



HARPO

**Mountbatten Braille
Tutor**

Quick Start Guide



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Congratulations on purchasing the Mountbatten Braille Tutor - the modern tool for education and a Braille literacy concept.

This Quick Start Guide serves as a first reference after receiving a Mountbatten Braille Tutor for use. You can read all the sections or choose anyone that seems helpful. This Guide is for a sighted person who will help a blind student, the future Mountbatten Braille Tutor user. The User Manual delivered with your MB Tutor includes detailed information on all features, detailing all options, commands, etc.

Opening the box

When you receive the Mountbatten Braille Tutor (we will keep calling it MB Tutor for short), it will be packed in a backpack that comes as a standard accessory and then in a carton box filled with some pieces of foam for protection. In the bag, you will find:

- MB Tutor main unit with the top cover installed



- wireless keyboard



- MB Tutor reading table



- power supply unit with a cord suitable for your county



- User Manual and Quick Start Guide (this document)

Setting up for use

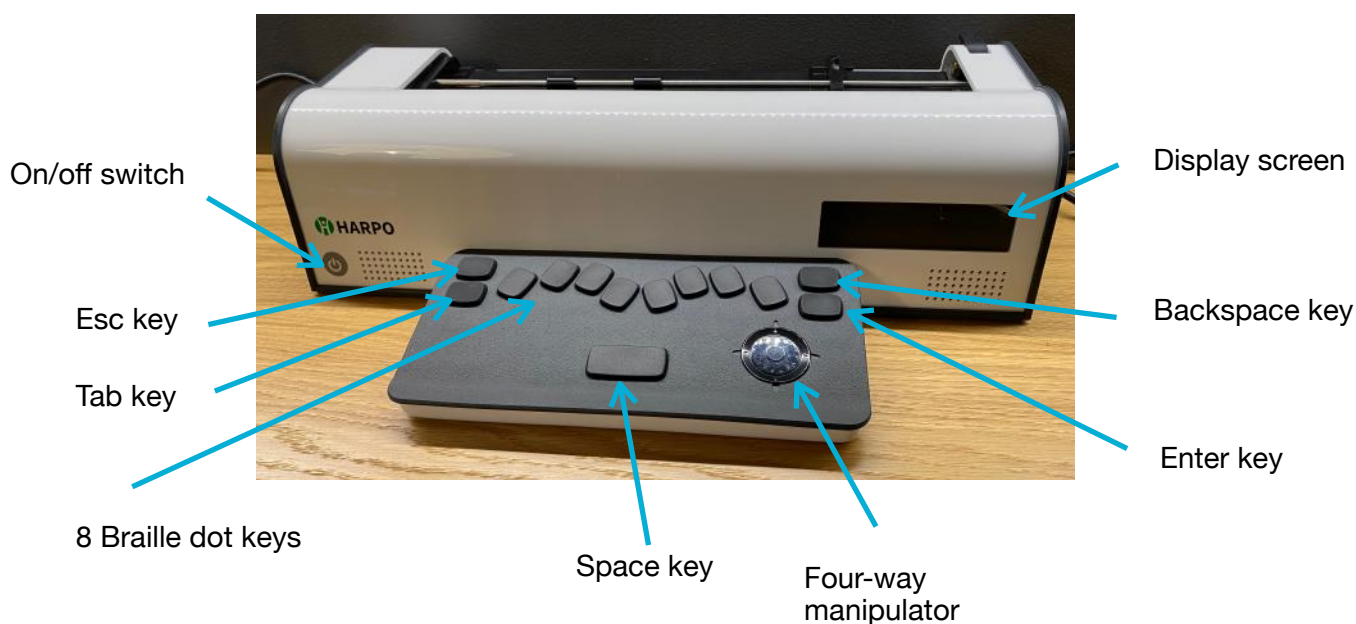
Removing the main unit from its bag

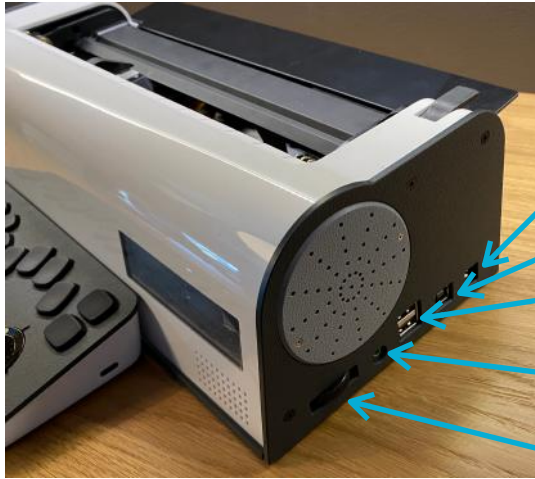
To remove the MB Tutor main unit from the backpack, grab the leather handle and lift. Put the main unit on a desk in front of you.



The main unit and keyboard controls and connectors

After you remove your new Mountbatten Braille Tutor from its backpack you will notice a power switch at the front left, a display screen at the front right, and some connectors on both sides of the device. Please see the pictures below for explanations of their purpose:





Power supply socket

PC USB connector

Keyboard/memory stick
USB connector

Headphone connector

Loudness potentiometer



Printer USB connectors

Removing the top cover

The top cover protects your braille from getting dust or any objects into the inner part of the device. It must be taken away while the machine embosses.



Removing the protective insert

To protect the inner mechanism of the MB Tutor while in transport, there is a protective insert placed under the embossing head.

You should remove the protective insert from below the embossing head. The two legs of the shipping insert sit on either side of the Braille embossing head and prevent it from moving while



the MB Tutor is in transit. The insert is held in place by the paper bail. To remove it, first, lift the paper lever. Remember to do it **before you first turn the unit on**. The embossing head must not be blocked when the machine is on.

Charging the batteries

Although a battery inside powers your new unit, connecting the power supply to a wall outlet and to the MB Tutor to charge the battery entirely is required periodically. You can work while the battery is charging.



The same applies to the **wireless keyboard** that you will find in a special pocket on top of the MB backpack. Please remove it from there and place it in front of your unit:

