by a hyphen. For example, CTRL-N indicates that you should hold down CTRL (the Control key) while pressing the N key, then release both simultaneously.

File names are in uppercase and in bold. Such as, FILENAME.TXT.

Customer Support

Blazie Engineering has a complete support system to resolve any problems you might encounter with your PowerBraille.

For technical assistance about installing or using the PowerBraille, call our technical support team at 727-803-8600. Technical help is available from 8:00 a.m. to 8:00 p.m., eastern time, Monday through Friday.

You may also access our website at www.FreedomScientific.com and send E-mail inquiries to <u>hardwaresupport@FreedomScientific</u>.com. Send faxes, if you prefer, to 561-223-1102.

CHAPTER 1: PowerBraille 40

Contents of the PowerBraille 40 Package

Your PB4O package should contain:

The PB4O refreshable Braille hardware unit with Velcro strips to hold a laptop computer or a keyboard in place

- AC power adapter

- Interface cables, including one parallel cable (25-pin, straight-through connection), one serial cable (9-pin at both ends, straight-through connection), and one keyboard extension cable.

- Rubber pad

- ScreenPower Braille or ScreenPower Integrated software with manuals in Braille, in print, and on disk. ScreenPower Integrated manuals are also available on audiocassette.

- This PowerBraille User's Guide in Braille, in print, and on disk.

If you are missing any of the items listed above, or if your shipment appears damaged in any way, call Blazie Engineering at 561-223-6443 so we can remedy the situation.

Hardware Description

The PB4O is 14 inches wide, 13 inches deep, and 1.5 inches tall (35.5 cm wide, 33 cm deep, 3.8 cm tall). It weighs 5 pounds (2.25 kg).

To follow our description, place the PB4O on a flat surface, with the Braille display facing upwards and the buttons facing towards you. We will be exploring from right to left and from back to front as you face the front of the PB4O.

NOTE: The functions of many of these controls can be changed with ScreenPower software. For more information, see the ScreenPower software documentation and read the READML.TXT file in the ScreenPower directory.

Rear panel ports and controls are located on the rear edge, and face away from you. They include:

ON/OFF - the on/off switch. Push the right side to turn on the PB40 and push the left side to turn off the PB40. You should turn on the PB40 either before or at the same time as, your computer. This enables the PB40 to communicate with software loaded in the computer's **AUTOEXEC.BAT** file. When you turn on the PB40, it displays its name, version number, and battery life used.

DC IN - a 2.5 mm jack, with center pin positive. Plug the cord from the AC power adapter into the DC IN jack.

DTE - a 9-pin male serial port. If you are using a Braille 'n Speak (or other notetaking device), or a second computer, plug the serial cable into the DTE jack. The baud rate is 4800 bps.

NOTE: You can change the baud rate of PB40 '5 DTE port to 9600 baud for the current working session. To change the baud rate, press and hold down CURSOR ROUTING BUTTON 40 (the last cursor routing button) while turning on the unit.

The unit stays at 9600 bps for the current working session only. The next time you turn on the PB40, the baud rate for the DTE port will again be 4800 bps.

PASSTHROUGH - a 25-pin female parallel port. Use this port to connect a printer if the PB40 and the printer share a single parallel port on the computer.

PARALLEL - a 25-pin male parallel port. Use this port to connect your PB40 to the computer's parallel port if all the computer's serial ports are already used by other devices. If the PB40 shares one of the computer's parallel ports with a printer, the communication between the PB40 and the computer may be slower than expected.

DCE - a 9-pin female serial port. Use this port to connect your PB40 to the computer's serial port. The default baud rate is 9600 bps, which cannot be changed. This is the preferred port for connecting the PB40 to your computer.

Top surface controls are located on the top of the PB40, near the front:

The only controls on the top of the PB40 are near the front of the unit. The large flat area on top of the unit has two Velcro strips. Use the Velcro strips to hold a notebook computer or PC keyboard securely to the top of the PB40. With this arrangement, it is convenient to move your hands between typing on a keyboard and reading the Braille display.

Near the front of the top surface is a slightly raised ridge.

Directly in front of this ridge and behind the Braille cells are the CURSOR ROUTING BUTTONS. These tiny buttons are used to move the computer's cursor directly to a particular location on the screen.

In front of the CURSOR ROUTING BUTTONS is the 40-cell Braille display.

