

**Thank you for purchasing a Mountbatten Brailer. Since 1990, the Mountbatten Brailer has been offering expanded braille writing opportunities to people all around the world. In fact the Mountbatten Brailer is now in use in over 30 countries.**

**Regular up-dates and support material can be obtained from the Quantum Web site;**

**[www.quantech.com.au](http://www.quantech.com.au)**

This device complies with Part 15 of the FCC Rules. Operation is subject to the following two conditions: (1) this device may not cause harmful interference, and (2) this device must accept any interference received, including interference that may cause undesired operation.



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## **THE BASICS**

Please Read the following 2 pages first to get an overview of the important features of your Mountbatten.

### **1. Power**

Like most things, the MB needs power. This is provided by either batteries, mains power or both. The MB can be supplied as either a mains only unit, a battery only unit, or a combination of both.

Obviously, if you have a mains operated unit, it will only work when plugged into the mains power supply. If you have a battery operated unit, try and ensure the battery is kept charged using the power adaptor supplied. You cannot over-charge the battery, and leaving the unit permanently charging will not damage it in any way. The power adaptor for all models is rated at 12 VDC 1 Amp with a 2.5mm plug (center positive)

### **2. Inserting Paper**

Insert a blank page into the MB, by first lifting the yellow paper grip lever on the top right hand side. There are two methods for inserting paper into the MB. The first is through the top in a similar fashion to the Perkins. Push the paper through until the top edge of the paper is level with the aluminium bar, or whatever position is comfortable for you. The second method is to push the paper through from the rear of the MB until it comes out the top.

It is most important to make sure that the paper is inserted up against the left hand side of the MB. *If the paper is crooked or not against the left hand margin, the MB may think that no paper is present.*

When the paper is in position, flip the Paper Grip lever back down. You will notice that the embossing head moves across the page, and this is called a *Margin Search*. It does this every time you turn the MB on. As you are able to use any size paper with the MB, it needs to check the paper width, and it does this by doing a Margin Search.

### **3. Learn Your MB Keyboard.**

A diagram of the keyboard is provided in the next section. You must learn this!

### **4. Learn Mode and Advanced Mode**

All Mountbatten's are in Learn Mode when you receive them from your supplier.

Learn Mode provides a simple and friendly starting point. It is ideal for the young braille learner. In Learn Mode your Mountbatten is a braille writer only.

Note: *the command key is disabled and only the Mimic port is active.*

Advanced Mode enables you to use all the Advanced features of your Mountbatten, such as braille translation, use of a PC keyboard, printers, and communication with other devices such as note-takers and computers. Advanced Mode is only available in the MB Writer Plus and the MB Pro. Instructions for changing between Learn and Advanced Mode are provided in the section Changing Between Learn Mode and Advanced Mode.

## **5. Speech Options**

All models of the Mountbatten Braille now have speech output to support braille learning. There are two different types of speech output available depending on which model you have.

*Recorded Speech* is a human voice which has been recorded digitally. This is a high quality voice that is easy to understand, and is intended for the early learner. Only vocabulary that has been recorded is able to be spoken. Recorded speech is always used in the Learn Mode. In Advanced mode either recorded speech or synthetic speech can be used.

*Synthetic speech* is a machine voice similar to most talking computers. With synthetic speech, the speech quality and parameters (such as pitch and rate) can be adjusted, and it has an unlimited vocabulary. Synthetic speech can be used in Advanced mode, and is always used in the Editor. Two later chapters cover synthetic speech (Synthetic Speech - Advanced Speech Options, and The Editor).

The MB Writer has Recorded speech only.

The MB Writer Plus has Recorded speech only

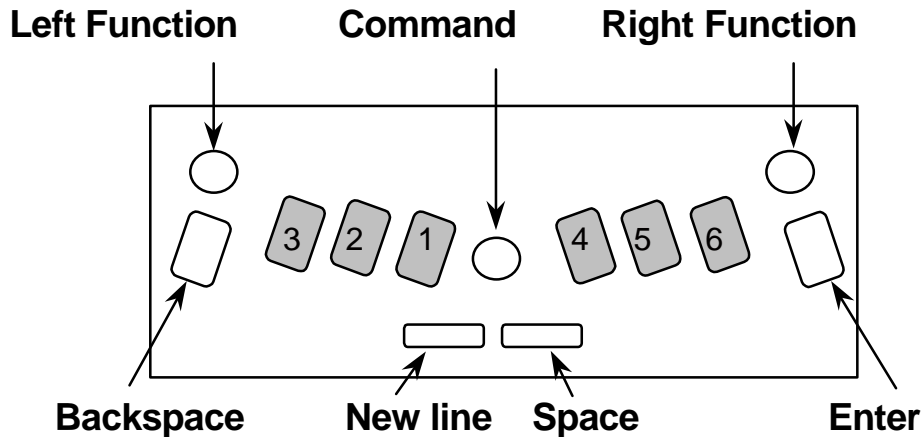
The MB Pro has both Recorded and Synthetic Speech.

## **6. Writing Braille**

Use the six black braille keys, in exactly the same way as you would type on a regular braille writer. Whatever you type will be embossed on the paper.

It does feel different to other braille keyboards you may have used. However, simply practice a little with it, and you will find you can braille faster and for longer periods than ever before, because of the ergonomic design.

## GET TO KNOW YOUR KEYBOARD



### Key Descriptions and Layout

The following abbreviations of the keys are used throughout this manual to describe commands and provide general operating information.

- LF = Left Function Key (round blue key in top left hand corner)
- RF = Right Function Key (round blue key in top right hand corner)
- BS = Back Space key (blue key on left hand side with textured finish)
- Ent. = Enter key (blue key on right hand side with textured finish)
- NL = New Line Key (thin blue key on lower keyboard, left hand side)
- S = Space (thin blue key on lower keyboard, right hand side)
- Command Key (round blue key in middle of keyboard between dot keys)

### How to Move Around the Page

Pressing simple combination of keys offer unparalleled ease of movement around the page. This is of particular importance for setting out math problems.

- NL+S = Move down the page in same column
- NL+BS = Move up the page in the same column
- NL+Ent. = Page Eject
- LF = Default value is Tab
- RF = Default value is Back Tab
- S = Move one position right
- BS = Move one position left

### Erasing and Correction

Your Mountbatten can erase or correct mistakes. The quality of the corrections is approximately the same as the 'finger nail method' and depends also on the quality of the paper used.

#### *Erasing*

- BS+S = replaces a character with an space

#### *Correcting*

- BS+Correct Dots = replaces a character with your desired character



## COMMANDS - How to Use Them

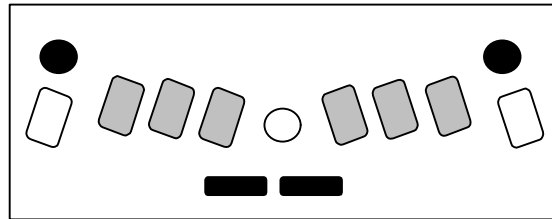
There are 2 types of commands used with your Mountbatten. First make sure your command key is active by pressing it. If there is no response you must activate the command key as follows.

### Turn Command Key On and Off

When the command key is off, it is ignored when pressed. When off, the Mountbatten is in a simple braille writer only mode (recommended for beginners). Whatever is chosen remains the default after you turn the power off.

NL + SP + f1 + f2 Turns command key on/off.

Press all 4 keys together to turn on  
Press all 4 keys again to turn off



### 1. Regular Commands.

All regular commands begin with the Command key, and finish with the Enter key. For example to turn the Word Wrap command on, you first press the Command Key, type WW and then hit the Enter key. Your Mountbatten will say "on" or "off" depending on the original setting. Some commands, like Word Wrap, are "toggle" commands, meaning that they toggle between an on and off state, each time they are invoked. These commands are identified as toggle after the command description.

Throughout this manual regular commands are described as follows;

Command	Description of command
WW	Word Wrap. When Word Wrap is on the word is not embossed till the Space Key is pressed. If the word cannot fit on the line it is moved to the beginning of the next line. Default = Off. Toggle

To use any other regular command you follow this sequence;

1. Press Command Key
2. Type Command
3. Press Enter Key

If there is a space indicated in the command, you have to press the space key when you are entering the command. Where numbers are needed in a command they can be entered as either the Number sign plus character or alternatively as a "dropped" or "lower" character.

## **2. Chorded commands**

Chorded commands use space bar pressed with designated letter. There are only a limited number of chorded commands and they can be used at any time.

Chord B	Backtab
Chord C	Carriage return
Chord E	End
Chord F	Line feed
Chord H	Help
Chord I	Indent
Chord P	Page eject
Chord R	Reverse Line
Chord T	Tab
Chord Z	Stops the speech (while speaking).

## CHANGING BETWEEN LEARN MODE AND ADVANCED MODE

There is a single command that will enable you to toggle between Learn Mode and Advanced Mode.

ADV                      Advanced. The factory default setting is Learn Mode. Use this command when you are ready to move to the Advanced Mode. It will say "On" to indicate Advanced mode is on, and it will say "Off" to indicate you are back in Learn Mode.