Charging the wireless keyboard is performed whenever placed in its nest in front of the main unit while it is on or at least connected to the mains. Please leave the keyboard charging for about 5 hours when first used. As mentioned before for the main unit - you may keep working while the keyboard charges.



Installing the reading table

As the Mountbatten Braille Tutor teaches writing and reading Braille, it is important to be able to comfortably feel the Braille as soon as the dots have been embossed. This model has an additional implement that makes reading easier and extends the possibility to 7 lines of Braille behind the embossing head.



To install the reading table, place its short bent margin into the gap as shown:

Removing the paper bail

The paper bail is only needed when the MB Tutor operates as a Braille embosser. When using the MB Tutor as a Braille writer, we recommend removing it because it is difficult to read the Braille just written with the paper bail in place.

To remove the paper bail, first, lift the paper grip lever on the right side of the unit. Then slide the right-hand margin adjuster as far right as it will go. The adjuster will not move unless the paper lever has been lifted.

Squeeze the spring-loaded sleeve on the left side of the paper bail and move it to the right to release and lift, then get it out from its nest on the other end.

Powering the MB Tutor on and off

To power on, press briefly the On/Off button in front of the main unit – near the left edge. The essential operation starts in a few seconds.

The advanced functions (synthetic speech, games, Internet connectivity, and other unit management features) will be available after another internal system starts -this takes two to three

minutes. When the full functionality is on, you will hear a message: “Advanced Mountbatten Braille Tutor functions are available now”.

To power off, you need to press and keep pressing the On/Off switch for at least half a second (shorter presses will be ignored). If power off command is accepted, you will hear a “bye, bye” prompt followed by a series of short sounds/beeps signaling that the system is closing. After the successful close, you will hear three consecutive short sounds with decreasing pitch, and the device will turn off.

In case of any problems with stopping one of the internal systems, the power management unit inside the Mountbatten will force-switch off. If you need to force-switch off the system manually, keep the On/Off switch pressed for 10 seconds. It is not good to use this method too often as some internal systems may sometimes not save all current data.

The display screen

The screen in front of MB Tutor displays information for sighted people working with a blind student. It shows the text that the student types with the Braille keyboard, back-translated text (in case of contractions, one is very different from the other), menus, help information, and what is being embossed at the moment.