NOTE: Your PB40 goes into "sleep mode" to conserve energy whenever you are not using it. After 4 minutes of inactivity, the Braille characters fade away temporarily. As soon as you press any key, the cells go back to their "awake" position. The key that you press to awaken the display does not have any effect on the computer. It just wakes up the cells. You must press the key again to perform the key's function.

Directly in front of the cells is a tactile ruler with indicator dots below each Braille cell.

Near each end of the Braille display and slightly to the rear is a small square button. The DISPLAY BACKWARD BUTTON is to the left and the DISPLAY FORWARD BUTTON is to the right. They move the Braille display backward and forward through the computer screen. The buttons do not change the cursor position.

Front panel controls are located on the front edge, facing you:

At the far left of the front panel is the LEFT ROCKER. Pressing it up moves the system cursor up and pressing it down moves the system cursor down. When linked to the system cursor. The Braille display moves with the cursor.

In the middle of the front panel are two buttons. The CONVEX BUTTON is toward the left, and the CONCAVE BUTTON is toward the right. When using ScreenPower, the CONVEX BUTTON is used as the computer's *ENTER* key when in DOS applications. The CONCAVE BUTTON is used as the Link/Unlink key when in DOS applications. For information about linking the system cursor and the Braille display, see your ScreenPower software documentation.

At the far right of the front panel is the RIGHT ROCKER. Pressing it up moves the Braille display up on the screen and pressing it down moves the Braille display down. The system cursor is not affected.

Bottom surface has a battery access panel and the product label, which contains the serial number in both print and Braille and an FCC statement.

Right side has no controls.

Left side has no controls.

PowerBraille 40 Hardware Setup

Here are instructions for setting up the PB40 refreshable Braille display.

1. Attach the AC power adapter's small cable to the PB40's DC IN port, which is near the right side of the back panel as you face the front of the PB40. Plug the AC power adapter into a wall outlet or power strip.

2. Connect the parallel or serial cable to the back of the PB40.

Serial connection to your computer: Connect the male end of the 9-pin serial cable to your PB40's DCE port. Connect the other end of the cable to your computer's COM1 or COM2 serial port.

NOTE: You can use ScreenPower's installation program to automatically detect the serial port, or you can specify the port during software installation.

Serial connection to a BrailleMate notetaker: Plug the 9-pin connector on the notetaker's Y-cable into the PB40's DTE port.

Parallel connection to your computer: Connect the female end of the parallel cable to your PB40's parallel port. Connect the other end of the parallel cable to your computer's LPT1 or LPT2 parallel port.

NOTE: You can use ScreenPower's installation program to automatically detect the parallel port, or you can specify the port during software installation.

NOTE: For the PB40 to share the computer's parallel port with your printer, connect the printer cable to the printer port on the back of the PB40. In Screen Power, the installation program will ask if you are using this feature.

3. For your convenience while using the PB40, place your laptop computer or desktop computer keyboard on the PB40 directly behind the Braille display. Use the enclosed Velcro strips to make a secure attachment. Be sure that the rest of your computer system is completely set up, with all components connected and verified to be working properly.

Removing and Charging the Battery

It should not be necessary to remove the PB40 internal batteries. The NiCad (nickelcadmium) batteries automatically charge whenever the AC power adapter is plugged in and the unit is turned off. The AC power adapter goes from no charge to fully charged in less than seven hours. You do not need to remove the NiCad batteries to charge them. These batteries charge automatically while PB40 is off and the AC power adapter is plugged into an outlet.

The Braille display shows the power usage while the PB40 is charging. The numbers count down to zero (in hours, minutes, and seconds). *When the numbers reach zero, the unit is fully charged.*

If you ever do need to remove the batteries because they are not taking or holding the charge, follow the instructions below.

- 1. Be sure PowerBraille is off and the power cord is not connected.
- 2. Turn the unit upside down.
- 3. The batteries are housed inside a rectangular plate on the bottom of the unit. Remove the two Phillips-head screws that secure the plate.
- 4. Gently lift the plate out from the PB40 unit. The battery pack is attached to the underside of the plate, in a protective sleeve. DO NOT REMOVE OR DISCONNECT THE TWO WIRES THAT GO FROM THE BATTERY PACK TO THE INSIDE OF THE UNIT.
- 5. Remove the batteries from the sleeve. Embossed icons on the inside of the plastic sleeve indicate the correct battery orientation.
- 6. Replace the batteries with C-size NiCad batteries. Orient each battery according to the icons in the plastic sleeve, and secure the panel in place with the screws. If you have new NiCad batteries, allow them time to fully charge.