Whatever is chosen will remain the default setting until you change it again. The selected mode will be spoken each time you turn the MB on.

## SPEECH CONTROL

There are many options to use speech as an aid to learning to write and read braille. There is a single command (SPK for Speak) for controlling the various speech options as follows;

### Recorded Speech

SPK R                      Selects recorded speech. This is the default.  
SPK A                      Speaks all keyboard keys, functions and commands. This is the basis for the Learn Mode. With every key stroke being spoken the user receives immediate feedback every step of the way. As less speech is required one of the following options can be used.  
SPK C                      Speaks errors & prompts only. No braille dot keys  
SPK D                      Speaks only braille dot keys. No function keys.

### Synthetic Speech

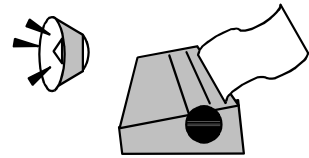
SPK S                      Turns on Synthetic Speech. Available only in Advanced Mode. Useful for speaking all contractions and unlimited vocabulary. Always used in the Editor. For control of Synthetic Speech parameters please read the section 'Synthetic Speech - Advanced Speech Options'.

### No Speech

SPK N                      No speech. Tones only mode.

The speech mode selected will remain the default within the mode being used. However, when changing mode from Advanced to Learn, the speech will default to Recorded.





## BRAILLE WRITING

### Beginning Braille with Speech

The Mountbatten offers many advantages for the braille student and provides a great deal of flexibility to meet their individual needs. However, it is important to remember that speech output is provided only as a re-enforcement and for instant feedback, in order to develop skills in braille reading and writing. Listening to the speech feedback should not be used as an alternative to reading with fingers. *Speech output is designed to augment the development of tactile reading skills not be a substitute for them.*

Make sure you are aware of the options available for the speech output and how important it is to match the speech output to the students needs. Speech can promote independence by making the student aware of everything that is happening on their braille writer. Speech can also help a student gain confidence, and increase typing speeds. The use of speech during early braille instruction will also assist in skill development relating to a wide range of other technologies that they will encounter.

But the bottom line is that the Mountbatten is a braille writer. Its primary function is for the development of braille reading and writing skills, and speech output is secondary to that.

### Formatting Your Braille

The following formatting commands apply in both Learn and Advanced Mode.

#### *Position of Braille on the Paper*

CE	Centre Text. The text to be centred will only be embossed after the new line key is pressed. Default = off. Toggle.
RA	Right adjust braille (the braille will be printed from the right hand margin). Default = off. Toggle

#### *Margins*

LM	Set left hand margin to 0
LMH	Set left margin to embossing head position.
LM n	Set left margin to column 'n'
RM	Set right hand margin to 0
RMH	Set right margin to embossing head position.
RM n	Set right margin to column 'n'
TM n	Set Braille page Top Margin. n = number of lines.
BM n	Sets Bottom Margin of Braille page. n = number of lines for bottom margin.

#### *Tab Settings*

TSH	Set tab at the position of the embossing head.
TC	Clear all tab settings.

#### *Line Spacing*

LS n[m]	Line spacing. Default = 1. If you wanted line spacing of 1.5 lines then the command would be LS 1.5
---------	---

## Braille Writing Commands

The following formatting commands apply in both Learn and Advanced Mode.

COR	Correction Mode. Some teachers may want to turn the erase and correction feature off during an exam! Default = on. Toggle
EM	Turn the embossing function off and on. Default = on. Toggle
MAN	Choose between Manual new line & Auto new line. A Manual new line means you have to press the New Line key at the end of each line. Auto New Line means the MB will automatically go to the start of the new line. Default = Auto. Toggle
MS [n]	Multi-strike feature. Set strikes per dot to "n". Useful for braille on heavy materials such as plastic braille label. n = 1 to 4. Default = 1
NP	Force a New (Braille) Page. Your current page will be ejected.
PN [n]	Begin page numbering starting at value of "n". Each time you put paper in your MB the page number will be printed in the top right hand corner.
PBELL [n]	Set page bottom warning bell to ring "n" lines before the end of the page.
RMBELL	Right margin bell. The bell rings 5 positions from the right hand margin. Default = on. Toggle
SHOW	Emboss commands as they are entered on the keyboard. Can be helpful for tracking mistakes. Default = Off. Toggle
WW	Word Wrap. When Word Wrap is on the word is not embossed till the Space Key is pressed. If the word cannot fit on the line it is moved to the beginning of the next line. Default = Off. Toggle

## Making Braille Files in Memory

The following formatting commands apply in both Learn and Advanced Mode. All models have a memory in which you can save files. In the following commands [filename] means a name of your choosing up to 16 characters.

### *Start a File*

BEGIN [filename] Opens a new file, called "filename".

### *Close a File*

END Close an open file.  
Alternatively you can simply turn the MB off and the open file will be automatically saved.

### *Find Out Which Files You Have Stored in Memory*

DIR Embosses all filenames and their sizes  
FREE Embosses the remaining free memory space

### *Change the File*

APPEND [filename] Append more information to "filename".  
RENAME filename1 filename2  
Rename "filename1" to "filename2".

### *Delete Files*

DEL [filename] Delete the file named "filename".  
DEL ALL Delete all files.  
UNDEL Retrieve deleted file. Only works if used before turning the unit off.

### *Emboss files that are stored in Memory*

PR [filename] Print the file named "filename". Uses current settings.  
MPR y [filename] Print "y" multiple copies of the file named "filename".

## **Miscellaneous Commands**

The following formatting commands apply in both Learn and Advanced Mode.

VER Embosses Braille software version.  
HP Help. Prints command summary  
SAVE Saves all current settings. Use to save your preferred settings (these will then become the default)  
STD Restore back to factory default settings  
ALT n Enables your MB to accept ASCII characters above 128. 'n' can be any ASCII value

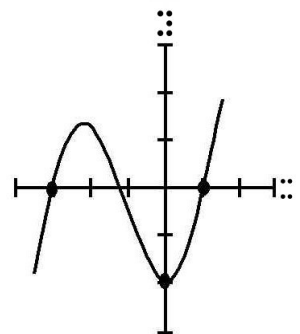
There are several commands that provide feedback to the user on the status of their MB. These include DIR, VER, FREE. You can choose to have this information spoken or embossed on paper. To do this use the commands;

REC SP for speech output  
REC EM for embossed output

## **Making Braille Graphics**

The following formatting commands apply in both Learn and Advanced Mode.

GF Graphics mode. In Graphics Mode the space between the dots is reduced, giving the appearance and feel of lines instead of dots. There is much scope for creativity and learning about braille graphics really re-enforces the braille code for the braille learner. Default = off. Toggle



**Note:** There are dedicated braille graphics programs that you can run on your PC such as Picture Braille. Another exciting way to make tactile diagrams is using "swell" paper and the Pictures in a Flash - PIAF. For more information on either of these products please refer to the web site [www.quantech.com.au](http://www.quantech.com.au)

## Changing Your Keyboard Layout

The following formatting commands apply in both Learn and Advanced Mode.

- KBC bnse** Re-defines control key functions. b, n, s, e is the order required of the 4 control keys (backspace, newline, space, enter). For example if you wanted to reverse the positions of the backspace and Enter keys, the command would be **KBC ensb**
- KBD** key1 key2 key3 key4 key5 key6  
Re-define dot key layout. Default = Perkins layout.  
After entering the command **KBD** simply press the dot keys in the sequence you want them.

You can also change the function of some of the keys on your keyboard by installing macro or 'hot key' functions on them

### *Install Macros*

The following 3 commands enable the 2 function keys to be used as macro keys by substituting the command of your choice.

- KBLF** Re-defines the left function key. Follow **KBLF** with new command(s). If using multiple commands press NL (new line key) between each command.
- KBRF** Re-defines the right function key. Follow **KBRF** with new command(s). If using multiple commands press NL (new line key) between each command.
- KBLRF** Re-defines third function (Left and right pressed together)

## USING THE OPTIONAL MIMIC LCD DISPLAY

If you do not own a Mimic LCD Display you can go directly to the next section.

The Mimic is a small display on which information you type in braille on the MB can be displayed in regular text. The Mimic will work with all three MB models. Firstly connect the MIMIC to the 9 pin connector on the right hand side of your MB and turn it on (switch is on the upper left hand side).



**MB Writer** Communication with the Mimic is on by default. As you type information on the MB Writer, it is translated and sent to the Mimic every time you press the Space Key. If you want to turn communication to the Mimic off, and still remain in Learn Mode you can use the command MIMIC. Default= On. Toggle.

**MB Writer Plus**  
**MB Pro** Use the ADV command to toggle between Learn Mode and Advanced Mode. In Learn Mode the Mimic is on by default. In Advanced Mode use the command MIMIC to turn the Mimic on or off.

## Braille Grade and Code Selection

The MB translates the braille information you type into text before it sends it to the Mimic. The information can be translated from Grades 1 or 2 braille, or you can turn off translation if you want.