Setting font size

The screen may display letters being typed in (Latin letters plus some special characters) and below the back translation of the Braille as mentioned earlier to regular text.

Depending on the font size setting, the screen displays two lines - one originally typed, one back-translated, up to three lines of each (three lines of originally typed and three of back-translated text). This may be set in the menu: Command -> Display -> Small fonts (8 lines), Command -> Display -> Standard fonts (4 lines), Command -> Display -> Big fonts (3 lines).

When the menu is used - the screen shows the menu items (as many lines as fit in with the chosen font size).

Connecting external devices

MB Tutor can enable communication in Braille even if a person (teacher, carer, or friend of the blind student) doesn't know how to Braille. A regular QWERTY keyboard, a PC, smartphone, or tablet may help.

If you don't know Braille and want to quickly type a message in Braille, connecting a QWERTY PC keyboard through USB is recommended. Most keyboards available on the market will work when connected to the lower USB port on the right side of MB Tutor.

If you want more - e.g., exchanging data between your smart device (smartphone or tablet with iOS or Android system) and MB Tutor, embossing longer text, or reading text typed in by the student - you may use a free app MBMimic that needs to be installed on your smart device.

If you have a PC, you could install a free program called MBComm on it and connect to the MB Tutor over USB (the lower port on the right side) or remotely, via the Internet.

A forward (text-to-Braille) or back-translation (Braille-to-text) is needed when using one of the mentioned devices connected to MB Tutor. You may turn the conversion on or off within your application or in the device's menu.

Setting language

The Mountbatten Braille Tutor is multilingual - it has 32 languages installed - both the menus, prompts, and spoken messages plus speech synthesizer are available for each language. To set the language, you may use the menu: Menu -> Language - choose one from a displayed list.

The setting will not only make your braille speak and show all menus in the chosen language but also set text-to-Braille and vice versa conversion tables appropriate to this language. If there are more Braille tables for the given language, you may go to another list: Menu -> Braille tables, and choose the desired table. For some languages, you may see 6- and 8-dot tables.

Setting up Internet connection

It is a good idea to connect your unit to the Internet over a Wi-Fi network at home and school. Some functionality, like remote connection to a PC, updates, games, etc., will require a working Internet connection. To set the connection, use Command -> System -> Wi-Fi connection, next search from a list or enter your network name manually, and type in your password.

Updating your device

1. Check your current firmware version of the device (Menu-> System->Device information)
2. In the "Cumulative Updates" folder, find an installer dedicated to updating from your version to the desired version (for example, "1.5.1 - 1.5.11 - MBUPDATE.TUT.zip" to update from version 1.5.1 to 1.5.11).
3. Download and unzip the content of the "zip" archive.
4. Place unzipped "MBUPDATE.TUT" folder in the root folder of a USB drive with FAT32 filesystem.
5. Plug the USB drive into the upper USB port on the device's right side (from the user's point of view).
6. Choose the "Update device" command from the menu (Main menu-> System->Update device).
7. The device will be updated and restarted.

If the device doesn't start at all for any reason, the update can be initiated by holding the power button for about 3 seconds (until the first beeps) during startup (with the USB pendrive connected). Only essential files are updated in this scenario, allowing to start the device. New sounds and translations are not installed and require an upgrade with the standard procedure. If you are unsure what your current MB Tutor version is, start the boot update using one of the older versions from "Cumulative Updates" and then use the same installer launched from the menu.

Please consider that upgrading from a very old version may take some time (even more than 2 hours).

Learning Braille with the Mountbatten Brailer Tutor

The Mountbatten Brailer was invented to facilitate the process of teaching Braille. The new MB Tutor extends the functionality by games (learning through fun and competition), remote teaching, and the Internet.

Mountbatten Brailer may be the first acquaintance of an electronic device explored by a blind child and can prepare the student for future PCs, smartphones, Braille displays, etc. With Mountbatten Brailer Tutor, important concepts that can be easily explained include a page of text, a paragraph, line, backspace, editing text, capitals, typed key echo, word echo, etc. These concepts will be used at school and in future employment.