WARNING!! In an emergency, you can use four 1.5 V C-size alkaline batteries to supply power to your PowerBraille. *NEVER* plug in the AC power adapter while using alkaline batteries in the PB40. This will cause PowerBraille to overheat and severely damage its internal circuitry and void your warranty! Replace with *Ni*Cad batteries before plugging in the AC adapter.

CHAPTER 2: PowerBraille 65 and 80

The PowerBraille 65 (PB65) and the PowerBraille 80 (PB80) are identical, except that the PB65 has 16 fewer Braille cells than the PB80 (the PB80 actually has 81 cells). The PB65 can be upgraded to a PB 80.

Contents of the PowerBraille 65 and PowerBraille 80 Packages

Your PB65 or PB80 package should contain:

- The PB65 or PB80 refreshable Braille hardware unit

- AC power adapter

- Interface cables, including one parallel cable (25-pin, straight-through connection), one serial cable (9-pin at both ends, straight-through connection), and one keyboard extension cable.

- ScreenPower Braille or ScreenPower Integrated software with manuals in Braille, in print, and on disk. ScreenPower Integrated manuals are also available on audiocassette.

-This PowerBraille User's Guide in Braille, in print, and on disk.

If you are missing any of the items listed above or if your shipment appears damaged in any way, call us at 561-223-6443 so we can remedy the situation.

Hardware Description

The PB65 and PB80 are the same size: 24 inches wide, 11.5 inches deep, and 1.5 inches tall (61 cm wide, 29 cm deep, 3.8 em tall). It weighs 10 pounds (4.5 kg).

NOTE: The junctions of many ~f these controls can be changed with ScreenPower software. For more information, see the ScreenPower software documentation and read the **README.TXT file** in the ScreenPower directory.

To follow this description, place the PB65 or PB80 on a flat surface with the display facing upwards and the buttons facing towards you.

Rear panel ports and controls are located on the rear edge, and face away from you. They include:

PWR - the on/off switch. Push the right side to turn on your P65 or PB80 and push the left side to turn it off. You should turn on the PB65 or PB80 either before or at the same time as your computer. This enables the units to communicate with software loaded in the computer's **AUTOEXEC.BAT** file. When you turn on the PowerBraille, it displays its name and version number.

DC IN - a 2.5 mm jack, with center pin positive. Plug the cord from the AC power adapter into the DC IN jack.

SPEAKER OUT - If you are using a speech synthesizer, you can plug synthesizer's speaker cable into the SPEAKER OUT jack.

SPEAKER B IN - If you are using a speech synthesizer, you can plug computer's speaker cable into the SPEAKER B IN jack.

SPEAKER A IN - If you are using two speech synthesizers or have synthesizers on two computers, you can plug the second synthesizer's speaker cable into the SPEAKER A IN jack.

KEYBOARD B IN - Plug the keyboard extension cable from the computer into the KEYBOARD B IN jack.

KEYBOARD B OUT - Plug the keyboard cable into the KEYBOARD B OUT jack.

SERIAL B - a 9-pin male DTE serial port. If you are using a Braille 'n Speak (or other notetaking device), or a second computer, plug the serial cable into the SERIAL Jack. The baud rate is 4800 bps.

NOTE: You can change the baud rate of the PB65 and PB8O's SERIAL B port to 9600 baud for the current working session only. To change the baud rate, press and hold CURSOR ROUTING BUTTON 65 on the PB65or CURSOR ROUTING BUTTON 81 (the PB80 really has 81 cells) on the PB80 while turning on unit. In either case, it is the rightmost CURSOR ROUTING BUTTON.

The unit stays at 9600 bps for the current working session only the next time you turn on the PB65 or PB80, the baud rate for the SERIAL B port will again be 4800 bps.

PRINTER - a 25-pin female parallel port. Use this port to connect a printer if the PB65 or PB8O and the printer share a single parallel port on the computer.