BGR [grade]	Translation Grade, where "Grade" may be 0, 1 or 2. Default = 2
BC n	Braille Code. Default = 1 (6 dot North American Braille Computer Code)

## Braille Exception Table Commands

Your MB has the flexibility to enable you to make exceptions to the standard braille rules you are using, to use short cuts or abbreviations of your own choice, or to introduce groups of contractions.

This is done via the Braille Exception Table which is discussed in detail in the section titled Braille Translation. The Braille Exception Table is available on all models of the MB.



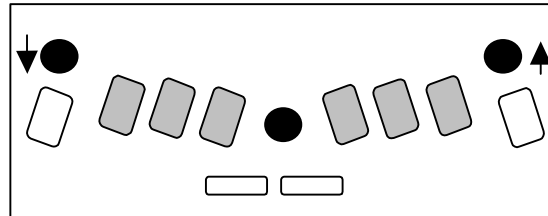
## HANDY THINGS TO KNOW

### Adjust Dot Height for Different Types of Paper

This function is used to match the impact force on the dots to the type of paper used. For heavy braille paper, the impact force can be increased. For lighter paper, the impact force can be decreased. The factory default setting is for regular photocopy paper (lightweight paper).

CMD + RF Increase Impact  
(speech prompt "Up")

CMD + LF Decrease Impact  
(With speech prompt "Down")

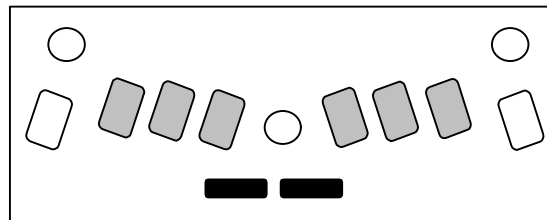


### Writing Braille on Cards or Small Paper

Your Mountbatten Brailer offers a great deal of flexibility for writing on non-standard materials and paper sizes

#### *No Paper Operation*

When you use a small piece of paper (like a birthday card) the MB may not think there is paper in the machine and will not let you emboss. To overcome this, press the Space and New Line key together during a margin search. This invokes "no paper operation" and means you can write braille on a very small page.



#### *Using Heavy Card or Labels*

In addition to using the impact adjustment described above you can also select the number of times each dot is hit by the embosser. If you are using a heavy card, or a plastic label with adhesive backing, you may need to use the multi-strike setting to make good braille. You can choose from single strikes (default) up to 4 strikes on each dot.

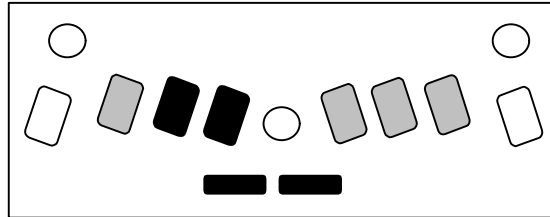
MS [n]

Multi-strike feature. Set strikes per dot to "n". Useful for braille on heavy materials such as plastic braille label. n = 1 to 4. Default = 1

## Check Battery Status

NL+SP+B To hear battery status

Press all 4 keys together



Options are “Battery OK” or Battery Flat”. It will also tell you if power is connected or not. If battery is flat, embossing will stop.

**Note:** The causes of a flat battery are;  
Hasn't been charged. Connect to power for 24 hours.  
The wrong power adaptor is being used (it should be 12VDC 1 Amp - anything less will not charge the MB sufficiently)  
The power adaptor may be broken.  
There may be no power coming through wall outlet.  
The battery may be damaged and need replacing (expected life is 5 years).

## One-Handed Mode

**KU** Turns on One Handed operation. Default = off. Toggle. When KU is on, press space bar after each character. When KU is on, alternative commands for all chorded commands are available.

**Notes:** To turn KU off, remember to press K space U space. To type the U you don't have to press Dots 1, 3, 6, together. As long as one Dot key is pressed you can press them sequentially. Use you index finger to press Dot3, then press Dot 1, with your second finger, and leave it there as you reach across with your index finger to press Dot 6.

## Alternatives to Chorded Commands (for One-handed Mode)

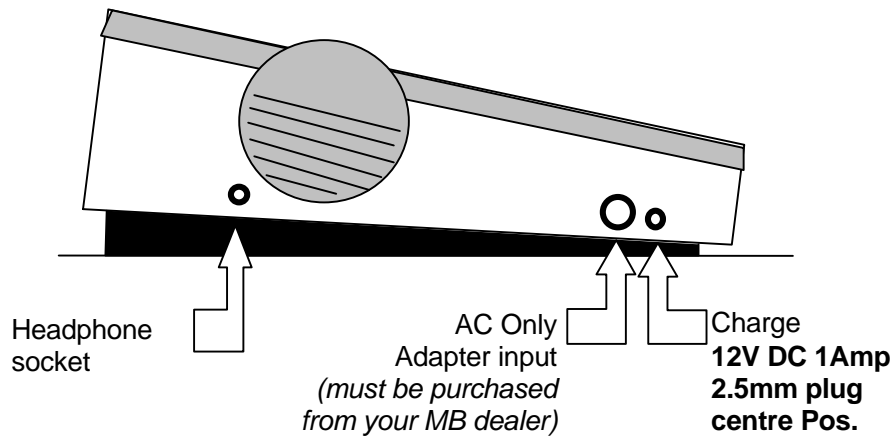
These are regular commands using the Command key and Enter

BT	Backtab
CR	Newline
IN	Indent
LF	Linefeed
NP	New Page
RL	Reverse Linefeed
TB	Tab
END	Close an open file