Loading paper

Although there are two main methods of loading a paper sheet into the MB Tutor, we will explain the one that seems to be more accessible.



1. Lift the paper lever that is located on the right side of your brailer, in its rear part, and slide the right-hand margin to the position that suits the paper size being used. Lay the paper flat on the reading table. Ensure that the paper is positioned to go underneath the small rollers on the left and right margins and under the embossing head.
2. Slide the paper into the unit. Some people grasp either side of the form and push it in. Others prefer to slide it in by pressing on the reading table and sliding back.
3. When the paper is fully inserted, align the top of the page on the reading table's

indentation - behind the paper bail.

4. Check that the paper is placed straight against the left-hand margin. In case it isn't - slide the right margin to the left until it rests against the right edge of the paper. Flip the paper lever to the down position. The embossing head will now move across to the right margin adjuster and back to check the paper size.

The machine is now ready for embossing.

Keyboard description and how to type

The keyboard works wirelessly, physically separated from the main unit of MB Tutor. To introduce the typical PC keyboard layout to a user, the special keys (space, Esc, Tab, Backspace, and Enter) are placed in the typical position to the keyboard's left, down, and right. A convenient four-way manipulator on the right helps to use menus. It has four keys (left, top, right, and down), a ring that you may turn clockwise or anti-clockwise for performing swift movements up and down, and the middle Action key.



There is an additional USB-C type socket on the right side of the keyboard for charging. This wired charging is faster than regular wireless charging. You need to place the keyboard in front of the MB Tutor main unit to charge wirelessly. When the keyboard is close to the middle of the main unit case, magnets inside lead it to the correct charging position.



There are 8 Braille dots keys on the keyboard. Depending on the language used, Braille can be 6-dot or 8-dot. The 8-dot keyboard is suitable for both. Typing Braille requires pressing several keys at once. Each dot-key produces one dot on paper when embossed.



To enter and navigate menus and other functions like advancing paper, regulating loudness, and embossing speed, you can use the four-way manipulator. The MB Tutor can be set for one-hand use. This unique method accepts both typing the Braille keys simultaneously or one at a time. It is meant for students with hand mobility problems.



Navigating and embossing

When the unit is on, with a paper sheet installed and keyboard functioning, any press of a key on the keyboard will cause a reaction from your unit. If you press one of the Braille keys (one of six or eight, depending on the language), you will hear the machine emboss a dot on the paper. Other keys will perform typical functions for each of them: tab will move the embossing head to the next tab position, Enter will move paper sheet by one line, space will move one letter space to the right without embossing, and so on.

Paper you can use for embossing

The MB Tutor has been designed to work best and most quietly with regular office paper. This is 80 gsm or 20 lb paper sold for use in photocopiers and printers.

The first strategy is to use lighter paper because it is quieter and more affordable. Properly produced on more lightweight paper, Braille lasts well and has good-quality dots.

The embossing head moves from left to right while it embosses Braille dots one by one. (When the embossing is initiated from a file or external device, the Braille sometimes embosses dots from right to left to save time). The die arm moves and can be used to explain a cursor concept. The unit allows for reading Braille just behind the die arm, so each letter can be read immediately after it is typed in.

Moving around on a page

With the MB Tutor, you can move the embossing head around the page **using the four-way manipulator** (up, down, left, and right buttons). Other methods are:

- a press of Tab key that moves the head to the next tab position,
- Enter chord (Space-Enter) that moves the paper down the line, leaving the head at the same horizontal position,
- B chord (Space-Tab) - head to previous tab position
- F chord (Space-F) - down the line, head left on the same horizontal position
- C chord (Space-C) - down the line, the head goes to the beginning of the line
- R chord (Space-R) - up a line, head left on the same horizontal position
- P chord (Space-P) - page eject

When you navigate the page, you will see the text of the current line of Braille on display. The screen cursor will keep showing where the Braille head is.

Additionally, the dial used to set the volume (on the right panel of your unit) when moved while Space is pressed will advance the paper in small steps. This helps regulate the vertical paper position in detail.

Correcting the Braille already embossed on paper

If you navigate to a Braille text and type over it, you will see both Braille and display overwritten with the new text (in the case of Braille, the old contents will get erased). You can type over some text already embossed, or - if you want to correct the last character embossed - type the correct character while pressing the BackSpace key; MB Tutor will then erase the existing letter and type the new one.