PARALLEL - a 25-pin male parallel port. Use this port to connect your PB65 or PB80's parallel cable to the computer's parallel port if all the computer's serial ports are already used by other devices. Because the PB65 or PB80 can share one of the computer's parallel ports with a printer, the communication between the PB65 or PB80 and the computer may be slower than expected.

SERIAL A - a 9-pin female DCE serial port. Use this port to connect your PB65 or PB80 to the computer's serial port. The default baud rate is 9600 bps, which cannot be changed. This is the preferred port for connecting the PB65 or PB80 to your computer.

KEYBOARD A IN - Plug the keyboard extension cable from the computer into the KEYBOARD B IN jack.

KEYBOARD A OUT - Plug the keyboard cable into the KEYBOARD A OUT jack.

Top surface controls are located on the top of the PB65 and PB8O, near the front:

The only controls on the top of the PB65 and PB80 are near the front of the unit. A recessed rubber pad covers the rear portion of the top. The rubber pad prevents a notebook computer or computer keyboard on top of the PB65 or PB80 from sliding. With this arrangement, it is convenient to move your hands between typing on a keyboard and reading the Braille display.

Near the front of the top surface is a slightly raised ridge.

Directly in front of the ridge are the four BARS used to move the display. BAR 1 is the leftmost, and BAR 4 is the rightmost. When used with Screen- Power, BAR 1 moves the display backward, while BARS 2, 3, and 4 all move the display forward.

To the left and to the right of the BARS are a pair of CURSOR BUTTONS When used with ScreenPower, each pair includes a LEFT CURSOR BUTTON and a RIGHT CURSOR BUTTON. These buttons move the application program's cursor.

In front of the bars and behind the Braille cells are the CURSOR ROUTING BUTTONS. These tiny buttons are used to move your computer's cursor directly to a particular location on the screen.

Near the front is the 65-cell or 81-cell Braille display. The only difference between the PB65 and the PB80, in terms of hardware, is the number of cells.

NOTE: Your PB65 or PB80 goes into "sleep mode" to conserve energy whenever you are not using it. After four minutes of inactivity, the Braille characters fade away temporarily. As soon as you press any key, the cells go back to their "awake "position. The key that you press to awaken them

does not have any effect on the computer. It just wakes up the cells. You must press the key again to perform the key's function.

In front of the Braille display is a tactile ruler, with indicator dots below each Braille cell.

Front panel controls are located on the front edge, facing you:

At the far left of the front panel is SWITCH 1. Pressing it up selects 6-dot Braille; pressing it down selects 8-dot Braille.

To the right of SWITCH 1 is SWITCH 2. As you read text, press the switch up to show the attribute codes, then press it down to return to reading text. Each text character on the display is replaced by a character that represents its attribute. For information about the attribute codes, see the ScreenPower software documentation.

To the right is the LEFT ROCKER. Pressing it up moves the system cursor up, and pressing it down moves the system cursor down. When linked to the system cursor, the Braille display moves with the cursor.

In the middle of the front panel are two buttons. The CONVEX BUTTON is toward the left and the CONCAVE BUTTON is toward the right. When using ScreenPower, the CONVEX BUTTON is used as the computer's *ENTER* key when in DOS applications. The CONCAVE BUTTON is used as the Link/Unlink key when in DOS applications. For information about linking the system cursor and the Braille display, see your ScreenPower software documentation.

To the right is the RIGHT ROCKER. Pressing it up moves the Braille display up on the screen and pressing it down moves the Braille display down. The computer's system cursor is not affected.

To the right is SWITCH 3. The Braille display can be used to represent text from two different sources or two different parts of the screen; for example, text from Braille 'n Speak in one part, and from the computer in the other part.

Pressing the switch up enables the split display, and pressing it down disables the split display. If you are using ScreenPower, the number of cells allocated to each part is determined by ScreenPower.

At the far right of the front panel is SWITCH 4. When using the split display feature, pressing the switch up designates the left part of the Braille display as active and pressing the switch down designates the right part of the Braille display as active.

Note: When SWITCH 2 is set to show attributes, the active display shows text while the inactive display shows the attributes.

Bottom surface has a product label that contains the serial number in both print and Braille and an FCC statement.

Right side has a headset jack.

Left side has no controls.

PowerBraille 65 and PowerBraille 80 Hardware Setup

This section provides instructions for setting up the PB65 and PB 80.