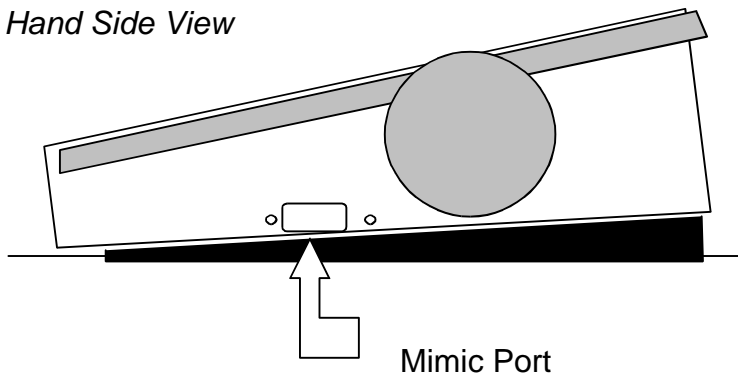
## CONNECTORS, JACKS, PLUGS AND CABLES

### MB Writer, MB Writer Plus & MB Pro

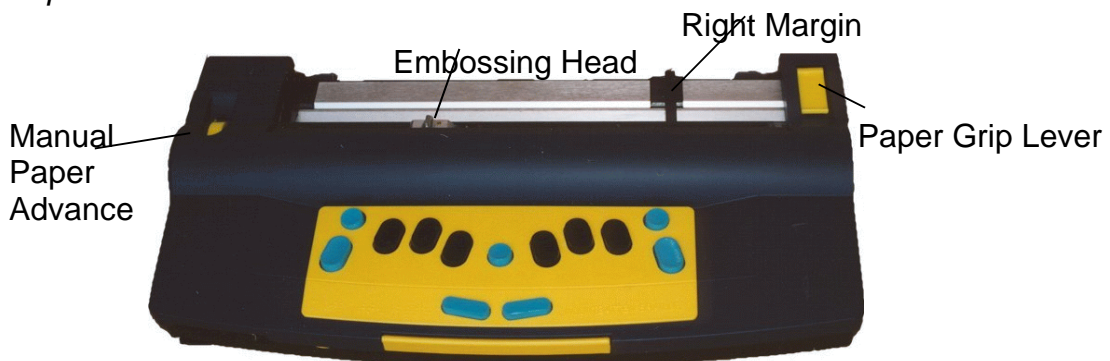
#### Left Hand Side View



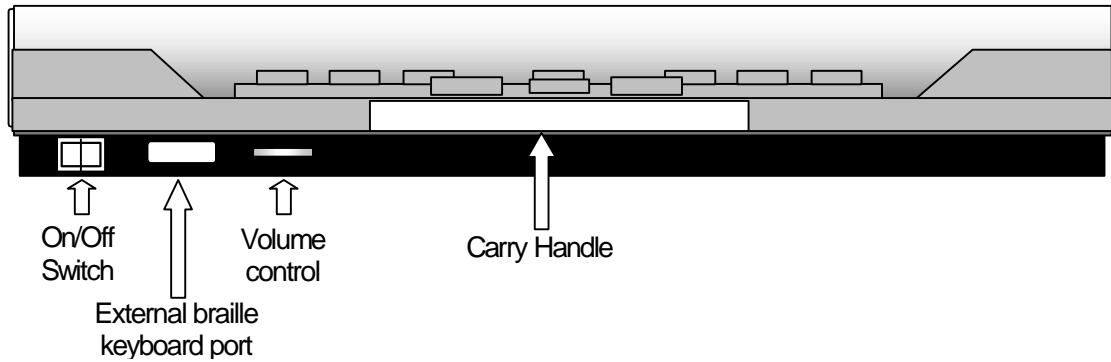
#### Right Hand Side View



#### Top View

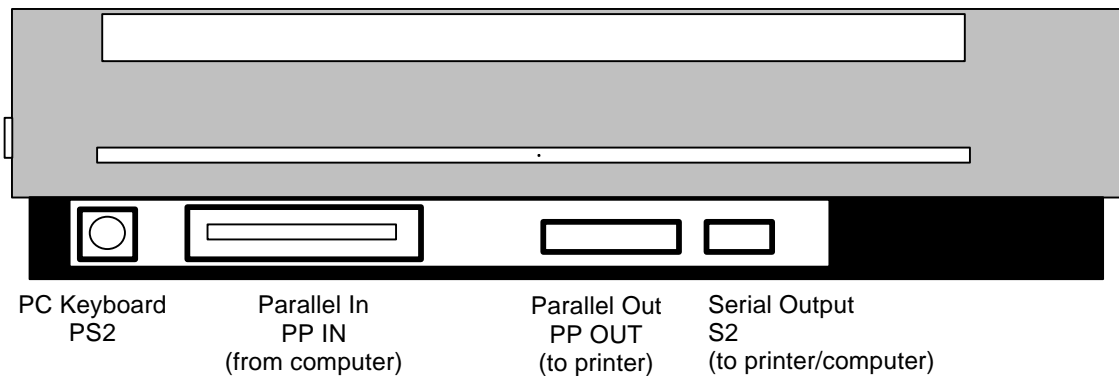


*Front View*



**MB Writer Plus & MB Pro Only**

*Rear View*



**Cables Supplied**

MB Writer	No cables supplied
MB Writer + Mimic	1 X 9 pin serial cable (D type)
MB Writer Plus	1 X Standard Printer Cable (parallel)
MB Pro	1 X Standard Printer Cable (parallel)

## BRAILLE TRANSLATION

Both the MB Writer Plus and the MB Pro have the ability to translate in either direction and we use the following standard conventions for describing braille translation.

*Back Translation -*

**Braille**  **Print**

Converting braille you type on the MB keyboard into regular text.

*Forward Translation -*

**Print**  **Braille**

Converting regular text (from any source) into braille.

*Braille Code -*

The braille code installed in your machine is the appropriate code for your country. The MB can also contain the braille codes for other languages.

*Foreign Letters -*

Independent of which braille code is being used you can use foreign characters in your text.

### **Braille Exception Table**

The following commands apply in both Learn and Advanced Mode. The MB lets you create exceptions to the braille rules. The Exception Table allows you to change the code to suit your needs. For example you may want to introduce contractions gradually, or make abbreviations. Up to 128 entries are allowed.

The Braille Exception Table is active in both forward and back translation. The commands and conditions for creating exceptions to the braille rules are as follows;

ETA text braille position

Adds an entry to the exception table where;  
text = the text to be changed  
braille = the braille which will be substituted

position = one or a combination of the five position indicators given below:

b - allowed at the beginning of a word

m - allowed at the middle of a word

e - allowed at the end of a word

a - allowed anywhere

s - allowed only by itself (except adjacent to punctuation)

ETC Clears the exception table

ETD text Deletes an entry from the exception table where "text" is the text to be changed

ETU Turns the exception table off or on. Default = on. Toggle

## Braille Exception Table - Patterns Series

The following commands apply in both Learn and Advanced Mode. For users in English Speaking Countries there is a new feature for the MB where contractions are organised into 15 groups in accordance with the Braille Patterns series developed by the American Printing House for the Blind, in Kentucky USA.

These groupings represent an ordered introduction of Grade 2 braille for reading and writing instruction.

With your MB set to Grade 1 translation, a particular group of Grade 2 contractions can be introduced sequentially. This means that the introduction of contractions can be matched to the students individual abilities and needs.

The command used to introduce one of the groups is;

PATTERNS n        where 'n' is a number from 1 to 15

**Note:**            The PATTERNS command only works when the translation is set to Grade 1.

A description of each group follows, and the full detailed listing of each group is included in Appendix C.

### Patterns - Grade 2 Braille Ordered for Reading and Writing Instruction

1.     Alphabet and Letter Words
- Upper Cell Contractions*
2.     Whole or Part Words
  3.     Simulated Letter Words
  4.     Part Word Signs
- Lower Cell Contractions*
5.     Simulated Letter Words
  6.     Whole Words
  7.     Middle Part Word Signs
  8.     Beginning Part Word Signs
- Multi-cell Contractions*
9.     Dot 5 Whole & Part Words
  10.    Dot 4,5,6, Words
  11.    Dot 4,5, Words
  12.    Dot 4-6 Final Letter Contractions
  13.    Dot 5-6 Final Letter Contractions
  14.    Dot 6 Final Letter Contractions
  15.    Short Form Words

Once all groups of contractions have been introduced, then you can turn full Grade 2 translation on.

## **FORWARD TRANSLATION - Converting Print to Braille**

The Forward Translation commands apply only in Advanced Mode.

Forward translation means that you can send regular text to the MB and it will convert it to braille and emboss it on paper or store it as a braille file in memory. The sources of the text can be from;

- A regular PC keyboard
- A portable note-taker
- A computer

The most common way of using Forward translation on the MB is via a PC keyboard. In this way anyone can write information on the PC keyboard and have it automatically converted to braille. This is a very powerful tool in an educational setting, as it allows everyone to participate in braille. It is also a very useful feature in a variety of other settings for leaving braille notes and producing a wide range of other brailled materials (like birthday cards) that often do not get brailled.

### **Using a PC Keyboard**

Connect the PC keyboard to the appropriate port on the rear of your MB, and then turn the MB on.

Now, just start to type on the PC keyboard. You can easily produce grade 1, grade 2 or grade 0 braille (computer braille) directly from the PC keyboard. Many keys on the PC keyboard have the same function as keys on the MB keyboard.

<b>Keys on the PC Keyboard</b>	<b>Keys on the MB Keyboard</b>
Escape	Command
End	Enter
F1	Left Function
F2	Right Function
F3	Left and Right Function together
Enter	New Line
Down Arrow	Space and New Line together
Up Arrow	Space and Backspace together
Left Arrow	Backspace
Right Arrow	Space
Space	Space
Backspace	Erase

### *Turn on Forward translation*

FE	Forward translate and emboss. Toggle
FM filename	Forward translate and send to 'filename' in memory (turns embosser off).
FM Append	Forward translate and append to previously stored file with the name 'filename'.
FM END	Closes file and turns forward translation off. And turns embossing back on.

### *Change Braille Grade or Code*

FGR grade	Select the Translation Grade, where 'grade' may be 1 or 2. Default = 2.
FLN language	Change the Translation Rules language
FFC language ,	Foreign character selection. This enables insertion of foreign or accented character into your text (without changing the translation rules where [language] can be one of the following codes;  OZ=Australian ITL=Italian DAN=Danish NOR=Norwegian UK=English SP=Spanish FR=French SWE=Swedish GER=German USA=United States GRK=Greek DUT=Dutch FIN=Finnish POR=Portuguese

### *Formatting Your Braille*

FLIT	Literal Mode. Used for making columns and tables in braille. When it is on, each time you start a new line in print, you will start a new line in braille. Default = off. Toggle.
FLIT n	Creates a Hanging Indent. The variable "n" gives the number of indented spaces and can be 0, 1, 2, 3, 4, 5.
FLIT S	Suppresses blank lines as well as adding a two cell indent for new paragraphs. Default = on

### *Italics*

FIT	When on, causes the subsequent text to be italicised in Braille. Default = off. Toggle
-----	--

### *Hyphens*

FHYP	When on, will break braille words at the end of a line. Default is off. Toggle
------	--

### *Automatic Indent*

FIN	When FIN is turned on the current Braille column is stored and subsequent Braille lines are indented to that column. Default = off. Toggle
-----	--

### *Multiple Space Removal*

FSH

Replaces all multiple spaces and tabs that are in the text with single spaces in the braille. Default = on. Toggle

### *Fraction Mode*

FFR

Causes text fractions to be translated to Braille fractions using lower numeral sign for the denominator. A mathematical separation sign is used after the Braille fraction if it is immediately followed by punctuation. Default = off. Toggle

### *Upper Case*

FCL

Used when translating capitalised or upper case text. When on, prevents double capital sign before words all in upper case. Default = off. Toggle

### *New Page*

NP

Forces a new Braille page.

### *New Paragraph*

FPA

Forces a new Braille paragraph. Used for flagging a new paragraph that is coincident with the top of a text page.

### *Lists / Tables*

These commands simplify building lists or tables, such as spelling lists, tables of contents etc. The command can create two or three columns, using either default settings or user selected settings. Each column is specified as a percentage of the braille line length.