The corresponding text will be edited on screen too.

Menu

Mountbatten Braille Tutor has a menu that invokes many options and switches some features on or off. To enter and browse the menu, you need to use the four-way manipulator. The manipulator is used to:

- action key (short press - shorter than a second): enter the MB menu - you will hear „Main menu” and the name of the currently selected menu;
- action key (long press - longer than 2 seconds): enter a command manually - you will hear „Command”;
- action key while in the menu - enter a submenu or issue a command under the cursor;
- up/down to choose between the menu items on the list;
- left to escape a menu level to a higher one;
- right to enter a submenu.

Around the action key, you will find a ring that can be turned left or right. This ring can be used to quickly move to an item lower in a menu or list (by turning it right) or higher (by turning left).

Games

One crucial new feature of the MB Tutor is the possibility of playing **Braille-learning games** that also help with computer skills. Some games – like **Keyboard Master**, are embedded in the device; others will be made available for download on the Internet. Contact us for more games by visiting the Mountbatten website, www.mountbattenbraille.com.

The preinstalled games include:

- **Keyboard Master** - lets the user learn how to write and read Braille, Braille letters, and Braille typing skills. A rich game that has many levels and stages. Students can compare their scores and progress. It has four modes of operation:

- Explorer mode

Start with explorer mode if your student is new to Braille. This mode is for getting you to know the keyboard. Just press any key, and the program will tell you what the key does. Try Perkins (Braille dot) keys and any other keys on the MB Tutor keyboard. To exit this mode, double-tap any key.

- Learning mode

This mode is for practicing the student's typing skills. The Tutor will request to type a dot (e.g., dot 3) or dots corresponding to a letter.

- Character contest mode

This mode is suitable for testing typing skills. The user's task is to press keys corresponding to the requested letter.

- Word contest mode

Word contest mode is suitable for practicing typing skills.

- **Letter Relay Race** - fun to play along with the device on with other persons, allows for vocabulary development and improving spelling skills.

The game aims to guess and type (in Braille) words that have the first letter equal to the last one of the words entered by the preceding player. Mountbatten Braille Tutor may be one of many players and checks the correctness of whatever word is entered by any players. If the word is correct, you will receive several points in proportion to the length of the word. You will get a penalty for misspelled words. The player who earned the most points wins.

Tips for using the MB Tutor to learn

Useful functions

Saving the typed text

When a text is typed on the Braille Keyboard, it can be saved to a file inside the MB Tutor or on a pendrive attached. To save a text, you need to use Command -> File -> Create new file, give a name to the new file, enter the text and choose Command -> File -> Close current file. The saved file will include all typed Braille, corrections, and even commands if entered while the text was typed. This file can be later embossed with the use of Command -> File -> Emboss.. Choosing Command -> Emboss -> Emboss ON/OFF toggle before the file is created is useful when you want to create a file without embossing and emboss it later.

Embossing Braille with use of a regular QWERTY keyboard

When a QWERTY keyboard is connected to the USB socket on the main unit's right side, you may use it to emboss Braille without even knowing how to Braille. The text typed in on the QWERTY keyboard will show in Braille literally - a character for a character. Suppose you wish to use contractions or Grade 1 Braille translation (basic rules for converting text to Braille). In that case, you need to set Command -> Forward translation settings -> Emboss forward translation toggle ON. With the default Braille level set to Grade 2, you will get a single "b" character whenever you type the "but" word - this is how the contraction works. It saves much space and reading time.

Embossing from an external device

To emboss a file that exists on a device (a smartphone, a tablet, a PC), you need to use one of the applications: MBMimic (for iOS or Android devices) or MBComm (on a PC).

- **MBMimic**: all the settings for printing text already in the application are set in the application - contractions etc. The application is straightforward, and the settings are easy to find. Please see the MB Tutor User Manual for details.

- **MBComm**: in the case of this application, you will need to use the MB Tutor commands in the menu - like when you set forward translation for the external QWERTY keyboard.

The applications allow for moving files from MB Tutor to the external device.