- 1. Attach the AC power adapter's small cable to the PB65 or PB 80's DC IN port, which is near the right side of the back panel as you face the front of the unit. Plug the AC power adapter into a wall outlet or power strip.
- 2. Connect the parallel or serial cable to the back of the PB65 or PB80.

Serial connection to your computer: Connect the male end of the 9-pin serial cable to your PB65 or PB80's SERIAL A port. Connect the other end of the cable to your computer's COM 1 or COM2 serial port.

NOTE: You can use ScreenPower's installation program to automatically detect the serial port or you can specify the port during software installation.

Serial connection to a BrailleMate note taker: Plug the 9-pin connector on the notetaker's Y-cable into the PB65 or PB80's SERIAL B port.

Parallel connection to your computer: Connect the female end of the parallel cable to your PB65 or PB80's parallel port. Connect the other end of the parallel cable to your computer's LPT 1 or LPT2 parallel port.

NOTE: You can use ScreenPower's installation program to automatically detect the parallel port, or you can specify the port during software installation.

NOTE: If you want the PB65 or PB80 to share the computer's parallel port with your printer, connect the printer cable to the printer port on the back of the PB65 or PB80. If you are using ScreenPower. the software installation program will ask if you are using this feature.

3. For your convenience while using your PB65 or PB 80, place your laptop computer or desktop computer keyboard on the PB65 or PB80 directly behind the Braille display. The rubber inset keeps it from sliding. Be sure that the rest of your computer system is completely set up, with all components connected and verified to be working properly.

APPENDIX A: Troubleshooting

1. Braille does not appear on the display.

The PowerBraille might be in sleep mode. Press one of the front panel controls once; for example, press the RIGHT ROCKER (which moves the Braille display) once.

The PowerBraille might be turned off. Ensure that the power switch is turned on.

The PB65 or PB80 (or PB40 if not running on battery) AC power adapter might not be connected properly. Check the AC power adapter connections.

The PB40 might not be adequately charged. If you are running on battery power, ensure that the batteries are adequately charged.

If you have changed the batteries in the PB40, they might not be correctly installed. Check that the batteries are aligned in the proper direction.

2. Name and version message on the Braille display does not change.

The PB40 might be turned off even though the A C power adapter is plugged in. Turn on the PB40.

Access software might not be running. Run ScreenPower or Gateway software on the computer.

Cabling might have come loose, it might be the wrong cable, or the cable might be connected to a wrong port. Check the cables and connections between the PowerBraille and the computer.

The access software might be installed to communicate with the PowerBraille through the wrong port.

- Reinstall ScreenPower and select "Auto-detect" for the Braille display connection. This tells ScreenPower which port to use.

Reinstall ScreenPower and use ScreenPower Braille's SPBPORT or Screen- Power Integrated's SPIPORT utility to force ScreenPower to use the correct port.
Gateway might be talking to the wrong port. If you are using COM2, add /COM2 as a

- Gateway might be talking to the wrong port. If you are using COM2, add /COM2 as a parameter to the startup line.

The port might not be working. Connect the PowerBraille cable to a different port on the computer. Reinstall ScreenPower so that it uses the correct port.

3. The panel keys do not work.

Your PowerBraille unit might be connected to the same IRQ as another device. Move one of the devices to another IRQ. Call Blazie's technical support team at 410-893-9333 if you need further assistance.

4. Grade 2 Braille does not appear on my display.

The Grade 2 translator and ScreenPower have been run in the wrong order, or the programs are not in the correct directories.

- Make sure that **SP.BAT** is in both the root directory and the ScreenPower Integrated or ScreenPower Braille directory.

- Reinstall ScreenPower and select the Grade 2 option.

- Reboot the computer, run **SPVIEW2.EXE** (on-line Grade 2 Braille translator) before ScreenPower, and run ScreenPower again.

You might have run Gateway and **VIEW2.EXE** *in the wrong order*. Run **VIEW2.EXE** after running Gateway.

You might be using **SPVIEW2.EXE** *with Gateway or* **VIEW2.EXE** *with ScreenPower.* Run the correct software in the correct order.

5. The Braille doesn't follow what I'm typing.

The cursor has become unlinked from the display. Link the cursor to the display using the CONCAVE BUTTON key.

APPENDIX B: Self-Tests

The PowerBraille has several power-on self-tests. You might be asked to run these self-tests on your PowerBraille before sending it in for service.