FLIST

Allows creation of simple lists or tables. This will produce a table of three columns, of 40%, 40% and 20% width. For example: If your braille page is 40 cells wide then the default will give three columns, each of cell widths 16, 16 and 8. Default = Off. Toggle

FLIST n1 n2

This command allows you to specify your own column widths, as a percentage of the line length. The values allocated to n1 and n2 will determine if you want two or three columns. If the values of n1 and n2 add up to exactly 100% then you will get two columns with widths in the proportions specified. If they do not add up to 100%, then you get three columns, of which the third column is the remainder. For three columns, the third column cannot be greater than 90% or less than 10%.

For example:

FLIST 3 7 is ok. Gives three columns 3% 7% 90%

FLIST 50 50 is ok. Gives two equal columns.  
FLIST 33 33 is ok. Gives three equal (33, 33, 34) columns  
FLIST 5 4 gives an error. (  $n_1+n_2$  is less than 10%).  
FLIST 50 45 gives an error. ( $n_1+n_2$  greater than 90%).

Type the text you want and separate entries for each column by putting 2 or more spaces between each entry. If the entry for a column is too long it will be wrapped to the next line but stay in the column. Press the Enter key on the PC keyboard to start a new line.

You cannot have blank columns, except for the first column, and columns two and three are always right justified.

#### *Saving Your Preferred Settings*

SAVE FT	Saves all current Forward Translation settings, including Braille Grade, language, and output settings.
STD FT	Restores all default Forward Translation settings. Does not interfere with stored settings.
RESTORE FT	Restores all stored Forward Translation settings.

## **BACK TRANSLATION - Converting Print to Braille**

The following back translation commands apply only in Advanced Mode.

To produce a print copy at the same time as a braille copy we have to perform a job called back translation - going from braille to print. The options for viewing the print vary according to which MB model you have.

MB Writer - View the print on the Mimic  
MB Writer Plus &  
MB Pro - View the print on the Mimic, a regular ink printer, or send it as a file to a PC or braille note-taker.

### *Turning Back Translation On*

(you don't need to do this with the MB Writer - it is automatically on)

BP Back translate to Parallel Port. Toggle  
Use this when you have a regular printer connected to the parallel/printer port.

or  
BS1 Back translate to S1 Serial port. Toggle

or  
BS2 Back translate to S2 Serial port. Toggle  
Use these commands when you want to send your translated file to a serial device (such as a note-taker or serial printer).

Often there may be little need to learn any more commands, especially with younger students where a simple print copy of what is being brailled is required. For more advanced users there are a wide range of commands (following) that enable you to adjust the format and appearance of the printed output.

### *Changing the Braille Grade or Code Used*

BGR [grade] Translation Grade, where "grade" may be 1 or 2.  
Default = 2.

BFC [language] Foreign character selection, where [language] can be one of the following codes;

OZ=Australian, ITL=Italian, DAN=Danish,  
NOR=Norwegian, UK=English, SP=Spanish,  
FR=French, SWE=Swedish, GER=German,  
USA=United States, GRK=Greek, DUT=Dutch  
FIN=Finnish, POR=Portuguese

Using this command you can insert foreign or accented characters into your text.

## *Formatting Your Print Page*

### *Automatic Indent*

BIN

Causes all subsequent lines to indent to the current cursor position. Default = Off. Toggle

### *Centering*

BCE

When on, causes text to be centred between left and right margins. Default = off. Toggle

### *Columns and Tables*

BLIT

Literal Mode. When on, each new line in braille will produce a new line in print. When off, a new line in braille is ignored in the print copy (to avoid the print being broken). Default = off. Toggle

BSH

Remove hard spaces. Causes multiple spaces and tabs in your braille to be converted to single spaces and tabs in the print. Default = Off. Toggle

### *Margins, Line Length, Paper Size*

#### *Left Margin*

BLM [n]

Sets width of left margin to 'n' blank spaces from the left-hand edge of the paper. Maximum value of 'n' is 30. Default = 8.

#### *Right Margin*

BRM [n]

Sets width of right margin to 'n' blank spaces from the right-hand edge of the paper. Maximum value of 'n' is 30. Default = 8.

#### *Top Margin*

BTM [n]

Sets a margin of 'n' blank lines at the top of the page before printing begins. The top margin may not exceed the form length less the page length. Default = 3.

#### *Line Length*

BLL [n]

Sets the width of the print line, including margins, to 'n' characters, at 10 characters per inch. Maximum value of 'n' is 132. Default = 80.

#### **Note:**

When setting margins and line length, an error will result if the line length less the margins does not leave at least 10 printable characters across the page.

#### *Form Length*

BFL [n]

Sets the length of the page in "n" lines, at 6 lines to the vertical inch. The maximum value of "n" is 100. Default = 66.

#### *Page Length*

BPL [n]

Sets the number of printed lines on the page to "n" lines. The page length may not exceed the form length. Default = 60.

*Upper Case Lock*

BCL

Locks output text into upper case when on and returns to normal echo of keystrokes when off. Default = Off. Toggle

*Fraction Mode*

BFR

Causes Braille fractions to be translated to text fractions using the slash character to separate numerator & denominator. Requires use of Mathematical Braille separation sign (Dot 6) between the fraction & any subsequent punctuation. Default = Off. Toggle

*Tabulation*

Tab Stop positions relate to printed output.

Default settings are 9, 17, 25, 33, 41, 49, 57, 65, 73 and 81.

BTBC

Clears all current tab stops

BTBA [n]

Sets an extra tab stop at position "n".

*Line Spacing*

BLS [n]

Sets the printer line spacing to "n", which may be from 1 to 10. Default = 1.

*Page Justification*

BPJ

When on, causes printed text to align with both margins. This may cause extra spaces to be inserted into text. Default = off. Toggle

*Right Alignment*

BRA

When on, causes printed text to align to the right margin. When off, text aligns to the left margin. BRA takes precedence over BPJ. Line length & horizontal margins may not be altered while BRA is on and tabs are converted to single spaces. Default = off. Toggle

*Page Numbering*

BPN [n] [p]

Turns page numbering on or off at the desired position 'p' with a value of 'n'. Max. value of 'n' is 1000, and accepted position codes are:

TL - Top left

BC - Bottom centre

TC - Top centre

BR - Bottom right

TR - Top right

OFF - Turn off

BL - Bottom left

ON - Turn on page numbering

BPNT [braille]

Creates a text string to be printed with the page number, where "braille" is the text to be printed. Note: To position text and turn numbering on and off, use the BPN command, as given above. Max. length of text is 15 characters, no punctuation allowed.

## Selecting A Printer to Use With Your MB

Not all printers are suitable for connecting to your MB. The most important characteristic of the printer is that it should be a "line printer". As the name implies this means it prints a line at a time.

The alternative is a "page printer", which are not suitable for the MB. These include all laser printers.

Older style printers work particularly well, especially dot-matrix printers. Most bubble-jet printers work well also (so long as they are line printers).

In the past there have been a lot of Image-Writer printers in the education system. These can be used with the MB, but a special cable is required (available from your MB dealer) and you have to use the following command to make it work.

BTP I            Where I stands for Image-writer. Toggle  
                    Default = Off. Turn On when using the Image-writer.

The printer is connected to your MB Writer Plus or MB Pro via the "Parallel Out" port located on the rear of the unit. There is a diagram of all these ports in the section titled "Connectors, Jacks, Plugs and Cables"

## BRAILLE EMBOSSING

### Using Your MB as an Embosser

The MB Writer Plus and the MB Pro can be used as a regular braille embosser for note-takers and PCs. Both models are compatible with note-takers such as the Braille Note, Braille Lite and the Braille-n Speak. When using your MB as a braille embosser for a PC it is recommended that a Windows based braille translation program such as Monty or Duxbury be used.

Your MB can use single sheet or continuous feed paper, however, the MB will only reliably emboss continuously if you use a lightweight paper (regular printer paper).

If using the MB Writer you can use the Mimic port for connection to the PC, but you must first turn the Mimic off (use the command MIMIC).

The MB Writer Plus and the MB Pro must be in Advanced Mode in order to use the parallel or serial ports for connecting to the PC.

### *Using Continuous Paper*

CP	Continuous paper feed. Default = off. Toggle
CPA ±n	Add or subtract increment "n" to Form Length when using Continuous Paper.

### *Paper Size*

FL n[.m]	Form Length. Sets physical length of page (in inches or centimetres).
----------	---

### *Page Numbering*

PN [n]	Begin page numbering, starting at value of 'n'.
--------	---

### *Control of Braille Output*

EL n	Allow only 'n' blank lines while embossing. Any lines greater than 'n' will be discarded. This avoids having large blank areas on your braille page.
CAP	Caps lock. Default = off. Toggle

The MB Writer only has one port which has been designed to use with the Mimic. If you want to use it as a port to connect to a PC or braille note-taker, you must first turn the Mimic function off, using the MIMIC command. (For additional information refer to the Mimic section on Page 16).

With the Mimic function turned off, you can also use your MB Writer as an embosser..



## SYNTHETIC SPEECH - Advanced Speech Options

The powerful speech options contained in the MB Pro enable a wide range of features that assist in learning braille and using braille as the communication medium of choice.

Speech can be used:

1. to re-enforce the learning of braille,
2. to enable silent note-taking (no embossing)
3. to enable word processing of files in memory.

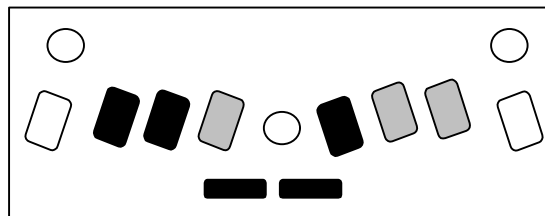
You are able to change many things about the way the Mountbatten speaks. These include:

- Volume
- Rate
- Pitch
- Punctuation
- Number format
- Echo type (letters, words or none)
- Capital letters spoken
- Spaces spoken
- Whether braille is spoken as translated words, as ASCII, or as Dots

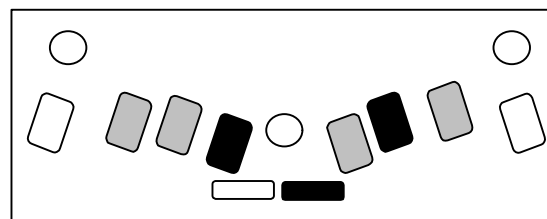
All the commands to control speech are collected together in a Speech Menu

### The Speech Menu

Turn on Speech Menu  
NL + SP + S



Exit the Speech Menu  
SP + E



From within the Speech Menu the following keys alter the speech as indicated. *The first time you press each character the current setting is announced. If you press the same character again, you will scroll through the options available. The last spoken setting then becomes the current setting.*

*Pitch, Volume and Rate.*

- |       |  |
|-------|--|
| DOT 6 | Raise tone. It will say "higher" at the new pitch.       |
| DOT 5 | Faster speech. It will say "faster" at the new rate.     |
| DOT 4 | Increase volume. It will say "louder" at the new volume. |
| DOT 3 | Lower tone. It will say "lower" at the new pitch.        |
| DOT 2 | Slower speech. It will say "slower" at the new rate.     |
| DOT 1 | Decrease volume. It will say "softer" at the new volume. |

*Speaking Mode*

- |   |  |
|---|--|
| L | The three options are "letters spoken as ASCII", "letters spoken as dots" or "letters spoken as translated". Description of each mode is as follows;                     |
|   | ASCII (grade 0). All characters entered will be spoken as Computer Braille notation.   |
|   | Dot format. Letters will be spoken as letters but all non-letters will have their respective dots announced. For example: the number sign will be spoken as "DOTS 3456". |
|   | Translated format. This is the default setting. For example 'ab' will be spoken as 'about'.  |

*Punctuation*

- |   |                                    |
|---|------------------------------------|
| P | The 3 modes are Most, Some or None |
|---|------------------------------------|

*Number Format*

- |   |  |
|---|--|
| N | Numbers being pronounced as digits or as complete numbers. |
|---|--|

*Speak Capital Letters*

- |   |                               |
|---|-------------------------------|
| K | Speak capital letters. Toggle |
|---|-------------------------------|

*Speak Commands as You Type Them*

- |   |  |
|---|--|
| C |  |
|---|--|

*Keyboard Echo*

E

Press the letter E to cycle through the 4 options;

Letters        On entering text, each character is echoed as it is entered.

Word            On entering text, the last word entered is echoed when the space, carriage return and/or linefeed is entered.

Letters and Words

None            No speech

*Foreign Characters*

F

Pressing the letter F toggles between foreign letters being spoken or not.

*Speak Spaces*

S

Pressing the letter S will toggle between spaces being spoken as "space" or ignored.



## THE EDITOR

The editor enables you to create and edit text files within the MB memory. It does this in a place called the editor buffer. The size of the buffer is 64k, equivalent to approximately 180 pages of braille. Once in the editor, text can be entered, inserted, and deleted. You can also search for and replace text, copy, move and paste the text you choose.

### Getting Started

#### *Entering the Editor*

EDIT (filename)      where *[filename]* is the name of the file you have stored in memory (or the name of the new file if you are starting a new one). If the filename is new, then the MB will say "file not found", "creating new file" and then speak the filename. If no filename is given, then the editor is made active but the file will have no filename. You will be prompted for a filename when exiting.

For whatever reason, if there is previous unsaved data in the buffer, the MB will say: "Unsaved file in editor" "Please clear or save file". You must either clear the editor buffer (by pressing the character "c") or save the file (by pressing the character "s"). After either clearing or saving, you can simply read in another file.

NL+Q                      Exit the editor  
You will be prompted: "Save File First". Answering Y will save the editor buffer as a file, with the filename given, before returning to normal MB mode. Answering N will not save any data and return to normal MB mode.

#### *Help*

NL+H                      Help Menu. Default Off. Toggle  
The MB will say "Entering Help mode". By pressing the Left Function key you can scroll through all options available. Pressing the right function key scrolls back through the menu options.

## *Moving Around Within A File*

CURSOR COMMANDS - To move around the file we use Cursor Commands. These are known as Chorded Commands. The notation sp + dot 3 means you have to press the space key and dot 3 at the same time.

SP + DOT 3	Move to previous character and speak it
SP + DOT 2	Move to previous word and speak it
SP + DOT 1	Move to previous line and speak it
SP + DOTS 13	Move cursor to top of previous page
SP + DOTS 123	Move cursor to start of file
SP + DOTS 36	Speak current character Pressing twice will give phonetic equivalent or dot equivalent for contractions or non-letters
SP + DOTS 25	Speak current word
SP + DOTS 14	Speak current line
SP + DOT 6	Move to next character and speak it
SP + DOT 5	Move to next word and speak it
SP + DOT 4	Move to next line and speak it
SP + DOTS 46	Move cursor to top of next page
SP + DOTS 456	Move cursor to end of file.

**Note:** If you attempt to move past the start or end of the file then the MB will say "top of file" or "end of file". If the MB is speaking as you enter another cursor command the new message will override the old. The cursor automatically returns to the text entry position when new text is entered.

## *Chorded Commands*

Before moving onto the Menu Commands, there are other chorded commands for you to try.

SP + T	<u>T</u> AB. Inserts a TAB at the cursor position in your file.
SP + P	HARD <u>P</u> AGE BREAK. Forces a hard page break at the cursor position in your file.
NL + I	<u>I</u> NSERT/OVERWRITE MODE. Changes the editor between insert and overwrite mode. Default is Insert. Toggle When in insert mode, move cursor to desired position and write text to be inserted. Then move cursor to new position using one of the movement chorded commands. To delete inserted text before moving, simply press the Command key. If the MB is in Overwrite mode then text will be over-written up until the next command, hard carriage return or hard page break.
NL+C	CHANGING THE <u>C</u> ASE OF TEXT. Text can be stored in

upper case, lower case, or with no case conversion. Letters entered via the braille keyboard are normally treated as upper case, unless changed by this option. No case conversion, is useful if using a PC keyboard for input and you do not want case conversion to be carried out by the MB. In this instance the Shift or CapsLock key on the PC keyboard would be used for entering upper and lower case.

- NL+W      WHERE AM I?: This command gives the filename, and current position in the file (page number, line number and column number). If you are in a menu then it gives the name of the menu.
- SP+R      SPEAK REST OF FILE Speak the rest of a file without moving the cursor using the command:
- SP+Z      SILENCE COMMAND There is a universal silence command that can be used at any time.

#### *Keyboard Commands.*

The following MB keys are used for immediate editor commands.

- NL      Newline key is treated as a (hard) carriage return.
- BS      Backspace key is the same as the Read Last Character command (sp + dot3), except when you are entering text in response to a prompt, e.g. when asked for a filename, in which case it will act as a true Back Space.
- CMD      Command Key will cancel any operation currently in progress.
- Ent.      Enter key has no meaning or function when using the editor.



## MENU COMMANDS

For Editing, the MB has a range of commands that are organised into 5 separate menus according to the tasks they do. These are:

**File Menu** for file maintenance (selecting or saving files, re-name file etc.)

**Search Menu** enables you to search and/or replace selected text

**Block Menu** enables you to select, copy, move, or delete sections of text

**Delete Menu** for deleting or restoring characters, words, lines or page

**Edit Menu** provides further editing functions

**Note:** Whenever you are asked for an answer to a Yes or No question then only enter Y or N. Any other answer is ignored.

**Note:** Once you have entered the Menu you can scroll down through the menu options by pressing the left function key. Press the right function key to move back through the menu options. A menu option will be spoken each time you press a function key. To select a function simply press the keys indicated.

## EXITING THE MENUS AND THE EDITOR

SP+E This is used for all of the menus described. When you exit the menu you will return to the Editor.

NL+Q Exit the Editor

## FILE MENU

This menu enables file operations such as reading, saving, re-formatting etc.