Braille Cells Test

To test PowerBraille's Braille cells, hold the LEFT ROCKER up while you turn the power switch to the ON position. The unit will display the "Braille display test" message.

The Braille cells will all go up and down eight times. The first time they will end with all cells up. The next time they will end with all cells down.

To end the test, turn the unit off.

Keypad Test

To test PowerBraille's panel keys, press and hold the CONCAVE BUTTON while you turn the power switch to the ON position. The unit will display the "keypad test mode" message.

Within 25 seconds, press each panel key once (press the ROCKERS both up and down). If they are all working properly, your PowerBraille will display the "keypad test ok" message.

If you press more than one key at a time, PowerBraille will display the "keypad test error" message. If you do not press all the keys within 25 seconds, PowerBraille will display the "keypad test time out" message. This is also the message you will get if one of the keys is bad.

To end the test, turn the unit off.

Cursor Routing Button Test

The CURSOR ROUTING BUTTONS are the raised tactile dots above each Braille cell.

To test PowerBraille's CURSOR ROUTING BUTTONS, press and hold the RIGHT ROCKER down while you turn the power switch to the ON position. The unit will display the "sensor switch test" message.

Wait until all the pins on all cells are down. Then press each CURSOR ROUTING BUTTON, one at a time.

It doesn't matter in what order you press the CURSOR ROUTING BUTTONS, but you must press them all within about 15 seconds. As you press each CURSOR ROUTING BUTTON, all eight dots will come up in the cell.

When you press the last CURSOR ROUTING BUTTON, the unit will display the "Sensor switch test okay" message, and all dots will go down.

APPENDIX C: Warranty Information

Guarantee of Satisfaction

This assistive device is warranted to be specifically fit for the particular needs of you, the buyer. If the device is not specifically fit for your particular needs, it may be returned to the seller within 30 days of date of actual rece3ipt by you, or completion of fitting by the seller, whichever occurs later.

If you return the device, the seller will either adjust or replace the device or promptly refund the total amount paid. This warranty does affect the protections and remedies you have under other laws.

Software Warranty

This program and all related materials are provided to you in an "AS IS" condition, without warranty of any kind, either express or implied, including but not limited to, implied warranties of merchantability and fitness of a particular purpose. The entire risk as to the quality of performance of the program and all related materials is assumed by you.

IN NO EVENT SHALL BLAZIE ENGINEERING BE LIABLE FOR ANY LOSS OF PROFIT OR ANY OTHER COMMERCIAL, INCLUDING BUT NOT LIMITED TO SPECIAL, INCIDENTAL, CONSEQUENTAL, OR OTHER DAMAGES.

Limited 30-month Warranty on Hardware

Blazie Engineering warrants the hardware to be free from defects in material and workmanship, under normal and proper use, for a period of 30 months from the date of shipment. The liability of Blazie Engineering under this warranty is limited to the obligation to repair, or at its sole option, to replace without charge and with reasonable promptness, such defective product. This warranty applies only to hardware.

Repair and replacement of hardware shall be undertaken at Blazie Engineering's offices at 105 East Jarrettsville Road, Forest Hill, MD 21050 or such other location as Blazie may designate from time to time. The purchaser shall be responsible for all shipping charges in connection with warranty service.

This warranty shall be void if any defect or damage arises from causes beyond the control of Blazie Engineering such as fire, accident, neglect, abuse, acts of God, or environmental or electrical stress.

This warranty shall be void as to any product which has been tampered with, or altered, or which has been repaired, or attempted to be repaired, by those other than Blazie Engineering factory-authorized service personnel.

IN NO EVENT SHALL BLAZIE ENGINEERING BE LIABLE FOR ANY CONSEQUENTIAL OR INCIDENTAL OR SPECIAL DAMAGES. AS SET FORTH ABOVE, BLAZIE MAKES NO WARRANTIES, EXPRESS OR IMPLIED, INCLUDING ANY WARRANTY OF MERCHANTABILITY OR FITNESS FOR A PARTICULAR PURPOSE.

Disk Replacement Policy

Blazie Engineering warrants the magnetic media on which the software is supplied to be free of defects in material and workmanship under normal use for a period of 90 days from date of purchase. If, during this 90-day period, the disk becomes defective, it may be returned to Blazie for a free replacement.

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