NL+F Entering the File Menu: The File menu has the following options:

O OPEN A FILE AND MOVE IT TO THE EDITOR

R RENAME THE FILE. This command changes the name of the file in the editor.

C CLEAR THE EDITOR WORK SPACE. If the current Editor file has been changed and not saved then you will be asked if you wish to save this file before clearing the work space.

D GIVE DIRECTORY LISTING. The directory listing announces the names of files one by one. Once you have entered the command you are placed at the top of the file listing with the following supplementary

commands available:

A Speak the previous filename in the file listing.  
Moves the file cursor up.

C Speak the current filename in the file listing

DOT 4 Speak the next filename in the file listing. Moves the file cursor down.

O Open a file, at the current "file cursor" position, into the editor. If there is an existing file, still in the Editor, that has not yet been saved, then you will be asked if you wish to save the existing file before reading in the next file.

D Delete the file at the current "file cursor" position.

F Give remaining space in the editor buffer

P PROTECT / UNPROTECT THE FILE. Default Unprotected. Toggle. While in this mode the MB will say "File protected" any time you try to enter any characters in the document, either in insert or overwrite mode.

F RE-FORMAT THE FILE. Although this is done automatically when the file is saved or when text is moved around, there may be a time when you would like the file to be reformatted (perhaps before listening to a final version).

S SAVE THE CURRENT EDITOR FILE. When you use this command the file you are working on is reformatted to fit within the current margins and saved. However, the following conditions apply:

- If **no filename** has yet been assigned to this file, then you are asked to enter one.
- If the **file already exists** then you are asked if you want to overwrite it or not. If you answer N then you are returned to the Editor.
- If there is **not enough room in memory** to save the whole file you will be asked if you wish to save the file regardless, in which case it will be cut short to fit. Answering N will return you to the Editor.
- If necessary, to **make more room**, exit the Editor and use the normal MB commands to clear out any old files. Then enter and re-save the Editor file.

SP + E EXIT THE MENU

## EDIT MENU

The Edit Menu has commands for finding out how much space is left in the Editor, the size of the file you are working on, or to find a page number in your file. It also allows you to enter MB commands into the file for things such as formatting the braille output, or changing the braille grade.

- NL+E      Enter the Edit Menu: Edit menu has the following options.
- S      SIZE OF CURRENT FILE
  - R      REMAINING WORK SPACE
  - W      WHERE AM I? Gives current page, line, cursor position.
  - F      FORM NEW PARAGRAPHS. This command can be used to join broken lines (as will happen if a file sent from a computer has different margin settings to the MB). All existing paragraph formatting is maintained.
  - J      JOIN CURRENT AND NEXT PARAGRAPH. This command can only be entered on the last line of the current paragraph.
  - D      DELETE HARD PAGE BREAKS IN FILE
  - G      GO TO a selected page number. The Editor will say "Enter page number". You can enter a page number in Text or Braille format. The number must be followed by the NEWLINE key. If the page number is valid, the editor cursor is moved to the first character of the page number requested. If the number entered is greater than the number of pages in the file, the message "Invalid input" is given.
  - C      CENTER MOUNTBATTEN COMMAND. If you want to enter a normal MB command (e.g. for formatting) in your file, you need to use this command. When you press C, the MB will say "Enter MB Command". Simply enter the command as you would normally and then press the "Newline" key to terminate the command. Do not press the "Enter" key as it has no meaning within the editor. After pressing "Newline" the MB will say "Please Wait" and then "Finished" when the command has been inserted.
  - T      TAKE AWAY MOUNTBATTEN COMMAND. To delete commands within a file, position the cursor on top of the command and then press T . The MB will say "Please Wait" and then "Finished", when the command has been deleted. If the cursor is not on a command then the instruction is ignored and the message "Command Not Found" is given.
- SP + E      EXIT THE MENU

## BLOCK MENU

The block menu is used to move sections of text around the editor. You can copy, move and delete blocks of text. This is done using a standard "cut and paste" operation. Once text is selected or "cut" it is placed in a "clipboard" from where it can later be "pasted" into the new location.

NL+B	Enter the Block Menu: You have the following options:
B	<u>B</u> EGIN BLOCK marker. The cursor must be moved to the first character to be included in the block and the command given. The MB will say "Block Begin". The maximum size of the block is 1200 characters if the block is to be copied or moved. When deleting a block, size does not matter
E	<u>E</u> ND BLOCK marker. The cursor must be moved to the first character <i>after</i> the text to be included in the block and the command given. The MB will say "Block End".
C	<u>C</u> OPY BLOCK to cursor position. The block can be copied or moved to any cursor position, other than within the block area itself, and will be inserted immediately before the current cursor position.
M	<u>M</u> OVE BLOCK to cursor position. The block markers are not deleted when a move command is given. This is to enable you to move the block to another position if you realise you have moved it to the wrong position.
P	<u>P</u> ASTE BLOCK. This copies any information in the clipboard to the current cursor position.
S	<u>S</u> PEAK BLOCK. Speak the contents of a block.
D	<u>D</u> ELETE BLOCK

After entering any block option you are automatically returned to the editor on completion of the operation.

After any of the operations, apart from the setting of markers, the document is automatically re-formatted. The MB says which operation is being carried out, e.g.: "Move Block" followed by "Please Wait" and then "finished".

SP + E                      EXIT THE MENU

## DELETE MENU

The commands in the Delete Menu duplicate many of the chorded commands. This Menu is helpful if you cannot remember the chorded command or if you have difficulty pressing both keys at the same time.

NL+D	Enter the Delete Menu: You then have the following options.
C	DELETE CURRENT <u>C</u> HARACTER
W	DELETE CURRENT <u>W</u> ORD. On deleting a word, any attached punctuation and following spaces up to the next word or end of line will also be deleted.
L	DELETE CURRENT <u>L</u> INE. On deleting a line, the following carriage return and/or linefeed will also be deleted. If a page break terminates the line then this is <u>NOT</u> deleted.
P	DELETE CURRENT <u>P</u> AGE. On deleting a page, any text between the previous page break and the next one is deleted. The page break is also deleted.
Dot3	DELETE PREVIOUS CHARACTER
Dots 256	DELETE TO END OF WORD
Dots 145	DELETE TO END OF LINE
R	<u>R</u> ESTORE LAST DELETION

The document is **NOT** automatically re-formatted after a deletion. You must use the format command in the File Menu to re-format.

SP + E                      EXIT THE MENU

## SEARCH MENU

The search and replace menu enables you to search for and, if desired, replace selected text. You can choose the direction of the search, the case of the text you are searching for, or whether it should match whole words or not.

- NL+S      Enter the Search Menu: You then have the following options.
- D            DIRECTION OF SEARCH - the options are;  
Search to cursor  
Search from cursor  
Search whole file from start  
Each time you press D, an option is spoken.  
The last spoken option is the one selected.
- C            CASE SENSITIVITY OF SEARCH - the options are;  
Case sensitive  
Case insensitive  
Each time you press C, an option is spoken.  
The last spoken option is the one selected.
- W            WORD MATCHING or not - the options are.  
Matches whole words only.  
Matches anywhere (the word you are searching for can be part of another word)  
Each time you press W, an option is spoken. The last spoken option is the one selected.

**Note:**      If you start or end a search string with a space character (i.e. NEWLINE, SPACE, FORMFEED etc) the space character is treated as the end of a word.

- S            SEARCH FOR TEXT  
R            SEARCH AND REPLACE TEXT  
L            RESTART LAST SEARCH

Before a search or replace is initiated the proper operating selections must be set up.

## Entering Search and Replace Strings

When you start a search, you are asked to enter the **search string** (the letters or words that you are looking for). You may use any alphanumeric or space character. You can look for a string at the end of a line by entering NEWLINE after your search word, or look for a string at the beginning of a line by entering NEWLINE as the first character of the search string. If you press Backspace the last character entered is deleted (the MB will say the character just deleted). You cannot enter nothing as a search string.

The search and replace strings are terminated by Chord-E (sp + E).

After the search string has been entered then, if you choose the replace option, the MB will say "Enter **replace string**". The same character combinations can be used with the replace string. However, you can choose to have nothing as the replace string (this will delete any occurrence of your string in the file). To do this enter sp+E as the first character in the replace string. Keep in mind that there may be a space before or after the word you want to delete, so incorporate that extra space at the end of your search string. Of course this will mean it will not find a match if the word is followed by punctuation. You may have to try it with and without the space to be sure you get all occurrences.

**Note:** Keep in mind which format you are using to enter information. If you are using Grade 2 braille then you cannot search for a word in Grade 1 braille.

## The Search Sub-Menu

If your search string is found in the file and this is a search only command, then you have available the following options:

W	Speak word that contains search string.
L	Speak line that contains search string.
N	Ignore this one and find next.
Command Key	Stop search and return to main search menu.
sp+E	Stop search and return to main editor

## The Search and Replace Sub-Menu

If the search string is found and you have chosen to replace it, you have available the above Search sub-menu options as well as the following:

W	Speak word that contains search string.
L	Speak line that contains search string.
N	Ignore this one and find next.
Command Key	Stop search and return to main search menu.
sp+E	Stop search and return to main editor

R	Replace this occurrence
A	Replace all occurrences

When you exit the Main search menu, after a replace has occurred, the document will be reformatted before control is returned to the editor.

### **Abandoning Search**

A search can be abandoned, at any time, even during the setting up of the search or replace strings, by pressing the Command key.

If the search string is not found, you are returned to the Search menu, so that you can change the search string or one of the conditions of the search.

To leave the Search Menu, use the command.

SP + E	EXIT THE MENU
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## **EDITOR DEFINITIONS AND CONCEPTS**

When using the Editor there will be references to various terms and concepts with which you will need to be familiar. These include;

### **Hard and Soft Carriage Returns.**

A Soft carriage return usually marks the end of a line within a paragraph. It is automatically inserted by the editor at the end of each line.

A Hard carriage return is something you enter into text yourself by pressing the "enter" or "new line" key, usually at the end of a paragraph or to insert a blank line.

### **Hard and Soft Page Breaks**

Normally the editor uses "soft" page breaks to distinguish the end of a page and the start of a new one. If subsequent text is inserted or deleted, by whatever means, and the document is reformatted, then the position of the page break changes accordingly.

"Hard" page breaks, however, do not move. They will always force the start of a new page. If you wish to force a Hard page break then merely enter the "New Page" or "Form Feed" character from the MB keyboard or Control-L from an attached QWERTY keyboard. This will insert a Hard page break at the current cursor position.

### **Printing Files**

Files can only be printed after leaving the Editor. You cannot print or emboss files from within the editor. Printing of the files uses the normal PR command.

Valid options for page numbering can still be used and are discussed in the User Guide dealing with printing files.

### **Speaking Commands**

If the "Speak Commands" option in the Speech Menu, is set to YES (ON) then when a command is found, the word "Command" is spoken and the command following is spelt. As the commands are intermingled with the text, it may sound strange, but it allows you to locate commands easily.



# **APPENDIX A**

## **INTERNATIONAL PHONETIC ALPHABET**

A - Alpha  
B - Bravo  
C - Charlie  
D - Delta  
E - Echo  
F - Foxtrot  
G - Golf  
H - Hotel  
I - India  
J - Juliet  
K - Kilo  
L - Lima  
M - Mike  
N - Nevada  
O - Oscar  
P - Papa  
Q - Quebec  
R - Romeo  
S - Sierra  
T - Tango  
U - Uniform  
V - Victor  
W - Whiskey  
X - X-ray  
Y - Yankee

## APPENDIX B

### SPELLING AND PHONETICS

- a) If in ASCII mode then the characters are spoken in North American Computer Braille Notation. For example Dots 345 (AR contraction) has a computer braille code of '>'. This means that "greater than" will be spoken.
- b) If in Dots mode then it will say "DOTS 3 4 5".
- c) If in Translated mode then it will say "a r".

For example: the word "standard".

**Note:** For clarity the following descriptions use '/' to separate the spelling. The '/' does not actually exist (and is never spoken).

- i) If it is entered in Grade 2 as ST/AND/AR/D then, in ASCII mode, it will say "slash/ampersand/greater than/d" as the MB internal coding for this is "&>D".
- ii) If in Dots mode it will say "DOTS 34/DOTS 1 2 3 4 6/DOTS 3 4 5/D".
- iii) If in translated mode it will say "S T/A N D/A R/D".

# **APPENDIX C**

## **APH Patterns Series**

### **Grade 2 Braille Ordered for Reading and Writing Instruction**

Alphabet and Letter Words	ou out	(PHONICS - Grade 1 and Grade 2 spelling)
(PHONICS - consonant and short vowel sounds)	(PHONICS - Vowel Sounds)	Multi-cell Contractions
<i>Patterns 1</i>	<i>Patterns 4</i>	<i>Patterns 9</i>
a a	<u>Part Word Signs</u>	<u>Dot 5 Whole &amp; Part Words</u>
b but	ar	day
c can	ing	ever
d do	ed	father
e every	er	here
f from	ow	know
g go	gh	lord
h have	ble	mother
i I	Lower Cell Contractions	name
j just	<i>Patterns 5</i>	one
k knowledge	<u>Simulated Letter Words</u>	part
l like	en enough	question
m more	in in	right
n not	<i>Patterns 6</i>	some
O	<u>Whole Words</u>	time
p people	his	under
q quite	was	work
r rather	were	young
s so	be	character
t that	to	ought
u us	into	there
v very	by	through
w will	(PHONICS - multi-syllabic words)	where
x it	<i>Patterns 7</i>	<i>Patterns 10</i>
y you	<u>Middle Part Word Signs</u>	<u>Dot 4,5,6, Words</u>
z as	bb	cannot
Upper Cell Contractions	cc	had
<i>Patterns 2</i>	dd	many
<u>Whole and Part Words</u>	ea	spirit
and	ff	their
for	gg	world
of	<i>Patterns 8</i>	<i>Patterns 11</i>
the	<u>Beginning Part Word Signs</u>	<u>Dot 4,5 Words</u>
with	be	these
<i>Patterns 3</i>	con	those
<u>Simulated Letter Words</u>	dis	upon
ch child	com	whose
sh shall		word
th this		<i>Patterns 12</i>
wh which		<u>Dot 4-6 Final Letter Contractions</u>
st still		

ance  
less  
ound  
ount  
sion

*Patterns 13*

Dot 5-6 Final Letter

Contractions

ence  
ful  
ity  
ment  
ness  
ong  
tion

*Patterns 14*

Dot 6 Final Letter

Contractions

ally  
ation

*Patterns 15*

Short Form Words

about  
above  
according  
across  
after  
afternoon  
afterward  
again  
against  
almost  
already  
also  
although  
altogether  
always  
because  
before  
behind  
below  
beneath  
beside  
between  
beyond  
blind  
braille  
children  
conceive  
conceiving  
could  
deceive  
deceiving  
declare  
declaring  
either

first  
friend  
good  
great  
herself  
him  
himself  
immediate  
its  
itself  
letter  
little  
much  
must  
myself  
necessary  
neither  
o'clock  
oneself  
ourselves  
paid  
perceive  
perceiving  
perhaps  
quick  
receive  
receiving  
rejoice  
rejoicing  
said  
should such  
themselves  
thymself  
today  
together  
tomorrow  
tonight  
would  
your  
yourself  
yourselves

## APPENDIX D - TROUBLESHOOTING GUIDE

If you experience problems with the operation of your Mountbatten, troubleshooting assistance is available to help you or your support person diagnose the problem.

### Status and Operation Error Messages

The following messages will be spoken using the Recorded voice when in any mode, or if Recorded or Synthesised speech is in use. A continuous status or error message can only be cancelled by turning your Mountbatten off.

Status messages tell you what condition your MB is in. Most of these do not represent problems that would warrant the unit being returned for service. Error messages advise you about problems that may be more serious and require some expert assistance to resolve.

Status Message	Description
<i>Charging</i>	Your MB battery is charging
<i>Not Charging</i>	Your MB is not connected to an external power source
<i>Battery OK</i>	The battery is 2/3 charged
<i>Battery Low</i>	The battery is low. You need to re-charge the battery. Connect to power as soon as possible.
<i>Battery Flat Recharge</i>	The battery is flat. Recharge for 24 hours. If this doesn't work, check you are using the right power adaptor, make sure the power adaptor is working and that you have power coming from the wall outlet.
<i>Error Form length</i>	Actual form length of paper being used does not match form length selected
<i>Input Buffer Full</i>	Either typing speed on PC keyboard is too fast, or waiting to clear the input buffer. Recommended just to wait until clear.
<i>Keyboard Buffer Full</i>	Usually means that the typing speed on the braille keyboard is too fast.
<i>Serial Buffer Full</i>	The MB can't receive any further information through the serial port (usually from a PC or braille note-taker).
<i>Memory full</i>	You must delete some files from memory to free up some space.

<i>Error duplicate file</i>	File name exists. You must use a different filename.
<i>Printer Not Ready</i>	Printer not connected or switched on or on-line.

<b>Error Message</b>	<b>Description</b>
<i>Backup Battery Low</i>	RAM backup battery low. Replace battery (this needs to be done in the workshop of your dealer)
<i>Head Jammed</i>	Head jammed. The MB cannot find the margin. Possible paper jam or other obstruction.
<i>Error Braille Head moved</i>	Head has jammed momentarily or user has interfered with its movement. Turn on/off then on. If it still occurs after this you need to call your service provider.
<i>Serial Interface Error</i>	Serial interface error. Incorrect bit rate, parity or number of bits. Check settings on your
<i>System Error</i>	Operating system fault. Failure in Main board circuits. Try turn off/on.
<i>Error Battery Temperature</i>	Temperature fault. Battery temperature has exceeded is <0 <sup>o</sup> or >60 <sup>o</sup> C. It is recommended not to use the MB until the problem is understood and resolved.